

Pass Task 4.2 Web UI

Design justification:

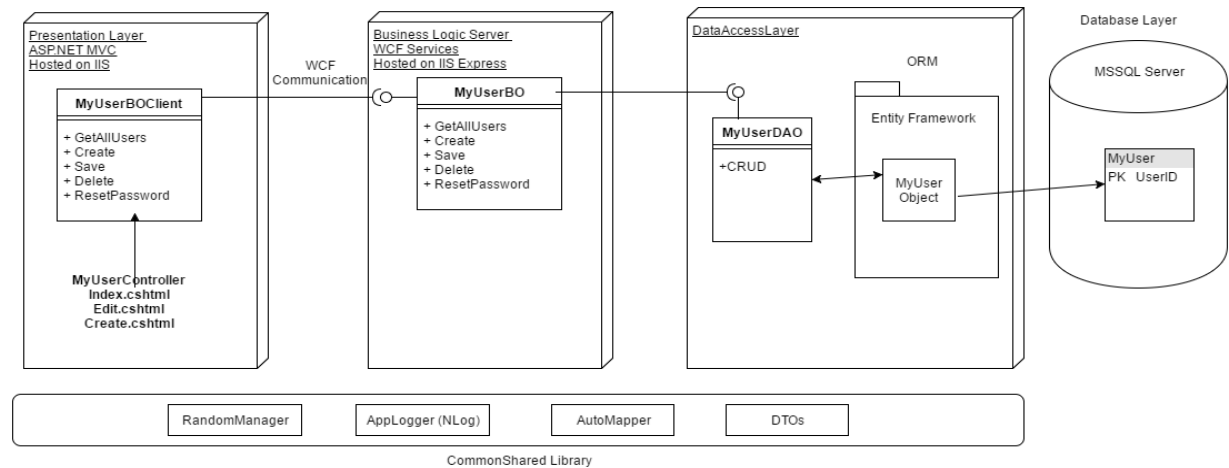


Figure 1. Architecture diagram.

Database Layer, DAL, Business Logic Server, Common Shared Library: These layers are similar to the design on PassTask 3.2: A MSSQL Server database, effectively SQL Express server which contain the data table **MyUser**. DAL contains one DAO object: **MyUserDao** that implemented using Entity Framework to communicate with the **MyUser** data table. The BLL is implemented using WCF Services and contains 1 service **MyUserBO**. This object use the **IMyUserDAO** interfaces provided by the DAL to interact with the persistence storage. The Business Logic Service is deployed to an IIS hosting service with a specific port number and URL address. Common Shared Library provides classes and tools to support to all layers in this architecture. It contains DTO, helper classes, logging tools that can be used by all layers.

Presentation Layer: The presentation layer is coded using ASP.NET MVC 4 framework. It contains a proxy class to handle the communication with the equivalent business object in the Business Logic Server. This proxy class is used inside the **UserController**. The site use Twitter Bootstrap css framework to design the layout and the look-and-feel of the pages. The page navigation flow is very simple: start from a listing page, which display all key user data in a table. In the end of each row has an Edit button that allow navigating to view detail page. More actions are provided on the detail page: Delete, Reset password, or Update detail. I decided to put the Reset password to a separated page because it has a focus on answering the security question and not be diluted among other detail. Furthermore, the Reset password page is normally be accessible by any users given that they are accessing from a public domain. Therefore, putting reset password function to a separated page would make it fit well to the real scenario.

Test cases:

