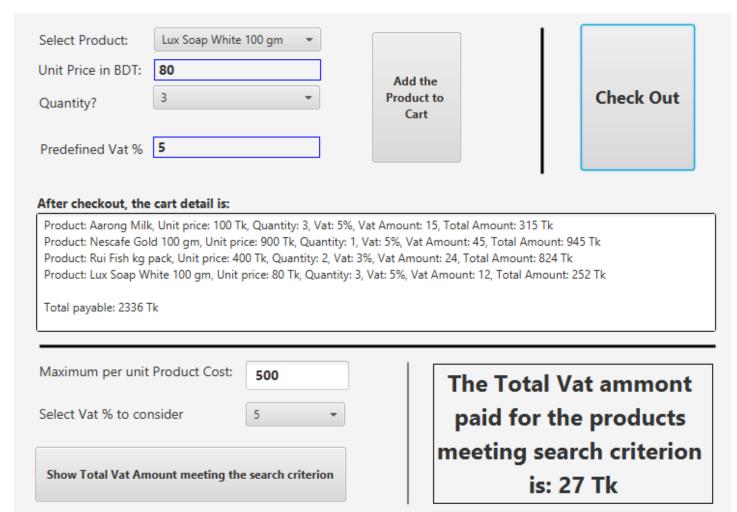
Mid Term Exam, Spring 2023 SET-B

Total Marks: 100; Duration: 90 minutes

Consider the following **MidExamScene.FXML** scene:



## Note:

- You need to add 10 products to the product list
- When a product is selected from ComboBox, its predefined price and vat% are automatically shown below in two Labels
- Quantity of a product can be 1 to 10 only
- Pre defined Vat% can be 1 to 15 only
- Cartitem class private fields: String productName, float unitPrice, int vatRate, quantity
- ArrayList<CartItem> cartList is a private field of the controller class

P.T.O

Now, using above description, implement a NetBeans FXML project meeting following criterion:

Requirements		Marks
1) Fully imple	emented model class: Cartitem	
Mai	rk for declaring fields with scope & qualifier	5
Mai	rk for defining constructors, getters, setters, toString	5
Mai	rk for defining getVatAmount() and getTotalAmount() methods	5
3) Fully desig	gned MidExamScene.FXML file with required fx:id s and event handler methods	
Mark for Design		10
Mark for specifying required fx:id s and event handler methods		5
4) Fully imple	emented MidExamSceneController class as follows:	
4.1) Appropriate initialize method		10
-	ng "Add the Product to Cart" button will trigger roductToCartButtonOnClick() handler method to do the following:	
0	It will create a new <b>CartItem</b> instance using user input/selection and add the instance to cartList. User can click this button and add as many products as needed to the cartList	10
0	You MUST check whether a product is ALREADY added to the cartList or not. If the selected product is already selected, then instead of creating a new CartItem, you MUST update the QUANTITY field of the already added CartItem instance.	10
	ng "Check Out" button will trigger coutonds to do the following:	
0	It will show the bill details from <b>cartList</b> into <b>billTextArea</b> , as per the format shown in the screenshot.	20
-	ng "Show Total Vat Amount" button will initiate  TotalVatForQualifiedProductsButtonOnClick() handler method to do the following:	
0	It will browse the cartList to find the total vat amount for the products whose unit price is <= given amount and matches with selected vat rate, and show the total amount in the label as shown in the screenshoot	20