TCP Server

```
socket()
```

well-known
port
```
bind()
```

```
listen()
```

```
accept()
```

blocks until connection
from client

TCP Client

```
socket()
```

```
connect()
```
connection establishment
(TCP three-way handshake)

```
write()
```
data (request)
```
read()
```

process request

```
write()
```
data (reply)
```
read()
```

```
close()
```
end-of-file notification
```
read()
```

```
close()
```

Figure 4.1 Socket functions for elementary TCP client–server.

```
#include <sys/socket.h>

int socket(int family, int type, int protocol);
```

                              Returns: nonnegative descriptor if OK, −1 on error