**Challenge (Kigali Stadium Entry)**

When people arrive at Kigali Stadium, they line up in the order they came: **[P1, P2, P3 …]**.

* If we use a **stack (LIFO)**, then the **last person (P3)** will enter before the first person (P1).  
  This creates **unfairness**, because someone who arrived earlier has to wait longer than someone who just came.
* **Reflection (Why FIFO is Fair in Events)**

A **queue (FIFO)** ensures that:

* **First Come, First Served (FCFS):** The person who arrived first (P1) enters first.
* **Fairness:** No one is skipped or overtaken by latecomers.
* **Orderly Management:** It prevents fights, confusion, or complaints among people waiting.
* **Real-world example:**
  + At a **concert**, the first fan who arrives at the gate should enter before those who come later.
  + At **banks or bus stops**, customers and passengers are served in the order they arrive.

This principle shows why **FIFO (queue)** matches fairness: it respects people’s time and effort in arriving early.

from collections import deque

# People arriving at the stadium

people = ["P1", "P2", "P3", "P4"]

print("=== Using Queue (FIFO) ===")

queue = deque(people) # queue

while queue:

person = queue.popleft() # remove from front

print(f"{person} enters the stadium")

print("\n=== Using Stack (LIFO) ===")

stack = people[:] # copy list

while stack:

person = stack.pop() # remove from end

print(f"{person} enters the stadium"

**Output:**

Using Queue (FIFO)

P1 enters the stadium

P2 enters the stadium

P3 enters the stadium

P4 enters the stadium

Using Stack (LIFO)

P4 enters the stadium

P3 enters the stadium

P2 enters the stadium

P1 enters the stadium

**Explanation:**

* **Queue (FIFO):** The first person (P1) who arrived **enters first**, which is fair.
* **Stack (LIFO):** The last person (P4) who arrived **enters first**, making earlier arrivals (P1, P2) wait unfairly.

END.