Core Java

UNIT - I

LEARNING OUTCOMES

Java Introduction & History

Java Features

Java platforms

Java architecture & components

Java Introduction

- JAVA is a **truly object-oriented programming** language
- James Gosling, Mike Sheridan, and Patrick Naughton initiated the Java language project in June 1991. The small team of sun engineers called **Green Team**.
- Initially designed for small, embedded systems in electronic appliances like set-top boxes.
- Firstly, it was called **"Greentalk"** by James Gosling, and the file extension was **.gt**.
- After that, it was called Oak and was developed as a part of the Green project.

Java History

1991	Java was developed by Sun Microsystem of USA
1995	Java 1.0 was released with slogan WORA java applets(programs run on the browser) were implemented.
1997	Sun defined Servlets
1999	sun implemented middle-tier solution J2EE
2006	java was released as Open Source Software Sun rename J2 version as Java EE, Java ME, Java SE
2010	sun was acquired by Oracle Corporation
2020	Java SE 15 was released

Java Features

- Compiled & Interpreted
- Platform- Independent and Portable
- Object Oriented
- Robust and secure
- Distributed
- Simple, Small and Familiar
- Multithreaded and Interactive
- High Performance
- Dynamic
- Architecture-Neutral

Java Platforms

JAVA SE

(STANDARD EDITION)

JAVA EE

(ENTERPRISE EDITION)

JAVA ME

(MICRO EDITION)

JAVAFX

(JAVA EFFECTS)

Comparisons of Java Platform

- Creates stand-alone desktop apps, GUI apps, and other apps;
- can be used for gaming apps

Java SE 1

- Creates robust, complex apps including multi-module & server-centric applications

Java EE 2

- Developing applications for mobile devices and embedded systems such as set-top boxes.

Java ME 3

- software platform for creating and delivering desktop applications
- rich Internet applications (RIAs)

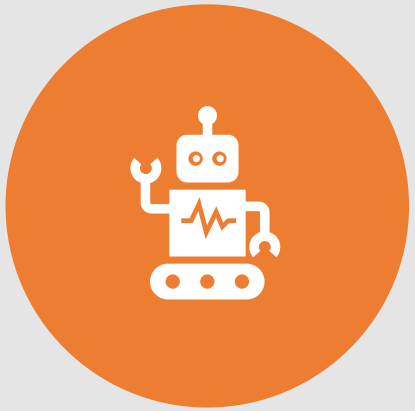
Java FX 4

True or False

Java is True Object - Oriented Programming Language.	True
We can create pointers in Java.	False
Java is not platform dependent language.	True
Java SE platform is used to create Server – Centric Applications.	False
Write once compile anywhere is the slogan of Java.	False

Java Architecture

Components of Java Architecture



JAVA DEVELOPMENT KIT [JDK]

JAVA RUNTIME ENVIRONMENT [JRE]

JAVA VIRTUAL MACHINE [JVM]

Java Development Kit [JDK]

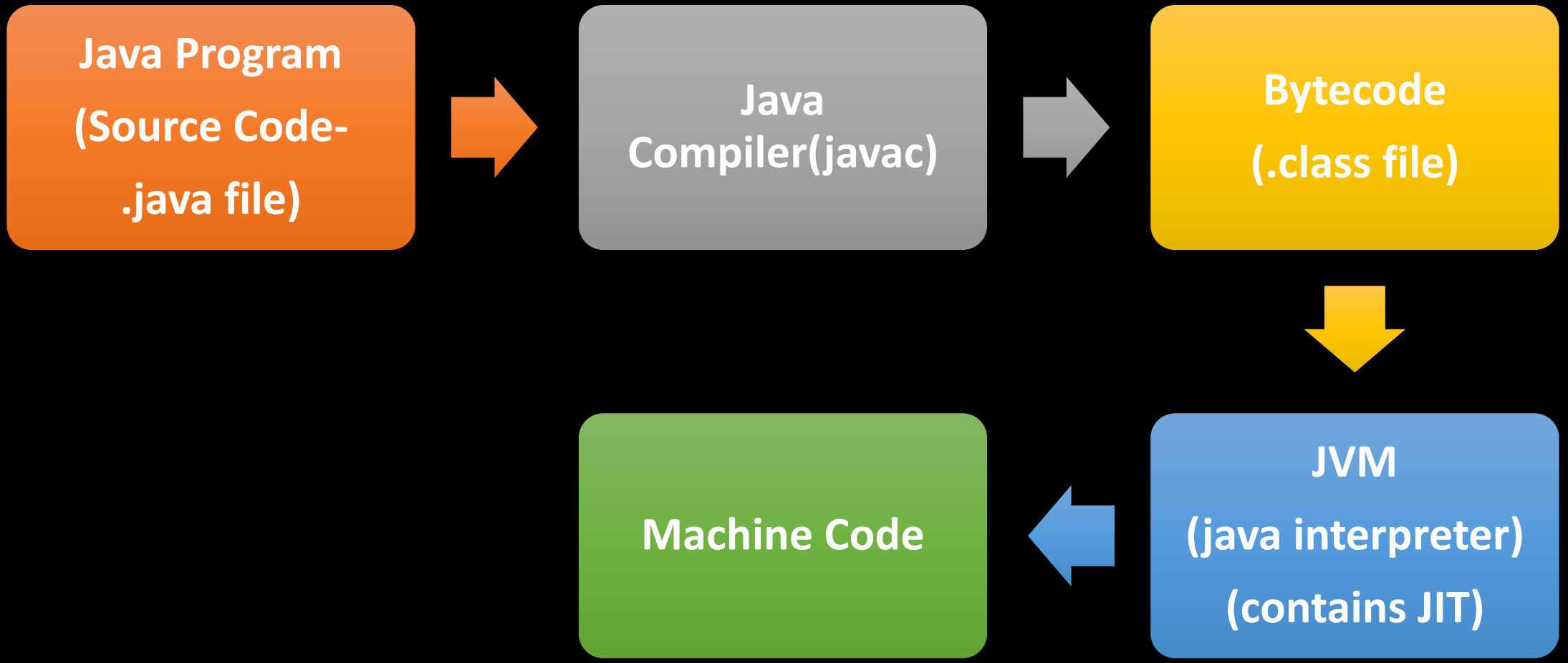
Software development environment used to develop Java applications and applets.

Contains JRE and several development tools, an interpreter/loader **(java)**, a compiler **(javac)** and many more.

Java Runtime Environment[JRE]

- Part of JDK
- It is the on-disk system that takes your Java code
- combines it with the needed libraries
- starts the JVM to execute it.

Java Virtual Machine [JVM]



Quiz

Take Home Task

- Are JVM,JDK & JRE Platform In-dependent? Justify your answer.

Thank You