



Coding Club Activities

Semester :6th ABC

Topic: QUEUE

Date: 15/03/2025

Time:10.30 to 12.30PM

To enhance coding skills, a coding competition was conducted for 6th semester students, focusing on the data structure concept of queue. The preferred programming language for the competition was JAVA. Below are the problem statements along with their descriptions:

Problem 1: Implement the Operation of a Queue

Design and Implement Queue Operations like Enqueue, Dequeue, Peek/Front, Is Empty, Size, Display

Input format

- The first line contains an integer N — the number of operations to perform.
- The next N lines each contain one operation, in uppercase format.

Output format

- For each operation that returns a result (FRONT, DEQUEUE, ENQUEUE, SIZE, ISEMPY, DISPLAY), print the result on a new line.

Sample Output:

Queue: Alice Bob Charlie
Front: Alice
Dequeued: Alice
Front: Bob
Size: 2
Is Empty: False
Queue: Bob Charlie

Problem 2: Priority-Based Queue

Design and implement a **Priority-Based Queue** that simulates real-world scenarios where certain tasks or people must be handled before others based on priority levels.

Input format:

- First line: Integer N — number of operations to perform.
- Next N lines: Each line is an operation (uppercase).
- For ENQUEUE, provide name (string) and priority (integer).

Output format:

5
ENQUEUE John 2
ENQUEUE Mary 1
DEQUEUE
FRONT
DISPLAY

Dequeued: Mary
Front: John
Queue: John (2)

Problem 3: Implement a Circular Queue

Input Format:

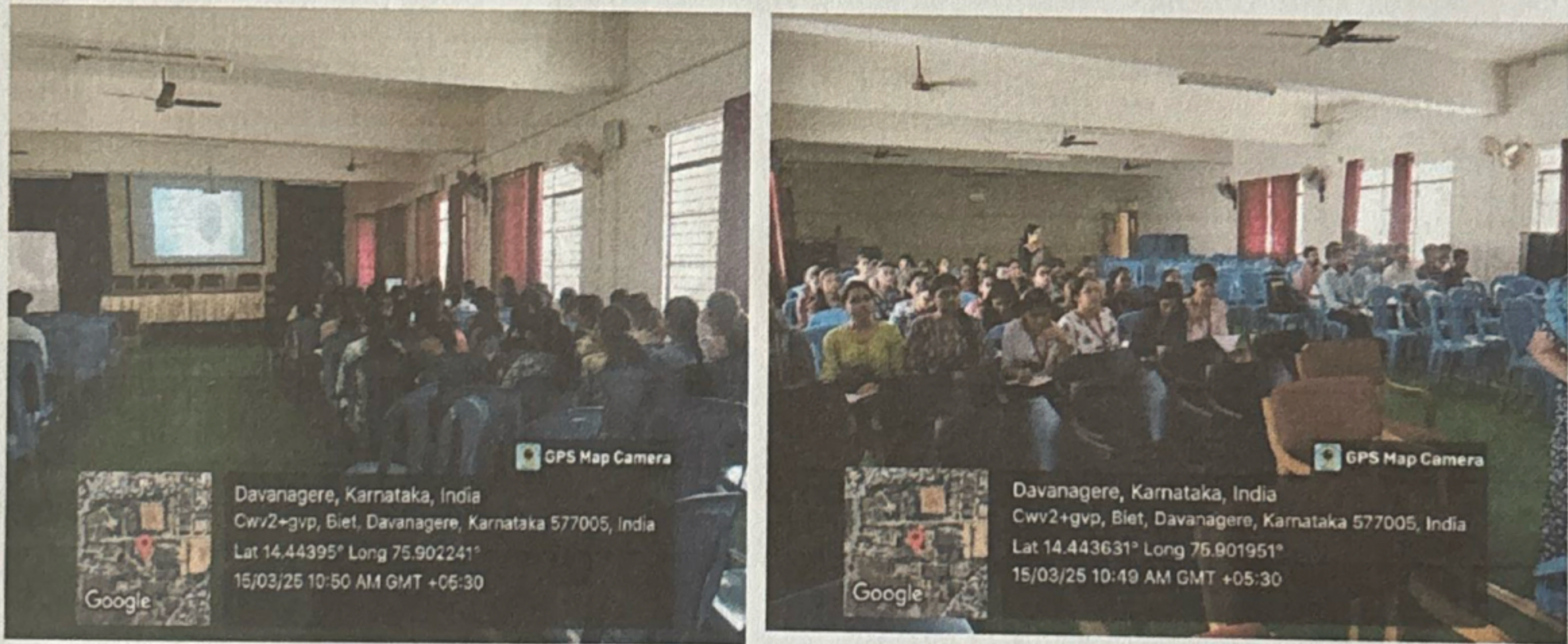
The first line contains two integers:

- N — number of operations to perform.
- S — size (capacity) of the circular queue.

