Question 2: Explain ClassCastException with the help of the example.

public class Bird {  
 public void fly(){  
 System.*out*.println("Bird is flying")**;** }  
}

public class Parrot extends Bird{  
 @Override  
 public void fly() {  
 System.*out*.println("I am Flying")**;** }  
 public void sing(){  
 System.*out*.println("I am Singing")**;** }  
}

public class Main {  
 public static void main(String[] args) {  
 Bird b1 = new Parrot()**;** b1.fly()**;** Parrot p1 = (Parrot) b1**;** p1.sing()**;** }  
}

Over the example We have Created Parent class(Bird) variable(b1) and assigned class(Parrot) object.

And later we have casted that object into Child Class(Parrot) object and stored into child class(variable).

This is the right way to do object down casting.

But if there the object was declared like this : **Bird b1 = new Bird();** this time we cannot downcast this like **Parrot p1 = (Parrot)b1;** it will throw an exception called ClassCastException.