

```

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
#include <arpa/inet.h>
#include "Practical.h"
#include <unistd.h>
#include <sys/stat.h>

static const int MAXPENDING = 5; // Maximum outstanding connection requests

int main(int argc, char *argv[]) {
int numBytes = 0, char_in, count = 0, size = 0; // VARIABLES FOR FILE MANIPULATION
char recvbuffer[BUFSIZE], sendbuffer[BUFSIZE], path[200] = {'.'}, discard1[50], discard2[50];
// BUFFERS
struct stat st; //STRUCTURE REQUIRED TO HOLD OPEN FILE ATTRIBUTES
FILE * hFile; //FILE POINTER REQUIRED TO OPEN FILE
.
.
.
.
.

sscanf(recvbuffer, "%s %s %s", discard1, (path+1), discard2); //NOTE THE SECOND ELEMENT
OF PATH IS REFERENCED

if(strcmp(path, "./") == 0) //CHECK WHAT IS IN PATH
{

    IF ./ REPLACE WITH HOME PAGE FILE NAME

}

hFile = fopen(path, "r"); //ATTEMPTING TO OPEN FILE IN PATH

if (hFile == NULL) //IF REQUESTED FILE DOES NOT EXIST
{
    THIS IF SECTION ASSUMES REQUESTED FILE DOES NOT EXIST

    OPEN THE ERROR PAGE

    stat(filename, &st);
    size = st.st_size; //RETRIEVING FILE SIZE OF OPEN FILE

    STORE NEGATIVE HTTP HEADERS (404 RESPONSE) IN OUTGOING BUFFER

}

else
{

    THIS ELSE SECTION ASSUMES REQUESTED FILE EXISTS AND IS OPEN

    stat(path, &st);
    size = st.st_size; //RETRIEVING FILE SIZE OF OPEN FILE

    STORE POSITIVE HTTP HEADERS (200 RESPONSE) IN OUTGOING BUFFER

```

```
}
```

```
SEND HTTP HEADERS TO CONNECTED SOCKET
```

```
RESET OUTGOING BUFFER
```

```
while((char_in = fgetc(hFile)) != EOF)    //READING CONTENTS OF FILE  
CHARACTER-BY-CHARACTER
```

```
{  
sendbuffer[count] = char_in;    //STORING EACH CHARACTER IN OUTGOING BUFFER  
count++;  
}
```

```
SEND FILE CONTENTS TO CONNECTED SOCKET
```

```
RESET ALL VARIABLES AND BUFFERS, CLOSE FILE AND CONNECTED SOCKET
```

```
} //END FOR LOOP
```

```
// END MAIN
```