**STACK QWESTION**

Challenge: Reverse "RUBAVU" using stack.

* **Push each letter**: R → U → B → A → V → U
* **Pop all**: U → V → A → B → U → R
* **Reversed**: "UVABUR"

• Reflection: Why stack structure is simple yet powerful?

* **Simplicity**: Only two operations – push and pop
* **Power**:
  + Manages function calls (call stack)
  + Supports undo/redo in apps
  + Helps in parsing expressions and syntax
  + Enables depth-first search in algorithms
* **Analogy**: Like a pile of plates – you take the top one first

**Qweve qwestion**

• Challenge: Model ticketing queue for Kigali Arena. Why not stack?

* **Model**: Use a queue → First come, first served
* **Why not stack**:
* Stack serves last person first (LIFO) – unfair!
* Queue ensures fairness and order (FIFO)
* Real-world ticketing must respect arrival time

• Reflection: Why FIFO matches fairness principle in events?

* **Fairness**:
  + Everyone gets served in the order they arrive
  + Prevents jumping the line
  + Encourages discipline and trust in the system