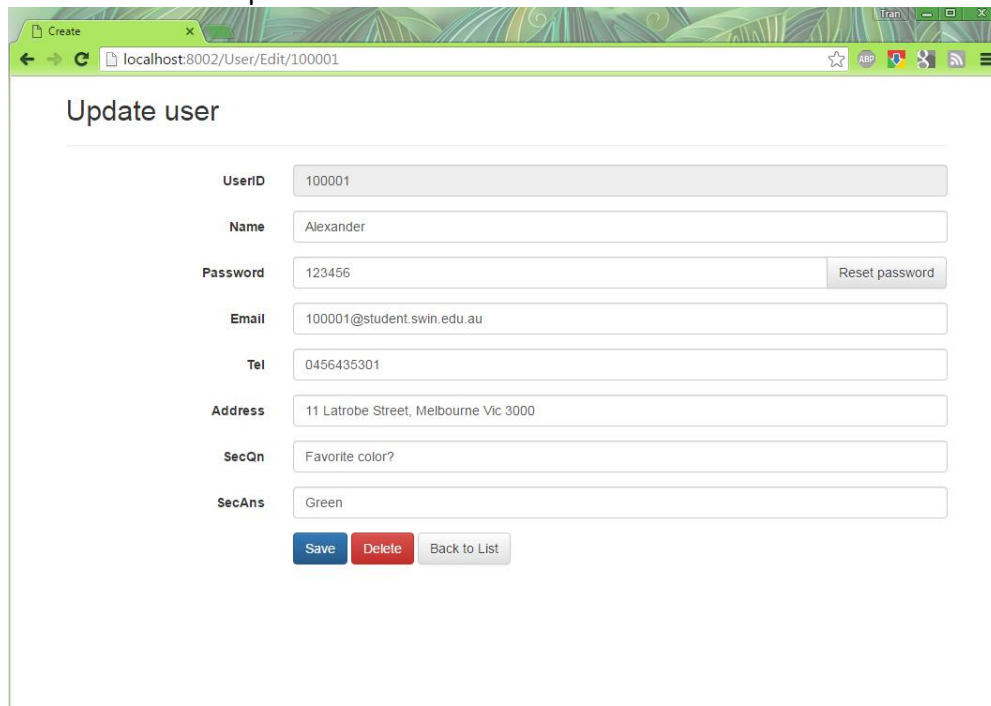
The following test cases have been taken out to make sure that the whole application works as expected:

ID	Test Case Name	Step	Expected Output	Result
01	Get all users	View the page /User	A list of 10 users is displayed on the screen	Pass
02	Get one user	Click to the Edit link of one user in the list	Display the detailed information of that user in a form	Pass
03	Create an user	<ul style="list-style-type: none"> - Click to the Create New link. - Enter new user information - Click Create 	The new user is added to the list. The list is now showing 11 users	Pass
04	Update existing user	<ul style="list-style-type: none"> - Click to the Edit link of one user in the list - Change one or more detail of the user using the form - Click Save 	The updated information of that user should be displayed on the list	Pass
05	Delete existing user	<ul style="list-style-type: none"> - Click to the Edit link of one user in the list - Click Delete 	The user is removed from the list	Pass
06	Reset password success	<ul style="list-style-type: none"> - Click to the Edit link of one user in the list - Click on the "Reset Password" button - Enter the correct answer for security question 	A success message will display The password is randomly modified A log file is record on the Business Logic Server	Pass
07	Reset password fail	<ul style="list-style-type: none"> - Click to the Edit link of one user in the list - Click on the "Reset Password" button - Enter the wrong answer for security question 	An error message is display.	Pass

Table 1. Test cases and test results

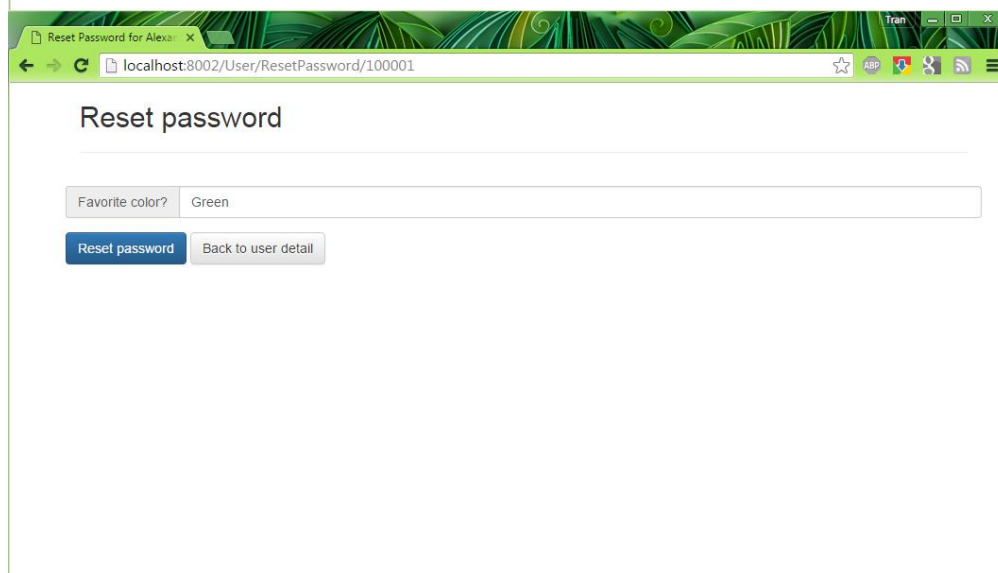
Test case screen shots and success screen shots:

