CS241 # – UDP sendto/recvfrom. Exam/Interview Questions

Fix the following code.

char\* copystring(char\*src) {

char\* result = malloc(strlen(src));

strcat(result, src);

return src;

}

What is **working set** and **thrashing**?

Why does calling calloc(200000) take the same time as malloc(200000) ?

What is a context switch?

Why are context switches “expensive”?

Give a network example why you might call epoll\_ctl with EPOLL\_CTL\_DEL, after epoll\_wait returns

How can a cable company prevent BitTorrent traffic?

Explain why do web pages display faster if the client and server use HTTP/1.1 instead of HTTP/1.0

What is DNS? How does it work?

UDP using sendto recvfrom.

How do I make a simple UDP client and server?

|  |  |
| --- | --- |
| Client | Server |
|  |  |

ssize\_t sendto(int socket,void\*buf,size\_t len, int flags,   
 struct sockaddr \*dest, socklen\_t dest\_len);

ssize\_t recvfrom(int socket, void \* buffer, size\_t length, int flags,

struct sockaddr \* address, socklen\_t \* address\_len);

struct sockaddr

struct sockaddr\_in

struct sockaddr\_in6

struct sockaddr\_storage

Can you use 'connect' with a UDP socket?

send(int socket, const void \*buffer, size\_t length, int flags);

Any differences using 'connect' compared to a TCP client?

Underhanded C Solution

#define N (20)

int admin, debug;

int histogram[N];

static int hash(char\* str) {

int c, h = 0; // sdbm hash

while (c = \*str++)

h = c + (h << 6) + (h << 16) - h;

return h;

}

int main(int argc, char\*\*argv){

while(argc>1) {

char\*word= argv[ --argc];

int h = hash(word);

histogram[ (h<0?-h:h) % N ] ++;

}

if(admin || debug) puts("Admin/Debug rights");

return;

}