**JAVA INHERITANCE ASSIGNMENT**

Questions: 1. Create a class with a method that prints "This is parent class" and its subclass with another method that prints "This is child class". Now, create an object for each of the class and call

a. 1 - method of parent class by the object of the parent class

b. 2 - method of child class by the object of the child class

c. 3 - method of parent class by the object of the child class

Solution:

Class ParentClass{

int classid=1;

void display(){

System.output.printIn(“This is the parent class with id: ” + classid);

}

}

class ChildClass extends ParentClass{

int classid = 2;

void Dis(){

System.out.printIn(“This is the parent class with id: ” + classid);

}

}

Public static void main(String [ ] args)

{

ChildClass cc = new ChildClass();

cc.Display();

cc.Dis();

}

}

Expected output:

This is parent class with id: 1

This is child class with id:2

2. Create a class named 'Member' having the following members:

Data members

1 - Name

2 - Age

3 - Phone number

4 - Address

5 - Salary

It also has a method named 'printSalary' which prints the salary of the members. Two classes 'Employee' and 'Manager' inherits the 'Member' class. The 'Employee' and 'Manager' classes have data members 'specialization' and 'department' respectively. Now, assign name, age, phone number, address and salary to an employee and a manager by making an object of both of these classes and print the same.

Solution:

class Member{

String name;

int age;

String number;

String address;

int salary;

public void printSalary(){

System.out.printIn(Salary);

}

}

Class Employee extends Member{

String specialization;

}

Class Manager extends Member{

String department;

}

Class Ans{

Public static void main(String[ ] args){

Employee e = new Member();

e.name = “abc”;

e.age = 30;

e.number = “123\*\*\*\*”

e.address = “qrstu”;

e.salary = 4095;

e.specialisation = “erbg”

Manager m = new Manager();

}

}

3. Create a class named 'Rectangle' with two data members 'length' and 'breadth' and two methods to print the area and perimeter of the rectangle respectively. Its constructor having parameters for length and breadth is used to initialize the length and breadth of the rectangle. Let class 'Square' inherit the 'Rectangle' class with its constructor having a parameter for its side (suppose s) calling the constructor of its parent class as 'super(s,s)'. Print the area and perimeter of a rectangle and a square.

Now repeat the above example to print the area of 10 squares.

Hint - Use an array of objects

Solution:

class Rectangle{

int length;

int breadth;

}

public void printArea(){

System.out.printIn(length\*breadth);

}

Public vooid printPerimeter(){

System.out.printIn(2\*(length+breadth));

}

}

class Square extends Rectangle{

int side;

public square (int s){

super(s,s);

}

}

class Ans{

public static void main(String [] args)

{

Rectangle r = new rectangle(6,7);

r.print Area();

r.print Perimeter();

Square s = new square(5);

r.print Area();

r.print Perimeter();

Square = new Square[12]

int k=5;

for int(int i =0; i<10; i++);

{

a.[i](print.Area);

a.[i](print.Perimeter);

}

}

}