

Create class student class information class implement serializable interface student informations class it has student name age student marks assign values for class members op should be and demonstrate serialization

CODE:

```
package javaapplication177;
```

```
import java.io.*;
```

```
// Define the Student class that implements Serializable
```

```
class Student implements Serializable {
```

```
    private static final long serialVersionUID = 1L; // Version control during serialization
```

```
    // Student details
```

```
    public String name;
```

```
    public String address;
```

```
    public int id;
```

```
    public int age;
```

```
    public String course;
```

```
    public String grade;
```

```
    // Constructor for Student
```

```
    public Student(String name, String address, int id, int age, String course, String grade) {
```

```
        this.name = name;
```

```
        this.address = address;
```

```
        this.id = id;
```

```
        this.age = age;
```

```
        this.course = course;
```

```
        this.grade = grade;
```

```
    }
```

```
}
```

```
public class JavaApplication177 {

    public static void main(String[] args) {

        // Create a Student object

        Student std = new Student("dharumohan", "salem", 192324046,19 , "english", "A");


        try {

            // Serializing the student object - std

            FileOutputStream fileOut = new
FileOutputStream("C:/JavaProgramming/gameData/Highscores.txt");

            ObjectOutputStream out = new ObjectOutputStream(fileOut);

            out.writeObject(std);

            out.close();

            fileOut.close();

            // Serialization complete

            System.out.println("Object serialized successfully.");

        } catch (IOException i) {

            i.printStackTrace();

        }

    }

}
```

OUTPUT:

location177
ce Packages
javaapplication177
JavaApplication177.java

ries
location18
ce Packages
javaapplication18
main
Packages
ries
Libraries
location5
ce Packages
javaapplication5
JavaApplication5.
ries
location7
ce Packages
javaapplication7
JavaApplication7.
ries
location8
ce Packages

location177
(String[] args)
:: Serializable

```
-i sr javaapplication177.Student  
  I ageI idL addresst  
  Ljava/lang/String;L courseq ~ L  
  gradeq ~ L nameq ~ xp  
  vjt salemt englisht At  
  dharumohan
```

```
Source History  
28 public class JavaApp  
29  
30 public static vo  
    // Create a  
    Student std  
  
    try {  
        // Seriali  
        FileOutp  
        ObjectOu  
        out.writ  
        out.clos  
        fileOut.  
        // Seriali  
        System.c  
    } catch (IOE  
        i.printS  
    }  
}
```

javaapplication177.JavaApplicati
put - JavaApplication177 (run) X

```
run:  
Object serialised successfull  
BUILD SUCCESSFUL (total time:
```

create class student class information class implement serializable interface student informations class it has student name age student marks assign values for class members op should be and demonstrate **Deserialization**.

CODE:

```
package javaapplication177;
```

```
import java.io.*;
```

```
// Define the Student class that implements Serializable
```

```
class Student implements Serializable {
```

```
    private static final long serialVersionUID = 1L; // Version control during serialization
```

```
// Student details
public String name;
public String address;
public int id;
public int age;
public String course;
public String grade;
}

public class JavaApplication177 {

    public static void main(String[] args) {
        // To hold the deserialized byte-stream
        Student deserializedStudent;

        try {
            // Deserialization process

            FileInputStream fileIn = new
FileInputStream("C:/JavaProgramming/gameData/Highscores.txt");

            ObjectInputStream in = new ObjectInputStream(fileIn);

            // Deserialization
            deserializedStudent = (Student) in.readObject();
            in.close();
            fileIn.close();

            // Printing the deserialized object
            System.out.println("Deserialized Student...");
            System.out.println("Name: " + deserializedStudent.name);
            System.out.println("Address: " + deserializedStudent.address);
```

```

        System.out.println("ID: " + deserializedStudent.id);

        System.out.println("Age: " + deserializedStudent.age);

        System.out.println("Course: " + deserializedStudent.course);

        System.out.println("Grade: " + deserializedStudent.grade);

    } catch (IOException i) {

        i.printStackTrace();

    } catch (ClassNotFoundException c) {

        System.out.println("Class not found");

        c.printStackTrace();

    }

}

}

```

OUTPUT:

