

Practical – 1: Creation of Multiple Threads

Question:

Write a Java program to create two threads:

- One thread by **extending the Thread class**
- Another thread by **implementing the Runnable interface**

Each thread should print a message along with its **thread name**.

Concepts Covered:

Main Thread, Thread creation, start(), getName()

Practical – 2: Thread Sleep and Join

Question:

Write a Java program in which:

- A child thread prints numbers from 1 to 5
- After printing each number, the thread sleeps for 1 second
- Use the `join()` method so that the **main thread waits** until the child thread finishes
- After completion, main thread prints a message:
“Main Thread Finished”

Concepts Covered:

`sleep()`, `join()`, thread execution order

Practical – 3: Synchronization in Java

Question:

Write a Java program to demonstrate **synchronization**:

- Create a class `Table` with a synchronized method `printTable(int n)`
- Create two threads that use the **same object**
 - One thread prints table of 5
 - Another thread prints table of 10
- Ensure that output does **not mix** between threads.

Concepts Covered:

synchronized method, shared resource, multithreading

Practical – 4: AWT Frame with Graphics and Color

Question:

Write a Java AWT program to create a Frame that displays:

- A red rectangle
- A blue circle
- Your name displayed in green color

Use the `paint(Graphics g)` method.

Concepts Covered:

Frame, Graphics class, Color class, drawRect(), fillOval(), drawString()

□ Practical – 5: AWT Form using Controls

Question:

Design a **Student Registration Form** using AWT containing the following controls:

- Label: “Student Name”
- TextField for name input
- Checkbox options: Java, Python
- TextArea for address
- Button: Submit

Concepts Covered:

Label, TextField, Checkbox, TextArea, Button, AWT Frame