**Java –Day4 Assessment:**

1. Assume that a Bank maintains two kinds of accounts for Customers, one called as Savings account and the other as Current account. The Savings account provides Compound interest and withdrawal facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current Account Holder should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed.

Create a class account that stores customer name, account number and type of account. From this derive the classes cur\_acct and sav\_acct to make them more specific to their requirements. Include necessary member functions in order to achieve the following tasks.

1. Accept deposit from a customer and update the balance.
2. Display the balance.
3. Compute and deposit Interest.
4. Permit withdrawal and update the balance.
5. Check for the minimum balance, impose penalty, necessary, and update the balance.

Do not use any constructors. Use member functions to initialize the class members.

1. An Educational Institution wishes to maintain a database of its Employees. The database is divided into a number of classes whose Hierarchical relationships are shown in the following figure. The figure also shows that the minimum requirement needed for each class. Specify all the classes and defines functions to create the database and retrieve individual information as and when required.
2. The database created in Exercise 2 does not include educational information of the staff. It has been decided to add this information to teachers and Officers(and not for typists) which will help the management in decision making with regard to training,promotion,etc., Add another data class called education that holds two pieces of educational information, namely, highest qualification in general education and highest professional qualification. This class should be inheriting by the class’s teacher and Officer. (Use Interface)

Staff

Code

name

Officer

Grade

Typist

Speed

Teacher

Subject

Publication

Teacheer

Regular

Casual

daily

Wages

1. Consider a class of network of the following Figure. The Class master derives information from both account and admin classes which in turn derive information from the class person. Define all the four classes and write a program to create, update and display the information contained in master objects.(Use Hybrid Inheritance)

Person

Code

Name

Gender

address

admin

Designation

experience

account

Accno

Branch details

Pay

Person

name

code

Gender

Address

Accno

Branch details

experience

pay

1. In Exercise2, the classes teacher, Officer and typist are derived from the class Staff. As we know, we can use container classes in place of inheritance in some situations. Redesign the program of Exercise2 such that the class’s teacher, officer, and typist contain the Objects of staff.