Online Education Employment Project (Website)

Final Report

VEL Team

Date: 04/OCT/2015

Document Modification History/Revision log

Version	Date	Author	Description of Change
1.0	04/10/2015	Shawn	Initial version
2.0	05/10/2015	Shawn	Integrate others' contributions
3.0	06/10/2015	Shawn	Integrate others' contributions
3.1	06/10/2015	Kaii	Refine the format and add function test result
3.2	06/10/2015	Miranda	Correct some information
4.0	07/10/2015	Shawn	Add reflection section

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1. Project Introduction

1.1.Product description

The goal of this project is to create an adaptive (mobile friendly) website to help IT students and unemployed people to get useful skills. The home page should draw visitors' attention so that they would like to register as fixed users. And users can choose the courses they want to take according to some success stories. We use the .NET Framework and the Visual Studio development environment to develop the website.

1.2. Team overview

No.	***GitHub username***	***SeeNowDo***	***Official name***	***UPI***
1	gaoyiqun	Irene	Yiqun Gao	YGAO742
2	huajinxie	Kaii	Huajin Xie	HXIE519
3	likaihe	Likai	Likai He	LHE838
4	lulujing	LuLu	Jing Lu	JLU986
5	vasanthnewzealand	V	Vasanth Boraiyan	VBOR051
6	yazang	Clay	Chen Yang	CYAN988
7	yinqi522	Miranda	Yu Guo	YGUO325
8	YsqEvilmax	Shawn	Shaoqing Yu	SYU702

2. Requirement Analysis

2.1. Product Backlog

No.	Completed User Stories		Relative tasks
1.	As CEO, I would like to re-design our website (first page) to make it mobile friendly.	So that we can meet ranking requirement, because Google adopted mobile-friendliness as a ranking signal.	(Home Pages)
2.	As a VISITOR (anonymous user), I would like to read some success stories of previous students and select the same courses.	So that I can follow the same approach and select suitable courses accordingly.	(Success stories List Pages)
3.	As a VISITOR (anonymous user), I would like to read the detail of some success story and get to know what courses they've learned.	So that I can order the same courses.	(Success stories detail pages)
4.	As CEO, I would like our team profile and FAQ to be well noticed.	So that we can provide more detail information about our company.	(Team Profile & FAQs Page)
5.	As an ADMIN (course advisor), I would like to maintain success stories with Add, Update, and Delete.	So I can update and maintain the story pages.	(Admin functions of success story pages included add, edit, delete pages)
6.	As a USER, I would like to login to my category (Admin or Students) in the system.	So I can maintain or learn on the website.	(Login Pages)

2.2. Extensional Product Backlog

No.	Completed User Stories		Relative tasks
1.	As a CEO, I want the main page could be brief but interesting.	So that visitors can be attracted.	(Home pages)
2.	As the CEO, I want my customs can share their story page through social networks such as Facebook, Twitter, Google+ and LinkedIn.	So that they can promote our company.	(Success stories list page)
3.	As the CEO, I want to put my team member's LinkedIn link on team profile page.	So that people can gain more confidence about our profession and experience.	(Team profile index page)
4.	As a Visitor, I want an individual page to demonstrate the functionalities of the automation testing tool.	So that I can decide whether to study or not.	(Automation testing toll page)
5.	As a visitor, I want to leave messages on the website.	So that I can get contact with the company.	(Home page)
6.	As a CEO, I want to know how to make my website stand out from google searching results.	So that I can change the keywords with some strategies.	(Research report)

3. Development Plan

3.1. Client Meeting Plan

The available time of Client Meeting, at client's office are as following.

No.	Week Day	Time
1	Monday	5:00 pm ~ 6:00 pm
2	Tuesday	5:00 pm ~ 6:00 pm
3	Wednesday	5:00 pm ~ 6:00 pm
4	Thursday	5:00 pm ~ 6:00 pm
5	Friday	5:00 pm ~ 6:00 pm

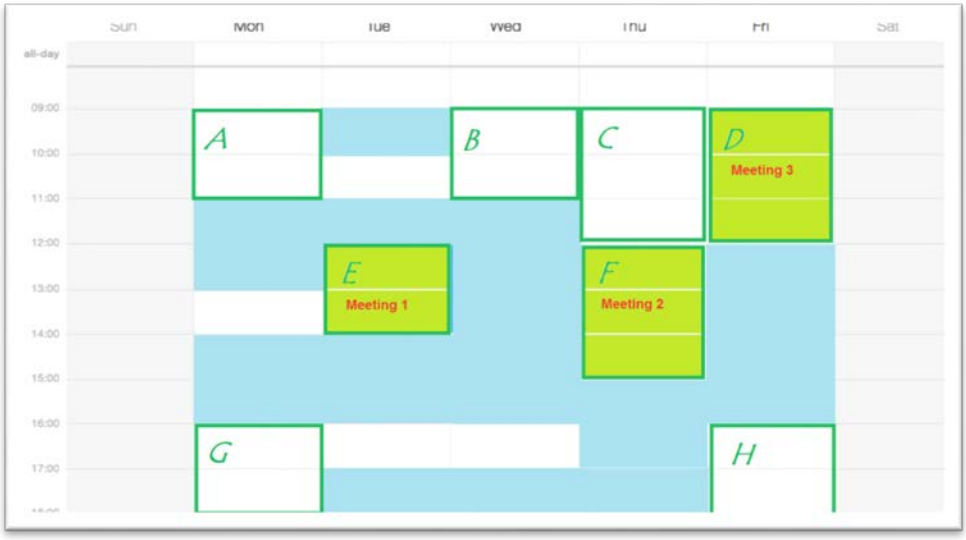
3.2. Team Meeting Plan

Team internal communication plan defined as below:

No.	Meeting	Purpose	Participant	Frequency	Time
1	Daily Scrum	Check team progress regularly	All team members	Weekly	As following
2	Sprint Planning	Confirm user stories, break it down into tasks and discuss the design of it	All team members, Product owner	Bi-weekly	Friday, 9:00 ~
3	Retrospective	Discuss what is good or bad in last sprint and make new strategy to improve the	All team members, Product owner	Bi-weekly	Friday 11:00 ~

		process			
4	Design meeting	Discuss the architecture and design of function to make sure team members understand the details	All team members	<TBD> Base on the result of daily scrum	<TBD>

Timetable of regularly weekly meeting



3.3. Project Development Plan

Software development approach is consist of 4 parts: Design Workshop and Sprint 1,2,3. In the design workshop, a mock up model will be delivered, as a demonstration of what can be done, and how system works. And in each following sprint, core functionality will be built, and new features will be incrementally add. Software Testing will be applied within each sprint to ensure functionality correctness, usability and robustness of the system.

Design Workshop (Duration 1 week)

A mock up system with minimum functionality and show case of adaption to different

size of device will be developed. Including web site main page, course list and course details.

Each page should be fully customized to adapt desktop/laptop, tablet and mobile phone. Program should be able to detect and apply customized layout framework for each screen size.

Deliverable consists of a demo system with mock up data.

Sprint 1

Core function of the system will be developed in this phase, including main page, course list and course detail, dynamic menu, course category. Each page will be applied by size adaption framework, tuned and tested on each screen size device. Server interaction will be concurrently developed.

Deliverable consist of minimum fully functional online course web site, with well tuned adaption to each screen size device from desktop/laptop, tablet to mobile phone.

Sprint 2

Implement visitor customized content, categorized success stories and dynamic recommended courses. Focus on functionality on recognition of visitor's personal background and behaviour, generate customized content for each type of visitor, and display successfully stories and corresponding courses which leads to high possibility of commit deals.

Deliverable consists of visitor recognition functionality, dynamic content based on visitor's category, successful stories and list of corresponding courses. Integrated with sprint 1.

Sprint 3

On-line help desk, shopping cart, and other potential customer requirements. These are add-on features to the system. According to the customer, these functionalities need

further discussion. As for now, development plan for this part of the project is not clarified. Refinement of product backlog will be done along while project on-going.

Deliverable is to be decided.

Software Testing

Test scenarios will be designed and test cases will be executed within each sprint. Defect management tool will be used on demands. Defects will be labelled with 3 levels of severity:

- Critical – system clash, module level failure, infrastructure failure, etc.
- Major – functional misbehaviour, missing functionality, etc.
- Minor – layout issue, user friendly issue, issues with work around, etc.

