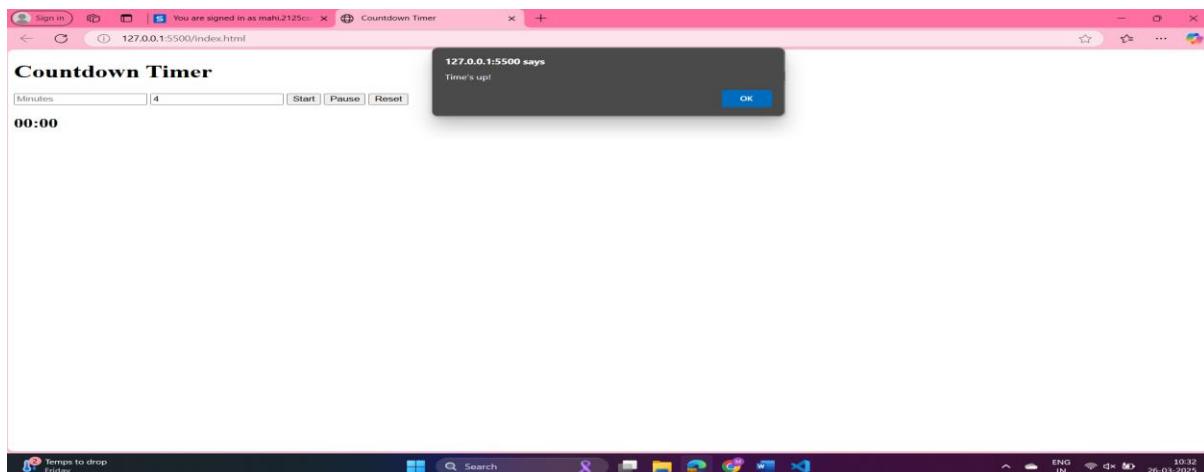


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Assessment 1

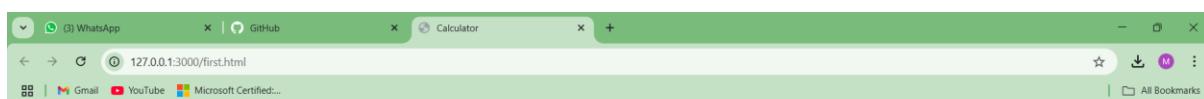
Countdown Timer

- ◆ Build a countdown timer where users can input time (in minutes/seconds) and start the countdown.
- ◆ Features: Start, pause, reset buttons, and alert when time is up.



Calculator

- ◆ Create a **basic calculator** with addition, subtraction, multiplication, and division.
- ◆ Features: Interactive number buttons, clear button, and proper UI styling.



Employee Salary Calculator (Encapsulation & Methods)

◆ Concepts Used: Encapsulation, Methods, Objects

◆ Problem Statement:

- Create an Employee class with attributes like name, ID, basic salary.
- Implement a method to calculate net salary (basic + bonus - tax).
- Create an object, take input from the user, and display salary details.

The screenshot shows the Eclipse IDE interface with the EmployeeSalaryCalculator.java file open in the editor. The terminal window below shows the execution of the Java program. The user inputs employee name, ID, basic salary, bonus amount, and tax rate, which are then used to calculate and print the net salary.

```
PS C:\Users\HP\Desktop> java & 'C:\Program Files\Java\jdk-18.0.2.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\HP\AppData\Roaming\Code\User\workspaceStorage\zaeb3aa4c9fef0642d221ec972822d3f\redhat.java\jdt_ws\java_edcd701d\bin' 'EmployeeSalaryCalculator'
Enter Employee Name: Mahi
Enter Employee ID: 1945198166
Enter Basic Salary: 30000
Enter Bonus Amount: 5000
Enter Tax Rate: 2000
Employee Name: Mahi
Employee ID: 1945198166
Basic Salary: 30000.0
Bonus: 5000.0
Tax: 2000.0
Net Salary: 33000.0
PS C:\Users\HP\Desktop>java
```

Student Information System(OOP-Based Classes, Objects, Encapsulation)

◆ Problem Statement:

- Create a Student class with attributes like name, roll number, and marks.
- Use a method to display the student details.
- Create an object of the class and call the method to print student information.

The screenshot shows the Eclipse IDE interface with the StudentInformationSystem.java file open in the editor. The terminal window below shows the execution of the Java program. The user inputs student name, roll number, and marks, which are then displayed.

```
PS C:\Users\HP\Desktop> java & 'C:\Program Files\Java\jdk-18.0.2.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\HP\AppData\Roaming\Code\User\workspaceStorage\zaeb3aa4c9fef0642d221ec972822d3f\redhat.java\jdt_ws\java_edcd701d\bin' 'StudentInformationSystem'
Enter Student Name: Mahi
Enter Roll Number: 35
Enter Marks: 94
Student Name: Mahi
Roll Number: 35
Marks: 94.0
PS C:\Users\HP\Desktop>java
```