Nagar Yuwak Shikshan Sanstha's

Yeshwantrao Chavan College of Engineering

(An Autonomous Institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

Hingna Road, Wanadongri, Nagpur - 441 110

NAAC A++

Ph.: 07104-237919, 234623, 329249, 329250 Fax: 07104-232376, Website: www.ycce.edu

Department of Computer Technology

Vision of the Department

To be a well-known centre for pursuing computer education through innovative pedagogy, value-based education and industry collaboration.

Mission of the Department

To establish learning ambience for ushering in computer engineering professionals in core and multidisciplinary area by developing Problem-solving skills through emerging technologies.

Session 2025-2026

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)

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)

Richa Waghmare

Nagar Yuwak Shikshan Sanstha's
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Session	2025-26 (EVEN)	Course Name	JAVA FSD Lab
Semester	4	Course Code	23ADS1407
Roll No	15	Name of Student	Richa Waghmare

Practical Number	**01**
Course Outcome	1. Develop backend applications using object-oriented programming concepts and implement data persistence using relational databases. 2. Design and implement interactive and responsive user interfaces using standard web technologies. 3. Build and integrate complete web applications by combining client-side and server-side components
Aim	Introduction to JDK(IntelliJ)and running Java program using DATA types.
Problem Definition	To write, compile, and execute a simple Java program that demonstrates the use of different primitive and non-primitive data types using IntelliJ IDEA and understand their output.
Theory (100 words)	Java is an object-oriented programming language that uses different data types to store and manipulate values. Data types define the type of data a variable can hold, such as integers, decimal numbers, characters, or logical values. Java supports primitive data types like byte, short, int, long, float, double, char, and boolean, which store simple values. It also supports non-primitive data types like String, which store collections of characters. Understanding data types is essential for writing efficient programs, managing memory properly, and avoiding errors during program execution. This practical introduces basic Java data types and their usage.
Procedure and Execution (100 Words)	Steps To Execute Simple Java Program Using IntelliJ: Step1:Begin by creating simple java project - Launch IntelliJ. - Go to **File → New → Project** menu. - Select the Java project and appropriate SDK and click on the Next button. - If you want to create a Java class with the main method, then select Create Project from the template checkbox. - Select the command line app from the dialog box shown below and continue.

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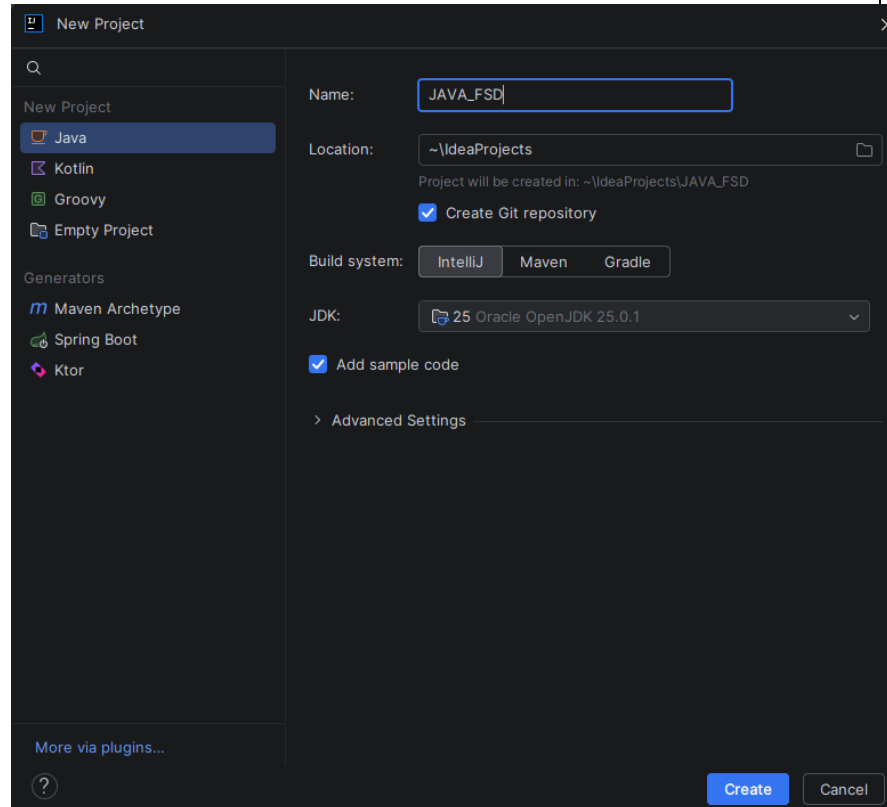
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- Enter the project name and the directory location.
- Click on the Finish button.