Testing scope include unit testing, integration testing and system testing. There will be organized integration testing and system testing within each sprint, before customer acceptance tests.

Deliverable consists of test reports.

Software Release

System will be bundled as deployable, together with design documents, test reports, installation guide and user guide.

3.4. Risk Management Plan

Risk Management is a process that ensures any issues are identified early and addressed before they jeopardize project objectives. The process will follow all stages from creating a risk management strategy through managing risk tracking to executing a risk management plan.

The Risk Tracking will be carried out after daily scrum. It is used to manage Risks that have a significant effect on project progress and outcomes. In addition to managing Risks, the process provides a method for documenting the rationale behind risk

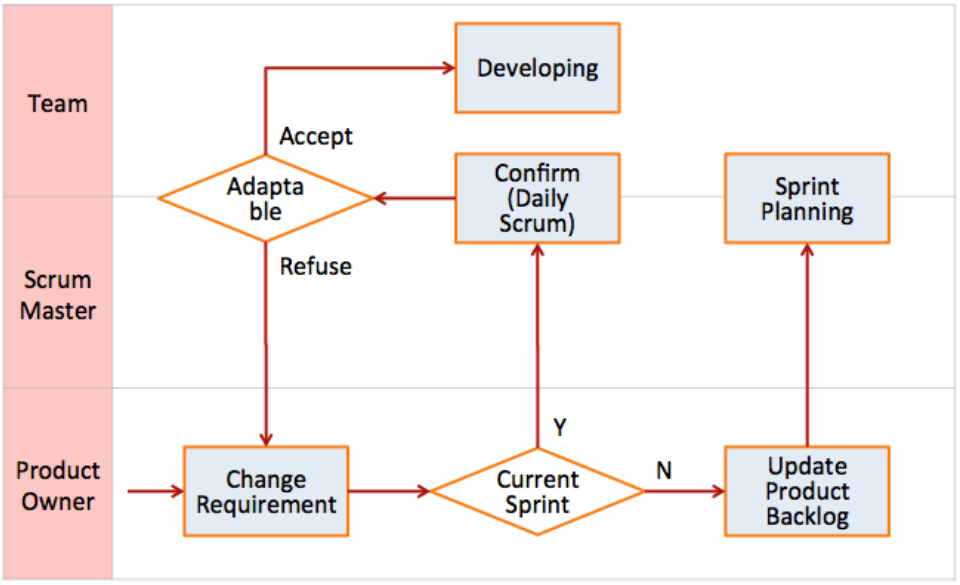
mitigation decisions made during one stage of the project that may affect a later stage.

Supporting this process is the Risk Tracking table that provides a centralized location for tracking Risks. Documentation for this can be found in the GitHub, located /PCB/02 Plans & Actuals/2.3_Risk & Issue. The Risk Tracking Process and tool allow the user to identify and assess each risk, as well as track the progress towards mitigation.

3.5. Change Management Plan

Changing requirement is welcome, even late. [Principles behind the Agile Manifesto]

- The Product Owner is responsible for ensuring the integrity of work products backlog within a project and introduction of changing requirement during sprint planning.
- Scrum master and team will implement change control processes during daily scrum in case of the change requirement can affect the scope of current sprint.



4. Project Configuration

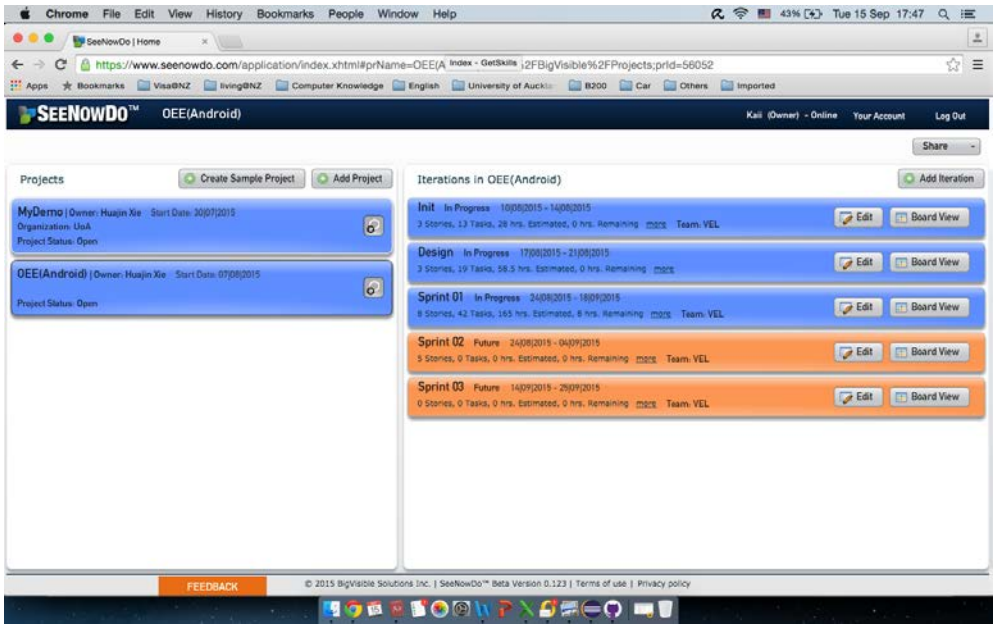
4.1. Scrum Management Tool

SeeNowDo will be used to monitor project approach, user stories, sprint plans, and development progress. Meanwhile, burn-down chart is provided to indicate whether the project is meeting its target schedule and budget.

- URL to login SeeNowDo:
  https://www.seenowdo.com/pages/login/index.xhtml

- Project Name: **OEE(Android)**

- Main board



4.2. Source Management Tool

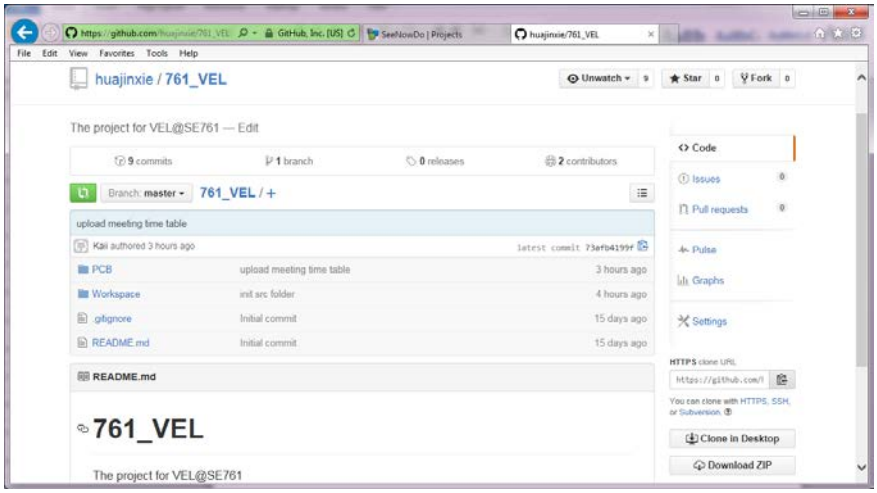
GitHub will be used to manager documents and source file.

- URL to login GitHub:

  https://github.com/

- Project Name: **761_VEL**

- Image of GitHub



5. Sprint 01

5.1. Delivered Software Increment

Our team have finished 6 user stories in the product backlog in the past Sprint. The prototype is a website include Login function, Admin function, homepages, Success story list pages and detail pages. This website use a 3 tier architecture. Communication and data exchange between the 3 layers can be easily achieved with Model-View-Controller (MVC 5) patterns. The presentation layer, business logic layer and database layer, can be easily developed and maintained separately by using MVC 5. We've also redesigned Database, to ensure that no conflict in the DB integration.

