1)To write program to list the sub directories and files in a given directory and also search for a file name

CODE-

```
import java.io.*;
public class co6q1
{
public static void main(String[] args) {

File file = new File("../../../");

String[] fileList = file.list();
for(String str : fileList) {
System.out.println(str);
}
FilenameFilter filter = new
FilenameFilter() { public boolean accept
(File dir, String name) { return
name.startsWith("A");
}
};
System.out.println("\n");
String[] children =
file.list(filter); if (children
== null) {
System.out.println("Either dir does not exist or is not a directory");
} else {
for (int i = 0; i< children.length; i++) {
String filename = children[i];
System.out.println(filename);
}
}
```

}
}

OUTPUT-

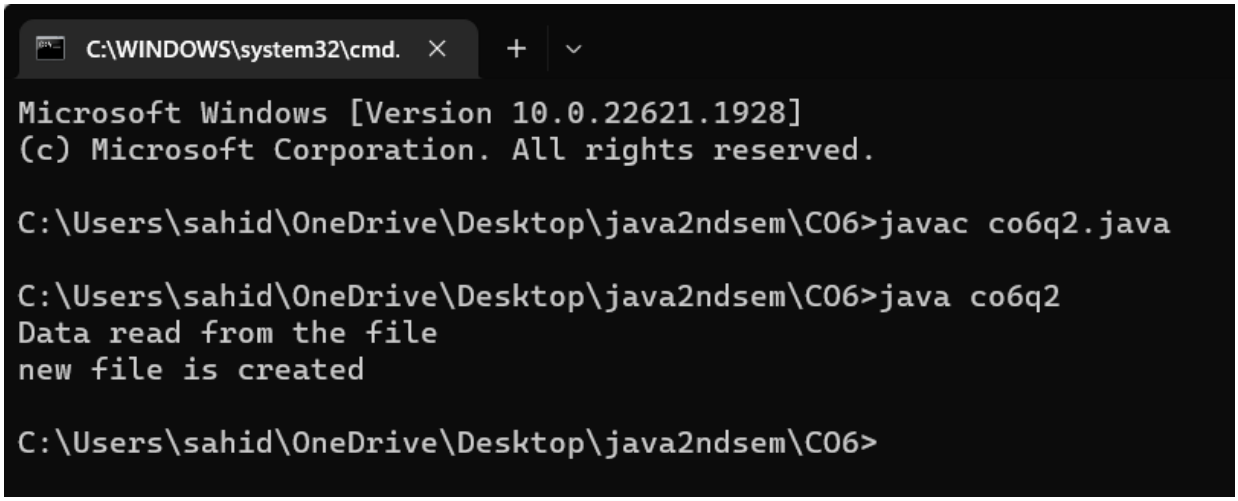
2). to write to a file, then read from the file and display the contents on the console.

Code-

```
import java.io.BufferedReader;
import java.io.FileReader;
import java.io.FileWriter;
import
java.io.IOException;
public class co6q2 {
public static void main(String[]
args) { try {
```

```
FileWriter writer = new
FileWriter("java_write.txt",true);
writer.write("new file is created");
writer.close();
FileReader reader = new FileReader("java_write.txt");
BufferedReader br= new BufferedReader(reader);
String line;
System.out.println("Data read from the file");
while ((line = br.readLine()) != null) {
System.out.println(line);
}
reader.close();
} catch (IOException e) {
System.out.println("-----Error-----");
}
}
}
```

Output-

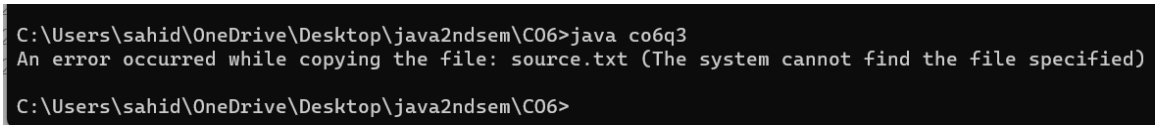


2) To write a program to copy one file to another-

Code-

```
import java.io.FileInputStream;
 import java.io.FileOutputStream;
 import java.io.IOException;
public class co6q3 {
public static void main(String[] args) throws IOException{
// TODO Auto-generated method stub
FileInputStream fileinput = new FileInputStream("source.txt");
FileOutputStream fileoutput = new
 FileOutputStream("destination.txt"); int i;
while((i = fileinput.read()) != -1){
fileoutput.write(i);
}
System.out.println("copied");
fileinput.close();
fileoutput.close();
}
}
```

Output-



4) Write a program that reads from a file having integers. Copy even numbers and odd
numbers to separate files.
Code-

```
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
public class co6q4 {
public static void main(String[] args) throws IOException {
// TODO Auto-generated method stub
FileInputStream source = new FileInputStream ("source.txt");
FileOutputStream destination_odd = new FileOutputStream ("odd.txt");
FileOutputStream destination_even = new FileOutputStream
("even.txt")
 ; int i;
while((i = source.read()) != -1){
if(i%2==0) {
destination_even.write(i);
}
else {
destination_odd.write(i);
}
}
System.out.println("copied");
source.close();
destination_even.close();
destination_odd.close();
}
```

}

Output-

5)Client server communication using Socket – TCP/IP

Code-

Clientimport java.io.*; import
java.net.*; public class
co6q5Client { public static void
main(String[] args) {
try{
Socket socket=new Socket("localhost",7011);
DataOutputStream dout=new
DataOutputStream(socket.getOutputStre
am()); dout.writeUTF("Client Call!!!");
dout.flush(); dout.close();
socket.close();
}catch(Exception e){System.out.println(e);}
}
}

Serverimport java.io.*; import
java.net.*; public class
co6q5Server { public static
void main(String[] args){
try{

```
ServerSocket serverSocket=new ServerSocket(7011);
Socket socket=serverSocket.accept();
//establishes connection
DataInputStream dis=new DataInputStream(socket.getInputStream());
String str=(String)dis.readUTF();
System.out.println("message= "+str);
serverSocket.close();
}
catch(Exception e){
System.out.println(e);
}
}
}
```

Output-

6) Client Server communication using DatagramSocket - UDP

Code-

Serverimport
java.io.*; import
java.net.*; public
class Server {
public static void main(String[] args) throws
IOException { DatagramSocket server=new
DatagramSocket(4220); byte[] buf=new byte[256];
DatagramPacket packet=new
DatagramPacket(buf,buf.length); server.receive(packet);
String response =new String(packet.getData());
System.out.println(" Server : "+response);
server.close();
}
}

Clientimport
java.io.*; import
java.net.*;
public class
Client {

```
public static void main(String[] args) throws
IOException { DatagramSocket client= new
DatagramSocket();
InetAddress
add=InetAddress.getByName("localhost");
String str ="Ping from Client!!!"; byte[]
bufBytes = str.getBytes();
DatagramPacket datagramPacket=new
DatagramPacket(bufBytes,bufBytes.length,add,4220);
client.send(datagramPacket); client.close();
}
}
```

Output-