

```
//B20CS1130
//Experiment 11
//DNS Server
```

```
#include<stdio.h>
#include<stdlib.h>
#include<netinet/in.h>
#include<sys/socket.h>
#include<unistd.h>
#include<sys/types.h>
#include<string.h>
```

```
void main()
{
    printf("Server side\n");
    char buffer[50],domain[50],ip[50];
    int sockid;
    struct sockaddr_in addr;
    addr.sin_family=AF_INET;
    addr.sin_addr.s_addr=INADDR_ANY;
    addr.sin_port=3008;
    int s=sizeof(struct sockaddr_in);
    sockid=socket(AF_INET,SOCK_DGRAM,0);

    bind(sockid,(struct sockaddr*)&addr,sizeof(addr));

    listen(sockid,5);

    do{
        printf("Connection established\n");
        printf("Receiving message from client\n");
        recvfrom(sockid,buffer,sizeof(buffer),0,(struct sockaddr*)&addr,&s);
        FILE *f1=fopen("data.txt","r");
        while(!feof(f1))
        {
            fscanf(f1,"%s %s",domain,ip);
            if (strcmp(buffer,domain)==0)
                break;
        }
        sendto(sockid,ip,sizeof(ip),0,(struct sockaddr*)&addr,s);
    }while(strcmp(buffer,"stop")!=0);
    close(sockid);
}
```

```
//B20CS1130
//Experiment 11
//DNS UDP Client
```

```
#include<stdio.h>
#include<stdlib.h>
#include<netinet/in.h>
#include<sys/socket.h>
#include<unistd.h>
#include<sys/types.h>
#include<string.h>
```

```
void main(){
    printf("Client side\n");

    char buffer[50];
    int sockfd;

    sockfd=socket(AF_INET,SOCK_DGRAM,0);
    struct sockaddr_in addr;

    addr.sin_family=AF_INET;
    addr.sin_addr.s_addr=INADDR_ANY;
    addr.sin_port=3008;

    int s=sizeof(struct sockaddr_in);

    connect(sockfd,(struct sockaddr*)&addr,sizeof(addr));

    do{
        printf("Enter domain name to send to server:");
        scanf("%s",buffer);
        sendto(sockfd,buffer,sizeof(buffer),0,(struct sockaddr*)&addr,s);
        recvfrom(sockfd,buffer,sizeof(buffer),0,(struct sockaddr*)&addr,&s);
        if (strcmp(buffer,"NULL")==0){
            printf("Invalid domain name\n");
        }
        else{
            printf("IP address received from server:%s\n",buffer);
        }
    }while(strcmp(buffer,"stop")!=0);
    close(sockfd);
}
```

/*

OUTPUT

s6cs130@comp62:~/Programs/exp 11\$ gcc server.c

s6cs130@comp62:~/Programs/exp 11\$./a.out

Server side

Connection established

Receiving message from client

Connection established

Receiving message from client

Connection established

Receiving message from client

s6cs130@comp62:~/Programs/exp 11\$

s6cs130@comp62:~/Programs/exp 11\$ gcc client.c

s6cs130@comp62:~/Programs/exp 11\$./a.out

Client side

Enter domain name to send to server:yahoo.com

IP address received from server:101.201.301.401

Enter domain name to send to server:jonbin.com

Invalid domain name

Enter domain name to send to server:stop

IP address received from server:stop

*/