**HALL TICKET NUMBER: 2403A51365**

**NAME: RAYAPUDI HARITHA**

**BATCH: 24BTCAICSB14**

**AssignmentNumber:11.2**

**TASK1:**

**Prompt:**

Implement a HashTable class in Python with insert, search, and delete methods.

Use chaining (lists) to handle collisions.

Include comments explaining each method.

class HashTable:

pass # Your implementation here

**Code:**

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Output:-

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**TASK2:**

**Prompt:**

# Implement a Graph class using an adjacency list.

# Include methods to add vertices, add edges, and display connections.

class Graph:

pass # Your implementation here

**Code And Output:-**

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**TASK3:**

**Prompt:**

# Implement a PriorityQueue class using Python's heapq module.

# Include methods: enqueue (with priority), dequeue (highest priority), and display.

class PriorityQueue:

pass # Your implementation here

**Code:**

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Output:-

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**TASK4:**

**Prompt:**

# Implement a DequeDS class using collections.deque.

# Include methods to insert and remove from both ends.

# Add docstrings to explain each method.

class DequeDS:

pass # Your implementation here

**Code:**

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Output:-

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