Object Serialization

1) **Class Employee –**
   Properties -name , dateOfBirth ,department ,designation ,salary
   Write getter and setter methods for all fields.
   Add two constructors:
   Create an object of the Employee class and use serialization to save this object into a file named "data".
   Use deserialization to read the object back from the file, then print all the properties of this object.

Ans

```
import java.io.*;
import java.util.Date;


class Employee implements Serializable {
   private String name;
   private Date dateOfBirth;
   private String department;
   private String designation;
   private double salary;


   // No-argument constructor
   public Employee() {
   }


   // Parameterized constructor
   public Employee(String name, Date dateOfBirth, String department, String designation, double salary) {
       this.name = name;
       this.dateOfBirth = dateOfBirth;
       this.department = department;
```

```
    this.designation = designation;
    this.salary = salary;
}

// Getter and Setter methods
public String getName() {
    return name;
}

public void setName(String name) {
    this.name = name;
}

public Date getDateOfBirth() {
    return dateOfBirth;
}

public void setDateOfBirth(Date dateOfBirth) {
    this.dateOfBirth = dateOfBirth;
}

public String getDepartment() {
    return department;
}

public void setDepartment(String department) {
    this.department = department;
}
```

```
    public String getDesignation() {
        return designation;
    }

    public void setDesignation(String designation) {
        this.designation = designation;
    }

    public double getSalary() {
        return salary;
    }

    public void setSalary(double salary) {
        this.salary = salary;
    }
}

public class EmployeeSerializationDemo {
    public static void main(String[] args) {
        // create employee object
        Employee emp = new Employee("Rahul", new Date(), "IT", "Developer", 60000);

        // serializing the object to file "data"
        try {
            FileOutputStream fileOut = new FileOutputStream("data");
            ObjectOutputStream out = new ObjectOutputStream(fileOut);
            out.writeObject(emp);
            out.close();
            fileOut.close();
            System.out.println("Employee object serialized to file 'data'");
        } catch (IOException e) {
            e.printStackTrace();
        }
        // deserialization from file "data"
        Employee deserializedEmp = null;
        try {
            FileInputStream fileIn = new FileInputStream("data");
            ObjectInputStream in = new ObjectInputStream(fileIn);
            deserializedEmp = (Employee) in.readObject();
            in.close();
            fileIn.close();
        } catch (IOException | ClassNotFoundException e) {
            e.printStackTrace();
        }
        // print properties if deserialization successful
        if (deserializedEmp != null) {
            System.out.println("Deserialized Employee details:");
            System.out.println("Name: " + deserializedEmp.getName());
            System.out.println("DOB: " + deserializedEmp.getDateOfBirth());
            System.out.println("Department: " + deserializedEmp.getDepartment());
            System.out.println("Designation: " + deserializedEmp.getDesignation());
            System.out.println("Salary: " + deserializedEmp.getSalary());
        }
    }
}
```