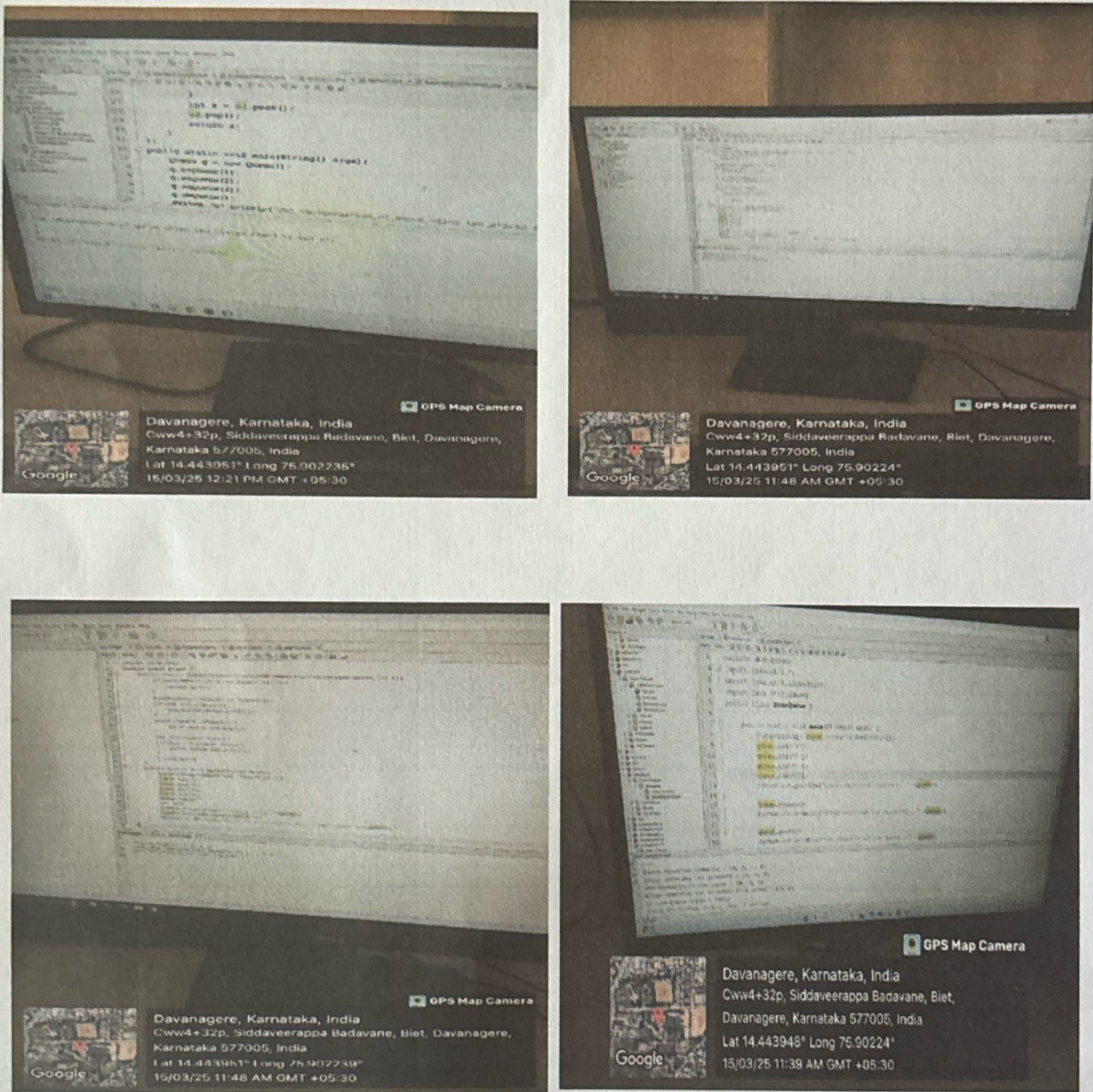
Output Format:

Queue Full
Dequeued 5
Front 10
10 15
Dequeued 10

Geotagged photos:



Implementation Screenshots:



Outcomes:

- Students showcased their knowledge by solving the problems related to queue and its operations.
- Many students successfully implemented efficient solutions to the given problems.
- Students are also realized the importance of java in problem solving.

Anita
Coordinators

B. poornima
Program Coordinator