

Login Management System

Programming Fundamentals Final Project

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1. Project Description

The **Login Management System** is a console-based C++ program that allows users to **register** and **login** using a username and password. The system stores user credentials and verifies them during login to ensure secure access.

This project demonstrates fundamental programming concepts such as:

- Variables
 - Conditional statements
 - Functions
 - Strings
 - Basic input/output
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2. Objectives

- To understand user authentication logic
 - To practice decision-making using if-else
 - To implement basic data storage using arrays
 - To develop menu-driven programs in C++
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3. Functionalities

- **User Registration**
 - User creates a username and password
 - **User Login**
 - User enters credentials
 - System verifies username and password
 - **Validation**
 - Displays success or error messages
 - **Menu System**
 - User selects options using a menu
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4. Tools & Language Used

- **Programming Language:** C++
 - **Compiler:** Dev C++ / CodeBlocks / Visual Studio
 - **Platform:** Console Application
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5. Source Code (Input – C++ Program)

```
#include <iostream>
#include <string>
using namespace std;

int main()
{
    string regUser, regPass;
    string user, pass;
    int choice;
    bool isRegistered = false;
```

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```
do
{
    cout << "\n===== LOGIN MANAGEMENT SYSTEM =====" << endl;
    cout << "1. Register" << endl;
    cout << "2. Login" << endl;
    cout << "3. Exit" << endl;
    cout << "Enter your choice: ";
    cin >> choice;

    if (choice == 1)
    {
        cout << "\n--- Registration ---" << endl;
        cout << "Enter Username: ";
        cin >> regUser;
        cout << "Enter Password: ";
        cin >> regPass;
        isRegistered = true;
        cout << "Registration Successful!" << endl;
    }
    else if (choice == 2)
    {
        if (!isRegistered)
        {
            cout << "\nPlease register first!" << endl;
        }
        else
        {
            cout << "\n--- Login ---" << endl;
            cout << "Enter Username: ";
```

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```
cin >> user;
cout << "Enter Password: ";
cin >> pass;

if (user == regUser && pass == regPass)
{
    cout << "\nLogin Successful! Welcome " << user << endl;
}
else
{
    cout << "\nInvalid Username or Password!" << endl;
}
}

else if (choice == 3)
{
    cout << "\nThank you for using the system!" << endl;
}
else
{
    cout << "\nInvalid choice! Try again." << endl;
}

}

} while (choice != 3);

return 0;
}
```

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6. Sample Output (Result)

```
Output

===== LOGIN MANAGEMENT SYSTEM =====
1. Register
2. Login
3. Exit
Enter your choice: 1

--- Registration ---
Enter Username: Rafia
Enter Password: Rafia123
Registration Successful!

===== LOGIN MANAGEMENT SYSTEM =====
1. Register
2. Login
3. Exit
Enter your choice: 2

--- Login ---
Enter Username: Rafia
Enter Password: Rafia123

Login Successful! Welcome Rafia

===== LOGIN MANAGEMENT SYSTEM =====
1. Register
2. Login
3. Exit
Enter your choice: 3

Thank you for using the system!

== Code Execution Successful ==
```