Exp-09
Remote Command Execution

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Server Code:-

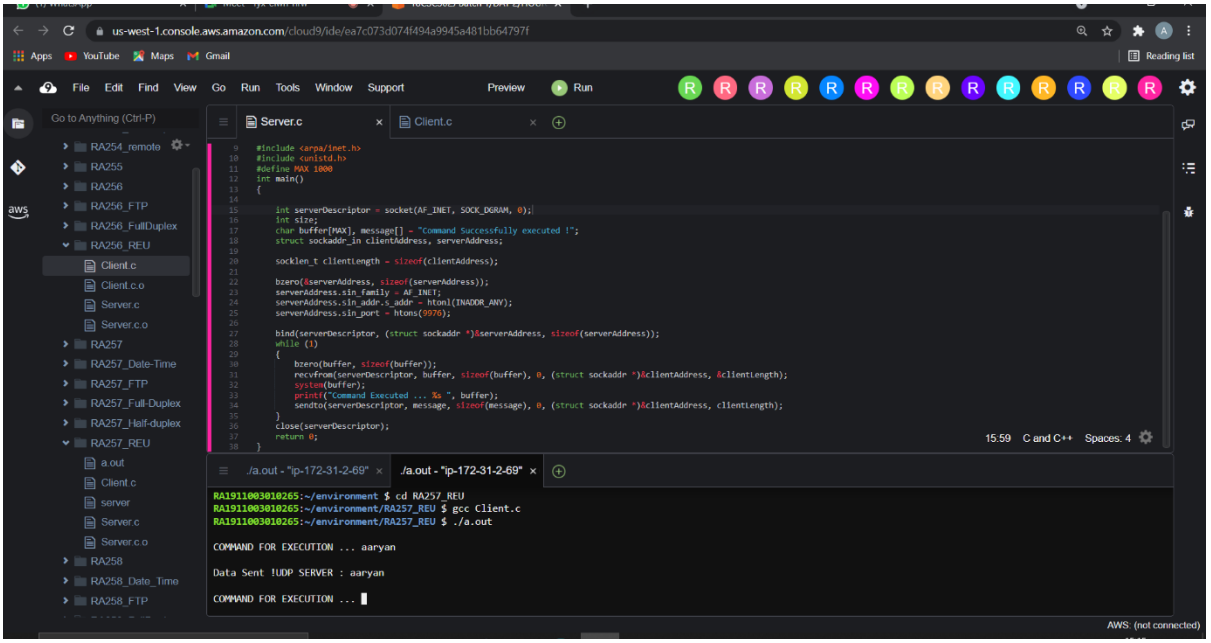
```
#include <sys/types.h>
#include <sys/socket.h>
#include <stdio.h>
#include <stdlib.h>
#include <netdb.h>
#include <netinet/in.h>
#include <string.h>
#include <sys/stat.h>
#include <arpa/inet.h>
#include <unistd.h>
#define MAX 1000
int main()
{
 int serverDescriptor = socket(AF_INET, SOCK_DGRAM, 0);
 int size;
 char buffer[MAX], message[] = "Command Successfully executed !";
 struct sockaddr_in clientAddress, serverAddress;
 socklen_t clientLength = sizeof(clientAddress);
 bzero(&serverAddress, sizeof(serverAddress));
 serverAddress.sin_family = AF_INET;
 serverAddress.sin_addr.s_addr = htonl(INADDR_ANY);
 serverAddress.sin_port = htons(9976);
 bind(serverDescriptor, (struct sockaddr *)&serverAddress, sizeof(serverAddress));
 while (1)
 {
 bzero(buffer, sizeof(buffer));
 recvfrom(serverDescriptor, buffer, sizeof(buffer), 0, (struct sockaddr
*)&clientAddress,
&clientLength);
 system(buffer);
 printf("Command Executed ... %s ", buffer);
 sendto(serverDescriptor, message, sizeof(message), 0, (struct sockaddr
*)&clientAddress,
clientLength);
 }
 close(serverDescriptor);
 return 0;
}
```

Client Code:-

```
#include <sys/types.h>
#include <sys/socket.h>
#include <stdio.h>
#include <unistd.h>
#include <netdb.h>
#include <netinet/in.h>
#include <string.h>
#include <arpa/inet.h>
#define MAX 1000
int main()
{
 int serverDescriptor = socket(AF_INET, SOCK_DGRAM, 0);
 char buffer[MAX], message[MAX];
 struct sockaddr_in cliaddr, serverAddress;
 socklen_t serverLength = sizeof(serverAddress);
 bzero(&serverAddress, sizeof(serverAddress));
 serverAddress.sin_family = AF_INET;
 serverAddress.sin_addr.s_addr = inet_addr("127.0.0.1");
 serverAddress.sin_port = htons(9976);
 bind(serverDescriptor, (struct sockaddr *)&serverAddress, sizeof(serverAddress));
 while (1)
 {
 printf("\nCOMMAND FOR EXECUTION ... ");
 fgets(buffer, sizeof(buffer), stdin);
 sendto(serverDescriptor, buffer, sizeof(buffer), 0, (struct sockaddr
*)&serverAddress,
serverLength);
 printf("\nData Sent !");
 recvfrom(serverDescriptor, message, sizeof(message), 0, (struct sockaddr
*)&serverAddress,
&serverLength);
 printf("UDP SERVER : %s", message);
 }
 return 0;
```

