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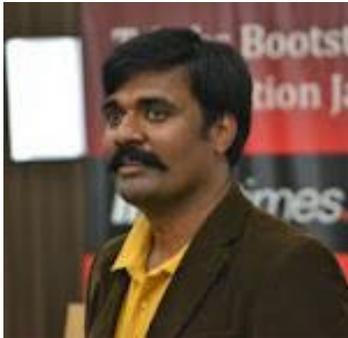
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DRIVE

Guest Editor's Note:



Mr. Kiruba Shankar

CEO, Kiruba.com, Chennai

Life Lessons:

Life Lesson 1: Believe in the power of online

The world is growing and developing at a greater speed and the incredulous progress made by information technology has brought a paradigm shift in people's perception, opinions and ideologies. It has revolutionized the way people think, sell and buy. Computers, internet, email and social networking sites have become an integral part of people's lives and hence there is wider scope for greater coverage which has made selling and buying a unique experience, more profitable, more enjoyable and more realistic. The best example that talks about the power of online is CD Baby.com an online CD store for independent musicians. Derek Sivers founded the online company in 1998 to sell his own music through his own websites. Very soon he received requests from his friends who wanted to sell their music through Derek's website. CD Baby went on to become the largest seller of independent music on the web, with over \$100M in sales for over 150,000 musician clients. Derek Sivers through the power of online has changed the way music is sold and bought.

Life Lesson 2: Take baby steps

No one is born knowing everything or born perfect. It is all about one's attitude towards learning and putting it into practice. Each individual should have a set of goals that he or she should be determined and consistent to achieve. Taking baby steps is better than taking no steps at all. Everyone should have a bucket list which is the list of things that one wants to do before one dies. It is one thing to think about something and another to actually do it. For example, juggling balls seems to be very difficult. But it is all about determination, consistency and staying focused. Juggling, like any other art, can be learnt quickly if one has the grit to do it. This concept applies to anything that a person is interested in. A person should not die before trying out his interest.

Life Lesson 3: Brand yourself

Whatever one decides to do, one should take care that it leaves behind an indelible mark. Before beginning to do a thing, a person also needs to give three very valid and important reasons for his action. Only then there will be quality in his work and there will be a good response to his action. By doing so, a person can have his own identity, individuality and brand. People will come to know the person through his work and the significance and importance of his work.

Life Lesson 4: Share your knowledge

Knowledge is something very vital for existence and survival. Lack of knowledge brings in all vices and evils. Knowledge is very essential to dispel the darkness of ignorance and hail the power of learning and enlightenment. Knowledge is indispensable for constant growth and development. In this context knowledge sharing becomes very important. Without knowledge sharing the world comes to a standstill for the growth of an individual depends on the growth of the society, nation and the world at large. A person by spreading his knowledge and ideas brings in more wealth not for himself but also for others and on the other hand his wealth does not diminish but grows. TED.com is the best example for knowledge sharing. Through knowledge sharing what these people have achieved is beyond description.

Life Lesson 5: Learn from a penguin

Penguins walk with difficulty because they are more adapted to swimming in water. On land they fall often but they do not allow that to hinder them from doing what they want to do. Once in water they are very agile, very quick, very smooth in their movements and very alert. The lesson to be learnt from penguins is that we should learn to follow our heart in whatever we do. Our intellectual learning may show us a different picture, but we need to listen to our heart as well for most of the time our heart leads us right. We should never allow failures and setbacks to dishearten us. We should get up immediately and walk towards our goals with head held high and straight.

Life Lesson 6: Realize your worth

One should realize one's worth which is the first step to living a fulfilling a full life filled with happiness, peace and contentment. One's worth does not come through materialistic gains and it does not depend on what one has or one has not. Worth is all about what one possesses in terms of values, potentials, attributes and characteristics. One's worth does not come through others and it is not measured by what other's think or do. Worth comes through how one lives one's God-give life. One's worth is like a thousand rupee currency note whose value does not change even if it is crumpled, creased or soiled. No matter what your circumstance is, your achievement is, your worth never changes.

Life Lesson 7: Have a mentor

It is very essential for a person to have a mentor. A person without a mentor is like a pencil which is in itself useless without a hand to hold it. A person has to be held like a pencil in the hand of a mentor to make a mark and to be of use. A mentor passes on valuable knowledge and experience to the mentee who in turn leaves behind a rich legacy for the future generations. But a mentor is not a person who makes the mentee feel comfortable but a person who makes

the mentee feel uncomfortable for through this experience, the mentee learns a lot. The mentee learns to look into himself and have a true perception of his worth, potential and achievement. This helps in learning new and the best things. A person should do what he is truly interested in and his calling is unique.

Life Lesson 8: Be an entrepreneur

Being an entrepreneur is living life in the true sense of the word. A person who is not an entrepreneur only exists for the life of an entrepreneur is full of challenges, risks and adventures. An entrepreneur is not a burden on the nation by sucking its wealth rather a contributor to its wealth. Through his initiatives, an entrepreneur generates opportunities, employment and wealth thereby contributing to the economic growth and development of the country. He is not a mediocre citizen who expects the country to do something for him but rather a unique person who puts on the country on the world map through his extraordinary achievements. The impact created by an entrepreneur can never be measured.

Life Lesson 9: Finish

One should have goals and work towards the goals. The race or the journey does not stop here. The race has to be finished no matter what happens or what the situation it. Even in adverse circumstances the journey will have to be completed. Completing the race adds to the beauty and the charm of the race. Derek Redman, during his career, held the British record for the 400 metres sprint, and won gold medals in the 4x400 metres relay at the World Championships, European Championships and Commonwealth Games. His career was blighted by a series of injuries, and he is best remembered for his performance at the 1992 Olympic Games in Barcelona where he tore his hamstring in the 400 metres semi-final but fought through the pain and, with assistance from his father, managed to complete a full lap of the track as the crowd gave him a standing ovation. In 2008, Redmond was featured in a Visa advertisement

promoting Olympic Games. The advertisement highlights his 1992 injury, noting that "he and his father finished dead last, but he and his father finished".

