```java
        // Step 2: Store object state into a file using ObjectOutputStream
        try (ObjectOutputStream oos = new ObjectOutputStream(new FileOutputStream("student.ser")))
            oos.writeObject(student);
            System.out.println("Student object serialized.");
        } catch (IOException e) {
            System.err.println("Serialization error: " + e.getMessage());
        }

        // Step 3: Retrieve object data back using ObjectInputStream
        try (ObjectInputStream ois = new ObjectInputStream(new FileInputStream("student.ser"))) {
            Student1 restoredStudent = (Student1) ois.readObject();
            // Step 6: Validate restored object data
            System.out.println("Deserialized Student: " + restoredStudent);
            System.out.println("Note: transient field 'password' is null after deserialization.");
        } catch (ClassNotFoundException e) {
            // Step 7: Handle ClassNotFoundException
            System.err.println("Class not found: " + e.getMessage());
        } catch (IOException e) {
            System.err.println("Deserialization error: " + e.getMessage());
        }
    }
}
```

Problems · Servers · Terminal · Data Source Explorer · Properties · Console × · Eclipse IDE for Enterprise Java and Web Developers 2025-12 Release

\<terminated\> task_12 [Java Application] C:\Users\visha\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\javaw.exe (03-Feb-2026, 4:20:40 pm – 4:20:41 pm elapsed: 0:00:00.644) [p

Writable   Smart Insert   23 : 1 : 639

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer   first.jsp   menu.jsp   contact.jsp   admin.jsp   admin_pannel...   login_custom...   login.jsp   feedback.jsp   task11.java   *task_12.java

```java
24
25 public class task_12 {
26   public static void main(String[] args) {
27      // Create a Student object
28      Student1 student = new Student1("John Doe", 20, "secret123");
29
30      // Step 2: Store object state into a file using ObjectOutputStream
31      try (ObjectOutputStream oos = new ObjectOutputStream(new FileOutputStream("student.ser")))
32          oos.writeObject(student);
33          System.out.println("Student object serialized.");
34      } catch (IOException e) {
35          System.err.println("Serialization error: " + e.getMessage());
36      }
37
38      // Step 3: Retrieve object data back using ObjectInputStream
39      try (ObjectInputStream ois = new ObjectInputStream(new FileInputStream("student.ser"))) {
40          Student1 restoredStudent = (Student1) ois.readObject();
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File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer

first.jsp   menu.jsp   contact.jsp   admin.jsp   admin_pannel...   login_custom...   login.jsp   feedback.jsp   task11.java   task_12.java

> abcd
> basket
> comparearray
> day2
> exptionhandling
> filehandling
> javpr
> kg
> komal [visha master]
> komal1
  > JRE System Library [JavaSE-21]
  > src
    > komal1
      > demo.java
      > slip10q1.java
      > slip13q2.java
      > slip14q1.java
      > slip17q2.java
      > slip19q1.java
      > slip1q1.java
      > slip21q1.java
      > slip21q2.java
      > task_10.java
      > task_11.java
      > task_12.java
      > task_2.java
      > task_4.java
      > task_5.java
      > task_6.java
      > task_7.java
      > task_8.java
      > task_9.java
      > task.java
      > task3.java
      > module-info.java

```java
1  package komal1;
2
3  import java.io.*;
4
5  //Step 1: Design a Student class implementing Serializable
6  class Student1 implements Serializable {
7   private static final long serialVersionUID = 1L; // Step 4: serialVersionUID is important for v
8   String name;
9   int age;
10  transient String password; // Step 5: Mark sensitive fields as transient
11
12  public Student1(String name, int age, String password) {
13      this.name = name;
14      this.age = age;
15      this.password = password;
16  }
17
18  @Override
19  public String toString() {
20      return "Student{name='" + name + "', age=" + age + ", password='" + password + "'}";
21  }
22  }
23
```

Problems   Servers   Terminal   Data Source Explorer   Properties   Console   Eclipse IDE for Enterprise Java and Web Developers 2025-12 Release

<terminated> task_12 [Java Application] C:\Users\visha\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\javaw.exe (03-Feb-2026, 4:20:40 pm – 4:20:41 pm elapsed: 0:00:00.644) [p

Writable   Smart Insert   22 : 2 : 637

File Edit Source Refactor Navigate Search Project Run Window Help

Project Explorer

first.jsp   menu.jsp   contact.jsp   admin.jsp   admin_pannel...   login_custom...   login.jsp   feedback.jsp   task11.java   task_12.java

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```
Student object serialized.
Deserialized Student: Student{name='John Doe', age=20, password='null'}
Note: transient field 'password' is null after deserialization.
```