

Week 16 Lab

1. Create a class **BillingSystem** (Super Class) with the following:
 - a. **getDiscount()** - return discount percentage
 - b. **calculateTotal()**
 - Using scanner input the Subtotal from user
 - Calculate total as:
$$\text{Total} = \text{Subtotal} - \text{discount\% of Subtotal}$$
 - Print total

2. Create a class **MyRestro** (Sub Class of BillingSystem) with the following:
 - a. **getDiscount ()** - return the discount percentage
 - b. **displayFoodItems()** – Print the names of few foods

3. Create a class **MyCafe** (Sub Class of BillingSystem)
 - a. **displayCoffeeltems()** – Print the names of few coffee

4. Create a class Runner with the following:
 - a. Main method:
 - Create object of Runner class
 - Create object of **MyCafe** as myCafe, assign it to parent reference and call **handleBilling (myCafe)** using runner object
 - Create object of **MyRestro** as myRestro, assign it to parent reference and call **handleBilling (myRestro)** using runner object

b. `handleBilling(BillingSystem billingSystem)`

- Call `calculateTotal` method
- If the `billingSystem` is instance of `MyRestro`
 - a. Downcast it to `MyRestro` and call `displayFoodItems()` method
- If the `billingSystem` is instance of `MyCafe`
 - a. Downcast it to `MyCafe` and call `displayCoffeeItems()` method