

## Computer Kiosk Application Project Requirements

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We need to build Computer Kiosk Application.

### Requirements:

1. We will build a Console based Computer Kiosk Application.
2. Our application simulates a shop selling computers with different characteristics (e.g. CPU, speed, hard drive, graphics card, make).
3. All interactions with the program should be done with a text based menu (non-graphical menu) which gives the user the choice of selecting various commands, such as create a new computer to be placed in stock, create a new customer looking for a computer,
4. Let us first start by giving a name to our computer shop, say NEW AGE COMPUTER KIOSK. Please feel free to choose your own innovative name.
5. Our Shop deals with two types of computers, desktop and laptop. A computer has characteristics like computer Id, computer Type, CPU Speed, hard disk capacity, graphics Card and price. Additionally a Laptop has weight and battery duration and Desktop has monitor size.
6. Our Customer would be interested in a particular type of computer (laptop or desktop) with particular characteristics (e.g. a laptop with an upper limit in weight, battery duration, speed, etc. or a desktop with a lower limit in monitor size, hard drive capacity, etc.). A customer has a customer Id and a shipping address to which we can home deliver the ordered computer. We would also collect information like name, age and gender from the Customer
7. Our Customer can place the order for the Computer at the Kiosk itself. We will collect the payment for the ordered computer on delivery. An Order is generated when a customer places an order. An Order has an order Id, Customer details, Computer details and an Order Status.

Order Status can be an enum which stores whether the order is *PENDING* or *DELIVERED*. When the customer places order for a computer, the status is *PENDING*. Once the *computer is delivered to the customer at his (shipping) address and the cash on delivery is collected, the status becomes DELIVERED*.

8. Our Shop also has Admin who performs tasks of adding to the existing stock of Computers, processing pending Orders. An admin has an admin Id and a password to authenticate him. We will also store the personal details like name, age and gender of the Admin.
9. Using our application the following can be done
  - Create a new Customer
  - Create a new Computer – Desktop, Laptop
  - Get Customer by ID
  - Get Computer by ID
  - Validate Admin Login
  - Sort Computers according to the given specification like Price, CPUType, CPUSpeed and any of the characteristics of the computer
  - Place an Order when requested by the customer
  - Our application will generate a text based menu (non graphical menu) which gives the user, the choice of selecting various commands described below. The main objective of this class is to
    - Display the menu.
    - Accept user choice and calling appropriate methods.
    - display messages and any other information
- a. Option ‘a’ facilitates Admin Login. This option will ask the user to enter admin login id and password. Once authenticated, he will have his own Admin Menu where he can create a new computer or process pending orders.
  - i. Option ‘c’ creates a new computer (laptop or desktop) with specific characteristics entered by the user: cpu type, cpu speed, hard disk capacity, graphics card type, battery (for laptop only), weight (for laptop only), price, etc. This option should give the user two sub-options ‘l’ and ‘d’ for the creation of a laptop or desktop computer respectively.
  - ii. Option ‘p’ clears all the pending orders
- b. Option ‘n’ creates a new customer looking for a computer. This option should ask the user for the specific characteristics of a computer that this person is looking for. For example, price limit, desktop or laptop, cpu speed, hard disk capacity, upper limit of weight (for a laptop only), minimum battery life (for a laptop only), graphics card type, etc.
- c. Option ‘s’ (search) gives a user the possibility to search for a particular type of a computer already existing in the system, based on price, cpu speed and other

characteristics. Use concept of Comparator to sort the list in ascending order in each of the characteristics specified.

10. Identify the classes needed and code the requirement.

11. Let our Computer Kiosk revolutionize the way computers are sold and bought.

## 12. Sample Output

```
=====
Welcome to NEWAGE COMPUTER KIOSK
=====
-----
MAIN MENU
-----
a - Admin Login
n - Create a new Customer
e - Existing Customer Login
s - Search
x - Quit
Please enter your option:a
Enter Login Id:4321
Enter password:a
Admin Authenticated...
-----
ADMIN MENU
-----
c - Create a new Computer
p - Process pending Orders
x - Quit
Please enter your option:c
-----
CUSTOMIZE YOUR COMPUTER MENU
-----
l - Create a new Laptop
d - Create a new Desktop
b - Back to main menu
l
-----
CREATE NEW LAPTOP
-----
Enter CPU speed (in GHZ):3.2
Enter CPU Type:Pentium
Enter Graphics Card:Intel
Enter Hard Disk Capacity(in GB):500
Enter price :Rs.30000
Enter laptop weight:3
Enter duration of battery:3
-----
Laptop Computer has been successfully added
-----
c - Create a new Computer
p - Process pending Orders
x - Quit
Please enter your option:p

To process pending orders.....
```

c - Create a new Computer  
 p - Process pending Orders  
 x - Quit  
 Please enter your option:x

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 MAIN MENU  
 -----

a - Admin Login  
 n - Create a new Customer  
 e - Existing Customer Login  
 s - Search  
 x - Quit  
 Please enter your option:s

l - Laptop  
 d - Desktop

Please enter your option:l

Choose the characteristics you would like to consider

s - CPU speed  
 t - CPU type  
 g - Graphics Card  
 h - Hard Disk Capacity  
 p - Price  
 w - Weight  
 b - Battery Duration

**p**

ProductID	Computer Type	CPU Speed	CPU Type	Graphics Card
6	Laptop	3000.0	AMD	AMD
5	Laptop	3000.0	Intel	GeForce
8	Laptop	3500.0	AMD	AMD
7	Laptop	4000.0	Intel	Intel

Do you wish to place order (Y/N)?

**y**  
 Existing Customers enter Login ID. New Customers enter 0 :**2**

Please enter product Id:

**8**

=====

ORDER CONFIRMATION

=====

Order Id : 1  
 Customer Id : 2  
 Customer Name : Ram  
 Shipping Address : Namahshivayam  
 Order Status : PENDING  
 Ordered Computer Information

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ProductID	Computer Type	CPU Speed	CPU Type	Graphics Card
	HDCapacity Price MonitorSize Weight		BatteryDuration	

```
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-----
-----
8          Laptop          3500.0          AMD          AMD
          480          36000.0          N.A.          3.5          4
-----
-----
```

Thank you for placing the order with us.  
The ordered product will be sent to the above Shipping Address within 48  
hours  
We request a Cash On Delivery on receipt of the consignment

```
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-----
```

```
-----
MAIN MENU
-----
```

```
a - Admin Login
n - Create a new Customer
e - Existing Customer Login
s - Search
x - Quit
Please enter your option:
```