Experiment 3.1

Student Name:Rajiv Paul **UID:20BCS1812**
Branch: CSE **Section/Group:709A**
Semester: 3rd **Date of Performance: 29/10/2021**
Subject Name:Java Program Lab **Subject Code:20CSP-219**

1) **Aim/Overview of the practical:**

Write a program to read and write an object to file.

2) Task to be done/ Which logistics used:

To write a program to read and write an object to file.

3) Algorithm/Flowchart (For programming based labs):

4) Steps for experiment/practical/Code:

Java Object:

```java
package com.company;
import java.io.Serializable;

public class Student implements Serializable{
    private static final long serialVersionUID=1l;
    int id;
    String name;
    public Student(int id,String name){
        this.id = id;
        this.name = name;
    }

}
```

Reading and writing objects in Java:

```java
package com.company;
import java.io.*;

public class Serialize {
    public static void main(String[] args) {
        try{
            Student s1 = new Student( id: 7, name: "MS Dhoni");
            Student s2 = new Student( id: 9, name: "Rajiv");
            FileOutputStream fout = new FileOutputStream( name: "/Users/rajivpaul/Student.txt");
            ObjectOutputStream out = new ObjectOutputStream(fout);

            out.writeObject(s1);
            out.writeObject(s2);

            out.flush();
            out.close();
            System.out.println("Success");
        }catch(Exception e){
            System.out.println(e);
        }

    }
}
```

```java
package com.company;
import java.io.FileInputStream;
import java.io.ObjectInputStream;

public class ObjectRead {
    public static void main(String[] args) {
        try{
            FileInputStream fin = new FileInputStream( name: "/Users/rajivpaul/Student.txt");
            ObjectInputStream oin = new ObjectInputStream(fin);
            Student so1 = (Student)oin.readObject();
            Student so2 = (Student)oin.readObject();
            oin.close();
            fin.close();
            System.out.println("Student Record1: "+so1.id+" "+so1.name);
            System.out.println("Student Record2: "+so2.id+" "+so2.name);
        }catch (Exception e){
            System.out.println(e);
        }
    }
}
```

5. Observations/Discussions/ Complexity Analysis:

6. Result/Output/Writing Summary:

```
Student Record1: 7 MS Dhoni
Student Record2: 9 Rajiv
```

Learning outcomes (What I have learnt):

1. **Learnt about java programming language.**
2. **Learnt about how to read and write file with object.**
3.
4.
5.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			