

Code:

x-file:

```
struct nums {  
    int x;  
    int y;  
};
```

```
program ADD_PROG {  
    version ADD_VERS {  
        int add(nums)=1;  
    }=1;  
}=0x12341234;
```

Client:

/*

* Please do not edit this file.

* It was generated using rpcgen.

*/

#include <memory.h> /* for memset */

#include "add.h"

/* Default timeout can be changed using clnt_control() */

static struct timeval TIMEOUT = { 25, 0 };

int *

add_1(nums *argp, CLIENT *clnt)

{

static int clnt_res;

memset((char *)&clnt_res, 0, sizeof(clnt_res));

if (clnt_call (clnt, add,

(xdrproc_t) xdr_nums, (caddr_t) argp,

(xdrproc_t) xdr_int, (caddr_t) &clnt_res,

TIMEOUT) != RPC_SUCCESS) {

return (NULL);

}

return (&clnt_res);

}

Server:

```
/*
 * Please do not edit this file.
 * It was generated using rpcgen.
 */

#include "add.h"
#include <stdio.h>
#include <stdlib.h>
#include <rpc/pmap_clnt.h>
#include <string.h>
#include <memory.h>
#include <sys/socket.h>
#include <netinet/in.h>

#ifndef SIG_PF
#define SIG_PF void (*)(int)
#endif

static void
add_prog_1(struct svc_req *rqstp, register SVCXPRT *transp)
{
    union {
        nums add_1_arg;
    } argument;
    char *result;
    xdrproc_t _xdr_argument, _xdr_result;
    char *(*local)(char *, struct svc_req *);

    switch (rqstp->rq_proc) {
        case NULLPROC:
```

```
(void) svc_sendreply (transp, (xdrproc_t) xdr_void, (char *)NULL);  
return;
```

case add:

```
_xdr_argument = (xdrproc_t) xdr_nums;  
_xdr_result = (xdrproc_t) xdr_int;  
local = (char *(*)(char *, struct svc_req *)) add_1_svc;  
break;
```

default:

```
svcerr_noproc (transp);  
return;
```

```
}
```

```
memset ((char *)&argument, 0, sizeof (argument));
```

```
if (!svc_getargs (transp, (xdrproc_t) _xdr_argument, (caddr_t) &argument)) {  
    svcerr_decode (transp);  
    return;
```

```
}
```

```
result = (*local)((char *)&argument, rqstp);
```

```
if (result != NULL && !svc_sendreply(transp, (xdrproc_t) _xdr_result, result)) {  
    svcerr_systemerr (transp);  
}
```

```
if (!svc_freeargs (transp, (xdrproc_t) _xdr_argument, (caddr_t) &argument)) {  
    fprintf (stderr, "%s", "unable to free arguments");  
    exit (1);
```

```
}
```

```
return;
```

```
}
```

int

main (int argc, char **argv)

```

{

    register SVCXPRT *transp;


    pmap_unset (ADD_PROG, ADD_VERS);


    transp = svcudp_create(RPC_ANYSOCK);
    if (transp == NULL) {
        fprintf (stderr, "%s", "cannot create udp service.");
        exit(1);
    }
    if (!svc_register(transp, ADD_PROG, ADD_VERS, add_prog_1, IPPROTO_UDP)) {
        fprintf (stderr, "%s", "unable to register (ADD_PROG, ADD_VERS, udp).");
        exit(1);
    }

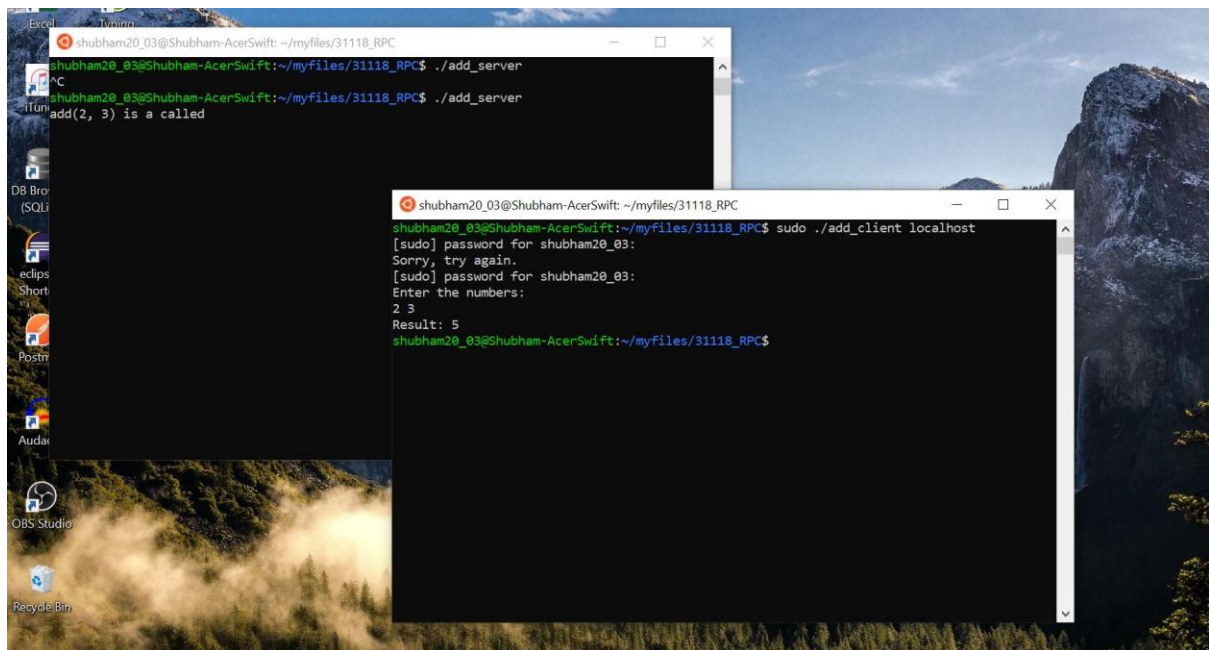

    transp = svctcp_create(RPC_ANYSOCK, 0, 0);
    if (transp == NULL) {
        fprintf (stderr, "%s", "cannot create tcp service.");
        exit(1);
    }
    if (!svc_register(transp, ADD_PROG, ADD_VERS, add_prog_1, IPPROTO_TCP)) {
        fprintf (stderr, "%s", "unable to register (ADD_PROG, ADD_VERS, tcp).");
        exit(1);
    }


    svc_run ();
    fprintf (stderr, "%s", "svc_run returned");
    exit (1);
    /* NOTREACHED */

}

```

Output:



```
shubham20_03@Shubham-AcerSwift: ~/myfiles/31118_RPC
shubham20_03@Shubham-AcerSwift:~/myfiles/31118_RPC$ ./add_server
shubham20_03@Shubham-AcerSwift:~/myfiles/31118_RPC$ ./add_server
add(2, 3) is a called

shubham20_03@Shubham-AcerSwift: ~/myfiles/31118_RPC
shubham20_03@Shubham-AcerSwift:~/myfiles/31118_RPC$ sudo ./add_client localhost
[sudo] password for shubham20_03:
Sorry, try again.
[sudo] password for shubham20_03:
Enter the numbers:
2 3
Result: 5
shubham20_03@Shubham-AcerSwift:~/myfiles/31118_RPC$
```