BY:

Mr. Kiruba Shankar

CEO, Kiruba.com, Chennai

FROM THE CHIEF EDITOR'S DESK:

Importance of Extra-Curricular and Co-Curricular Activities:

The world we see today is radically different from what it was till some years ago and the change is seen, felt and palpable in every area of activity. The change has brought about a paradigm shift in perception, opinion, idea, activity and reaction of people across the globe. And because of this change, education that is imparted in educational institutions has become obsolete and irrelevant thereby giving rise to the discussion of the role played by Extra-Curricular and Co-Curricular activities. The world is characterized by competition, rapid change, globalization, complexities, challenges and constant revolution. Participation in various activities is the only weapon to combat these challenges.

For the past few years academicians have been seriously considering the role and the importance of Extra-Curricular and Co-Curricular activities for the main objective of educational institutions is not to churn out thousands of graduates who will be unfit for the task ahead but whole and all-rounded people who will have all round development. The sole purpose of these activities is not entertainment but to acquire and refine, improve, and sharpen skills and talents that are indispensable for survival. Imparting mere knowledge based on academic curriculum syllabus is just not sufficient but something more is needed to help students grow in all areas – physical, intellectual, emotional, social, interpersonal and spiritual. This kind of all-round growth and development is possible only when there is a perfect balance and blend between Curriculum and Extra-Curricular activities.

Extra-Curricular and Co-Curricular activities form an integral and fundamental part of any educational institution. These activities instill leadership skills, time management skills, teamwork, interpersonal skills, problem solving skills, decision making skills, negotiation skills, communication skills, professional skills and life skills required for their careers and professions in students thereby making them fit for the demanding and taxing situations in workplaces. Extra-Curricular and Co-Curricular activities supplement classroom teaching which further enhances the teaching learning process by giving them

exposure and experience. Such activities help students go beyond classroom teaching and teach them the applicability, practicability and relevance of theories, concepts and principles. Students cannot enter the workplace just as they come out of colleges. They need to undergo a tremendous change to acclimate themselves to the workplace and Extra-Curricular activities make the process of transition easy, smooth and possible.

Participation in activities empowers students to have a better understanding of their skills, talents and aptitude and thus decide their calling in life. When self-perception changes, it becomes very easy for students to take decisions and embark them on the road to their future and career. Activities boost their morale, confidence and give different dimensions to their perspectives. Such students are prone to become leaders, are more willing to take risks, are determined to complete their tasks, persevere to reach goals, have more grit to face challenges, are unwavering in turning challenges to opportunities, are very optimistic to taste success, are steadfast go-getters and are bolder to voice their opinions. Such a sturdy combination gives them a healthier life and improves the quality of their career, profession and lifestyle. These activities help students come out of their comfort zone, the first step in surviving and winning. They learn to be open to learning, interact with people, accept things outside their own environment, appreciate disparities with composure and be sensitive to the needs of people and society. These new lessons mould them into responsible and mature people who widen their horizon of knowledge and learning to be of more use to their families, societies, countries and the world at large. The future of the world is safe in such strong hands.

The activities help people come out of stress and build a strong base for their confidence and self-esteem which will motivate them to pursue their dreams and goals with grit and determination. They do not stop till the dreams are converted into realities and goals are accomplished. The most important factor of these activities is that they enrich the moral values by instilling in them the discretion to know the difference between right and wrong. They engage the students to a greater level that students do not become couch potatoes, watch evil things on television and

computer, and do not engage in social evils, avoid behavior problems and do not become addicted to alcohol and drugs. They give the students a focus on their careers, a grip on their lives, a meaning to their existence, a strong foundation for their future, something to live for, a sense of accomplishment and a sweet victory to relish.

Participation in activities gives students the opportunity to explore their interests, potentials, natural curiosities, creativity and imaginative powers and come out with something novel, innovative and beneficial. This aids their increase in academic performance and their chances of landing a good job of their desire. Employers look for candidates who are responsible, loyal, dedicated, committed and loyal – the valuable attributes that activities can give and enrich thereby enhancing their employability. The world is characterized by uncertainties and pressure and the only way to deal with these is to take active part in activities which teach social skills.

In this talent scarce and employment scarce world, extra-curricular involvement prepares students to create jobs rather than seek job through life skills augmentation. They become better managers of themselves and others through educational experience, educational competence, intellectual competence and critical thinking given by extra-curricular participation. It is made possible because activities aid students in drawing a link between academic knowledge and practical experience. When the knowledge attained is comprehensive and profound, it makes the students look into themselves for answers and solutions and this further decides their career interests and goals. It also helps the students contribute significantly by making long-term commitments, managing their time effectively and prioritize their tasks. With passage of time and age, students should learn to juggle their different tasks, responsibilities and obligations. Involvement in extra-curricular activities helps them with this and during the process make them interested in diverse fields.

Students when young depend on others for fulfilling their needs whereby they become selfish to some extent. They think only about themselves and their needs, but the perception changes once they become

involved in activities. They come out of their cocoon, think about others, learn to put others' needs first and ultimately begin contributing to the growth and development of society. In this course they metamorphose into fiercely independent people who are magnanimous as well. Once these begin to be tangible, the self-esteem rises resulting in solid relationship skills.

