

Assignment, Autumn Semester 2021
Royal University of Bhutan
Gyalpozhing College of Information Technology
PLT101: Programming in Python
Year I, Semester I

Duration: 10 Days

Max. Marks: 10

This assignment is to build a Shopping Cart analogous to your online shopping. Following are the steps that people generally follow to purchase items online.

- You login to any of the online shopping websites or apps such as amazon and flipkart.
 - Generally you will search for the items (products) from the product catalog and keep adding the items from the product catalog to the cart that you need.
 - When you click on show cart, the cart displays all the items that you have added with their respective quantity and total price.
 - The user can select the address to deliver the items. Each user can manage addresses such as home address, work address etc.
 - The next step is to pay (proceed to buy), that will show you the net payable amount.
1. Define a product catalog data structure which contains product details such as:
 - Product ID
 - Product Name
 - Quantity
 - Unit price
 2. Define a user database which contains user details such as **username**, **password** and **user type**(**buyer** and **seller**).

Seller user has the privilege to:

- Add item to your product catalog
- Modify items in your product catalog.
- Remove items from your product catalog.

Buyer user has privilege to :

- View product catalog
- Search product catalog for an item
- Add product to cart
- Buy products.

3. Following functions must be implemented in order to create a shopping cart application using python.

- `addProductToCatalog()` : will add the product to the product catalog data structure.
- `showCatalog()` : displays all the products(items) from the shopping cart catalog.
- `addToCart()` function will add the product to the cart.
- `removeFromCart()` function will remove the product(item) from the cart.
- `showCart()` function will display all the products(items) from the shopping cart. These items are added by the customer.
- `getTotalAmount()` function will return the total amount based on the items in the cart.
- `buyItems()` function will return names of items bought with total cost incurred. After buying the items, your cart should be empty.
- `printInvoice()` method will print all the products that are listed in the cart with their names, quantity, unit price and total price

ALL THE BEST 😊