

The company sells many kinds of games through their online platform. Customers place orders online to buy game/s. The gaming company will search for the specific game upon customers request in the order of first come first served basis. The gaming company has the following requirements. **(10marks)**

1. There are many kinds of games available (at least five).
2. The customers' orders are organised in a Queue as a first come first served basis
3. The gaming company should be able to retrieve the data of the last sold games.

Your program should consist of a linked list with the following features

- a.) Insertion at the head
- b.) Insertion at the tail
- c.) Deletion from the head
- d.) Deletion from the tail
- e.) Deleting specific element from the list

The next part should be implementing a Stack inherited from the above linked list with the following features

- a.) Pop
- b.) Push
- c.) Top

The next part should be implementing a Queue inherited from the above linked list with the following features

- a.) Enqueue
- b.) Dequeue
- c.) Top

The program flow is as follows:

The games should be saved in a linked list. The list of games ordered by customers should be saved in a queue. You should take the order from the beginning of the queue and search for it in the linked list then delete it and put this game name in a stack to be able to retrieve in the last sold game.

Sample screenshots of the output follows:

```
What would you like to do?
(1) - Display the current stock (linked-list)
(2) - Add a game to stock (linked-list)
(3) - Display next order info
(4) - Display all orders
(5) - Add order to que
(6) - Process the next order
(7) - Revers last order
(8) - Display info of last order
(9) - Quit Program
1
```

```
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Game Name: Final Fantasy
Game Name: Forza Horizon
Game Name: Flight Simulator
Game Name: God of War
Game Name: Gears of War
Game Name: Guitar Hero
Game Name: Halo
Game Name: Metal Gear Solid
Game Name: Minecraft
Game Name: Sonic Mania
Game Name: Skyrim
Game Name: Tekken
Game Name: World of Warcraft
-----
```

```
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(9) - Quit Program
3
```

```
-----
The next order is for:      Andrew
The game they ordered is:   Minecraft
-----
```

```
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```

- (6) - Process the next order
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The last order was for: Steven
They ordered: Sonic Mania

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Order Nu.:1 is for: Nathan
They ordered: Tekken

Order Nu.:2 is for: Manjil
They ordered: World of Warcraft

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1

Game Name: Final Fantasy
Game Name: Forza Horizon
Game Name: Flight Simulator
Game Name: God of War
Game Name: Gears of War
Game Name: Guitar Hero
Game Name: Halo
Game Name: Metal Gear Solid
Game Name: Skyrim
Game Name: Tekken
Game Name: World of Warcraft

What would you like to do?

- (1) - Display the current stock (linked-list)