

This function call creates a socket and returns a socket descriptor. The domain parameter specifies a communication domain; this selects the protocol family which will be used for communication. These families are defined in `<sys/socket.h>`. In this program, the domain `AF_INET` is used. The socket has the indicated type, which specifies the communication semantics. `SOCK_STREAM` type provides sequenced, reliable, two-way, connection based byte streams. The protocol field specifies the protocol used. We always use 0. If the system call is a failure, a -1 is returned. The header files used are `sys/types.h` and `sys/socket.h`.

## 2. Filling the fields of the server address structure.

The socket address structure is of type `struct sockaddr_in`.

```
struct sockaddr_in {  
  
    u_short sin_family;  
    u_short sin_port;  
    struct in_addr sin_addr;  
    char sin_zero[8]; /*unused, always zero*/  
};  
struct in_addr {  
  
    u_long s_addr;  
  
};
```

The fields of the socket address structure are  
**sin\_family** which in our case is `AF_INET`  
**sin\_port** which is the port number where socket binds  
**sin\_addr** which is the IP address of the server machine

The header file that is to be used is **netinet/in.h**

```
struct sockaddr_in servaddr;  
servaddr.sin_family = AF_INET;  
servaddr.sin_port = htons(port_number);
```

Why `htons` is used ?. Numbers on different machines may be represented differently ( big-endian machines and little-endian machines). In a little-endian machine the low order byte of an integer appears at the lower address; in a big-endian machine instead the low order byte appears at the higher address. Network order, the order in which numbers are sent on the internet is big-endian.