Currently completed pages and functions in the prototype can be tracked through two flows – Admin flow and Visitor flow:

From the Admin Flow:

- Homepages → Login page (Admin) → Success Story List Admin Pages → Success Story Detail Admin pages → Success Story Detail Admin Pages (Add/Edit/Delete) → Success Story List Admin Pages

Form the Visitor Flow:

- Homepages → Success Story List Pages → Success Story Detail Pages
- Homepages → Team Profile Pages → FAQs Pages

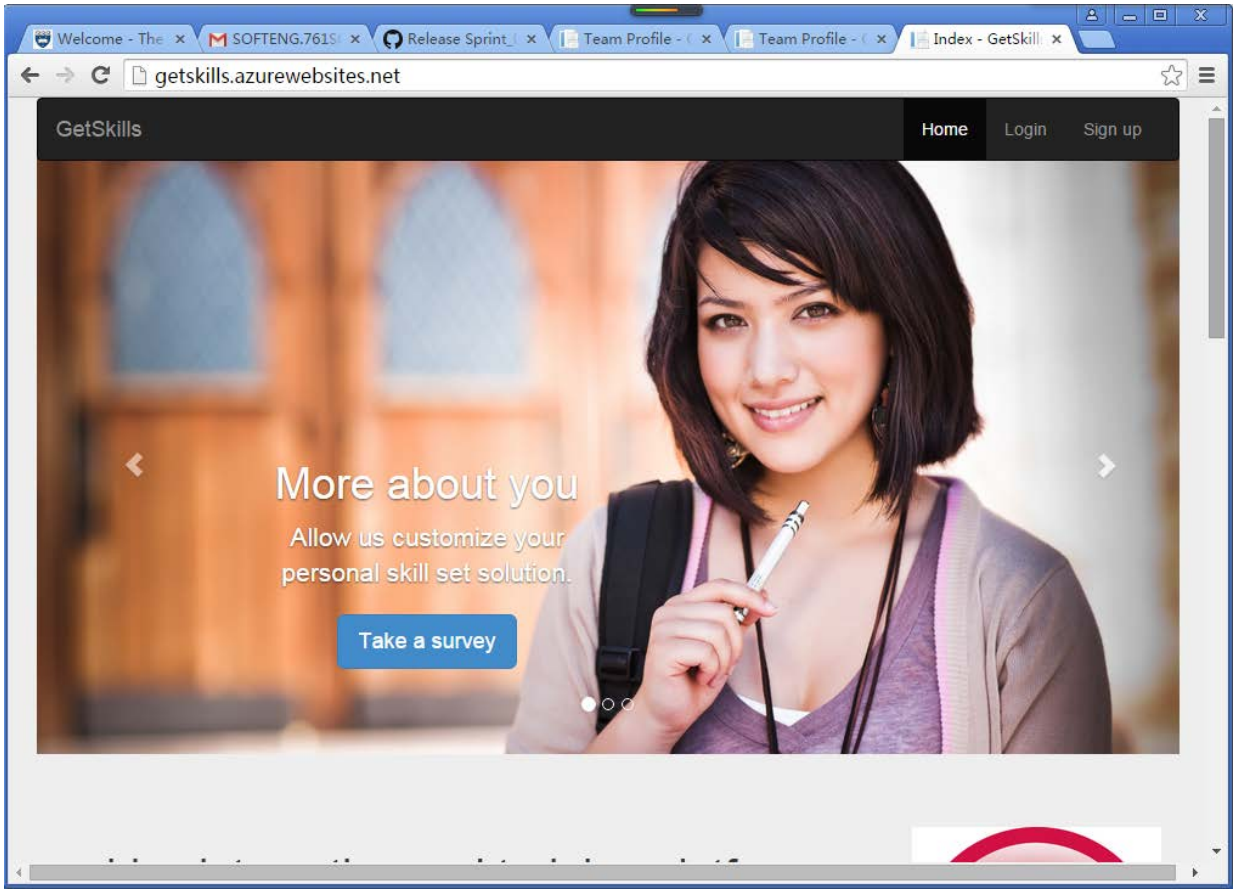
5.2. Sprint Backlog

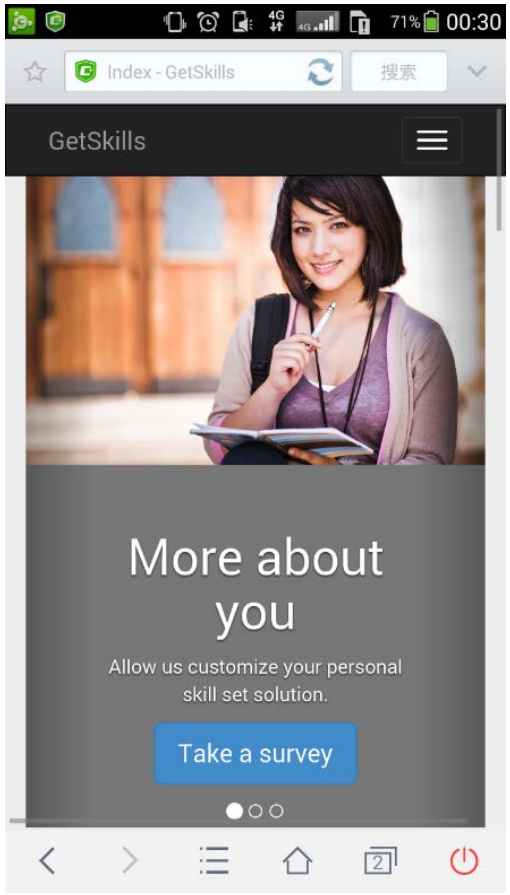
Story ID	User Story	Task ID	Task	Owner & Participant	UPI	Hours
1	Refine Home Page	11	Change carousel to success story & Height	ClayY	CYAN988	5.0
		12	Website statistics	Irene	YGAO742	3.0
		13	UT for carousel	Shawn	SYU702	2.5
		14	UT for website statistics	LikaiH	LHE838	1.5
2	Refine Success Story List	21	Share icons for social media	Shawn	SYU702	6.0
		22	Refine success story list page	Lulu	JLU986	3.0
		23	Refine detail page	Lulu		4.0
		24	Unit Test (Story List)	Irene	YGAO742	1.0
3	Team Profile Admin Function	45	Detail Success Story Page	ClayY	CYAN988	4.0
		46	Test Case (Story Detail)	Miranda	YGUO325	3.0
		47	Unit Test (Story Detail)	Miranda	YGUO325	2.0
4	Test Automation Page	48	Team profile page	ClayY	CYAN988	2.0
		49	FAQ page	LikaiH	LHE838	2.0
5	Contact Function	51	Admin (List page)	Kaii	HXIE519	9.0
		52	Admin (Edit page)	Kaii	HXIE519	8.0
		53	Admin (Add page)	V	VBOR051	7.0
		53	Admin (Add page)	Kaii	HXIE519	1.0
		54	Test Case & NUnit (Add)	Miranda	YGUO325	4.0
		55	Test Case & NUnit (Edit)	Miranda	YGUO325	4.0

		56	Test Case & NUnit (List)	Lulu	JLU986	4.0
		57	Unit Test (Story Detail)	Lulu	JLU986	3.0
		58	Admin (Delete page)	Kaii	HXIE519	3.0
6	Google Search Keyword	61	Login Page	Miranda	YGUO325	6.0
		62	Test Case & Nunit (Login)	Irene	YGAO742	4.0
		63	Unit Test (Login)	Irene	YGAO742	1.0
X1	Scrum Activities	01	Client Meeting(25/08/2015)	ALL members		4.0
		02	Scrum board init	Kaii	HXIE519	1.0
		03	Draft tasks list	Kaii	HXIE519	1.0
		91	Daily Scrum (28/08/2015)	ALL members		1.0
		92	Daily Scrum (02/09/2015)	ALL members		1.0
		93	Daily Scrum (05/09/2015)	ALL members		1.0
		94	Daily Scrum (08/09/2015)	ALL members		1.0
		95	Daily Scrum (11/09/2015)	ALL members		1.0
		96	Retrospective Meeting	ALL members		4.0
		97	Client review Meeting(14/09/2015)	ALL members		6.0
		98	Client review Meeting(14/09/2015)	ALL members		2.0

