**FAHAD M. AL-ALAWI**

**#include <iostream>**

**#include <string>**

**#include <vector>**

**#include <algorithm>**

**#ifdef \_\_unix\_\_**

**#include <dirent.h>**

**#include <sys/stat.h>**

**#include <unistd.h>**

**#include <limits.h>**

**#elif \_WIN32**

**#include <windows.h>**

**#include <string>**

**#endif**

**void listFiles(const std::string& path, int option) {**

**std::vector<std::string> files;**

**#ifdef \_\_unix\_\_**

**DIR\* dir = opendir(path.c\_str());**

**if (!dir) {**

**std::cerr << "Error opening directory: " << path << std::endl;**

**return;**

**}**

**struct dirent\* entry;**

**while ((entry = readdir(dir)) != nullptr) {**

**if (entry->d\_name[0] != '.') files.push\_back(entry->d\_name);**

**}**

**closedir(dir);**

**#elif \_WIN32**

**WIN32\_FIND\_DATA data;**

**HANDLE hFind = FindFirstFile((path + "\\\*").c\_str(), &data);**

**if (hFind == INVALID\_HANDLE\_VALUE) {**

**std::cerr << "Error opening directory: " << path << std::endl;**

**return;**

**}**

**do {**

**if (data.cFileName[0] != '.') files.push\_back(data.cFileName);**

**} while (FindNextFile(hFind, &data));**

**FindClose(hFind);**

**#endif**

**for (const auto& file : files) {**

**if (option == 1 || (option == 2 && file.substr(file.find\_last\_of('.') + 1) == "txt") ||**

**(option == 3 && file.find("moha") != std::string::npos)) {**

**std::cout << file << std::endl;**

**}**

**}**

**}**

**void createDirectory(const std::string& path) {**

**#ifdef \_\_unix\_\_**

**if (mkdir(path.c\_str(), 0755) != 0) std::cerr << "Error creating directory: " << path << std::endl;**

**else std::cout << "Directory created: " << path << std::endl;**

**#elif \_WIN32**

**if (CreateDirectory(path.c\_str(), nullptr) || GetLastError() == ERROR\_ALREADY\_EXISTS)**

**std::cout << "Directory created: " << path << std::endl;**

**else**

**std::cerr << "Error creating directory: " << path << std::endl;**

**#endif**

**}**

**void changeDirectory(const std::string& path) {**

**#ifdef \_\_unix\_\_**

**if (chdir(path.c\_str()) != 0) std::cerr << "Error changing directory to: " << path << std::endl;**

**else std::cout << "Changed working directory to: " << path << std::endl;**

**#elif \_WIN32**

**if (SetCurrentDirectory(path.c\_str())) std::cout << "Changed working directory to: " << path << std::endl;**

**else std::cerr << "Error changing directory to: " << path << std::endl;**

**#endif**

**}**