```cpp
#include <iostream>
#include <fstream>
#include <string>
#include <regex>
using namespace std;
bool isValidUsername(const string& username)
{
    regex usernamePattern("^[a-zA-Z0-9]{3,20}$");
    return regex_match(username, usernamePattern);
}
bool isValidPassword(const string& password)
{
    if (password.length() < 6) return false;
    regex passwordPattern("^(?=.*[a-zA-Z])(?=.*[0-9]).+$");
    return regex_match(password, passwordPattern);
}
bool usernameExists(const string& username)
{
    ifstream file(username + ".txt");
    return file.good();
}
bool registerUser(const string& username, const string& password)
{

    if (!isValidUsername(username))
    {
        cout << "Error: Username must be 3-20 alphanumeric characters.\n";
        return false;
    }
    if (!isValidPassword(password))
    {
        cout << "Error: Password must be at least 6 characters and contain both letters and
numbers.\n";
        return false;
    }
    if (usernameExists(username))
    {
        cout << "Error: Username already exists.\n";
        return false;
    }


    ofstream file(username + ".txt");
    if (!file)
```

```cpp
    {
        cout << "Error: Could not create user file.\n";
        return false;
    }
    file << username << "\n" << password << "\n";
    file.close();
    cout << "Registration successful for user: " << username << "\n";
    return true;
}

bool loginUser(const string& username, const string& password)
{
    if (!usernameExists(username))
    {
        cout << "Error: Username does not exist.\n";
        return false;
    }


    ifstream file(username + ".txt");
    string storedUsername, storedPassword;
    getline(file, storedUsername);
    getline(file, storedPassword);
    file.close();


    if (storedUsername == username && storedPassword == password)
    {
        cout << "Login successful! Welcome, " << username << "!\n";
        return true;
    } else {
        cout << "Error: Incorrect password.\n";
        return false;
    }
}

int main()
{
    int choice;
    string username, password;

    while (true)
    {
        cout << "\n=== Login and Registration System ===\n";
```

```cpp
        cout << "1. Register\n2. Login\n3. Exit\n";
        cout << "Enter choice: ";
        cin >> choice;
        cin.ignore(); // Clear input buffer

        if (choice == 3) {
            cout << "Exiting program.\n";
            break;
        }

        if (choice != 1 && choice != 2)
        {
            cout << "Invalid choice. Please try again.\n";
            continue;
        }

        cout << "Enter username: ";
        getline(cin, username);
        cout << "Enter password: ";
        getline(cin, password);

        if (choice == 1)
        {
            registerUser(username, password);
        } else {
            loginUser(username, password);
        }
    }

    return 0;
}
```