

## Day 9 JA111 Assignment

Q1) Create an class Bird, with method :

```
Public void fly(){
    System.out. println("Bird is flying")
}
```

Create another class called Parrot as a child class of the above Bird class and override the fly method with the following implementation:

```
System.out.println("I am Flying");
```

Inside this parrot class define another method as follows:

```
public void sing(){
    System.out.println("I am Singing");
}
```

Create a Main class with the main method as follows:

```
public class Main{
    public static void main(String[] args){
        Bird b1 = new Parrot();
        //with this b1 reference call the fly method of
        Parrot
        //and after downcasting this b1 reference to the
        Parrot class object, call the sing method also
    }
}
```

Q2) Create a Java class with the name Animal.

Inside this class define following 3 methods:

```
public void makeNoise(){
    System.out.println("Animal making Noise");
}
public void eat(){
    System.out.println("Animal is eating");
}
public void walk(){
    System.out.println("Animal is walking");
}
```

Create 3 child classes for the above Animal class

1. Dog
2. Cat
3. Tiger

Override makeNoise method in all these child classes as follows:

1. Inside Dog:

```
System.out.println("Barking...")
```

2. Inside Cat:

```
System.out.println("Meaw...");
```

3. Inside Tiger:

```
System.out.println("Raoring...");
```

Create the Main class as follows and implement the commented lines

```
class Main{
    public static void main(String[] args){
        //create an array of Animal class with size 3
        //initialise all 3 elements of this Animal class with
        //Dog, Cat and Tiger class object.
        //call the all methods (eat,walk,makeNoise) from all
        //the 3 objects.
    }
}
```

Q3) Create a class named 'Member' having the following members:

- Name : String
- Age : int
- Phone number : String
- Address : String
- Salary : double

It also has a method named 'printSalary' which prints the salary of the members.

Create two classes 'Employee' and 'Manager' that inherits the 'Member' class.

The 'Employee' and 'Manager' classes have members :

- Specialisation : String
- Department : String

Now, create a Main class which has the main method in it and 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.

Q4) Explain the difference between overloading and overriding methods with an example?