BITS PILANI, DUBAI CAMPUS
DUBAI INTERNATIONAL ACADEMIC CITY, DUBAI

FIRST SEMESTER 2025 – 2026
COURSE: CSF213/ECOM213/MACF212 (Object Oriented Programming)
COMPONENT: Lab 2 **Week: 2**

Aim:
To understand structured programming in Java and develop fundamental problem-solving abilities utilizing basic language structures.

Objective:
Use control flow, primitive data types, and input/output operations to create logic-driven Java programs.

Problem Statements:

1. Create a Java application that requests the user's name and the time of day (0–23), then prints a personalized greeting according to the time (Use if-else).
   - Print "Good morning, [Name]!" if the time is between 5 and 11.
   - Print "Good afternoon, [Name]!" if the time is between 12 and 17.
   - Print "Good evening, [Name]!" if the time is between 18 and 21.
   - Print "Good night, [Name]!" if the time is between 22 and 4 (inclusive).

   Example Input and Output:
   ```
   Enter your name: Nikhil
   Enter the current hour (0-23): 9

   Good morning, Nikhil!
   ```

2. Create a Java program that accepts two integers and a character representing the operator (+, -, *, /, %) from the user. Perform the required arithmetic operation and display the result (Use switch-case).

   Example Input and Output:
   ```
   Enter first number: 10
   Enter second number: 2
   Enter operator (+, -, *, /, %): *

   Result: 20
   ```

3. Develop a Java program that prompts the user to input a starting and ending number, as well as their preference for printing either "even" or "odd" numbers within that inclusive range. The program must subsequently output all corresponding numbers (Use for/while/do-while loop).

   Example Input and Output:
   ```
   Enter start of range: 3
   Enter end of range: 10
   Print (odd/even): even

   Even numbers from 3 to 10:
   4 6 8 10
   ```