Step 2: Create a module
- Go to the project perspective.
- Right-click on Project, select the **New->Module** option.

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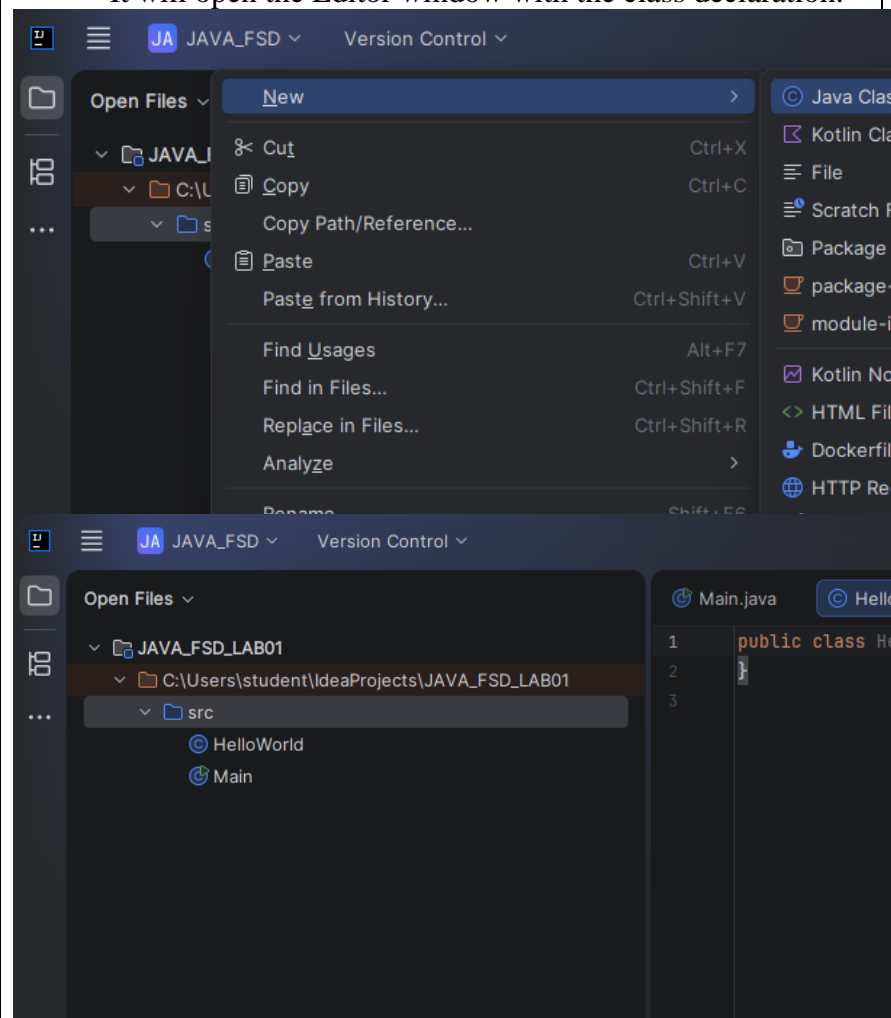
Step 3: Create a java Class
- Go to the Project perspective.
- Expand Project and select the **src** directory from the module.
- Right click on it; select the **New->Java** Class option.
- Enter the class name in the dialog-box and click on the OK button.
- It will open the Editor window with the class declaration.

Step 4: Run the program with play button
- Go to the Run menu and select the Run option.
- Select the Class name and click on Run.
- If there are no compilation errors, then it will show output at the bottom of the window.

