## **Java Assignments (as002)**

## **Chapter: Classes and Objects**

## **Level : Beginner**

1.

Flowers come in colors (red, white, purple). They have a name. They come in different sizes (small and big).

a Which is the class and what are the attributes of the Class.

b How do You Instantiate Flower Objects. Write a main method to test the above.

2. Sam works in ABC Ltd as General Manager. He commutes in his Red Hyundai Car.

Create Classes for the above scenario and test the same (class ex)

3. Analyse the following scenario in terms of classes and their relationships.

* User has name,ID
* Address has plotNo, street, city
* User has an Address
* User enquires about a Product
* Product has code, desc, price, stock
* Store has lot of products

Create classes with attributes and methods and test it with instances.

4

A Customer enters a Bank web site registers with his details like name, email, phone no and Postal address and a customer id is auto generated.

An Account is created for the customer with account number, date of account and balance.

(Note : Customer class can be linked to an account or null but an Account is linked with Customer)

Test the above with 1 instance of Customer and Account.

5

Create a class Customer with name, dateofpurchase, billAmount as the attributes. Define constructors to assign values.

Create a class Bill that has a logic to generate the bill of a particular customer.

(hint: takes Customer reference as parameter) Test with a main method.

public class Bill{ public static void genBill(Customer c1) { } }

# Level : intermediate

6. Ref: exercise 3.

Create a class Bank that holds Array of Accounts and has following functionalities .

A Displays details of Customer and account based on the account number.

B Adds a new Account to the array.

C Deposit Amount

D Withdraw Amount

E Display Balance.

Test with a main method.

7.

A Necklace consists of many pearls of red, blue or green color.

Pearl comes in three sizes small, medium or large, two shapes round or square.

A necklace is created with one pearl initially, then pearls are added to it depending on the requirement.

Write the following methods:

void add(Pearl p) -- that adds a pearl to the Neckalace.

int getPearlCount() -- returns number of pearls in the necklace.

void displayDetails() – that displays the complete details of the pearls in the necklace. Design Classes for the same .

Write a sample implementation.