

sin_addr is the IP address in the socket (the socket structure also contains other data, such as a port).

"When **INADDR_ANY** is specified in the bind call, the socket will be bound to all local interfaces." From another link: The value "**INADDR_ANY**" means that we will bind to any/all IP addresses that the local computer currently has.

When a socket is created with [socket\(2\)](#), it exists in a name space (address family) but has no address assigned to it. **bind()** assigns the address specified by *addr* to the socket referred to by the file descriptor *sockfd*

The *bind()* function takes the following arguments:

socket

Specifies the file descriptor of the socket to be bound.

address

Points to a **sockaddr** structure containing the address to be bound to the socket. The length and format of the address depend on the address family of the socket.

address_len

Specifies the length of the **sockaddr** structure pointed to by the *address* argument.

<https://www.geeksforgeeks.org/socket-programming-cc/>

<https://www.geeksforgeeks.org/udp-server-client-implementation-c/>

```
ssize_t sendto(int sockfd, const void *buf, size_t len, int flags,  
               const struct sockaddr *dest_addr, socklen_t addrlen)  
Send a message on the socket
```

Arguments :

sockfd – File descriptor of socket

buf – Application buffer containing the data to be sent

len – Size of *buf* application buffer

flags – Bitwise OR of flags to modify socket behaviour

dest_addr – Structure containing address of destination

addrlen – Size of *dest_addr* structure

```
ssize_t recvfrom(int sockfd, void *buf, size_t len, int flags,  
                struct sockaddr *src_addr, socklen_t *addrlen)  
Receive a message from the socket.
```

Arguments :

sockfd – File descriptor of socket

buf – Application buffer in which to receive data

len – Size of *buf* application buffer

flags – Bitwise OR of flags to modify socket behaviour

src_addr – Structure containing source address is returned

addrlen – Variable in which size of *src_addr* structure is returned