```
//B20CS1130
//Experiment 7
//Concurrent Client Server

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

void main(){
	printf("Server side\n");
	char buffer[50],mess[50];
	int sockfd;

	time_t rawtime;
	struct tm *info;

	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);
	sockfd=socket(AF_INET,SOCK_DGRAM,0);

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

	do{
		printf("Connection established\n");
		printf("Receiving message from client\n");
		recvfrom(sockfd,mess,sizeof(mess),0,(struct sockaddr*)&addr,&s);
		printf("%s\n",mess);
		time(&rawtime);
		info=localtime(&rawtime);
		sprintf(buffer,"System date and time is: %s",asctime(info));
		sendto(sockfd,buffer,sizeof(buffer),0,(struct sockaddr*)&addr,s);
	}while(strcmp(mess,"stop")!=0);
	close(sockfd);
}

/*
```

OUTPUT
s6cs130@comp62:~$ gcc server.c
s6cs130@comp62:~$ ./a.out
Server side
Connection established
Receiving message from client
hi
Connection established
Receiving message from client
hi
Connection established
Receiving message from client
stop
*/

//Experiment 7
//Concurrent Client Server Client 1

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

void main(){
        printf("Client Side 1\n");
        char buffer[50],mess[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("Send message to server: ");
		scanf("%s",mess);//buffer
		sendto(sockfd,mess,sizeof(mess),0,(struct sockaddr*)&addr,s);//mess
		recvfrom(sockfd,buffer,sizeof(buffer),0,(struct sockaddr*)&addr,(&s));
		printf("Received from server: %s\n",buffer);
	}while(strcmp(mess,"stop")!=0);
	close(sockfd);
}

/*
OUTPUT
s6cs130@comp62:~$ gcc client1.c
s6cs130@comp62:~$ ./a.out
Client Side 1
Send message to server: hi
Received from server: System date and time is: Thu Dec  8 15:28:00 2022

Send message to server: stop
Received from server: System date and time is: Thu Dec  8 15:28:17 2022
*/

//Experiment 7
//Concurrent Client Server Client 2

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

void main(){
	printf("Client Side 2\n");
	char buffer[50],mess[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("Send message to server: ");
		scanf("%s",mess);//buffer
		sendto(sockfd,mess,sizeof(mess),0,(struct sockaddr*)&addr,s);//mess
		recvfrom(sockfd,buffer,sizeof(buffer),0,(struct sockaddr*)&addr,(&s));
		printf("Received from server: %s\n",buffer);
	}while(strcmp(mess,"stop")!=0);
	close(sockfd);
}

/*
OUTPUT
s6cs130@comp62:~$ gcc client2.c
s6cs130@comp62:~$ ./a.out
Client Side 2
Send message to server: hi
Received from server: System date and time is: Thu Dec  8 15:28:04 2022

Send message to server: stop
Received from server: System date and time is: Thu Dec  8 15:28:04 2022
*/
```