JBK-1018-Serialization

1)Write a java program which will de-Serializable from the specified file?

```
import ep.Emp;
import java.io.*;
class Dserp {
 public static void main(String[] args) throws Exception {
  Emp eo1 = new Emp();
  FileInputStream fis = new FileInputStream("employee");
  ObjectInputStream ois = new ObjectInputStream(fis);
  Object obj = ois.readObject();
  eo1 = (Emp) obj;
  System.out.println("EMP NO : " + eo1.getEmpno());
  System.out.println("EMP NAME : " + eo1.getEname());
  System.out.println("EMP SALARY : " + eo1.getSal());
  ois.close(); fis.close();
 }}
```

Output:

```
EMP NO : 100
EMP NAME : KVR
EMP SAL : 10000.0
```

2)Write a java program which will save the Serializable sub class object into a file?

```
import java.io.*;
class serp {
 public static void main(String[] args) throws Exception {
  Emp eo = new Emp();
  eo.setEmpno(100);
  eo.setEname("KVR");
  eo.setSal(10000.00 f);
  FileOutputStream fos=new FileOutputStream("employee");
  ObjectOutputStream oos = new ObjectOutputStream(fos);
  oos.writeObject(eo);
  System.out.println("EMPLOYEE OBJECT SAVED SUCCESSFULLY");
  oos.close();
  fos.close();
 }}
```

3)Write a java program to print fields or data members of a class?

```
import java.lang.reflect.Field;
class Fields {
 void printFields(Class c) {
  Field f[] = c.getFields();
  System.out.println("NUMBER OF FIELDS:"+ f.length);
  for (int i = 0; i < f.length; i++) {
   String fname = f[i].getName();
```

```
  Class s = f[i].getType();
  String ftype = s.getName();
  System.out.println(ftype + " " + fname);
 } } }
class FieldsDemo {
 public static void main(String[] args) {
  if (args.length == 0) {
   System.out.println("PLEASE PASS THE CLASS NAME");
  } else {
   try {
    Class c = Class.forName(args[0]);
    Fields fs = new Fields();
    fs.printFields(c);
   } catch (ClassNotFoundException cnfe) {
    System.out.println(args[0] + "NOT FOUND");
   }}}}
```

4)Write a java program to obtain constructors of a class?

```
class ConsInfo {
 public static void main(String[] args) {
  if (args.length == 0) {
   System.out.println("PLEASE PASS THE CLASS NAME..!");
  } else {
   try {
    Class c = Class.forName(args[0]);
    printConsts(c);
   } catch (ClassNotFoundException cnfe) {
    System.out.println(args[0] + " DOES NOT EXISTS");
   }} }
 static void printConsts(Class c) {
  java.lang.reflect.Constructor Cons[] = c.getConstructors();
  System.out.println("NUMBER OF CONSTRUCTORS:" + Cons.length);
  System.out.println("NAME OF THE CONSTRUCTOR:"+c.getName());
  for (int i = 0; i < Cons.length; i++) {
   System.out.print(c.getName() + "(");
   Class cp[] = Cons[i].getParameterTypes();
   for (int j = 0; j < cp.length; j++) {
    System.out.print(cp[j].getName() + ")");
   } System.out.println("\b" + ")");
  } }}
```

5) Write a Java program to obtain information about the methods which are present in a class?

```
import java.lang.reflect.*;
class MetInfo {
 public static void main(String[] args) {
```

```
 try {
  if (args.length == 0) {
   System.out.println("PLEASE PASS THE CLASS NAME");
  } else {
   Class c = Class.forName(args[0]);
   printMethods(c);
  }  } catch (ClassNotFoundException cnfe) {
  System.out.println(args[0] + " DOES NOT EXISTS");
 }}
 static void printMethods(Class c) {
  Method m[] = c.getMethods();
  System.out.println("NUMBER OF METHODS:"+ m.length);
  System.out.println("NAME OF THE CLASS:"+ c.getName());
  for (int i = 0; i < m.length; i++) {
   Class c1 = m[i].getReturnType();
   String rtype = c1.getName();
   String mname = m[i].getName();
   System.out.print(rtype + " " + mname + "(");
   Class mp[] = m[i].getParameterTypes();
   for (int j = 0; j < mp.length; j++) {
    String ptype = mp[i].getName();
    System.out.print(ptype + ",");
   }System.out.println("\b" + ")");
  } }}
```

6)Write a java program to print super class hierarchy at a current class which is passed from command prompt?

```
class Hierarchy {
 public static void main(String[] args) {
  if (args.length == 0) {
   System.out.println("PLEASE PASS THE CLASS NAME..!");
  } else {
   try {
    Class c = Class.forName(args[0]);
    printHierarchy(c);
   } catch (ClassNotFoundException cnfe) {
    System.out.println(args[0] + " DOES NOT EXISTS...");
   } }}
 static void printHierarchy(Class c) {
  Class c1 = c;
  String cname = c1.getName();
  System.out.println(cname);
  Class sc = c1.getSuperclass();
  while (sc != null) {
   cname = sc.getName();
   System.out.println(cname);
```

```
  c1 = sc;
  sc = c1.getSuperclass();
 }}}
```

7)Write a java program to find name of the class and its super class name by passing the class name at runtime?

```
class Ref1 {
 public static void main(String[] args) {
  if (args.length == 0) {
   System.out.println("PLEASE PASS THE CLASS NAME..!");
  } else {
   try {
    Class c = Class.forName(args[0]);
    printSuperclass(c);
   } catch (ClassNotFoundException cnfe) {
    System.out.println(args[0] + " DOES NOT EXISTS...");
   } }  // else
 }   // main
 static void printSuperclass(Class c) {
  String s = c.getName();
  Class sc = c.getSuperclass();
  String sn = sc.getName();
  System.out.println(sn + " IS THE SUPER CLASS OF " + s);
 }   // printSuperclass
}
```

8)Write a java program to print name of the current class and its super class name?

```
class First {
 public static void main(String[] args) {
  String s = new String("HELLO");
  printSuperclass(s);
 }
 static void printSuperclass(Object s) {
  Class c = s.getClass();
  Class sc = c.getSuperclass();
  System.out.println("NAME OF CURRENT CLASS:"+ c.getName());
  System.out.println("NAME OF THE SUPER CLASS:"+ sc.getName());
 }}
```