

JAVA LAB MANUAL

1. Write a basic java program to implement basic programming concepts such as:
 - a. Including input handling
 - b. Arithmetic operations
 - c. Control flow structures
 - d. Data storage using arrays
2. Write a java program to perform various operations based on some given data:
 - a. Temperature conversion
 - b. Digit extraction
 - c. Number sign check
 - d. Profit/loss calculation
 - e. Student admission eligibility based on grade determination
3. Write a java program to demonstrate the use of different types of constructors:
 - a. Default constructor
 - b. Parameterized constructor
 - c. Copy Constructor
4. Write a java program to demonstrate the:
 - a. Constructor Overloading
 - b. Method Overloading
5. Write a java program to demonstrate the string manipulation such as:
 - a. toUpperCase()/toLowerCase()
 - b. length()
 - c. reverse()
 - d. replace()
 - e. charAt()
6. Write a java program to demonstrate:
 - a. Call by value
 - b. Call by reference
7. Write a java program to demonstrate the difference between StringBuffer and StringBuilder.
8. Write a java program to implement the following collection classes:
 - a. ArrayList<>
 - b. LinkedList<>
 - c. Vector<>
9. Write a java program to implement Dynamic Method Dispatch.
10. Write a java program to demonstrate:
 - a. Abstract class
 - b. Interface
11. Write a java program to demonstrate:
 - a. Single level Inheritance
 - b. Multiple Inheritance
 - c. Multi-level Inheritance
12. Write a java program to demonstrate:
 - a. Threading

- b. Multi-threading
- 13. Write a java program to demonstrate Exception Handling using the Throw and Throws. The Try and Catch block utilization needs to be implemented in each case.
- 14. Write a java program to implement the inputStream and outputStream classes.
- 15. Develop a calculator application using Swings package in java.