Why stack can't handle queues in hospitals?

- A **stack** follows **LIFO** (Last In, First Out). The last person to arrive would be served first.
- In hospitals, fairness and urgency are required: the **first patient** to arrive (or the one in critical condition) must be served first, not the last.
- Using a stack would create **unfairness** because a newly arrived patient could bypass all waiting patients.
- Therefore, a **queue (FIFO)** is more suitable in hospitals, ensuring order and fairness.

Queue vs stack for school attendance roll call. Which is fair?

Algorithm (Reasoning)

- Attendance requires order of arrival.
- Queue = FIFO → first student to arrive is called first → fairness.
- Stack = LIFO → last student to arrive would be called first → unfair.
  ➞ **Queue is fair** for attendance roll call.
- **Why FIFO builds fairness in education?**

- FIFO ensures students are served in the order they arrive or submit.
- Prevents favoritism (no skipping the line).
- Encourages discipline and respect for time.
- Thus, FIFO = fairness in exams, attendance, and services.