

Computer Network Laboratory

Assignment 2

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Class: 3rd year, B.Tech CSE

Course: CSN-361

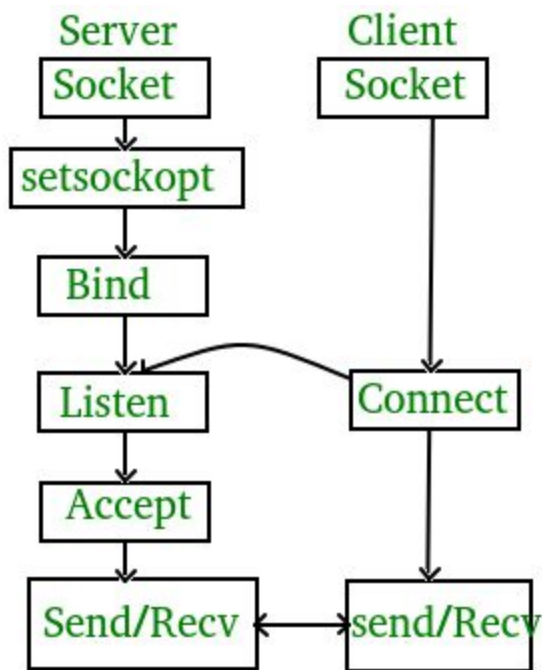
GitHub link - <https://github.com/gagankumre/CSN361/tree/master/Assignment2>

Two problems were given for this assignment. They are-

Problem 1 :

Write a socket program in C to connect two nodes on a network to communicate with each other, where one socket listens on a particular port at an IP, while other socket reaches out to the other to form a connection.

Algorithms used : CLIENT SERVER MODEL ALGORITHM



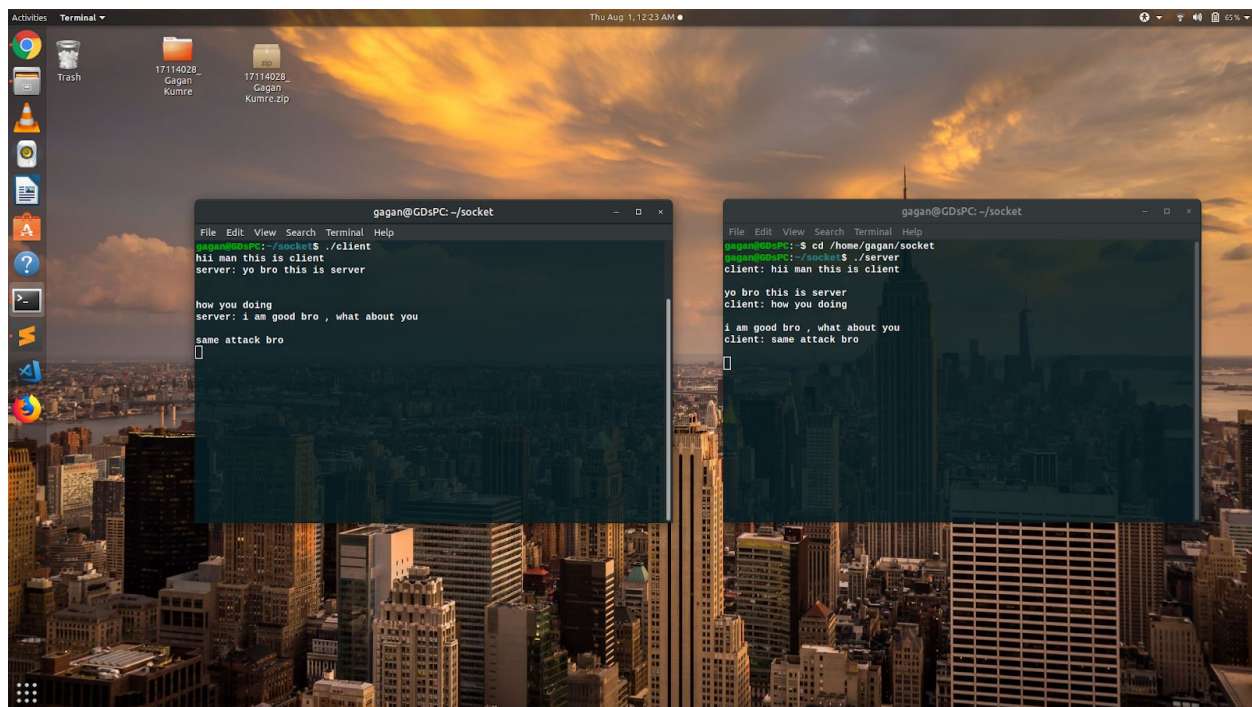
1. `int sockfd = socket(domain, type, protocol)`
2. `int setsockopt(int sockfd, int level, int optname, const void *optval, socklen_t optlen);`
3. `int bind(int sockfd, const struct sockaddr *addr, socklen_t addrlen);`
4. `int listen(int sockfd, int backlog);`
5. `int new_socket= accept(int sockfd, struct sockaddr *addr, socklen_t *addrlen);`

```
6. int connect(int sockfd, const struct sockaddr *addr, socklen_t addrlen);
```

Data structures used :

1. `int`, `char *`, `char []`: To store the socket , strings, buffer
2. `struct sockaddr_in` : for storing the port number and creating an instance of client and server.

Screenshot :



Problem 2 :

Write a C program to demonstrate both Zombie and Orphan process.

Algorithms used :

1. `fork()` : To create new child
2. `sleep()` : For proper functioning of the program
3. Busy Waiting

Data Structures used :

Int, To store the return value of fork() in it.

Screenshot :