The distance between Extra-Curricular and Co-Curricular activities is fast disappearing. There is nothing like "Extra" in education. Everything is included as the need for an individual in the society at large since society has undergone a change wherein the expectations are more, indiscipline the least.

In the end what we have before is a balanced individual who can tackle even mishaps and turn them into advantages and face challenges in the rapidly changing world. Activities have the potential to turn students into responsible citizens who will rightly exercise their rights and help others do the same thereby making the world a better and a safer place to live in.

BY:

DR.NIKHIL ZAVERI

DIRECTOR & PRINCIPAL,

SEMCOM.

SEMCOM Updates:

Preliminary Examination:

Preliminary Examination for the students of TYBCom, TYBBA – General, TYBBA – ITM and 4th Year BBA – ITM was conducted from 16th February 2012 to 24th February 2012. It was successfully coordinated by Dr. Preethi Menon, Ms. Nisha Macwan and Mr. Nilay Vaidya.

"SatyaNarayan" Katha:

"SatyaNarayan" Katha was organized on 1st March 2012 at 2.00 p.m. by Dr. Yashasvi Rajpara, Vice President, Students' Council and the Students' Council. The reason behind the Katha was to spread happiness, peace and prosperity.

Farewell Party:

Farewell for the final year students was organized on 1st March 2012 at 5.00 p.m. at the Green Square. Dr. Nikhil Zaveri, Director and Principal addressed the gathering and blessed the outgoing students. Dr. Yashasvi Rajpara, Vice-President, Students' Council talked about his experiences of being the Vice President and also talked about the achievements of students which will be forever relished. Students expressed their views and talked about their experiences in colleges. They were grateful and happy for role played by the college in moulding and shaping them for their future and career.

D J Night:

D J Night was organized on 2nd March 2012 at 6.30 p.m. The atmosphere was supercharged and electrified with the music. Students swayed to the music and danced away merrily and for some time blissfully forgot their routine and monotonous life. The music and the dance by students amused the faculty members as well and the evening was one of joy and merriment.

Book Review:**EDUCATION TECHNOLOGY:****About the Author:**

Dr. M.K.Raina (M.A., M.Ed., Ph.D.) is currently working as the Director of a Professional Coaching and Teaching Institute in Jamshedpur. He taught in various postgraduate and graduate institutions from 1960 to 1983. He has 10 books and more than 42 articles published in various professional journals in India and 16 articles published in International professional journals abroad.

Introduction:

Educational Technology has an important role to play in all the educational pursuits. According to G.O. Leith, "Educational Technology is the application of scientific knowledge about learning and the conditions of learning to improve the effectiveness and efficiency of teaching and training." It has undergone many innovations which have enriched the process imparting and acquiring of education. The volume under review is one step ahead in understanding the Educational Technology from its core. It provides the very foundation of the theme and appropriately builds the basis of education with technological intervention.

Review of the Book:

The Basics of Education Technology traces a meaningful historical context of educational technology and concludes with a general appraisal. Some roots have spread while others have withered or stopped growing altogether. To him behavioral science branch appears to be increasingly dominant and to have excellent prospects for future growth of educational technology.

Book is highlighting the approaches of Education Technology like Hardware approach, Software approach and System approach and how it works with respect to Teaching-Learning Process. Book has also covered the different teaching devices and how each of it will facilitate for the effective teaching. Book has

focused on Modern Education Technology and cultural effect of computer technology with the support of book authored by David Bolter.

Book is explaining different teaching techniques or methods used at various levels for successful teaching and factors that affects the teaching process. It has also covered latest methods like Integration method, Development method and Project method. Internet based education and role of students, faculties and institution in technology based education is very well defined. It also covers new model for assuring quality of education in the new era.

Author talks about the Computer Education in Training and specifies the teacher's role and teacher's training program in the event of use of computers in education. It also highlights contributions to be made by the teacher for the overall personality development of student. The concept of Micro-Teaching and its procedure, including all its merits and demerits is given in details. Not only that the traits of the teacher with a very good six cluster Model of the Model Teacher is explained very nicely. He also discussed about the different professional organization for the Teacher in a very systematic manner. At the last book has wonderfully discussed about 'Technology as Culture'.

My Opinion of the Book:

While the individual chapter gives preliminary information in different areas, it looks as if there was a long gap between their writing and publication of the book. Because the advances in the field of ICT and educational technology that took place during the last decade, do not find place in any of the chapters. The references provided with the different chapters date as back as sixties, seventies and eighties. The book will be even more effective if the updated information would be provided in the book so it should be considered in following editions. The different chapters deal with theoretical framework rather than practical application of educational technology. The book is having lot of printing mistakes as well, so that is also affecting overall impact of book.

Author has done a great deal of work related to educational technology and integrated discussion and examples in throughout the book creates enormous potential of computer simulations for both students and teachers.

BY:

MS. KOMAL MISTRY

LECTURER, SEMCOM.

Article: MUSEUM – AS RESOURCE CENTRE

□ MEANING:

Museum: A building or institution which houses a collection of artifacts.

Resource Center: A centre from which you can get information about a particular or from where you can get resources.

▣ DEFINITION OF MUSEUM:

1. The UK Museums Association definition is:

'Museums enable people to explore collections for inspiration, learning and enjoyment. They are institutions that collect, safeguard and make accessible artefacts and specimens, which they hold in trust for society.'

2. A building or place where works of art, scientific specimens, or other objects of permanent value are kept and displayed.

▣ INTRODUCTION TO MUSEUM:

Museums collect and care for objects of scientific, artistic, or historical importance and make them available for public viewing through exhibits that may be permanent or temporary. Most large museums are located in major cities throughout the world and more local ones exist in smaller cities, towns and even the countryside.

