

R.V. COLLEGE OF ENGINEERING

OBSERVATION / DATA SHEET

Date 11-01-2020 Name SAKSHI KAMAL
Dept./Lab NPS Class 5th Sem Expt./No. _____
Title LAB INTERNALS

listener.c

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

#define HELLO_PORT 12345
#define HELLO_GROUP "225.0.0.37"
#define MSGBUFSIZE 25

int main (int argc, char *argv[])
{
    struct sock_addr_in addr;
    int fd, nbytes, addrlen;
    struct ip_mreq mreq;
```

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Teacher incharge

```
char msgbuf [MSG_BUF_SIZE];
```

```
u_int yes = 1;
```

```
if ((fd = socket (AF_INET, SOCK_DGRAM, 0)) < 0)
```

```
{  
    perror ("socket error");
```

```
    exit(1);
```

```
}
```

```
memset (&addr, 0, sizeof (addr));
```

```
addr.sin_family = AF_INET;
```

```
addr.sin_addr.s_addr = htonl (INADDR_ANY);
```

```
addr.sin_port = htons (HELLO_PORT);
```

```
if (bind (fd, (struct sockaddr *)&addr, sizeof (addr)) < 0)
```

```
{
```

```
    perror ("bind");
```

```
    exit(1);
```

```
}
```

```
mreq.mr_multiaddr.s_addr = inet_addr (HELLO_GROUP);
```

```
if (setsockopt (fd, IPPROTO_IP, IP_ADD_MEMBERSHIP,
```

```
&mreq, sizeof (mreq)) < 0)
```

```
{
```

```
    perror ("setsockopt error");
```

```
    exit(1);
```

```
}
```

```
while (1) {
```

```
    addrlen = sizeof (addr);
```

```
    if ((nbytes = recvfrom (fd, msgbuf, MSG_BUF_SIZE, 0,
```

```
        sock  
(struct sockaddr *)&addr, &addrlen)) < 0)
```

```
{
```

```
    perror ("recvfrom");
```

```
    exit(1); puts (msgbuf);
```

```
}
```

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}

}

sender.c

```
#include <stdio.h>
#include <stdlib.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <arpa/inet.h>
#include <time.h>
#include <string.h>
#define HELLO_PORT 12345
#define HELLO_GROUP "225.0.0.37"
main (int argc, char *argv[])
{
    struct sockaddr_in addr;
    int fd, cnt;
    struct ip_mreq mreq;
    char *message = "RVCE-CSE";
```

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```

if (fd = socket (AF_INET, SOCK_DGRAM, 0)) < 0)
{
    perror ("socket");
    exit(1);
}
memset (&addr, 0, sizeof(addr));
addr.sin_family = AF_INET;
addr.sin_port = htons (HELLO_PORT);
addr.sin_addr.s_addr = inet_addr (HELLO_GROUP);
while (1) {
    if (sendto (fd, message, sizeof(message), 0,
        (struct sockaddr *) &addr, sizeof(addr)) < 0)
    {
        perror ("sendto");
        exit(1);
    }
    sleep(1);
}
}

```