

Assignment of Object Oriented Programming using java

Note:

- ❖ Do not try to copy the assignment
- ❖ Write the programs by considering your own examples
- ❖ Submit the assignment by 4th Nov 2019.
- ❖ No excuse will be entertained for late submission

Q1. What do you mean by checked and unchecked exception? Explain it with suitable example.

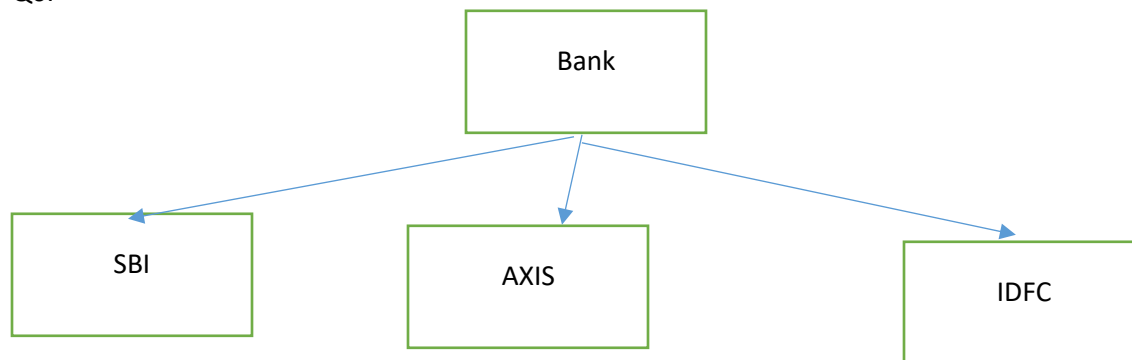
Q2. What is the difference between Method overloading and overriding? Explain it with suitable example.

Q3. What Is the Difference Between Final, Finally, and Finalize?

Q4. What do you mean by singleton class and factory method with suitable example along with the explanation?

Q5. This section contains Java programs to create a bank account with minimum balance, deposit amount, withdraw amount and throws **LessBalanceException**, create a **LessBalanceException** class which returns a statement says withdraw amount is not valid, creates 2 accounts and try to withdraw more money than account and see which type of exception occurs.

Q6.



Write a program for banking System. Decide Whether Bank should be an Abstract class or not. Design all the functions like withdraw (), Deposit (), Simple_interest(), Show() method and also the constructors both in base and derive classes. Decide the data members according to your need.

Q7. Write the difference between Abstract class and Interface. Also check the following conditions using suitable example.

a. can we implement into interface into another? Justify your answer.

b. can we inherit one interface into another? Justify your answer.

c. can we inherit a class into another interface? Justify your answer.

Q8. Write a program according to you in which all the uses of static keyword must be in the program.

Q9. What do you mean by packages? Write a program for the following scenario.

Package “First” contains a class **“Student_basic”** and interface **“info”**

Class: Student_basic

Data Member:

Student_name, Father_name, city, Roll, mobile_number

Member function:

Parameterize constructor, show_basic()

Where show_basic() will show the basic information of student and must generate a user defined exception **“invalid roll”** if Roll is less than three digits.

Interface named as **info with following data**

Variable : college_name

Function: show(), Calulate_performance()

Note: Provide the definition according to you.

Package **“second”** will contain following:

Class: Academic

Data Member:

➤ Marks1, Marks2, Marks3

Member function:

➤ Parameterize constructor

Class: Sports

Data Member:

➤ Height,weight,game

Member function:

➤ Parameterize constructor

Note:

Academic and Sports class of package **“second”** will inherit and implement the class and interface of package **“first”**.

Q10. What do you mean by diamond problem? Provide the solution for it.

Q11. Explain all the uses of super keyword in java.

Q12. Write a program for exception handling using try, catch, throw, throws and finally keyword. Also include the handling of seven system defined exceptions (at least) in your program.

Q13. Explain Inner and nested class using suitable example.

Q14. What do you mean by **Default methods** in an interface? Explain it with suitable program.