Early museums began as the private collections of wealthy individuals, families or institutions of art and rare or curious natural objects and artifacts.

A museum normally houses a core collection of important selected objects in its field.

The persons in charge of the collection and of the exhibits are known as curators.

TYPES OF MUSEUM

- ✓ Fine arts
- ✓ Applied arts
- ✓ Craft
- ✓ Archaeology
- ✓ Anthropology
- ✓ Ethnology
- ✓ History
- ✓ Cultural history
- ✓ Military history
- ✓ Science
- ✓ Technology
- ✓ Children's museums
- ✓ Natural history
- ✓ Numismatics
- ✓ Botanical
- ✓ Zoological gardens
- ✓ Philately

Within these categories many museums specialize further, e.g. museums of modern art, local history, aviation history, agriculture or geology.

MUSEUM – AS RESOURCE CENTRE

It provides two kinds of services:

Direct Services

They are types of education services by which the museum staff educate visitors or the general public directly.

Indirect Services

They are types of museum education services by which the museum staff do not educate visitors or general public directly but prepare printed materials instead which is the simplest and most basic form of museum education services.

DIRECT SERVICES

For Children / Students

1. GUIDED TOUR

A good tour can bring children into very close contact with museum exhibits and motivate a high level of participation.

2. ILLUSTRATED LECTURE

Such a museum lecture is divided into two categories:

One is the general introduction to the collection explaining to the students the types of objects.

Another is usually on a theme selected as particularly appropriate to the museum collection. They might also be backed by appropriate films or slide tape programmes.

3. HANDLING SESSION

This brings the pupils into the closest possible contact with museum objects.

4. DRAMA AND ROLE PLAY

This is more commonly used in historic environments where students can be clothed in appropriate costumes and asked to play out a part.

5. HOLIDAY ACTIVITIES

There is a great variety of these types of activities such as nature observation and making film.

These types of service are seldom offered alone. They are usually provided in conjunction with either an indirect service to teachers or with a direct service for school children.

FOR THE GENERAL PUBLIC

1. CLUB

Many types of clubs are running for general public, for example, "flora research clubs" and "history research clubs".

2. HOILDAY ACTIVITIES

"Art" and "craft work" are popular. Some of them accept family groups.

3. ADULT EDUCATION

1) Special lecture or film show

2) Handling session

3) Adult activities for example: botanical and zoological illustration, bee keeping, microscopy, bird watching, computer, folk dance, embroidery, basketry, pottery, wood sculpture.

4. GALLERY TALK

Large museums offer sessions for the general public who attend a special learning course related to the museum exhibits. Also guided tours by professional guides are often available in large museums.

Indirect Services

FOR CHILDREN

1. WORKSHEET

To stimulate visiting pupils to observe closely and ask questions about the objects which are exhibited in the museum.

2. WORKBOOK

Occasionally the worksheet idea is expanded to produce a museum workbook. These are often

beautifully illustrated in detail and describe a limited amount of information including questions.

3. CHILDREN'S GUIDE

This is prepared especially for young museum visitors. Such a guide has to be illustrated in detail and needs to concentrate on communicating simple information relating to the museum artifacts.

4. OTHER PUBLICATIONS

Any museum can extend the range of educational publications available in its gift shop. For example: identification books and background books on items within the collections; colouring books; cut-out card models; pictures; posters; jigsaw puzzles and games.

FOR TEACHER

1. PRACTICAL GUIDANCE

All the practical information which is required in order to make a trouble free visit by the school is given.

2. SITE INFORMATION

It describes the background information on the museum and its collection, and also suggests a selection of appropriate themes for visiting school groups.

3. INFORMATION ON ACTIVITIES

This gives teachers advice on possible activities which the children can pursue in the courses of their visit.

FOR THE GENERAL PUBLIC

Children's worksheets; teachers' materials which are carefully thought out; and background history of the museum collections for the benefit of the teachers can be very useful for the general public as well. In addition, newsletters which describe information about the museum, its services and current events can be helpful for the general public.

SERVICES FOR SPECIFIC GROUPS

1. FOR THE SPECIALIST

There are a wide variety of specialist groups such as artists, scientists and research fellows. These services might include publishing books for specialists, library services, invitations to suitable conferences and joint researches.

2. FOR PRE-SCHOOL PLAYGROUPS

Local playgroups for the under-five's sometimes look for destinations to which to take their children. Museums can provide for this need.

3. FOR ETHNIC MINORITIES

Museums with foreign objects can provide very worthwhile activities for educational groups from ethnic minorities. Such objects should provide links between such groups and their own cultural heritage.

4. FOR THE HANDICAPPED

Many museums have made good efforts to make their objects accessible to the physically and mentally handicapped. For groups of blind visitors, it is vital to provide a simulating range of objects which can be touched and handled.

5. FOR FOREIGN SCHOOL CHILDREN

Multi-lingual captions and foreign language educational materials can be provided.

6. FOR FAMILY GROUPS

Museums must provide some family activities. Also discovery rooms are very popular for families with children.

SPECIAL OUTREACH SERVICES

1. LOAN SERVICES

To loan out museum objects to other institutions for exhibitions, or to loan out special objects, which are provided as educational resources, to other institutions such as schools.

2. MOBILE EXHIBITION

To display objects, which are not easily damaged, on a bus for local people.

3. ITINERANT EXHIBITION

To exhibit museum objects in external institutions such as community centres.

Advantages of Museum – As a resource centre

Education

Research

To preserve art and history for future generations

To find a moment of calm with in a hectically life

To come to know a particular locale and its values

Enjoyment

To pass time with friends

BY:

MS. PALAK PATEL

LECTURER, SEMCOM

Article: SOFTWARE VULNERABILITIES IN JAVA

Introduction

Java is essentially a safe language: there is no explicit pointer manipulation; array and string bounds are automatically checked; attempts at referencing a null pointer are trapped; the arithmetic operations are well defined and platform independent, as are the type conversions.

