**Session 2025-2026**

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| **Vision:**  *To be a well-known centre for pursuing computer education through innovative pedagogy, value-based education and industry collaboration* | **Mission:** *To establish learning ambience for ushering in computer engineering professionals in core and multidisciplinary area by developing Problem-solving skills through emerging technologies****.*** |

**Program Educational Objectives of the program (PEO):** (broad statements that describe the professional and career accomplishments)

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| PEO1 | **Preparation** | **P: Preparation** | **Pep-CL abbreviation**  **pronounce as Pep-si-lL easy to recall** |
| PEO2 | **Core Competence** | **E: Environment (Learning Environment)** |
| PEO3 | **Breadth** | **P: Professionalism** |
| PEO4 | **Professionalism** | **C: Core Competence** |
| PEO5 | **Learning Environment** | **L: Breadth (Learning in diverse areas)** |

**Program Outcomes (PO):** (statements that describe what a student should be able to do and know by the end of a program)

**Keywords of POs:**

Engineering knowledge, Problem analysis, Design/development of solutions, Conduct Investigations of Complex Problems, Engineering Tool Usage, The Engineer and The World, Ethics, Individual and Collaborative Team work, Communication, Project Management and Finance, Life-Long Learning

**PSO Keywords:** Cutting edge technologies, Research

“I am an engineer, and I know how to apply engineering knowledge to investigate, analyse and design solutions to complex problems using tools for entire world following all ethics in a collaborative way with proper management skills throughout my life.” *to contribute to the development of cutting-edge technologies and Research*.

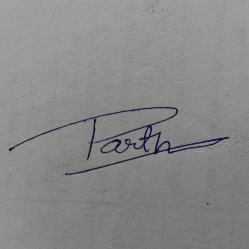
**Integrity:** I will adhere to the Laboratory Code of Conduct and ethics in its entirety.

**Name and Signature of Student and Date**

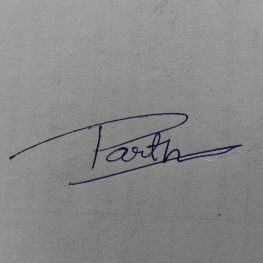
(Signature and Date in Handwritten)

Parth Dhananjay Rebhankar

22/01/2026

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| **Session** | **2025-26 (EVEN)** | | **Course Name** | **JAVA FSD Lab** | |
| **Semester** | **4TH** | | **Course Code** | **23ADS1407** | |
| **Roll No** | **151** | | **Name of Student** | **Parth Dhananjay Rebhankar** | |
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| Practical Number | | **01** | | | |
| Course Outcome | | Install and configure the Java Development Kit (JDK) and set up the Java programming environment on a computer system.   Install and configure the Java Development Kit (JDK) successfully.   Verify Java installation and understand the Java execution process.   Understand the basic syntax and structure of Java programs.   Identify and apply appropriate primitive and non-primitive data types.   Develop and execute simple Java programs using correct data types. | | | |
| Aim | | Installation of JAVA (JDK) and introduction to Java Programming ( data types available in java) | | | |
| Problem Definition | | Write a study assignment on Java Programming. | | | |
| Theory  (100 words) | | Java is a popular high-level programming language that is object-oriented, secure, and platform independent. To begin Java development, the Java Development Kit (JDK) must be installed, as it provides essential tools such as the Java compiler, Java Runtime Environment (JRE), and other utilities. Java source code is written in .java files and compiled into bytecode, which is executed by the Java Virtual Machine (JVM), allowing programs to run on different operating systems without modification. After installation, the JDK’s bin folder is added to the system PATH, and the setup can be verified using the java -version command. Java supports core concepts like classes, objects, inheritance, polymorphism, multithreading, and uses both primitive and non-primitive data types for handling data. | | | |
| Procedure and Execution  (100 Words) | | Algorithm:  1 Start  2 Open IntelliJ IDEA.  3 Create a New Java Project and select the installed JDK.  4 Create a Java class in the src folder.  5 Write the Java program using data types.  6 Check and remove errors (fix syntax errors shown in red).  7 Compile and run the program.  8 View the output in the console window.  9 Stop  Step 1: Open IntelliJ IDEA  Start IntelliJ IDEA  Click New Project    STEP 2: CREATE JAVA PROJECT  SELECT JAVA  CHOOSE THE INSTALLED **JDK**  CLICK NEXT  **CLICK FINISH** C:\Users\Parth\OneDrive\Pictures\Screenshots\Screenshot 2026-01-22 225733.png  STEP 3: CREATE JAVA CLASS  OPEN SRC FOLDER  RIGHT-CLICK->JAVA->NEWCLASS  TYPE CLASS NAME  PRESS ENTER    **STEP 4: WRITE JAVA CODE**    **STEP 5: TO DETECT ERROR**    **STEP 6 : RUN THE PROGRAM**  CLICK ON THE GREEN RUN BUTTON  OR  RIGHT CLICK IN EDITOR AND THEN ON RUN MAIN    **STEP 7 : VIEW OUTPUT**    **STEP 8: VIEWING OUTPUT IN CONSOLE WINDOW**    **STEP 9: STOP** | | | |
| Code: class Main {  public static void main(String[] args) {  int age = 20;  long population = 7800000000L;  float percentage = 85.5f;  double salary = 55000.75;  char grade = 'A';  boolean isJavaFun = true;  String course = "Java Programming";  System.out.println("Integer value (int): " + age);  System.out.println("Integer value (long): " + population);  System.out.println("Floating value (float): " + percentage);  System.out.println("Floating value (double): " + salary);  System.out.println("Character value: " + grade);  System.out.priSystem.out.println("String value: " + course); }} | | | |
| Output: | | | |
| Output Analysis | | The output demonstrates the use of different Java data types. The int data type stores a small whole number (20), while long stores a large integer value (7800000000). The float data type represents a decimal value (85.5) with single precision, and double represents a decimal value (55000.75) with higher precision. The char data type stores a single character (‘A’). The boolean data type displays a logical value (true). The String data type stores and displays text, shown as “Java Programming”. | | | |
| Link of student Github profile where lab assignment has been uploaded | |  | | | |
| Conclusion | | The output clearly shows that Java provides a variety of data types to manage different forms of information effectively. Each type is selected based on the kind of value being stored, whether it is a whole number, a decimal, a character, a true/false condition, or text. This highlights Java’s ability to handle data accurately while using memory efficiently. A good understanding of data types enables programmers to select appropriate variables, reduce logical mistakes, and develop well-structured, dependable Java applications. | | | |
| Plag Report (Similarity index < 12%) | |  | | | |
| Date | | 22\1\2026 | | | |

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