}

Screenshots:-



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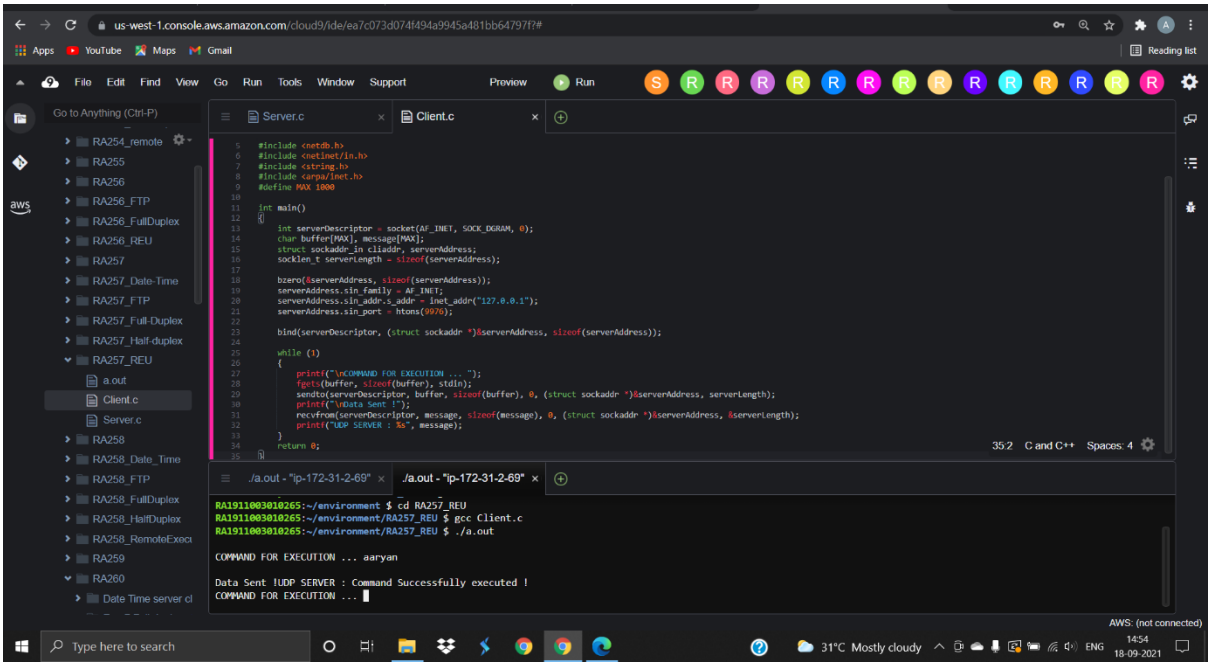

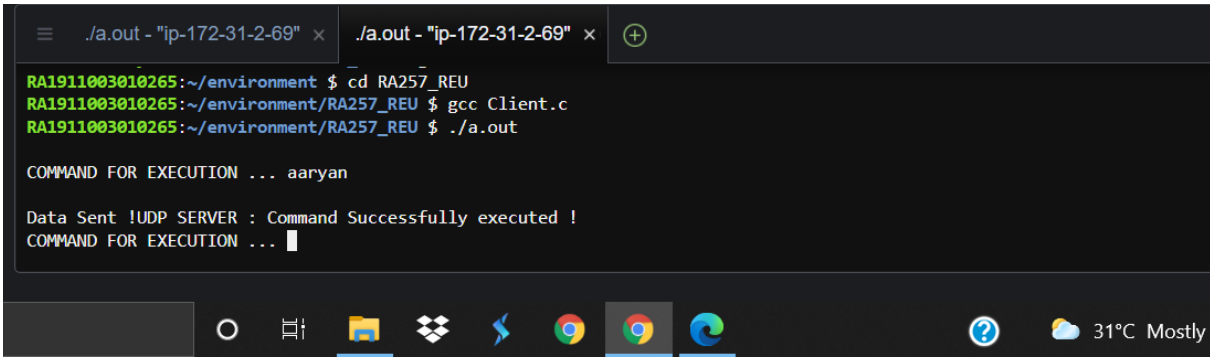
./a.out - "ip-172-31-2-69"
./a.out - "ip-172-31-2-69"
RA1911003010265:~/environment $ cd RA257_REU
RA1911003010265:~/environment/RA257_REU $ gcc Client.c
RA1911003010265:~/environment/RA257_REU $ ./a.out
COMMAND FOR EXECUTION ... aaryan
Data Sent !UDP SERVER : Command Successfully executed !
COMMAND FOR EXECUTION ...
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