Test ID 06 – Reset password success



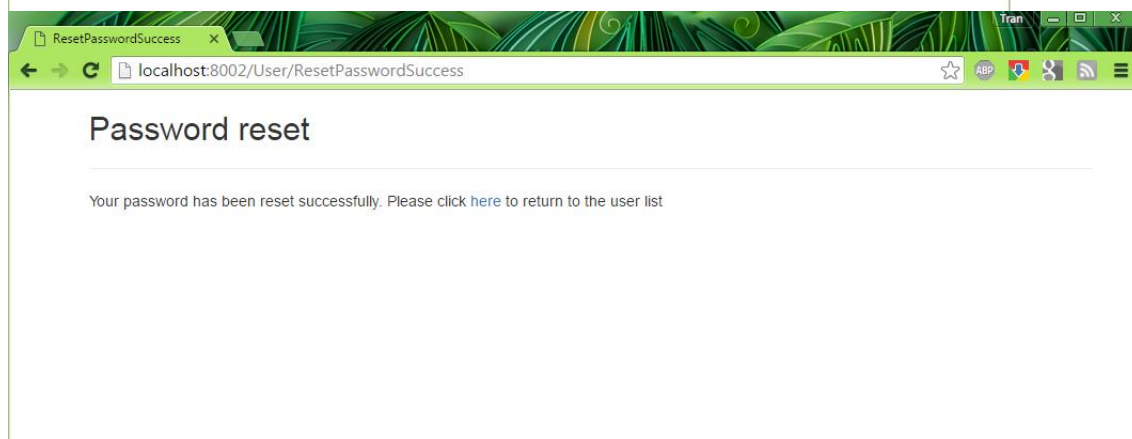
The screenshot shows a web browser window with the URL `localhost:8002/User/Edit/100001`. The page title is "Update user". The form contains the following fields and buttons:

- UserID**: 100001
- Name**: Alexander
- Password**: 123456 (with a "Reset password" button next to it)
- Email**: 100001@student.swin.edu.au
- Tel**: 0456435301
- Address**: 11 Latrobe Street, Melbourne Vic 3000
- SecQn**: Favorite color?
- SecAns**: Green
- Buttons: Save, Delete, Back to List



The screenshot shows a web browser window with the URL `localhost:8002/User/ResetPassword/100001`. The page title is "Reset password". The form contains the following fields and buttons:

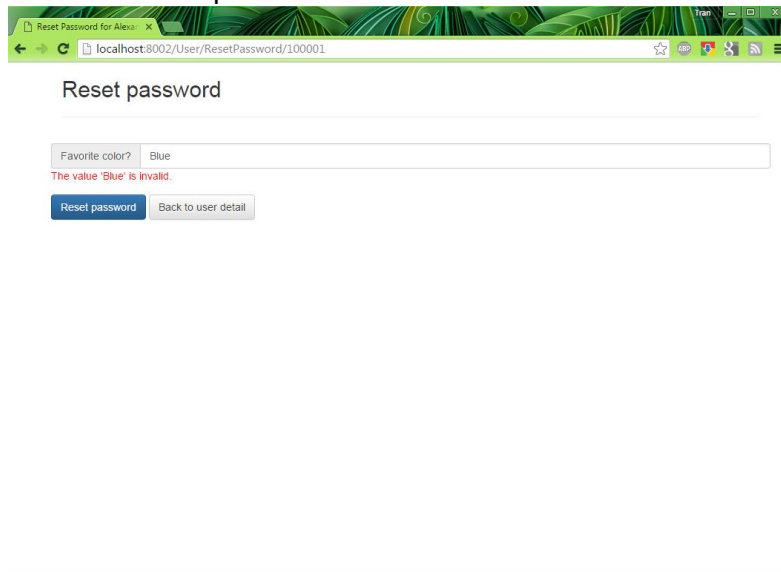
- Favorite color?**: Green
- Buttons: Reset password, Back to user detail



The screenshot shows a web browser window with the URL `localhost:8002/User/ResetPasswordSuccess`. The page title is "Password reset". The message displayed is:

Your password has been reset successfully. Please click [here](#) to return to the user list

Test 07 – Reset password fail



References:

- (1) 2015, *How to: Host a WCF Service in IIS*, Microsoft MSDN, viewed 31th Mar 2015, <[https://msdn.microsoft.com/en-us/library/ms733766\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/ms733766(v=vs.110).aspx)>
- (2) BitBucket source code:
<https://bitbucket.org/werynguyen/swinschool/src/55e559ffe9792cc33ce35ff41bf34771a85789da/?at=PT32>