STACK QUESTION ,

Why stack is good for undo, not fairness?

* **Why Stack is Good for Undo?**
* Undo operations are about reversing recent changes in the exact opposite order they were made.
* When you do something (like typing, drawing, or editing), that action is pushed onto a stack.
* When you hit undo, you want to remove the most recent action first—the last actiondone is the first to be undone.
* This fits the Last In, First Out (LIFO**)** property of a stack perfectly:
  + The last thing you did is the first thing you undo.
  + This ensures undo behaves intuitively and correctly.
* **Why Stack Is NOT Good for Fairness**
* Fairness usually means serving people or items in the order they arrived (First Come, First Served).
* A stack reverses the order because it always removes the most recently added itemfirst.
* So if you use a stack for distributing something fairly, the last person to join would getserved first, which is unfair.s
* To be fair, you need a Queue (First In, First Out), so the first person who arrived gets served first.

QUEUE QUESTION ,

Why FIFO avoids conflict in ID processing?

* **Maintains Arrival Order:** FIFO processes IDs exactly in the order people arrive, ensuring fairness.
* **Prevents Disputes:** Everyone knows their turn; no one jumps ahead, avoiding confusion.
* **Ensures Predictability:** Clear rules reduce frustration and arguments.
* **Simplifies Management:** Staff can handle requests linearly without errors or overlaps.
* **Fair Resource Allocation:** IDs are given out without favoritism or priority conflicts.