

Problem 4. Simulation: Hot Potato

In Hot Potato game, children line up in a circle and pass an item from neighbor to neighbor as fast as they can. After a specified number of N passes, the action is stopped and the child who has the item (the potato) is removed from the circle. Play is restarted with the remaining children, starting with the next child, going in the same direction and passing the item the same number of times (N), until only one child is left.

Use a ***FIFO queue*** to simulate a children's game *Hot Potato*.

4.1 Complete the implement of a FIFO Queue class

(the skeleton of the Queue class is provided in your Jupyter notebook).

4.2 Write a program to simulate the Hot Potato game, using a FIFO Queue.

Sample Input

$N = 7$, children = ['Bill', 'David', 'Susan', 'Jane', 'Kent', 'Brad']

Sample Output

```
# Passing Hot Potato .... N = 7
Bill David Susan Jane Kent Brad  --  David is out.
Susan Jane Kent Brad Bill  --  Kent is out.
Brad Bill Susan Jane  --  Jane is out.
Brad Bill Susan  --  Bill is out.
Susan Brad  --  Brad is out.
# Susan is the Winner.
```