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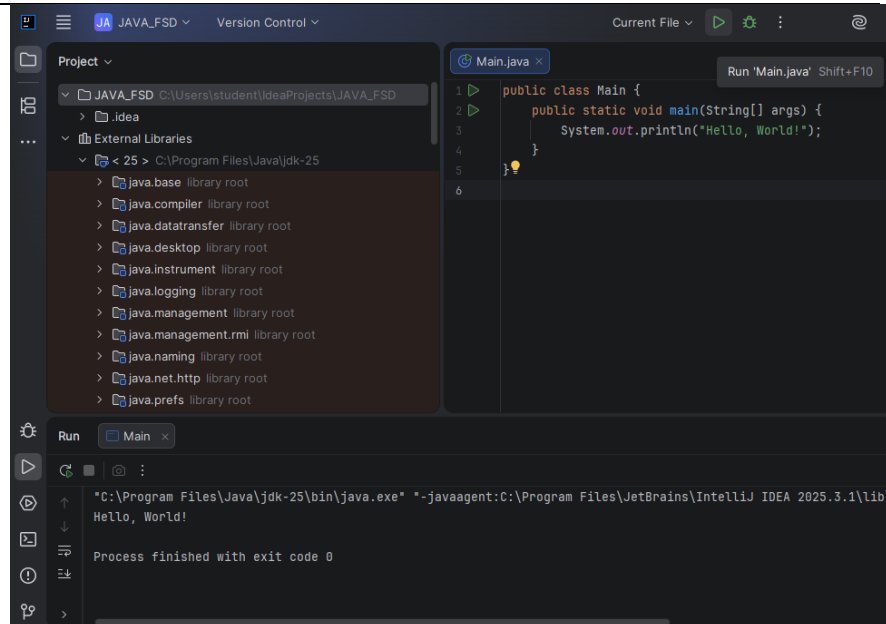
Algorithm:
1) Start the program.
2) Enter the main() method.
3) Declare variables of integer data types (byte, short, int, long) and assign values to them.
4) Declare variables of floating-point data types (float, double) and assign values.
5) Declare a character variable and assign a character value.
6) Declare a boolean variable and assign a logical value (true).
7) Declare a String variable and assign a text value.
8) Display all variable values using System.out.println() statements.
9) End the program.
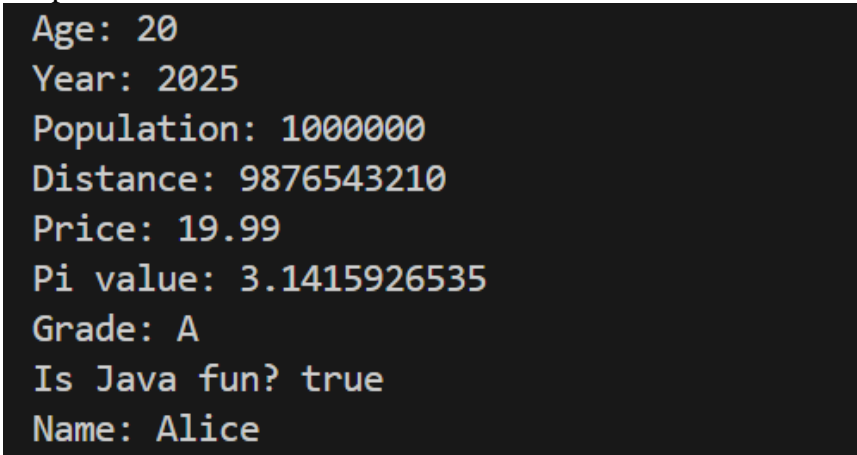
Code:
```java
public class DataTypesExample {
    public static void main(String[] args) {
        byte age = 20;
        short year = 2025;
        int population = 1000000;
        long distance = 9876543210L;
        float price = 19.99f;
        double pi = 3.1415926535;
```

