**BÁO CÁO**

**Môn học: Lập trình mạng**

**Buổi số : 03**

***Mã nguồn chương trình***:

#include <iostream>

#include <winsock2.h>

//ham replace

char\* replaceWord(const char\* s, const char\* oldW,

const char\* newW)

{

char\* result;

int i, cnt = 0;

int newWlen = strlen(newW);

int oldWlen = strlen(oldW);

for (i = 0; s[i] != '\0'; i++)

{

if (strstr(&s[i], oldW) == &s[i])

{

cnt++;

i += oldWlen - 1;

}

}

result = (char\*)malloc(i + cnt \* (newWlen - oldWlen) + 1);

i = 0;

while (\*s)

{

if (strstr(s, oldW) == s)

{

strcpy(&result[i], newW);

i += newWlen;

s += oldWlen;

}

else

result[i++] = \*s++;

}

result[i] = '\0';

return result;

}

int main()

{

WSADATA wsa;

WSAStartup(MAKEWORD(2, 2), &wsa);

SOCKET listener = socket(AF\_INET, SOCK\_STREAM, IPPROTO\_TCP);

SOCKADDR\_IN addr;

addr.sin\_family = AF\_INET;

addr.sin\_addr.s\_addr = htonl(INADDR\_ANY);

addr.sin\_port = htons(8000);

bind(listener, (SOCKADDR\*)&addr, sizeof(addr));

listen(listener, 5);

while (1) {

SOCKET client = accept(listener, NULL, NULL);

char buf[2048];

int ret;

char cmd[64], tmp[64];

char path[256];

ret = recv(client, buf, sizeof(buf), 0);

if (ret <= 0)

return 1;

buf[ret] = 0;

int res = sscanf(buf, "GET %s HTTP/1.1 %s", cmd, tmp);

if (strcmp(cmd, "/") == 0) {

char header[] = "HTTP/1.1 200 OK\nContent-Type:text/html\n\n";

send(client, header, strlen(header), 0);

char content[8192];

sprintf(content, "%s", "<html>");

WIN32\_FIND\_DATAA DATA;

HANDLE h = FindFirstFileA("C:\\\*.\*", &DATA);

do {

if (DATA.dwFileAttributes & FILE\_ATTRIBUTE\_DIRECTORY) {

sprintf(content, "%s<b><a href=\"/%s\">Folder: %s</b></a><br>", content, DATA.cFileName, DATA.cFileName);

}

else {

double size = float(DATA.nFileSizeHigh) \* float(MAXDWORD + 1) + float( DATA.nFileSizeLow);

sprintf(content, "%s<i><a href=\"/%s\">File: %s and size is %li bytes</a></i><br>", content, DATA.cFileName, DATA.cFileName, size);

}

} while (FindNextFileA(h, &DATA));

sprintf(content, "%s %s", content, "</html>");

send(client, content, strlen(content), 0);

}

else

if (sscanf(cmd, "/%s %s", path, tmp) == 1) {

if (strcmp(path, "favicon.ico") == 0) {

continue;

}

else {

// fix lai duong dan

char\* tmPath = replaceWord(path, "%20", " ");

char newPath[512];

sprintf(newPath, "C:\\%s", tmPath);

WIN32\_FIND\_DATAA DATA;

HANDLE h = FindFirstFileA(newPath, &DATA);

do {

// folder

if (DATA.dwFileAttributes & FILE\_ATTRIBUTE\_DIRECTORY) {

char header[] = "HTTP/1.1 200 OK\nContent-Type:text/html\n\n";

send(client, header, strlen(header), 0);

char content[8192];

sprintf(content, "%s", "<html>");

char finalPath[512];

sprintf(finalPath, "%s\\\*.\*", newPath);

WIN32\_FIND\_DATAA DATA1;

HANDLE h1 = FindFirstFileA(finalPath, &DATA1);

do {

if (DATA1.dwFileAttributes & FILE\_ATTRIBUTE\_DIRECTORY) {

sprintf(content, "%s<b><a href=\"/%s/%s\">Folder: %s</b></a><br>", content, tmPath, DATA1.cFileName, DATA1.cFileName);

}

else {

double size = float(DATA1.nFileSizeHigh) \* float(MAXDWORD + 1) + float(DATA1.nFileSizeLow);

sprintf(content, "%s<i><a href=\"/%s/%s\">File: %s and size is %li bytes</a></i><br>", content, tmPath, DATA1.cFileName, DATA1.cFileName, size);

}

} while (FindNextFileA(h1, &DATA1));

sprintf(content, "%s %s", content, "</html>");

send(client, content, strlen(content), 0);

}

// file

else {

char\* ext = strrchr(newPath, '.');

if (!ext) {

sprintf(ext, "unknow");

}

// file .png

if (strcmp(ext + 1, "png") == 0) {

char header[] = "HTTP/1.1 200 OK\nContent-Type:image/png\n\n";

send(client, header, strlen(header), 0);

char buff[2048];

FILE\* f = fopen(newPath, "rb");

while (1)

{

ret = fread(buff, 1, sizeof(buff), f);

if (ret > 0)

send(client, buff, ret, 0);

else

break;

}

fclose(f);

}

// file .jpg

else if (strcmp(ext + 1, "jpg") == 0) {

char header[] = "HTTP/1.1 200 OK\nContent-Type:image/jpg\n\n";

send(client, header, strlen(header), 0);

char buff[2048];

FILE\* f = fopen(newPath, "rb");

while (1)

{

ret = fread(buff, 1, sizeof(buff), f);

if (ret > 0)

send(client, buff, ret, 0);

else

break;

}

fclose(f);

}

// file .txt

else if (strcmp(ext + 1, "txt") == 0) {

char header[] = "HTTP/1.1 200 OK\nContent-Type:text/plain\n\n";

send(client, header, strlen(header), 0);

char filebuf[512];

FILE\* f = fopen(newPath, "r");

while (fgets(filebuf, sizeof(filebuf), f) != NULL) {

send(client, filebuf, strlen(filebuf), 0);

}

fclose(f);

}

else

{

char header[] = "http/1.1 200 ok\ncontent-type: application/force-download";

send(client, header, strlen(header), 0);

}

}

} while (FindNextFileA(h, &DATA));

}

}

else {

closesocket(client);

continue;

}

closesocket(client);

}

closesocket(listener);

WSACleanup();

return 0;

}

*Kết quả thu được:*









