

Aim : Create, debug and run Java program based on object Serialization

Theory :

Serialization is a mechanism of converting the state of an object into a byte stream. Deserialization is the reverse process where the byte stream is used to recreate the actual Java object in memory. This mechanism is used to persist the object.

Serialization in Java is mechanism of writing the state of an object into a byte stream. It is mainly used in Hibernate, RMI, JPA, EJB and JMS technologies.

The reverse operation of serialization is called deserialization where byte-stream is converted into an object. The serialization and deserialization process is platform-independent. It means you can serialize an object in a platform and deserialize in different platform.

For Serializing the object, we call the write object () method of ObjectOutputStream, and for deserialization call the readObject () method of ObjectInputStream class.

We, must have to implement the Serializable interface for serializing the object.

Conclusion: Hence, we successfully create debug and run Java program based on object serialization.

Program :-

① program :-

```
import java.io.serialization ;
public class Student implements serialization {
    int id ;
    String name ;
    public student (int id, String name) {
        this.id = id ;
        this.name = name ;
    }
}
```

② program :-

```
import java.io.* ;
class persist {
    public static void main (String args []) throws
        Exception {
        Student s1 = new Student (211, "Hans") ;
        FileOutputStream fout = new FileOutputStream ("f.txt") ;
        ObjectOutputStream out = new ObjectOutputStream (fout) ;
        out.writeObject (s1) ;
        out.flush () ;
        System.out.println ("Success") ;
    }
}
```

③ program:-

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

```
class Depoist {
```

```
    public static void main (String args []) throws  
        Exception {
```

```
        ObjectInputStream in = new ObjectInputStream  
            (new FileInputStream  
                ("f.txt"));
```

```
        Student s = (Student) in.readObject ();
```

```
        System.out.println (s.id + " " + s.name);
```

```
        in.close ();
```

```
    }  
}
```


Microsoft Windows [Version 10.0.19042.746]
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C:\Users\Public\Java\Practicals>javac Student.java

C:\Users\Public\Java\Practicals>javac Persist.java

C:\Users\Public\Java\Practicals>javac DePersist.java

C:\Users\Public\Java\Practicals>java Persist
success

C:\Users\Public\Java\Practicals>java DePersist
211 ravi

C:\Users\Public\Java\Practicals>