5.3. Development Details

1) User Story 1: Refined home page
   URL: http://getskills.azurewebsites.net/



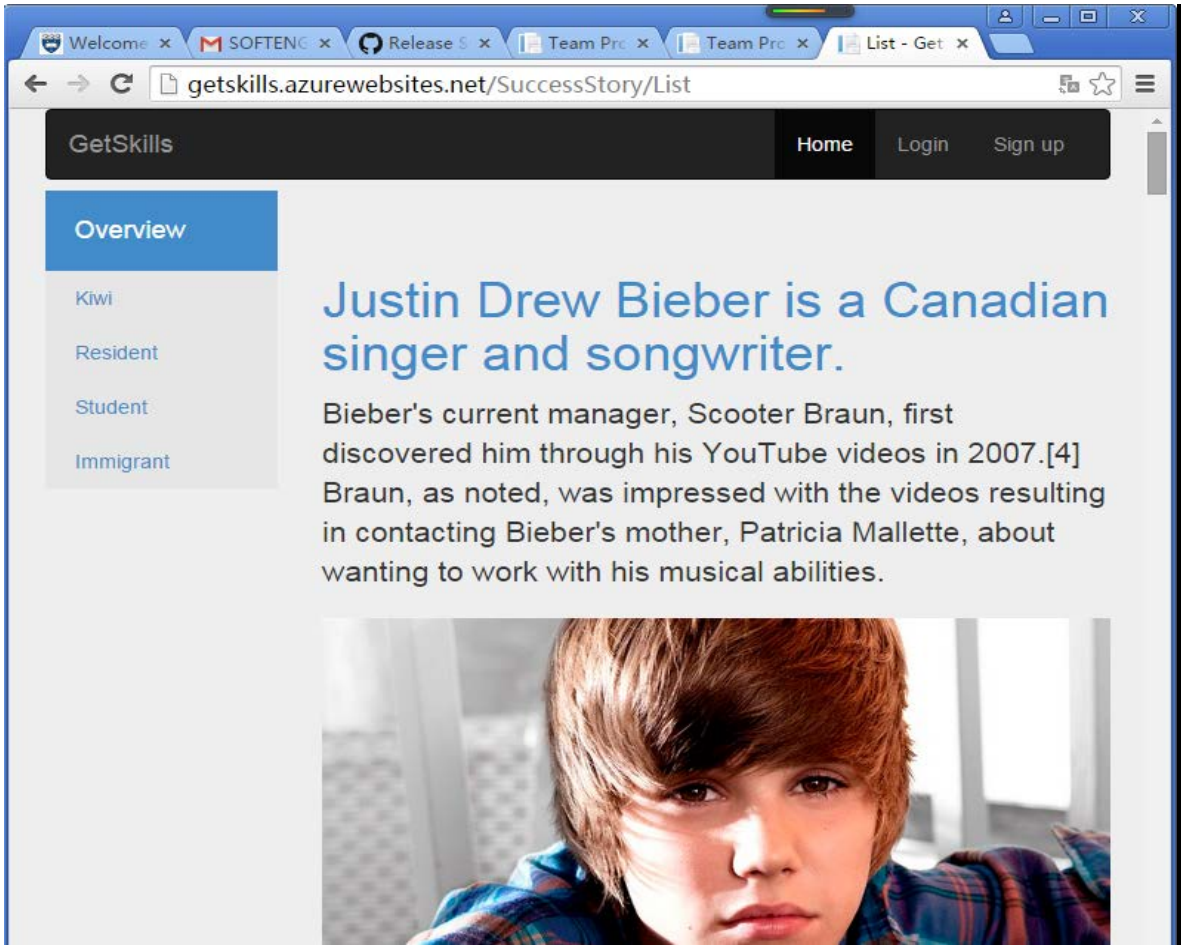


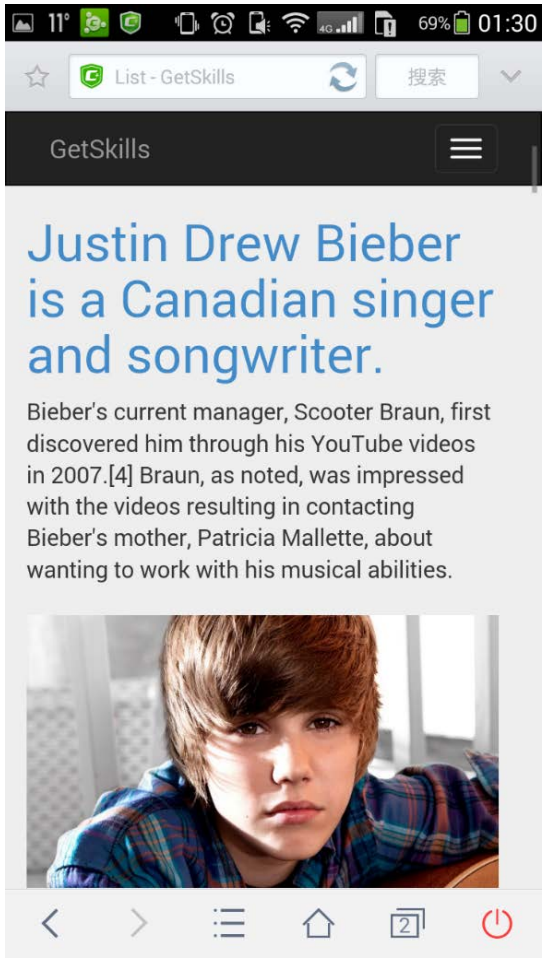
NOTE: In this prototype, most of the data is dummy data, not realistic data. We are concentrate on displaying and refining the main functions of the website in this Prototype. The fake data will probably be replaced in the following iterations.

2) User Story 2: As a VISITOR (anonymous user), I would like to read some success stories of previous students.

** At the bottom of the Home Page (http://getskills.azurewebsites.net/), there is a link – "Success Stories" located in "Site Map" zone.

URL: http://getskills.azurewebsites.net/SuccessStory/List





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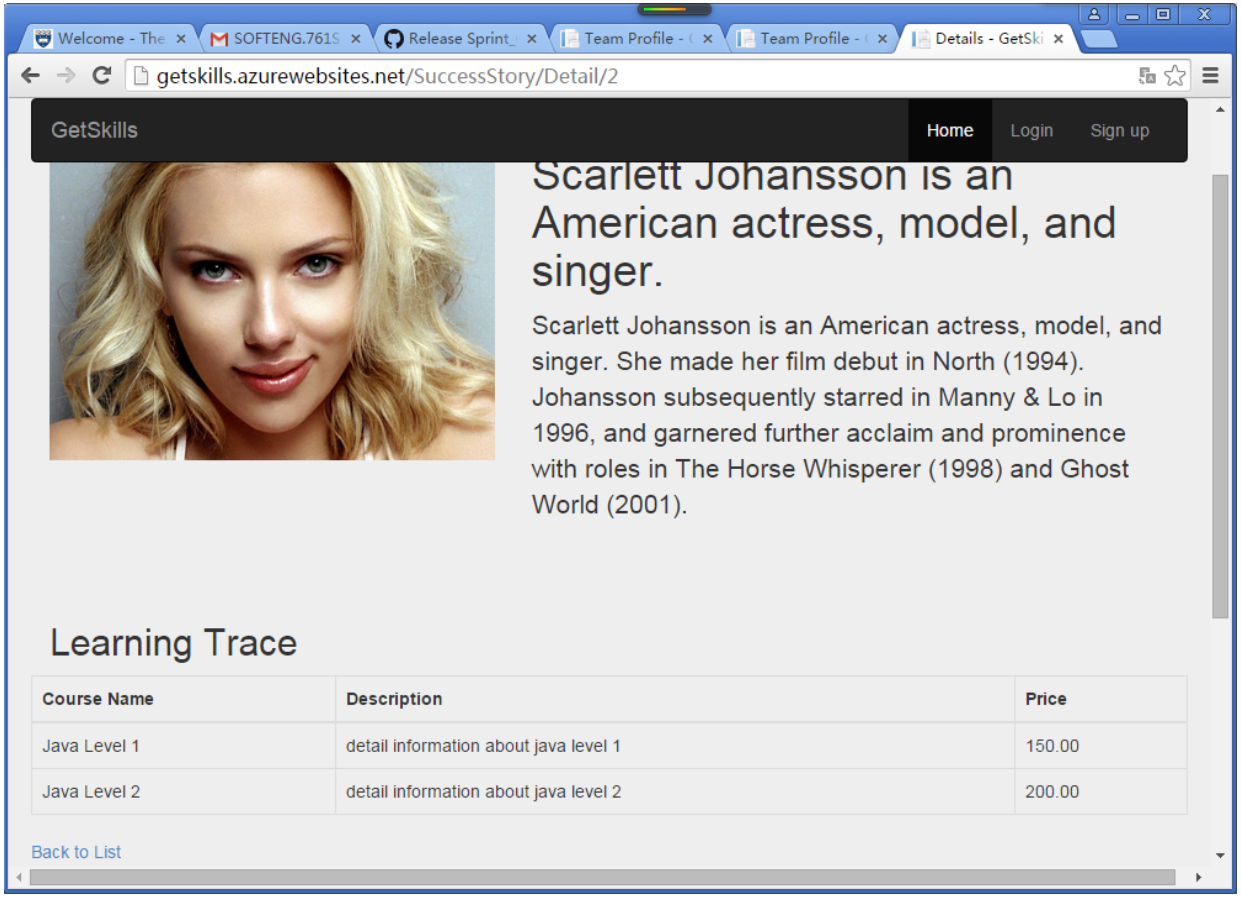
3) User Story 3: As a VISITOR (anonymous user), I would like to read the details of some success stories.
** Click the title of each success story in Success Stories List Page (http://getskills.azurewebsites.net/SuccessStory/List), the pages will navigate to the relative Success Story Detail Pages. Visitors can jump back to the Success Stories List Pages by clicking 'Back to list' link at bottom.
URL: For example: http://getskills.azurewebsites.net/SuccessStory/Detail/2, or http://getskills.azurewebsites.net/SuccessStory/Detail/1