The built-in bytecode verifier ensures that these checks are always in place. Moreover, there are comprehensive, fine-grained security mechanisms available in Java that can control access to individual files, sockets, and other sensitive resources. To take advantage of the security mechanisms, the Java Virtual Machine (JVM) must have a security manager in place. This is an ordinary Java object of class java.lang.SecurityManager (or a subclass) that can be put in place programmatically but is more usually specified via a command line parameter.

There are, however, some ways in which Java program safety can be compromised. These are described next.

Potential Areas of Vulnerability

Type Safety

Java is believed to be a type-safe language. Hence, it should not be possible to compromise a Java program by misusing the type system. To see why type safety is so important, consider the following types:

<pre>public class TowerOfLondon { private Treasure theCrownJewels; ... }</pre>	<pre>public class GarageSale { public Treasure fredsJunk; ... }</pre>
--	---

If these two types could be confused, it would be possible to access the private field theCrownJewels as if it were the public field fredsJunk. More generally, a “type confusion attack” could allow Java security to be compromised by making the internals of the security manager open to abuse. A team of researchers at Princeton University showed that any type confusion

in Java could be used to completely overcome Java’s security mechanisms (see Securing Java Ch. 5, Sec. 7 [McGraw 99]).

Java’s type safety means that fields that are declared private or protected or that have default (package) protection should not be globally accessible. However, there are a number of vulnerabilities “built in” to Java that enable this protection to be overcome. These should come as no surprise to the Java expert, as they are well documented, but they may trap the unwary.

Public Fields

A field that is declared public may be directly accessed by any part of a Java program and may be modified from anywhere in a Java program (unless the field is declared final).

Clearly, sensitive information must not be stored in a public field, as it could be compromised by anyone who could access the JVM running the program.

Inner Classes

Inner classes have access to all the fields of their surrounding class. There is no bytecode support for inner classes, so they are compiled into ordinary classes with names like OuterClass\$InnerClass. So that the inner class can access the private fields of the outer class, the private access is changed to package access in the bytecode. Hence, hand-crafted bytecode can access these private fields. (See “Security Aspects in Java Bytecode Engineering” [Schönefeld 02] for an example).

Serialization

Serialization enables the state of a Java program to be captured and written out to a byte stream [Sun 04b]. This allows for the state to be preserved so that it can be reinstated (by deserialization). Serialization also allows for Java method calls to be transmitted over a network for Remote Method Invocation (RMI). An object (called someObject below) can be serialized as follows:

```
ObjectOutputStream oos = new ObjectOutputStream (
    new FileOutputStream ("SerialOutput" ) );

oos.writeObject (someObject);
oos.flush ( );
```

The object can be deserialized as follow

```
ObjectInputStream ois = new ObjectInputStream (
    new FileInputStream ("SerialOutput" ) );

someObject = (SomeClass)ois.readObject ( );
```

Serialization captures all the fields of a class, provided the class implements the serializable interface, including the non-public fields that are not normally accessible (unless the field is declared transient).

If the byte stream to which the serialized values are written is readable, then the values of the normally inaccessible fields may be read. Moreover, it may be possible to modify or forge the preserved values so that when the class is deserialized, the values become corrupted.

Introducing a security manager does not prevent the normally inaccessible fields from being serialized and deserialized (although permission must be granted to write to and read from the file or network if the byte stream is being stored or transmitted). Network traffic (including RMI) can be protected, however, by using SSL.

Reflection

Reflection enables a Java program to analyze and modify itself. In particular, a program can find out the values of field variables and change them [Forman 05, Sun 02]. The Java reflection API includes a method call that enables fields that are not normally accessible to be accessed under reflection. The following code prints out the names and values of all fields of an object someObject of class SomeClass:

```
Field [ ] fields = SomeClass.getDeclaredFields ( );

for (Field fieldsI : fields) {

    if ( !Modifier.isPublic (fieldsI.getModifiers ( )) )
    {
        fieldsI.setAccessible (true);
    }

    System.out.print ("Field: " + fieldsI.getName ( ));
    System.out.println (", value: " +
        fieldsI.get (someObject));

}
```

A field could be set to a new value as follows:

```
String newValue = reader.readLine ( );
fieldsI.set (someObject,
    returnValue (newValue, fieldsI.getType ( )) );
```

Introducing the default security manager does prevent the fields that would not normally be accessible from being accessed under reflection. The default security manager throws `java.security.AccessControlException` in these circumstances. However, it is possible to grant a permission to override this default behavior: `java.lang.reflect.ReflectPermission` can be granted with action `suppressAccessChecks`.

The JVM Tool Interface

Java 5 introduced the JVM Tool Interface (JVMTI) [Sun 04d], replacing both the JVM Profiler Interface (JVMPPI) and the JVM Debug Interface (JVMDI), which are now deprecated.

The JVMTI contains extensive facilities to find out about the internals of a running JVM, including facilities to monitor and modify a running Java program. These facilities are rather low level and require the use of the Java Native Interface (JNI) and C Language programming. However, they provide the opportunity to access fields that would not normally be accessible. Also, there are facilities that can change the behavior of a running Java program (for example, threads can be suspended or stopped).

The JVMTI works by using agents that communicate with the running JVM. These agents must be loaded at JVM startup and are usually specified via one of the command line options `-agentlib:` or `-agentpath:`. However, agents can be specified in environment variables, although this feature can be disabled where security is a concern. The JVMTI is always enabled, and JVMTI agents may run under the default security manager without requiring any permission to be granted. Under what circumstances the JVMTI can be misused needs more work.

