

Output of the Project:-

Task Scheduling System (Using Circular Queue)

- **Concept: Circular Queue**
- **Scenario:** A CPU scheduling system processes **tasks in a round-robin fashion**.
- **Features:**
 - Add tasks to the queue.
 - Execute the **next task** in circular order.
 - Remove completed tasks.
 - Display the current task queue.

```

=====
Task Scheduler - Round Robin
=====
Enter number of tasks: 3

Enter Task ID: 11
Enter Task Name: Clean
Enter Total Time: 14

Enter Task ID: 12
Enter Task Name: Eat
Enter Total Time: 50

Enter Task ID: 13
Enter Task Name: Sleeping
Enter Total Time: 25

Enter Time Quantum: 4

=====
Task List Before Execution
=====

=====
Remaining Tasks
=====
Task ID   Task Name   Time Left
-----
11        Clean      14
12        Eat        50
13        Sleeping   25
=====

=====
Round Robin Execution
=====
Time Quantum: 4

Execution Sequence:
Task ID 11 (Clean) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 11 (Clean) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 11 (Clean) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 11 (Clean) ran for 2 [Completed]
Task ID 12 (Eat) ran for 4

```

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```
D:\BCA\SEMESTER -4\CAP 2k X + v
Task ID  Task Name  Time Left
-----
11      Clean      14
12      Eat        50
13      Sleeping   25
=====

Round Robin Execution
=====
Time Quantum: 4

Execution Sequence:
Task ID 11 (Clean) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 11 (Clean) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 11 (Clean) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 11 (Clean) ran for 2 [Completed]
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 13 (Sleeping) ran for 1 [Completed]
Task ID 12 (Eat) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 12 (Eat) ran for 4
Task ID 12 (Eat) ran for 2 [Completed]
=====

Task List After Execution
=====

No tasks remaining.

Thank you for using the Task Scheduler!

Process returned 0 (0x0)  execution time : 38.579 s
Press any key to continue.
|
```