

## **SOURCE CODE:**

### **SERVER:**

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

public class tcp_server {
    public static void main(String[] args) throws Exception{
        try {
            ServerSocket ssock=new ServerSocket(9000);
            Socket sock=ssock.accept();
            InetAddress ia=InetAddress.getByName("localhost");
            File file = new File("D:\\cnlab.txt");
            FileInputStream fis = new FileInputStream(file);
            BufferedInputStream bis = new BufferedInputStream(fis);
            OutputStream os = sock.getOutputStream();
            byte[] contents;
            long fileLength = file.length();
            long current=0;
            long start = System.nanoTime();
            while(current != fileLength){
                int size = 10000;
                if(fileLength-current >= size){
                    current +=size;
                }
                else {
                    size = (int)(fileLength-current);
                    current=fileLength;
                }
                contents=new byte[size];
                bis.read(contents,0,size);
                os.write(contents);
                System.out.println("Sending file..."+(current*100)/fileLength+"% complete !");
                os.flush();
                sock.close();
                ssock.close();
                System.out.println("File sent successfully !");
            }
        }
        catch (Exception e) {
            System.out.println("Error"+e.getMessage());
        }
    }
}
```

```
    }  
}
```

## **CLIENT:**

```
import java.io.*;  
import java.net.*;  
public class tcp_client {  
    public static void main(String[] args) throws Exception{  
        try {  
            Socket socket = new Socket(InetAddress.getByName("localhost"),9000);  
            byte[] contents = new byte[10000];  
            FileOutputStream fos = new FileOutputStream("D:\\cnlab1.txt");  
            BufferedOutputStream bos = new BufferedOutputStream(fos);  
            InputStream is = socket.getInputStream();  
            int bytesRead;  
            while((bytesRead=is.read(contents)) != -1){  
                bos.write(contents,0,bytesRead);  
            }  
            bos.flush();  
            socket.close();  
            System.out.println("File Saved Successfully !");  
        }  
        catch (Exception e) {  
            System.out.println("Error"+e.getMessage());  
        }  
    }  
}
```

## **INPUT AND OUTPUT:**

### **SERVER:**



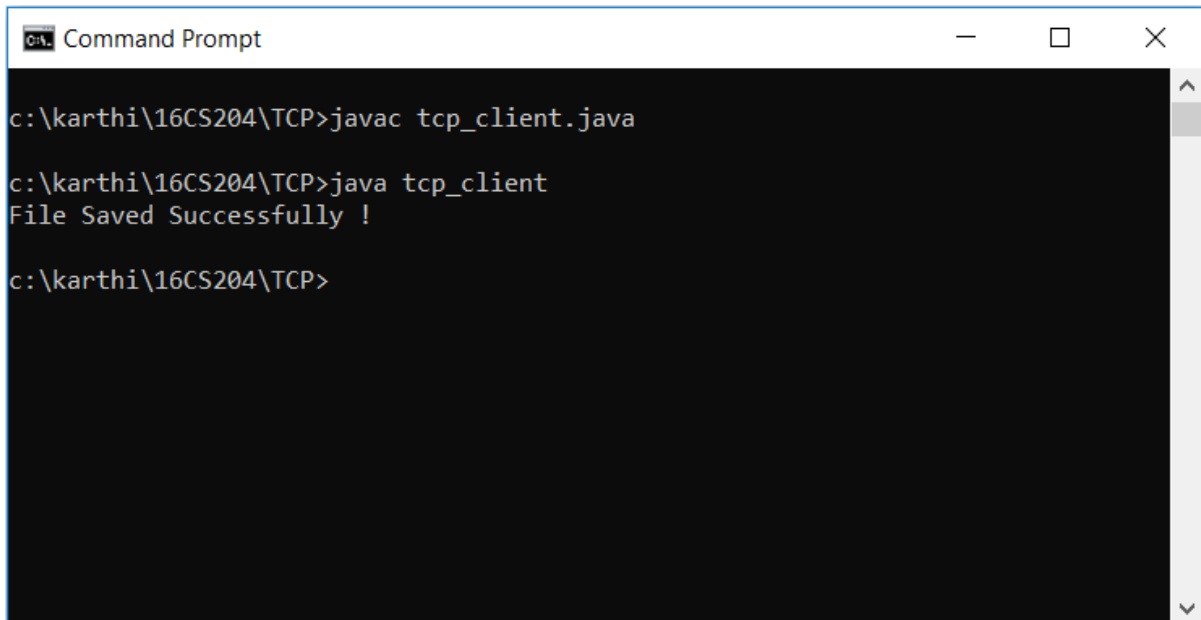
```
Command Prompt

c:\karthi\16CS204\TCP>javac tcp_server.java

c:\karthi\16CS204\TCP>java tcp_server
Sending file...100% complete !
File sent successfully !

c:\karthi\16CS204\TCP>
```

### **CLIENT:**



```
Command Prompt

c:\karthi\16CS204\TCP>javac tcp_client.java

c:\karthi\16CS204\TCP>java tcp_client
File Saved Successfully !

c:\karthi\16CS204\TCP>
```