OOP Assignment

- Write an application in support which sells candy by kg, cookies by dozen, ice-creams and sundaes.
- Your application will be used for checkout system
- To do this you will implement an inheritance hierarchy of classes derived from abstract class **DessertItem**.
- **DessertItem** has only one field name, default and parameterized constructors, one abstract method which return cost of item and another final method which returns name.
- **Candy**, **Cookie**, and **IceCream** classes are extended from DessertItem.
- Class **IceCream** has one subclass **Sundae**.
- Draw and object model.
- All of the classes which are extended from the **DessertItem** class must define default and parameterized constructors.
- A **Candy** item has **weight** in gms and **price** per kg which determines its cost. For Example, 200gms of Fudge @ Rs. 50/ kg=10 Rs. The cost should be rounded to nearest number.
- A **Cookie** item has number (units) and price per dozen, which can be used to determine cost.
  - e.g 4 cookies @10rs/doz =3.4 rupees.

- An **IceCream** item simply has cost in rupees.
- The cost of **Sundae** is cost of IceCream plus cost of toppings**.**
- The **Checkout** class. Provide utility methods to
  - Enter dessert items in cashRegister.
  - Clear cashRegister.
  - Get number of items.
  - Get total cost of items.
  - Get a string representing a receipt for the dessert items.
  - The Checkout class should use an array to store the DessertItem viz. Candy, Cookie, IceCream and Sundae.
- **TestCheckout** class which has main() method
  - Create Checkout object.
  - Add DessertItem to Checkout.
  - Print no of items added

- o   Print total cost of all items.
- o   Print all items in Checkout.
- o   Clear items in Checkout.