**DAILY ASSESSMENT FORMAT**

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| **Date:** | **08-June-2020** | **Name:** | **Raziya Banu** |
| **Course:** | **Udemy** | **USN:** | **4AL16EC058** |
| **Topic:** | **Management and leadership.** | **Semester & Section:** | **8th sem & ‘B’ section** |
| **Github Repository:** |  |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session** |
| **Report –**  In my first session today I have studied about the management and leadership.  **What is a leader? How do you know if you are a leader?**  Being a good leader is equally about understanding what it is NOT.   * it is NOT about your age … * it is NOT about your ethnic background … * it is NOT about the level of experience you have (great or small) … * it is NOT about your gender … * it is NOT about your confidence (or lack of) … * it is NOT about your skills or expertise … it is NOT about a job title … * it is NOT not about your level of authority … * it is NOT about your passion (or lack of)   **Leadership Styles Examine the different approaches to leading**  Autocratic  • Likes to be in control  • The team delivers to the leader’s decisions  **Autocratic Leader**  Also known as an authoritarian leader. The autocratic leader usually has most of the power, authority, and responsibility in a situation or in an organization. Decision-making by the team or group is rare or limited; instead, the team members are tasked with implementing the leader’s decisions and choices.  Do you know anyone that is this style (personally or a public person)? If so, who?  Tools & Resources for Modern Leaders  Leadership Styles Examine the different approaches to leading  **Charismatic**  • A natural at influencing and inspiring  CharismaticLeader  The charismatic leader can readily transform attitudes and beliefs in others. This leader has the power to influence and inspire people, and the goals of the organization generally reflect that vision.  Do you know anyone that is this style (personally or a public person)? If so, who?  Tools & Resources for Modern Leaders  Leadership Styles Examine the different approaches to leading  **Transformational**  • An inspirational leader  • A change agent  Transformational Leader  Like the charismatic leader, the transformational leader also inspires others. However, this leader specializes in initiating and delivering change. This leader also motivates employees to perform.  Do you know anyone that is this style (personally or a public person)? If so, who?  Tools & Resources for Modern Leaders  Leadership Styles Examine the different approaches to leading  Laissez-faire  • Laid-back Leader  Laissez-faireLeader  With the Laissez-faire leader, the team has a high degree of autonomy. The leader maintains a hands— off approach to leading, but provides the needed tools to allow them to make day-to-day decisions. The name is a French term describing the economic system that opposes government interference in economic matters.  Do you know anyone that is this style (personally or a public person)? If so, who?  Learning to Lead We are born to lead, but deciding to become a leader is a choice.  **Nature vs. Nurture**  • We lead in different circumstances. • Nature provides the tools,we just need to learn how and when to use them. |

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| **Date:** | **08-June-2020** | **Name:** | **Raziya Banu** | |
| **Course:** | **Udemy** | **USN:** | **4AL16EC058** | |
| **Topic:** | **Introduction to JAVA** | **Semester & Section:** | **8th sem & ‘B’ section** | |
| **AFTERNOON SESSION DETAILS** | | | |
| **Image of session** | | | |
| Introduction to Java Programming **Introduction to Java**  Initially, it was named as “Oak” but was renamed subsequently in 1995 as “Java” since Oak was already a registered trademark.  The first edition of Java was known as “Java 1.0”. Over the years, Java language has evolved considerably and lots of features have been added to Java. As a result, lots of new versions have been released. The latest edition of Java is JDK (Java Development Kit) 13 or Java 13, which was released on September 10, 2019.  Click [here](https://www.codejava.net/java-se/java-se-versions-history) for Java version source.  **So, what is Java?**  In simple terms, Java is an object-oriented programming language that derives both from C and C++. From C, Java takes its format while it takes the object-oriented programming from C++. So in order to learn Java from scratch, an individual with C/C++ knowledge would find it easy to grasp.  **So, we can define Java as a**   * Simple * Highly robust * Object-oriented * Secure programming language.   Any hardware component or a software environment in which a program runs is called a “platform”. Java has a **Java Runtime Environment (JRE)** running on it. Thus Java is also a platform.  We will learn more about Java as a platform in our subsequent tutorials.  As of today, Java programming language is the most popular programming language for developing client-server web applications for the internet with an estimated 9 million developers working on and using Java. Java Features Let's discuss some of the distinguishing features of the Java programming language.  **1) Simple:**Java syntax is quite simple and easy to understand. Java is also easy to learn. Most of the features of C++ that were either difficult to understand or ambiguous are simplified in Java and some are omitted.  **For Example,** pointers are absent in Java.  **2) Secure:**A Java program runs in Java Runtime Environment (JRE) that makes it secure. The JRE does not have interaction with system OS, so java programs do not interfere with the system. Additionally, the Java language has security features that allow us to develop virus-free, secure applications. This is why many banking applications are built on Java.  **3) Robust:**Java introduces automatic garbage collection and exception handling that helps to prevent any potential errors. Java also emphasizes on compile time and run time error checking. All these features make programs/applications developed in Java more robust.  **4) Portable:**The Java program compiled into Byte code can be run on any platform. It is implementation-independent and everything required to run the code like storage, data types, etc. are predefined.  **5) Object-oriented:**Java is a pure object-oriented programming language. Everything in Java is an object. The language features are easily extendible as there is a solid object-based model for programming. Java language supports all the major features of Object-oriented programming.  **6) Platform independent:**Java is a “write once, run anywhere” code. Unlike other programming languages that compile into machine-specific code, Java is compiled into a byte code that can run on any machine independent of the operating system. Any machine that runs Java Runtime Environment (JRE) can run this byte code.  **7) Multithreaded:**Java’s multithreading feature allows Java applications to perform multiple tasks simultaneously. Moreover, multiple threads utilize the same memory and other resources and carry out tasks simultaneously.  **8) Distributed:**Using Java we can develop distributed applications using advanced Java concepts like Remote Method Invocation (RMI) and Enterprise Java Beans (EJB).  So we can distribute the Java program on various machines connected through the internet i.e. an object on one machine can execute remote procedures on another remote machine.  These are the major features of Java that make it a popular and most sought after programming language today.  Let's discuss the various application types that we can develop using Java programming language. Java Application Types **Java programming language can be used to create the following types of applications.** **1) Standalone Applications** These are also known as Windows-based or desktop applications. These are basically independent software that can install on the desktop.  Applications like media player, antivirus software, desktop editors, etc. are some of the applications that are standalone. Java features like AWT and Swing are typically used to develop these types of applications. **2) Enterprise Applications** Enterprise applications are usually distributed applications and have features like high security, load balancing, and clustering.  Java provides these features through enterprise Java Beans (EJB) and as such EJB can be used to develop enterprise applications. Banking applications are enterprise applications that are most popular. **3) Web Applications** Web applications run on the server-side and create dynamic web pages. These applications need to be highly dynamic and should be able to develop web pages on the go. Java features like JSP, servlets, struts, spring, hibernate, etc. are used for developing web applications. **4) Mobile Applications** A mobile application is an application developed to run on mobile. Currently, Java ME and Android are used for developing mobile applications.  From this, we see that Java allows us to develop a range of applications using its various features. This makes Java the most popular language that is still on top even after so many years since its development. As a programmer, we need not switch technologies to develop different kinds of applications. We can do almost everything using Java. Java Versions  | **Versions** | **Release Year** | | --- | --- | | JDK 1.0 | 1996 | | JDK 1.1 | 1997 | | J2SE 1.2 | 1998 | | J2SE 1.3 | 2000 | | J2SE 1.4 | 2002 | | J2SE 5.0 | 2004 | | Java SE 6 | 2006 | | Java SE 7 | 2011 | | Java SE 8 | 2014 | | Java SE 9 | 2017 |  Overview of Java Programming  * Java program can be written in any plain text file and can be named as **myprogram.java** * This code will be compiled by the JDK (Java Development Kit) and this “.java” file will be converted into bytecode as “**myprogram.class**” file. * Again, that will be converted into 0’s and 1’s by JVM (Java Virtual Machine). It can be run on any platform as JVM is available for several operating systems. * So, to create a Java project, you need JDK installed on your machine. If you download JDK, it will contain JRE (Java Runtime Environment) and development tools. * JRE is the Java Runtime environment that is required to run the Java application and it consists of JVM, package classes and runtime libraries. * Click [here](http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html) to download JDK.  Java Program Compilation And Execution FlowJava Integrated Development Environment (IDE) Java IDE is a software that helps the users to write and debug the program easily. It can highlight syntax and errors. One of the famous IDE is Eclipse. Download Eclipse from [this](https://www.eclipse.org/downloads/eclipse-packages/?osType=win32&release=undefined) link.  **Key points to be noted:**   * Java is platform-independent as Java program can be run in any OS or any hardware. * To compile the Java program we need JDK. * JRE provides a runtime environment. * Many amazing applications have been developed by the Java platform. **For Example,** NASA World Wind has been fully developed in Java. It is similar to google earth. And Blu-Ray BD J has been developed in Java. * Eclipse is a popular and open-source IDE to develop Java projects.  Conclusion This tutorial outlined the very basic information on Java language from its history of development to its various features and types of applications that we can develop using this language.  Java language is easy to learn and has a very simple syntax. Any novice programmer can learn the java basics but the learning becomes easier if a programmer has prior knowledge of C and C++ languages. This is because Java derives its format from C and takes its OOP features from C++.  Hence, programmers learning Java will find most of the concepts similar to these two languages although Java has removed the complex concepts/features from C++, a notable feature of C++ pointers are absent in Java.  Having discussed the introductory information regarding Java language, in our subsequent tutorials, we will start learning the Java programming language in a step by step manner. | | | |