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Lab #5

Analyze the code below and explain what IP Address and port the server binds to at runtime. Also, what will the program do if a client connects and send "My skillz are leet"?

```
#include <sys/types.h>
#include <sys/socket.h>
#include <netdb.h>
#include <stdio.h>
#include <string.h>

int main()
{
    char str[100];
    int listen_fd, comm_fd;

    struct sockaddr_in servaddr;

    listen_fd = socket(AF_INET, SOCK_STREAM, 0);

    bzero(&servaddr, sizeof(servaddr));

    servaddr.sin_family = AF_INET;
    servaddr.sin_addr.s_addr = htonl(INADDR_ANY);
    servaddr.sin_port = htons(22000);

    bind(listen_fd, (struct sockaddr *) &servaddr, sizeof(servaddr));

    listen(listen_fd, 10);

    comm_fd = accept(listen_fd, (struct sockaddr *) NULL, NULL);

    while(1)
    {
        bzero(str, 100);

        read(comm_fd, str, 100);

        printf("Echoing back - %s", str);

        write(comm_fd, str, strlen(str)+1);
    }
}
```

The program is binding to any IP Address that connects to it on port 22000. At runtime I will accept a single connection from a user at any IP Address and echo back their responses. If you were to send "My skillz are leet" it would respond back with "My skillz are leet" and print to the console "Echoing back - My skillz are leet".