**Static**

**Exercise 1 :***Create a class called Sample. Write a program to display the no of objects created for that*

*class or the no of times that class is instantiated.*

**Interfaces**

**Exercise 2 :***Create two interfaces namely Drawable and Fillable. Create class called Line, Circle, Square and*

*implement following methods through interface.*

*<I>Drawable ------ drawingColor(), thickness()*

*<I>Fillable ---------- fillingColor(), size()*

**Exercise 3:***Createa package called bank with the following Interfaces.*

*<Interface> Account*

*<Interface>DepositAcc <Interface>LoanAcc*

*<Interface> Interest*

*<Interface>CreditInterest <Interface>DebitInterest*

1. *<Interface> Account*

*Data members: Four String variables to hold the account type “Savings, Fixed,PersonalLoan,*

*HousingLoan”*

*Methods: createAcc()*

1. *<Interface>DepositAcc*

*Methods: withdraw (), deposit(),getBalance()*

1. *<Interface>LoanAcc*

*Methods: repayPrincipal (),payInterest (),payPartialPrincipal ()*

1. *<Interface>Interest*

*Data members: Four double variables to hold the interest percentage of Savings account, Fixed*

*deposit account,PersonalLoan account and HousingLoan account.*

*Methods: calcInt()*

1. *<Interface>CreditInterest*

*Methods: addMonthlyInt(),addHalfYrlyInt(),addAnnualInt()*

1. *<Interface>DebitInterest*

*Methods: deductMonthlyInt(),deductHalfYrlyInt(),deductAnnualInt()*

*Create a package called BankImpl and create the following classes in it.*

1. *SavingsAcc which implements DepositAcc and CreditInterest*
2. *FDAcc which implements DepositAcc and CreditInterest*
3. *PersonalLoanAcc which implements LoanAcc and DebitInterest*
4. *HousingLoanAcc which implements LoanAcc and DebitInterest*

*Now create a class called MyAccount and create instances of all the accounts and generate appropriate output.*

**Exception Handling**

**Exercise 4:***Createa class called Employee which asks the user to input the name and the age of a*

*employee. Raise a custom defined exception if the age is negative or less than 18 or greater than 60.*

**Exercise 5:***Create a class called Calculator which has 4 different methods add, diff, mul and div which*

*accepts two numbers as parameters. Create an object to access these methods and invoke*

*these methods with two numbers and display the result in the corresponding methods. . Handle the appropriate exceptions.*