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	```java char grade = 'A'; boolean isJavaFun = true; String name = "Alice"; System.out.println("Age: " + age); System.out.println("Year: " + year); System.out.println("Population: " + population); System.out.println("Distance: " + distance); System.out.println("Price: " + price); System.out.println("Pi value: " + pi); System.out.println("Grade: " + grade); System.out.println("Is Java fun? " + isJavaFun); System.out.println("Name: " + name); } } ```
	Output: ``` Age: 20 Year: 2025 Population: 1000000 Distance: 9876543210 Price: 19.99 Pi value: 3.1415926535 Grade: A Is Java fun? true Name: Alice ```
Output Analysis	The program executed successfully without any compilation or runtime errors. Each declared variable displayed its assigned value correctly in the output window. Integer data types showed whole numbers, floating-point data types displayed decimal values, the character data type printed a single character, and the boolean data type returned a logical value. The String variable displayed the text properly. This confirms that the Java data types were correctly declared, initialized, and accessed using print statements, and the program worked as expected.
Link of student Github profile where lab assignment has been uploaded	https://github.com/Binarybard12/JavaFSD
Conclusion	In this practical, a simple Java program was successfully written, compiled, and executed using IntelliJ IDEA. Various primitive

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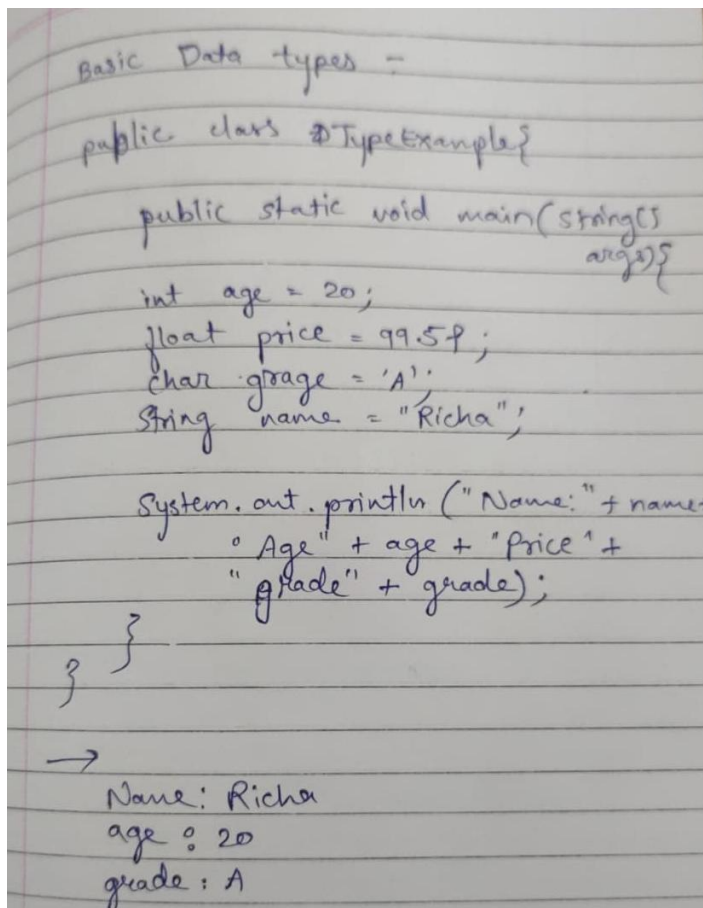
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	and non-primitive data types were implemented to store different kinds of values. The program executed without errors and produced the expected output, which helped in understanding the role of data types in Java programming. This practical provided basic knowledge of Java syntax, program execution, and the importance of selecting appropriate data types for efficient programming.
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Faculty signed observation page.

Basic Data types :-

```
public class DTypeExample {
    public static void main(string[] args) {
        int age = 20;
        float price = 99.5f;
        char grade = 'A';
        String name = "Richa";

        System.out.println("Name:" + name +
            "Age" + age + "Price" +
            "grade" + grade);
    }
}
```

→

Name: Richa
age : 20
grade : A

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Practical 1.

Step1 - step setup a simple Java
project
fib→Nav→ Project

Step 2- create a new module.
with right-click the project
then select New → module.
this creates a package.

step 3 - Create a Java class

○ stay in the project and expand
the node & seelect the
src directory.

○ right click cong and go to
new → Java class

○ name the class

Step 4 - Run the program using
the sun action

○ select the calass name
and click run.

○ The output appear at
the bottom.