

1. Write a java program to handle exception using try,catch,finally block  
While reading input from command line and store to integer array.

```
package Tsgol.com;
import java.util.Scanner;
public class Integerarray {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int[] numbers = new int[5];
        try {
            System.out.println("Enter any five integers:");
            for (int i = 0; i < 5; i++) {
                numbers[i] = Integer.parseInt(sc.nextLine());
            }
        } catch (NumberFormatException e) {
            System.out.println("Invalid input! Please enter integers only.");
        } finally {
            sc.close();
        }
        System.out.println("Numbers stored in the array:");
        for (int i = 0; i < 5; i++) {
            System.out.println(numbers[i]);
        }
    }
}
```

Output:-

Enter any five integers:

5  
6  
8  
9  
6

Numbers stored in the array:

5  
6  
8  
9  
6

2. Write a java program for method level exception handling, for writing data to file using objects.

```
package Tsgol.com;
import java.io.FileOutputStream;
import java.io.ObjectOutputStream;
import java.io.IOException;
import java.io.Serializable;
public class Data implements Serializable{
    private String name;
```

```

private int age;
public Data(String name, int age) {
this.name = name;
this.age = age;
}
public String getName() {
return name;
}
public int getAge() {
return age;
}
public static void main(String[] args)
{
Data data = new Data("Manasa", 10);
writeDataToFile(data, "d:\\manasa\\Testfile.txt");
}
public static void writeDataToFile(Data data, String
filename)
{
try (FileOutputStream fileOutputStream = new
FileOutputStream(filename);
ObjectOutputStream objectOutputStream = new
ObjectOutputStream(fileOutputStream))
{
objectOutputStream.writeObject(data);
System.out.println("Data has been written to the
file successfully.");
} catch (IOException e)
{
System.out.println("An error occurred while writing
data to the file: "
+ e.getMessage());
}
}
}

```

Output:

Data has been written to the file successfully.

3. Write a java program to illustrate, user can check error condition and call the catch block.

```

package Tsgol.com;
import java.util.Scanner;
public class Catche {

    public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
try {
System.out.print("Enter a positive integer: ");
int num = Integer.parseInt(scanner.nextLine());
}
}
}

```

```

if (num <= 0) {
    throw new Exception("Invalid input: Number must be
    positive");
}
System.out.println("Entered number: " + num);
} catch (NumberFormatException e) {
    System.out.println("Invalid input: Please enter a
    valid integer.");
} catch (Exception e) {
    System.out.println(e.getMessage());
}
scanner.close();
}
}

```

Output:

```

Enter a positive integer: -25
Invalid input: Number must be positive

```

#### 4. Write a java program to illustrate IO exception

```

package Tsgol.com;
import java.io.BufferedReader;
import java.io.FileReader;
import java.io.IOException;
public class IoException {
    public static void main(String[] args) {
        BufferedReader reader = null;
        try{
            reader = new BufferedReader(new
            FileReader("file.txt"));
            String line;
            while ((line = reader.readLine())!= null) {
                System.out.println(line);
            }
        }
        catch (IOException e) {
            System.out.println("An error occurred while reading
            the file: " +
            e.getMessage());
            e.printStackTrace();
        }
        finally {
            try {
                if (reader != null)
                {
                    reader.close();
                }
            }
            catch (IOException e) {

```

```
        System.out.println("An error occurred while closing  
the file: " +  
e.getMessage());  
e.printStackTrace();  
    }  
    }  
    }  
}
```

Output:-

```
An error occurred while reading the file: file.txt (The system  
cannot find the file specified)  
java.io.FileNotFoundException: file.txt (The system cannot  
find the file specified)  
    at java.base/java.io.FileInputStream.open0(Native Method)  
    at  
java.base/java.io.FileInputStream.open(FileInputStream.java:21  
9)  
    at  
java.base/java.io.FileInputStream.<init>(FileInputStream.java:1  
58)  
    at  
java.base/java.io.FileInputStream.<init>(FileInputStream.java:  
112)  
    at  
java.base/java.io.FileReader.<init>(FileReader.java:60)  
    at Tsgol.com.IOException.main(IOException.java:10)
```