Debugging

The Java Platform Debugger Architecture (JPDA) builds on the JVMTI and provides high-level facilities for debugging running Java systems [Sun 04c]. These include facilities similar to the reflection facilities described above for inspecting and modifying field values. In particular, there are methods to get and set field and array values. Access control is not enforced so, for example, even the values of private fields can be set.

Introducing the default security manager means various permissions must be granted for debugging to take place. The following policy file was used to run the JPDS Trace demonstration under the default security manager:

```
grant {
    permission java.io.FilePermission "traceoutput.txt",
        "read,write";
    permission java.io.FilePermission
        "C:/Program Files/Java/jdk1.5.0_04/lib/tools.jar",
        "read";
    permission java.io.FilePermission "C:/Program",
        "read,execute";
    permission java.lang.RuntimePermission "modifyThread";
    permission java.lang.RuntimePermission
        "modifyThreadGroup";
    permission java.lang.RuntimePermission
        "accessClassInPackage.sun.misc";
    permission java.lang.RuntimePermission
        "loadLibrary.dt_shmem";
    permission java.util.PropertyPermission "java.home",
        "read";
    permission java.net.SocketPermission "<localhost>",
        "resolve";
    permission com.sun.jdi.JDIPermission
        "virtualMachineManager";
};
```

Monitoring and Management

Java contains extensive facilities for monitoring and managing a JVM [Sun 04e]. In particular, the Java Management Extension (JMX) API enables the monitoring and control of class loading, thread state and stack traces, deadlock detection, memory usage, garbage collection, operating system information, and other operations [Sun 04a]. There are also facilities for logging monitoring and management. A running JVM may be monitored and managed remotely.

For a JVM to be monitored and managed remotely, it must be started with various system properties set (either on the command line or in a configuration file). Also, there are provisions for the monitoring and management to be done securely (by passing the information using SSL, for example) and to require proper authentication of the remote server. However, users may start a JVM with remote monitoring and management enabled with no security for their own purposes, and this would leave the JVM open to compromise from outsiders. Although a user could not

easily turn on remote monitoring and management by accident, they might not realize that starting a JVM so enabled, without any security also switched on, could leave their JVM exposed to outside abuse.

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In one of the fierce battles of Mahabharata at Kurushetra, Karna was trying to get the wheel of his chariot out of earth, where it got stuck. He told Arjuna to hold his arrow, as Karna was without weapon, and struggling to get his chariot wheel out of earth surface. Lord Shri Krishna, who was driving Arjuna's chariot, guided Arjuna to release arrow from his bow and eliminate Karna. Arjuna argues that Karna is helpless and he being true Kshatriya cannot attack helpless enemy, as it is against war rules and Kshatriya dharma. Lord Shri Krishna explained to Arjuna that, Karna himself was unfair when he participated in killing helpless Abhimanyu (Arjuna's Son) with Kaurava Prince Duryodhan and other Kaurav commanders and warriors. When Karna did not follow Kshatriya dharma while killing Abhimanyu, Arjuna's son, he cannot expect fairness from other warriors like Arjuna. Arjuna pulled the string of bow and aimed at Karna's neck. Karna could see the end of his life, which was full of struggle, misery and bravo in face of adversity.

Born to Princess Kunti before her marriage, he was abandoned by his mother Kunti immediately after his birth. Princess Kunti pleased Sage Durvasa with her humble service, and was given a boon by Sage Durvasa, that she can call any Devta (God) and will get blessing of son from that Devta (God). When Sage Durvasa went to his place, Kunti who was curious about the boon thought to try it with Sage Durvasa. She saw Lord Sun and prayed to him. Lord Sun appeared before Kunti and blessed her with child. Kunti was terrified, she was unmarried and cannot become unwed mother. She pleaded with the Lord Sun to take back his blessing of son. Lord Sun told Kunti that he was helpless as he has to respect the boon given by Sage Durvasa. With Lord Sun's grace Kunti got her first child called Karna. Karna being Lord Sun's child had Sun's glow and radiance on his face, and was born with kavach (Protective Jacket) and kundal (Protective earring). Kunti to save herself from disgrace of becoming unwed mother, put little Karna on basket and flowed the basket in river, hoping and

praying that little Karna gets saved and may get taken care by good family. The kid who was born to royalty as eldest prince, within short time after birth had become orphan and had become without identity.

The chariot driver of king spotted a basket with a lovely child. Chariot driver was childless and he took little Karna to his wife. Both of them were happy and thanked god for gifting them with such a lovely child. Little Karna grew up and wanted to learn archery. The art of archery was restricted to upper caste strata of society and Karna being considered son of chariot driver was unable to get guru to learn archery. Karna cheated guru Parshuram by claiming that he was Brahmin, and learnt archery from him. One fine day when guru Parshuram was taking rest in Karna's lap, a scorpion started biting Karna's lap. Karna's lap was bleeding, but Karna bore the pain, so as not to disturb guru Parshuram's sleep. Guru Parshuram felt the wetness and woke up, and was stunned to see bleeding lap of Karna. Karna explained that he bore the pain so as not to disturb the sleep of his guru. Guru Parshuram got angry, he said only Kshatriya can withstand such pain, and Karna was not Brahmin, but a Kshatriya. Guru Parshuram gave a curse to Karna, that he will forget his knowledge of archery, when he will need it most. Karna departed from guru's home with heavy heart, he was travelling by chariot. Karna got curious and wanted to test his archery skills. He saw legs of animal from a distance and thought it to be deer. Karna took arrow, put it on string, aimed at the animal, pulled string of bow and released arrow. Arrow stuck animal and it died, but to Karna's dismay it was poor Brahmin's cow and not deer which got killed. Poor Brahmin got angry and cursed Karna that the manner in which he killed his cow in the same way one day earth will devour the wheel of his chariot, the chariot, and standing on which he feels arrogant, one day will deceive him. Karna was sad, but still he had the tag of chariot driver's son and was considered to be of lower class.

