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FACULTY OF Engineering & Technology

### Installing and other setup for java

1. For executing any java program, you need to Install the JDK if you don't have installed it , download the JDK and install it.

- 2. Set path of the jdk/bin directory.
- 3. Create the java program
- 4. Compile and run the java program

#### How to set path in Java

The path is required to be set for using tools such as javac, java, etc.

If you are saving the Java source file inside the JDK/bin directory, the path is not required to be set because all the tools will be available in the current directory.

#### Setting the path temporary:

- 1. set the Temporary Path of JDK in Windows
- 2. To set the temporary path of JDK, you need to follow the following steps:
- 3. Open the command prompt
- 4. Copy the path of the JDK/bin directory
- 5. Write in command prompt: set path=copied\_path

For Example:

set path=C:\Program Files\Java\jdk1.6.0\_23\bin

# Difference between JDK, JRE, and JVM

# JVM

JVM (Java Virtual Machine) is an abstract machine. It is called a virtual machine because it doesn't physically exist. It is a specification that provides a runtime environment in which Java bytecode can be executed.

### JRE

JRE is an acronym for Java Runtime Environment. It is also written as Java RTE.

The Java Runtime Environment is a set of software tools which are used for developing Java applications.

## JDK

JDK is an acronym for Java Development Kit. The Java Development Kit (JDK) is a software development environment which is used to develop Java applications



## JVM (Java Virtual Machine) Architecture

JVM (Java Virtual Machine) is an abstract machine

The JVM performs following operation:

- 1.Loads code
- 2. Verifies code
- 3. Executes code
- 4. Provides runtime environment
- 5. Memory area assignment
- 6. Class file format
- 7. Register set
- 8. Garbage-collection