

LAB - II

Socket Programming using TCP:-

1) server.py

```
from socket import *

server_name = 'my-pc'
server_port = 12001
server_socket = socket(AF_INET, SOCK_STREAM)
server_socket.bind((server_name, server_port))
server_socket.listen(1)
print('The server is ready to receive')

while 1:
    connection_socket, addr = server_socket.accept()
    sentence = connection_socket.recv(1024).decode()
    file = open(sentence, 'r')
    l = file.read(1024)
    connection_socket.send(l.encode())
    file.close()
    connection_socket.close()
```

2) client.py

```
from socket import *
server_name = 'my-pc'
server_port = 12001
client_socket = socket(AF_INET, SOCK_STREAM)
client_socket.connect((server_name, server_port))
sentence = input("Enter file name")
```

client socket . send (sentence . encode ())
file contents = client socket . recv (1024) . decode ()
print (" From Server : ", file contents)
client socket . close ()

II Socket Programming using UDP:

1) Userver . py .

```
from socket import *
```

```
server port = 12000
```

```
server socket = socket ( AF_INET , SOCK_DGRAM )
```

```
server socket . bind ( ( " 127.0.0.1 " , serverPort ) )
```

```
print ( " The server is ready to receive : " )
```

```
while 1 :
```

```
    sentence , client Address = server socket . recvfrom ( 2048 )
```

```
    file read ( 2048 )
```

```
    server socket . sendto ( bytes ( 1 , " utf-8 " ) ,  
                           client Address )
```

```
    print ( " sent back to client " , 1 )
```

```
file . close ()
```

2) Userver . py

```
from socket import *
```

```
server Name = ' 127.0.0.1 '
```

```
server Port = 12000
```

```
clientSocket = socket ( AF_INET, SOCK_DGRAM)
sentence = input ( 'enter file name')
clientSocket . sendto ( bytes ( sentence , "utf-8") ,
                      ( serverName , serverPort))
file contents , server Address = clientSocket . receivefrom
( 2048)
print ( 'from Server:' , file contents)
clientSocket . close()
```