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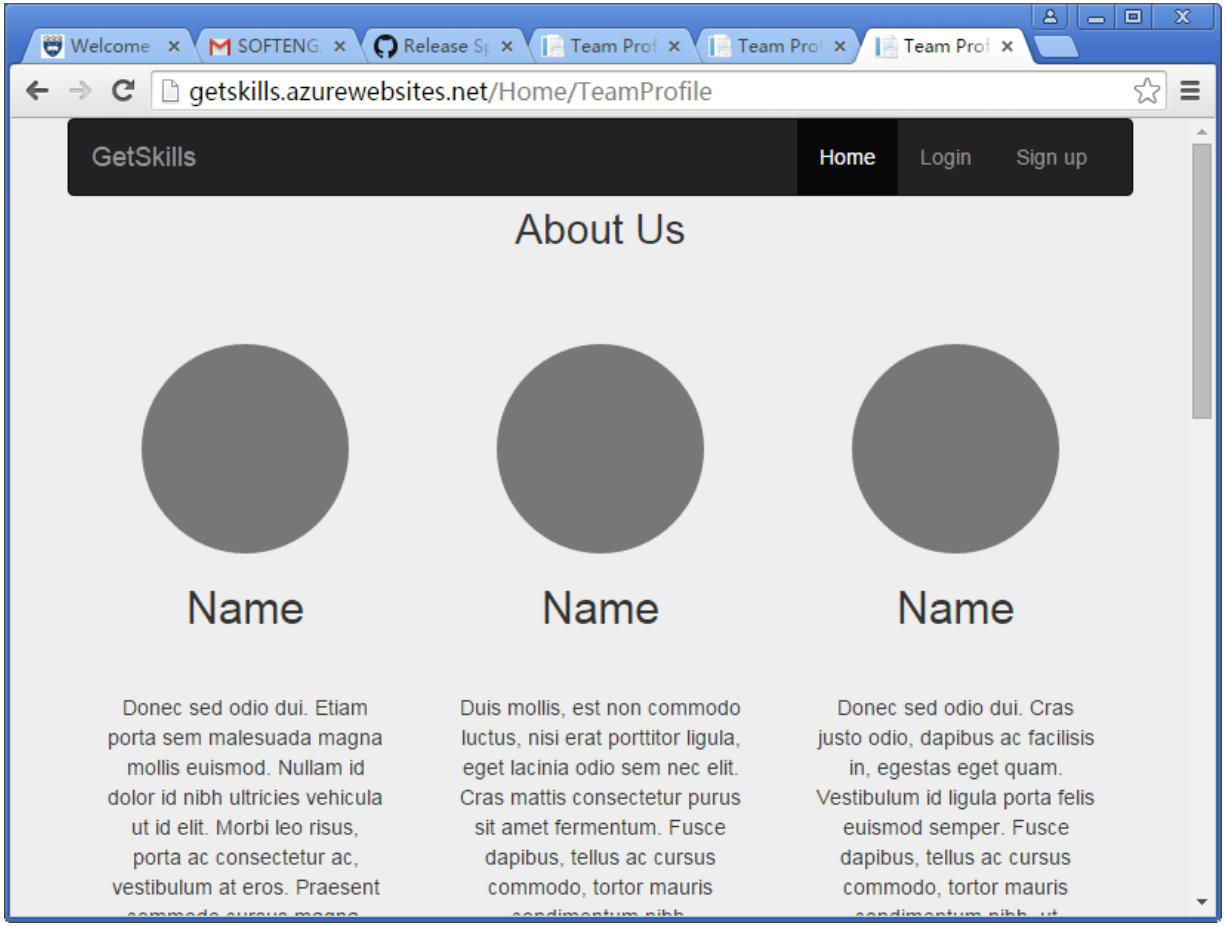
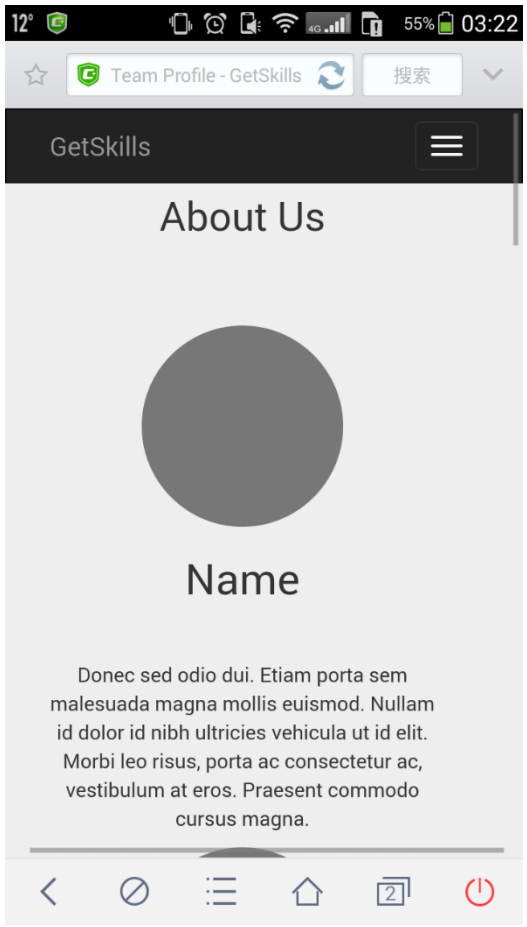
4) User Story 4: As CEO, I would like our team profile and FAQ to be well noticed.

** At the bottom of the Home Page (http://getskills.azurewebsites.net/), the 'Team Profile' link will lead visitors to the Team Profile Pages

