

Midterm Exam Problem Statement

Scenario: Hospital Emergency Queue System

Name: Momina Imran

BS AI - A

DS LAB MID TERM EXAM

Q1. (Implementation / Logic)

Cpp.file

Q2. (Dry Run / Trace)

MID TERM EXAM

Scenario: Hospital Emergency Queue System

Name: Momina Imran
BS AI - A
"DS LAB EXAM"

Question 2 Dry Run

1. Insert At End (101) - null < 101 > null
2. Insert At End (102) - null < 101 < 102 > null
3. Insert At Beginning (200) - null < 200 < 101 < 102 > null
4. Insert At Position (150, 2) - null < 200 < 150 < 101 < 102 > null
5. Delete From Beginning () - 200 (deleted) - null < 150 < 101 < 102 > null
6. Insert At End (300) - null < 150 < 101 < 102 < 300 > null
Head → 150 < 101 < 102 < 300 ← Tail

• Answer After step 6 :

- (a) Head patient ID : 150
- (b) Tail patient ID : 300
- (c) Forward (head → Tail) : 150, 101, 102, 300
- (d) Backward (tail → head) : 300, 102, 101, 150

Q3. Design the poster

