**1] Serialization and Deserialization**

package javaapplication15;

import java.io.\*;

public class JavaApplication15 implements java.io.Serializable {

public String stu\_Name;

public String stu\_Addr;

public int stu\_Id;

public static void main(String[] args) {

JavaApplication15 std = new JavaApplication15();

std.stu\_Name = "George";

std.stu\_Addr = "ABC,XYZ";

std.stu\_Id = 1;

JavaApplication15 deserializedStudent;

try {

FileOutputStream fileOut = new FileOutputStream("C:\\java programs\\sample.txt");

ObjectOutputStream out = new ObjectOutputStream(fileOut);

out.writeObject(std);

out.close();

fileOut.close();

System.out.printf("Object serialized");

FileInputStream fileIn = new FileInputStream("C:\\java programs\\sample.txt");

ObjectInputStream in = new ObjectInputStream(fileIn);

deserializedStudent = (JavaApplication15) in.readObject();

in.close();

fileIn.close();

System.out.println("Deserialized Student...");

System.out.println("Name: " + deserializedStudent.stu\_Name);

System.out.println("Address: " + deserializedStudent.stu\_Addr);

} catch (IOException i) {

i.printStackTrace();

} catch (Exception e) {

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

e.printStackTrace();

return;}}}

**Serialization:**

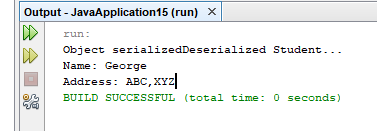
¬í sr #javaapplication15.JavaApplication15¶ÇúÓ¥-J I stu\_IdL stu\_Addrt Ljava/lang/String;L stu\_Nameq ~ xp t ABC, XYZt George

**Deserialization:**

Name: George

Address: ABC, XYZ

**Output:**



**2] Print writer**

package javaapplication16;

import java.io.FileWriter;

import java.io.IOException;

import java.io.PrintWriter;

import java.io.BufferedWriter;

class ClassName {

private String name;

private int age;

public ClassName() {

this.name = "Rio";

this.age = 35;

}

public String toString() {

return "Name: " + name + ", Age: " + age;}}

public class JavaApplication16 {

public static void main(String[] args) {

String filepath = "C:\\java programs\\smp2.txt";

ClassName objName = new ClassName();

try {

writeFile(objName, filepath);

} catch (IOException e) {

System.out.println("An error occurred: " + e.getMessage());}}

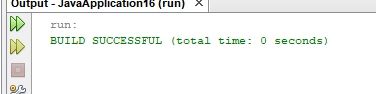
public static void writeFile(ClassName objName, String filepath) throws IOException {

PrintWriter writer = new PrintWriter(new BufferedWriter(new FileWriter(filepath,true)));

writer.println(objName);

writer.close();}}

**Output:**

****

**3] File writer**

package javaapplication17;

import java.io.FileWriter;

import java.io.IOException;

class ClassName {

private String name;

private int age;

public ClassName() {

this.name = "Jeo";

this.age = 27;

}

public String toString() {

return "Name: " + name + ", Age: " + age; }}

public class JavaApplication17 {

public static void main(String[] args) {

String filepath = "C:\\java programs\\smp2.txt";

ClassName objName = new ClassName();

try {

writeFile(objName, filepath);

} catch (IOException e) {

System.out.println("An error occurred: " + e.getMessage());}}

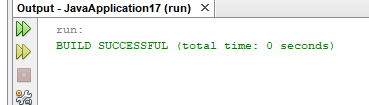
public static void writeFile(ClassName objName, String filepath) throws IOException {

FileWriter writer = new FileWriter(filepath, true);

writer.write(objName.toString() + "\n");

writer.close();}}

**Output:**

****

**4] Writer**

package javaapplication18;

import java.io.FileWriter;

import java.io.IOException;

import java.io.Writer;

class ClassName {

private String name;

private int age;

public ClassName() {

this.name = "Romeo";

this.age = 25;

}

public String toString() {

return "Name: " + name + ", Age: " + age; }}

public class JavaApplication18 {

public static void main(String[] args) {

String filepath = "C:\\java programs\\smp2.txt";