URL: http://getskills.azurewebsites.net/Home/TeamProfile





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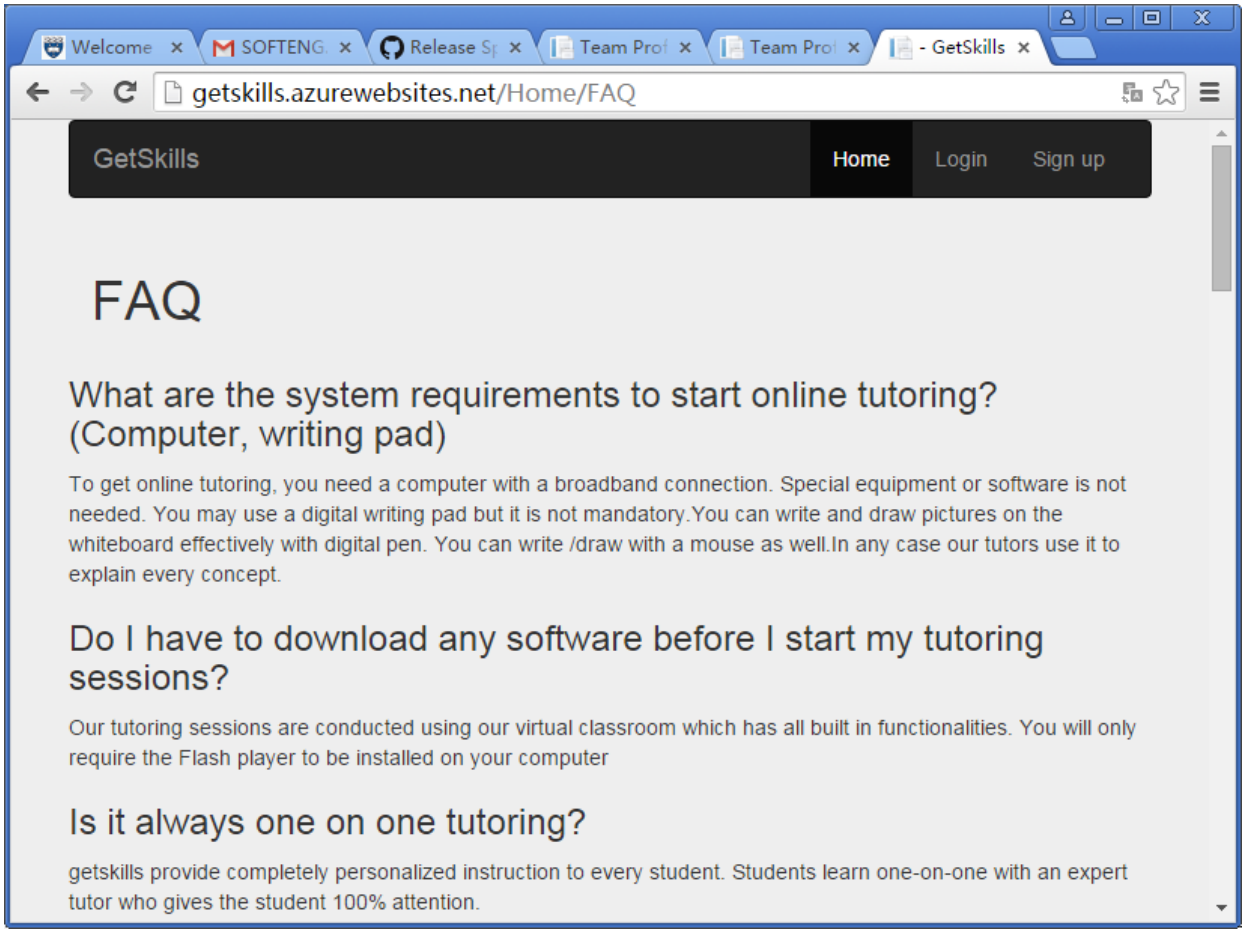
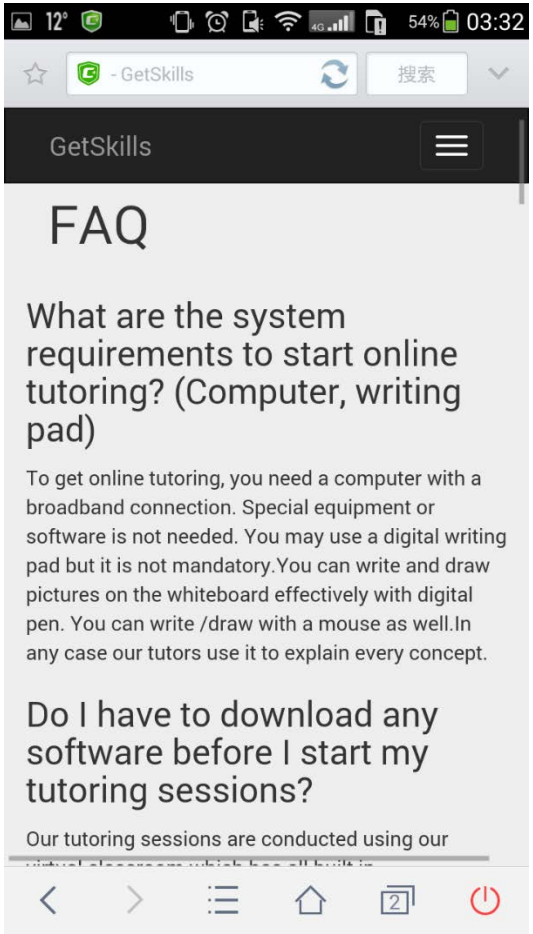
** At the bottom of the Home Page (http://getskills.azurewebsites.net/), the 'Team Profile' link will lead visitors to the Team Profile Pages

URL: http://getskills.azurewebsites.net/Home/FAQ





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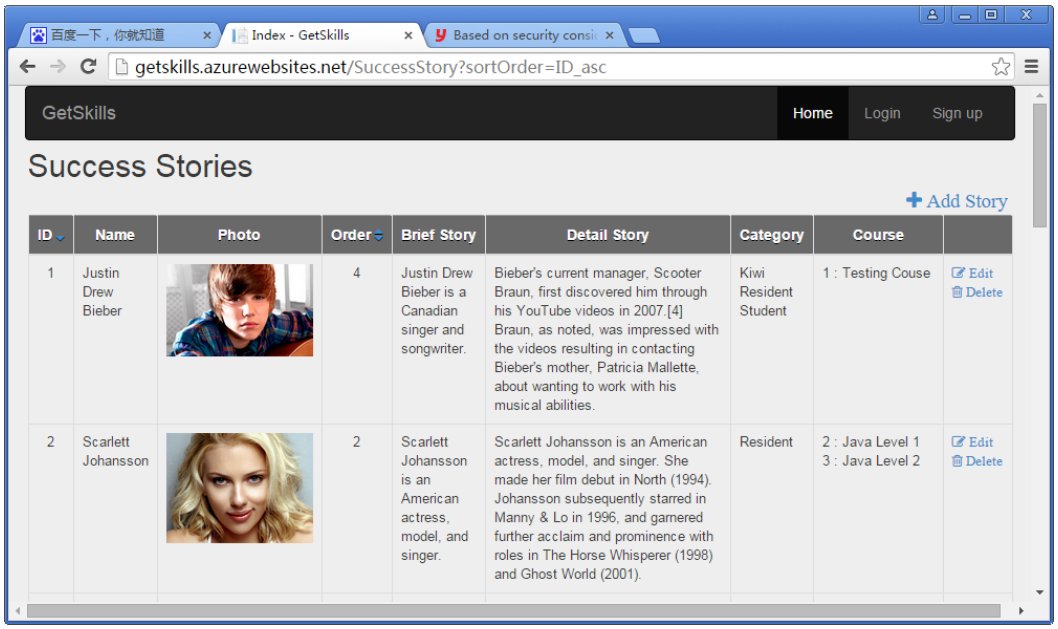
5) User Story 5: As an ADMIN (course advisor), I would like to maintain success stories with Add, Update, and Delete.

** For ADMIN functions, Product Owner informed us that they won't maintain the stories by using mobile phones. So that we only developed the PC pages.

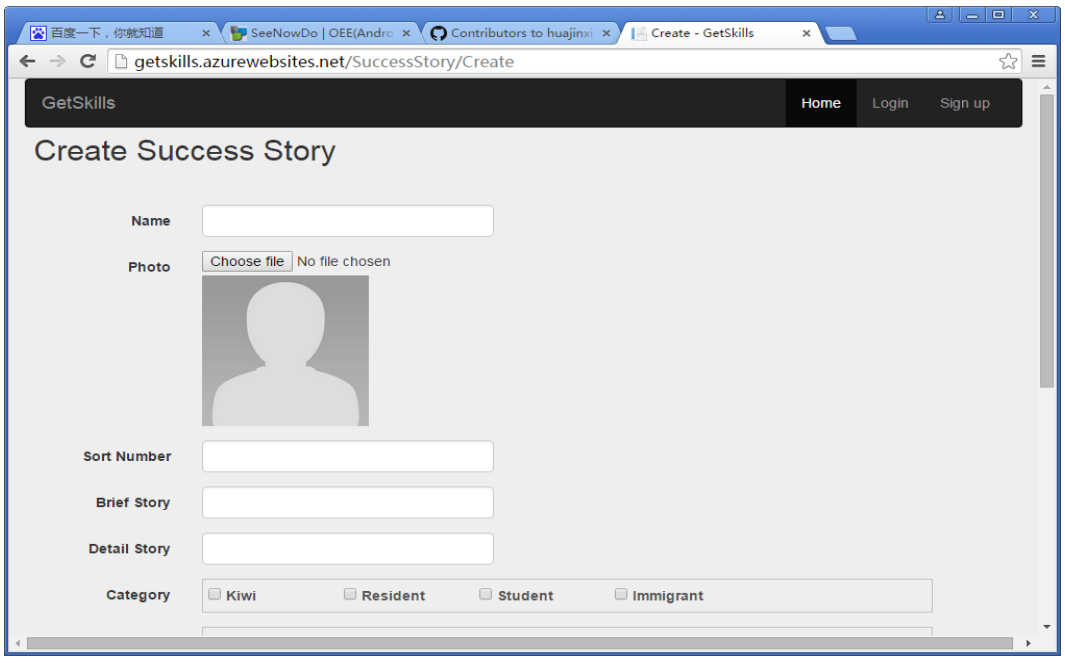
** Based on security considerations, we decided not to show the 'Admin Login' link on public website pages. Administrators can login to ADMIN pages through the link – http://getskills.azurewebsites.net/Account/AdminLogin