Princess Kunti married king Pandu, and with sage Durvasa's boon became mother of five kids, Yudhister,

Bhim, Arjun, and other queen Madri had two sons Nakul and Sahdev. Karna was insulted for his caste and class and was not given any recognition for his merit, as an excellent archer. He was not allowed to participate in archery contest at the time of prince's introduction to kingdom and at the time of archery competition to wed princess Draupadi. Prince Duryodhana saw in Karna a formidable challenger to prince Arjun and befriended him and also made him king of one kingdom.

Karna was a great donor and never refused anybody who came to him for seeking donation. Kaurava's insulted Panadava's and later on cheated panadava's to deny them their legitimate right to their kingdom. Lord Shri Krishna explained to king Dhitrashtra of Hastinapur, the father of Kaurava's and Kauravas to give Panadava's their legitimate right to kingdom of Hastinapur and avoid war, as war brings more destruction, and peace is the only way to avoid destruction. Dhitrashtra in mad love of his son prince Duryodhan declined peace offer and war was declared between Pandava and Kauravas.

Queen Kunti was worried as her son Karna was pitted against her other five sons. Lord Krishna disclosed the secret to Karna that his mother is none other than queen Kunti, and Pandava's are his brothers. He must join Panadava's in their fight against Kaurava's and being eldest son, he will become king of Hastinapur. Karna declined the offer, and told lord Shri Krishna that he knew Panadava's are on side of good, but he is indebted to Prince Duryodhan for his support when he was without identity, and cannot betray prince Duryodhana. Kunti worried for safety of her sons, meets Karna and pleads him not to fight against his Pandava brothers. Karna tells her that it is too late, and now he owes his life to Prince Duryodhana and cannot leave him. Kunti asks Karna to donate the life of five Pandanva's to his mother. Karna promises her not to harm four Panadava's except Arjun, and tells her after the completion of war, she will be mother to five sons, as either he or Arjun will survive.

Arjun was born with the blessings of Lord Indra, Lord Indra knew that Karna was born with immune kavach and kundal, which will protect him from all weapons. Lord Indra decided to ask Karna to donate him his divine kavach and kundal. Lord Sun, with whose blessings Karna was born, appears in Karna's dream and tells him that, next day Lord Indra in disguise of Brahmin will ask for his kavach and kundal as donation. Karna tells Lord Sun that he cannot deny any person who comes to him seeking donation. Lord Sun tells Karna that if Lord Indra asks for boon, then he should demand a unique arrow which always kills enemy. Next day Indra comes to Karna in disguise of Brahmin, and asks for donation of his kavach and kundal. Karna without any hesitation donates his kavach and kundal to Lord Indra, and tells him that he is aware that he is donating to Lord Indra and not a Brahmin. Lord Indra gets happy and gives Karna a unique arrow, which will surely kill enemy, but can be used only once. Karna saves that unique arrow for eliminating Arjun.

In the battle of Mahabaharat at Kurushetra, Bhim's son Ghatokatch incurs huge damage to Kaurava's forces and compels Karna to use his unique arrow to kill Ghatokatch. In the fierce battle between Karna and Arjun, Karna fought valiantly and was able to move Arjun's chariot by couple of inches, which had the divine blessings of Lord Shri Krishna and Lord Hanuman. Lord Shri Krishna saves Arjuna on certain occasions from Karna's deadly arrows. In the midst of fierce battle, Karna's chariot gets stuck in earth, the curse of guru Parshurama and Brahmin hurts Karna as he forgets his archery skills in crucial battle with Arjuna, and his chariot also deceives him by getting stuck in earth. Arjuna releases arrow, and life of brave Karna comes to an end. Karna fought valliantly, kept his words and did not harm four Panadava's, and though life did not offer him anything, he donated whatever people asked for. At the time of cremation Kunti discloses the secret to Panadava's, that Karna was their elder brother, Arjun and other Panadav's become speechless, shocked and get sad and sorrow.

Yudhister gets sad and annoyed and curses Kunti and entire womanhood that since her secret, robbed them of their brother's life, from now onwards women will not be able to keep any secret. Karna had many good virtues, but the bad company of prince Duryodhana resulted in his downfall. Karna will always be remembered as brave warrior and a great donor.

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ManageAnt:

Career Anchoring is like ManageAnt

The aspect of career investigated was career anchors. The concept of career anchor evolved originally from a study that was designed to understand how managerial careers and how people learned the values and procedures of their employing organizations.

Career anchor is a pattern of skills, interests, and values developed in the early stages of a person's career, when that person begins to recognize his or her abilities and the aspects of work that he or she enjoys most. Career anchors help to guide subsequent decisions about jobs and careers. The term was introduced by US organizational theorist Edgar H. Schein.

Career anchors refer to an individual's perceived needs, values, and talents, which determine career decisions. (Schein, 1975).

The improvement of Career Anchors

Career anchors are developed in the in the eight or ten years of experience the one faces in the workplace. There are certain points which are related to the improvement of career Anchor. Which are like; with the help of career anchoring, a person becomes strongly identified with the company and seeks the security of a long term employment relationship. It applies to people who have a dominant need to do the things their own way, in their own time, and independent of others to the greatest extent possible. Managerial oriented employees seek higher levels of responsibility, growing opportunities to serve in a

position of leadership. A person is the most motivated towards being very knowledgeable and producing highly effective work in some field of their own. A person can develop an entrepreneurial creativity, dedication to serve other people of organization, winning against extremely capable opponents, and even the person looks for organizations that have strong pro-family values and programs. Additionally, a variety of experiences and maximum feedback from each are likely to help individual gain a clear and stable self-concept far more quickly than they would from few jobs or minimal feedback.