ClassName objName = new ClassName();

try {

writeFile(objName, filepath);

} catch (IOException e) {

System.out.println("An error occurred: " + e.getMessage());} }

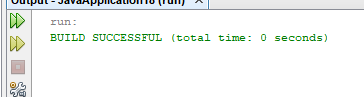
public static void writeFile(ClassName objName, String filepath) throws IOException {

Writer writer = new FileWriter(filepath, true);

writer.write(objName.toString() + "\n");

writer.close();}}

**Output:**

****

**5] Buffer writer**

package javaapplication19;

import java.io.BufferedWriter;

import java.io.FileWriter;

import java.io.IOException;

import java.io.Writer;

class Person {

private String name;

private int age;

public Person() {

this.name = "Juliet";

this.age = 22;

}

public String toString() {

return "Name: " + name + ", Age: " + age; }}

public class JavaApplication19 {

public static void main(String[] args) {

String filepath = "C:\\java programs\\smp2.txt";

Person person = new Person();

try {

writeFile(person, filepath);

} catch (IOException e) {

System.out.println("An error occurred: " + e.getMessage());}}

public static void writeFile(Person person, String filepath) throws IOException {

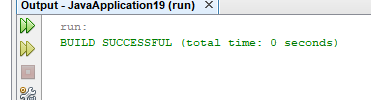
Writer writer = new FileWriter(filepath, true);

BufferedWriter bufferedWriter = new BufferedWriter(writer);

bufferedWriter.write(person.toString() + "\n");

bufferedWriter.close();}}

**Output:**

****

**6] Serialization**

import java.io.\*;

class StudentInfo implements Serializable {

private final String name;

private final int age;

private final double mark;

public StudentInfo(String name, int age, double mark) {

this.name = name;

this.age = age;

this.mark = mark;

}

public String getName() {

return name;

}

public int getAge() {

return age;

}

public double getMark() {

return mark;

}

@Override

public String toString() {

return "StudentInfo{" +

"name='" + name + '\'' +

", age=" + age +

", mark=" + mark +

'}';

}

}

public class SerializationDemo {

public static void main(String[] args) throws IOException, ClassNotFoundException {

// Create a StudentInfo object

StudentInfo student = new StudentInfo("John Doe", 20, 85.5);

try ( // Serialize the object to a file

FileOutputStream fos = new FileOutputStream("student.ser");

ObjectOutputStream oos = new ObjectOutputStream(fos)) {

oos.writeObject(student);

}

System.out.println("Object serialized to file.");

}

}

}

Output:

Deserialized object: StudentInfo{name='John Doe', age=20, mark=85.5}

BUILD SUCCESSFUL (total time: 0 seconds)

**7] Deserialization**

import java.io.\*;

class StudentInfo implements Serializable {

private final String name;

private final int age;

private final double mark;

public StudentInfo(String name, int age, double mark) {

this.name = name;

this.age = age;

this.mark = mark;

}

public String getName() {

return name;

}

public int getAge() {

return age;

}

public double getMark() {

return mark;

}

@Override

public String toString() {

return "StudentInfo{" +

"name='" + name + '\'' +

", age=" + age +

", mark=" + mark +

'}';

}

}

public class Serializationdemo {

public static void main(String[] args) throws IOException, ClassNotFoundException {

// Create a StudentInfo object

StudentInfo student = new StudentInfo("John Doe", 20, 85.5);

try ( // Serialize the object to a file

FileOutputStream fos = new FileOutputStream("student.ser");

ObjectOutputStream oos = new ObjectOutputStream(fos)) {

oos.writeObject(student);

}

// System.out.println("Object serialized to file.");

StudentInfo deserializedStudent;

try ( // Deserialize the object from the file

FileInputStream fis = new FileInputStream("student.ser");

ObjectInputStream ois = new ObjectInputStream(fis)) {

deserializedStudent = (StudentInfo) ois.readObject();

}

System.out.println("Deserialized object: " + deserializedStudent);

}

}

Output:

Deserialized object: StudentInfo{name='John Doe', age=20, mark=85.5}