(UserName: aaaa Password: 123456)

a. Admin URL: http://getskills.azurewebsites.net/SuccessStory?sortOrder=ID_asc



b. By click the "+ Add Story" on Admin pages, administrators can create new success stories.
URL: http://getskills.azurewebsites.net/SuccessStory/Create



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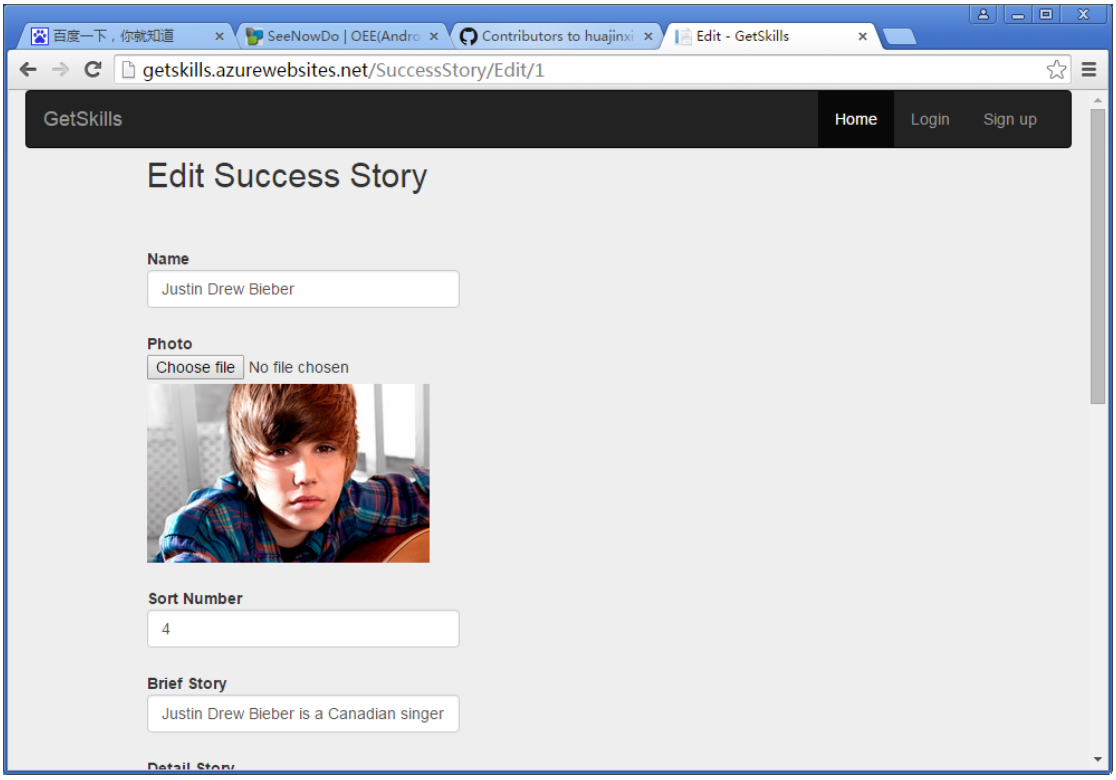
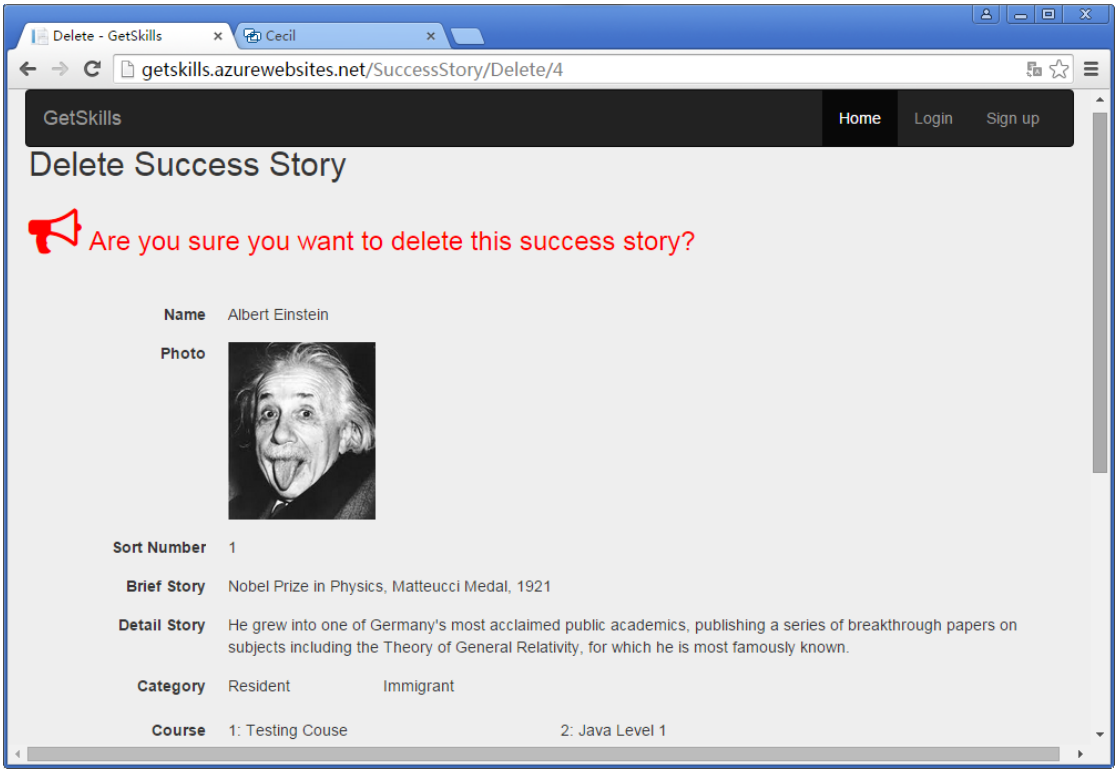
c. By click the “Edit” button after each success stories on Admin pages, administrators can edit exist success stories.
URL: http://getskills.azurewebsites.net/SuccessStory/Edit/1



d. By click the “Delete” button after each success stories on Admin pages, administrators can delete exist success stories.
URL: http://getskills.azurewebsites.net/SuccessStory/Delete/4



