Week 1

1. Create classes ‘Person’ and ‘Student’ where Person in the parent class and Student is the child class.
   Person should contain an integer age and a string name.
   Student should contain an integer ID and a display() method to display the values of all the variables (i.e. age, name, ID).
   In a new class ‘Test’ Initialize the values using a parameterized constructor and display the values using the display() method. Use ‘this’ and ‘super’ keyword where necessary.

2. Learn about the Object class and its methods toString(), equals(), hashcode().

3. Research and demonstrate the workings of the toString() method.

4. Create a class ‘Vehicle’ with two child classes ‘Car’ and ‘Bike’. The Vehicle class must contain an integer horsepower and a method showType() which displays the horsepower. The child classes must contain integer topspeed a method showSpeed() which displays the top speed of the car or bike.

   Initialize appropriate values using contructor and super keyword.

   In a ‘Test’ class create object of the ‘Car’ class and call methods showType() and showSpeed() using the car object.
   Also create object of the ‘Bike’ class and call methods showType() and showSpeed() using the bike object.

Solution for question 1 has been provided please do the rest by referencing this:

```
public class Person{
        int age;
        String name;
        Person(int a , int n){
                age = a;
                name = n;
        }
}
```

```
public class Student{
	int ID;
	Student(int id, int a, int n){
		super(a,n);
		ID = id;
	}
	public void display(){
		System.out.println(“AGE : ”+age+” Name : ”+name);
		System.out.println(“ID : ”+ID);
	}
}
public class Test{
	public static void main(String args[]){
		Student s = new Student(180225, 18, “Ram Kishore”);
		s.display();
	}
}
```