Atif Ali MCA A

Java

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Assignment-2

1.

```
public class MyServer
{
public static void main(String args[])
{
ServerSocket ss = new ServerSocket(3333);
Socket s = ss.accept();
DataInputStream din = new DataInputStream(s.getInputStream());
DataOutputStream dout = new DataOutputStream(s.getOutputStream());
BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
String str = "", str2 = "";
while(!str.equals("Stop"))
{
str = din.readUTF();
System.out.println("Client says: "+str);
str2 = br.readLine();
dout.writeUTF(str2);
dout.flush();
}
din.close();
s.close();
ss.close();
}
}

public class MyClient
{
public static void main(String args[])
{
```

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```
Socket s= new Socket("localhost",3333);
DataInputStream din=new DataInputStream(s.getInputStream());
DataOutputStream dout=new DataOutputStream(s.getOutputStream());
BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
String str="", str2="";
While(!str.equals("stop"))
{
   str=br.readline();
   dout.writeUTF(str);
   dout.flush();
   str2=din.readUTF();
   System.out.println("Server Says: "+str2);
}
   dout.close();
   s.close();
}
}
```

2. What is the use of finally block? Give an example.

We generally use finally block to execute clean up code like closing connections, closing files, or freeing up threads; as it executes regardless of an exception.

```
try{
    int x = 10/0;
}
catch(Exception e)
  { e.printStackTrace(); }
Finally { System.out.println("Finally block executed"); }
```

"If we have no peace, it is because we have forgotten that we belong to each other." —Mother Teresa

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3. Difference b/w throw and throws

throw	throws
java throw keyword is used throw an exception explicitly in the code inside the function or the block of code.	Java throws keyword is used in the method signature to declare an exception which might be thrown by the function while the execution of the code.
The throw keyword is followed by an instance of Exception to be thrown.	The throws keyword is followed by class names of Exceptions to be thrown.
throw is used within the method.	throws is used with the method signature.
We are allowed to throw only one exception at a time	We can declare multiple Exceptions using throws keyword.

4. Exception? Checked and Unchecked Exception

Exception is unwanted or unexpected event, which occurs during the execution of a program i.e. at run time that disrupts the normal flow of the program's instructions.

Checked Exceptions are called compile time Exceptions because these exceptions are checked at compile time by the compiler.

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Unchecked Exception

The compiler will not check these exceptions at compile time.

Exception Chaining

Chained Exception helps to identify ~~in~~ a situation in which one exception causes another Exception in an application

5. What is the main difference between Readers/Writers and Input/Output Streams.

The Reader/Writer class hierarchy is character-oriented and the Input/Output stream class hierarchy is byte-oriented.

There are two types of streams.
Byte Streams that are used to handle stream of bytes and Character streams for handling streams of characters.
In byte streams Input/Output streams are the abstract classes at the top of hierarchy while Reader/Writer are abstract classes at the top of character streams hierarchy.

Subclass of Reader/writer classes

FileReader
FileWriter
StringReader
StringWriter
CharArrayReader
CharArrayWriter.

Chitra

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