Career Anchoring is like,

Happiness has no permanent address. It dwells with those who live for others.

Looking forward!

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Being:

Are you mature enough...?

A fifteen years old boy asked his father a question, “Am I not mature?” and the father had no answer. It happens with everyone at stage of their life. You think that you are mature, but you are not. Fifteen is an age, where a child is between his childhood and young hood, between chocolates and cigarettes, between blushes and flirting, etc. a child is always told in a house, when he asks for more chocolates in this age that, “behave properly now you are not a kid.” and is always stopped, when asked car keys, “you are not big enough to drive a car. You are still a kid.” And he gets confused between these two sentences. The first sentence forces him to think about he is mature and the second sentence immediately pulls him down from his dreams of being mature, which he never can achieve in a life.

There are different levels of maturity in one’s life. As soon as students enter the 12th std. in India, they become the senior most students of the school and start ruling juniors. That one year of their life is spent with motives: 1) to rule juniors, 2) after few months, we’ll be called collegians. The first thing that comes to their mind is bunking lectures. As they have heard from their elder brothers and sisters about the fun in bunking classes. When they are in school, they behave as they are the one who knows everything about everything. But when those same students enter the college, they face difficulty. In school, they are treated as the most mature students of the school and in college they are treated as most immature students. Both the societies are correct in their way. As school does not have more mature students than them, and college has more mature students than them. The confusion remains the same at the age of 17 or 18 also.

At the age of 18 to 20, in college, students always think themselves the rulers of the world. But the same problem of maturity level comes, when they go in

search of jobs. The most senior students and the one who was awarded the best students' award in one of the years, would be found searching for the job in different companies or one of them would be treated very badly in real world as he is just a trainee in the firm. He remembers he remembers his days of college, where he might have done great works for the college. And in job also, seniors, managers, BODs, CEO, etc. always find himself immature in one or the other situation.

If he pockets a good job with a handsome salary, relatives will start hunting for a suitable life partner. There, his answer would be, "I am not mature enough for the marriage yet." And again he thinks he is not mature. After marriage, decisions about their children would force him to think, whether it was a mature decision or not, decision regarding new house, a car, children's wedding. All these things forces one to think about the maturity of one person.

Maturity, the term, cannot be generalized for several reasons. A fifteen years old boy is mature that he should not ask for candy, but he is not mature enough to ask for car keys. Eighteen years old girl is mature that can guide a school going boy about discipline in school, but she is not mature enough to go for her marriage. And so on. The level of maturity defers from person to person. A person cannot claim on one fine morning that, "Today I am fully matured man." And if one does so, then he must be the dumbest person of the world. As Sachin Tendulkar said, "When I would think, 'I know everything about cricket', my downfall will start immediately." Each one of us might have cried on not getting first position in the class at one or the other time. That suggested that we wanted to be just first and not do our best that we can. Things remain the same throughout our life. We always want to achieve something we desire and not exactly we deserve. And if a person achieves the thing he desire, he will be satisfied. The word satisfaction is also unique. Life of this word is just for a minute or second. A student gets 93% marks in a subject, he'll be satisfied. Immediately he comes to know the news

that, though he is not first in the same class. Satisfaction will lose its existence from there.

A person cannot be consistently satisfied in his life. It is said, "Don't be satisfied; otherwise you will not progress in life." Of course, if one be satisfied with the situation he is in, he will stop thinking for further aspects of life. To move forward, one need to be constantly unsatisfied, which he should restrict according to his ability and needs. About three years ago I read a book named: Who Moved My Cheese? In which the author wanted to say that for your food (job or progress) you may need to leave the place where you are. It is not only about the physical place but also about the growth of a person. One needs constant change in their level in order to progress in life. If your cheese is moved from a place, it means now it's time for you to move ahead and progress. If you be at your place and wait for your cheese to come. You'll wait forever or you may get the same sized cheese. But if you move in search of your cheese, there are chances of getting a bigger cheese. And when you go in search of a new cheese, you always try to find the bigger cheese that you find after considerable efforts.

Human beings have tendency to merge their own needs with some others' needs. We are often not satisfied because others got something and we did not. As I said in the beginning, we cried for not getting first in class. We felt bad because we did not get first and some other got. It starts with parents. Parents many a time compare their children with others not looking at their abilities. They might be good in some other areas but parents do not focus on those aspects of their children. It forces a human mind to be not satisfied by just seeing others' success and not their own failure. Human minds start developing this tendency, they start achieving something to defeat someone and not to win something. When your motive is changed of doing something, it does not remain with you for the longer time. If you have achieved a thing to defeat someone, then you have already defeated that person, you won't be consistent in achieving that thing.

It is true that satisfaction plays the role of a big hurdle in the way of your progress. Simultaneously; if you are not satisfied just because another has reached at a place and you have not, then your satisfaction becomes subjective. You are satisfied if you achieve something and not others. Before aiming for anything, one must look for the ability and capacity of ones. Because being satisfied with your own performance is more important than being satisfied with the position you get no matter, what performance you give.

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Green Corner:

GLOBAL WARMING FACTS 2011

Budapest,Hungary



Maldives



Japan



Coniferous Forests



Turkey



Antartica



ArticAlaska Volcano Eruption**BY:****MS. HIRAL PATEL****LECTURER, SEMCOM****Contributors:**

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