**Task 1**

Code:-

#include <bits/stdc++.h>

using namespace std;

// function to register a new user

void registerUser(string username, string password) {

ofstream userFile;

userFile.open("users.txt" + username + ".txt");

userFile << password;

userFile.close();

cout << "User registered successfully!" << endl;

}

// function to check if a user exists

bool userExists(string username) {

ifstream userFile;

userFile.open("users.txt" + username + ".txt");

if (userFile) {

userFile.close();

return true;

} else {

return false;

}

}

// function to login a user

void loginUser(string username, string password) {

ifstream userFile;

userFile.open("users.txt" + username + ".txt");

string storedPassword;

getline(userFile, storedPassword);

userFile.close();

if (password == storedPassword) {

cout << "Login successful!" << endl;

} else {

cout << "Incorrect password." << endl;

}

}

int main() {

string username, password;

int choice;

do {

cout << "1. Register" << endl;

cout << "2. Login" << endl;

cout << "3. Exit" << endl;

cout << "Enter your choice: ";

cin >> choice;

switch (choice) {

case 1:

cout << "Enter username: ";

cin >> username;

if (userExists(username)) {

cout << "User already exists." << endl;

} else {

cout << "Enter password: ";

cin >> password;

registerUser(username, password);

}

break;

case 2:

cout << "Enter username: ";

cin >> username;

if (!userExists(username)) {

cout << "User does not exist." << endl;

} else {

cout << "Enter password: ";

cin >> password;

loginUser(username, password);

}

break;

case 3:

cout << "Exiting..." << endl;

break;

default:

cout << "Invalid choice." << endl;

break;

}

} while (choice != 3);

return 0;

}

Output:-

