

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 implemented 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) Explain ClassCastException with the help of the example.

Q3) Explain dynamic polymorphism ?

Q4) Create an 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 line

```
class Main{
    public static void main(String[] args){
        //create an array of Animal class with size 3
        //initialize 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.
    }
}
```