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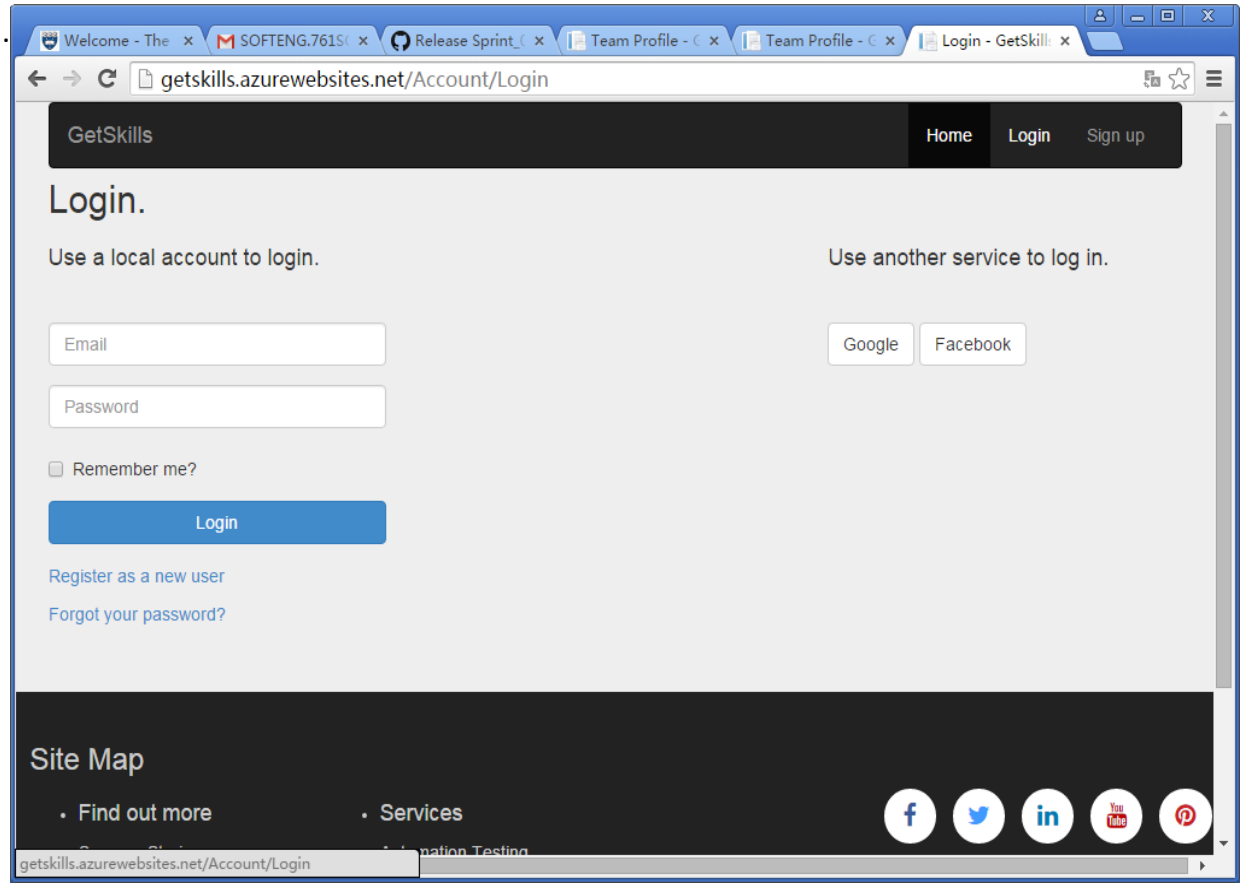
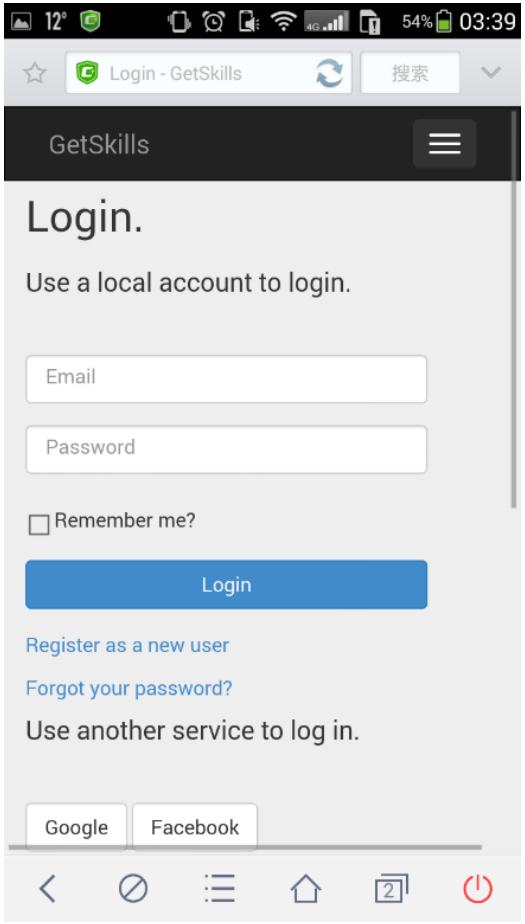
6) User Story 6: As a USER, I would like to login to my category (Admin or Students) in the system.

** No matter which pages visitors are surfing, they can always login/Register in the website by click the related links on heater (Navbar). They can also choose to login by using Google Accounts or Facebook Accounts.

URL: http://getskills.azurewebsites.net/Account/Login





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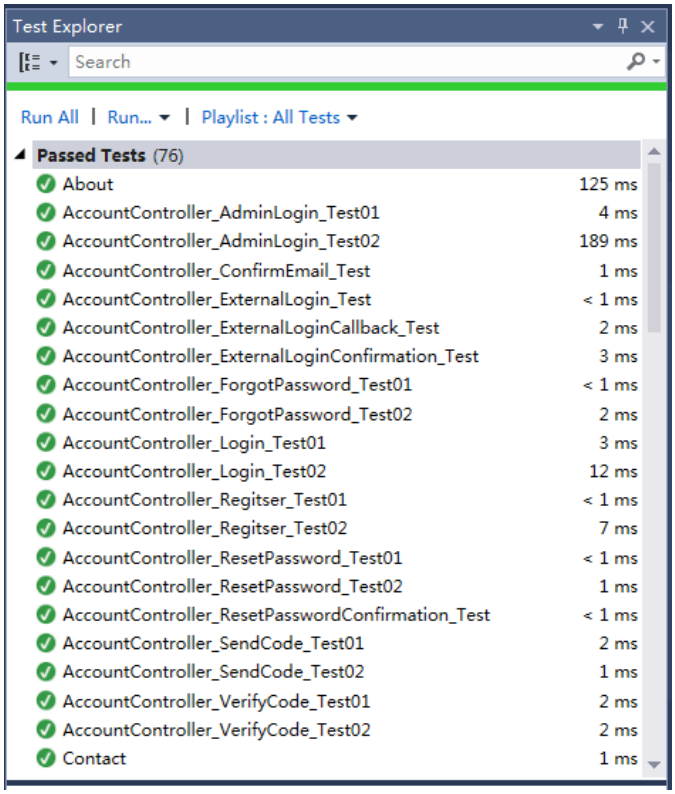
5.4. Test results

1) NUnit Tests

We mainly use Nunit, which is an open source unit testing framework for Microsoft .Net, in completing the test cases and Unit tests processes.

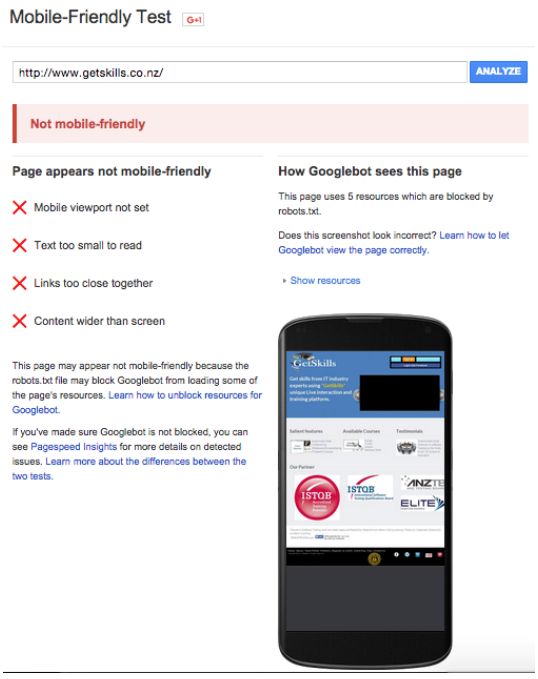
In our project, Unit testing for Web Page are implemented. And NUnit testing are implemented for all Controller Classes and methods. Our tests also including sync unit tests.

The methods in controllers have been tested as more as possible. The source codes have passed all of the 76 test cases.

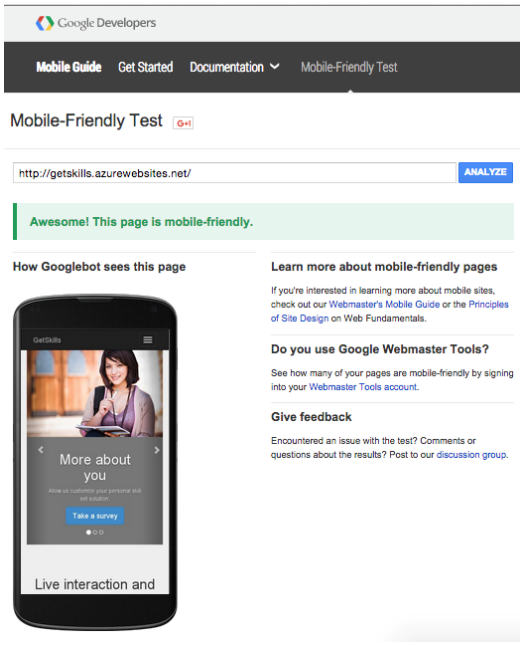


2) Mobile Friendly Test (Google)

- Test result of old system: Un-friendly

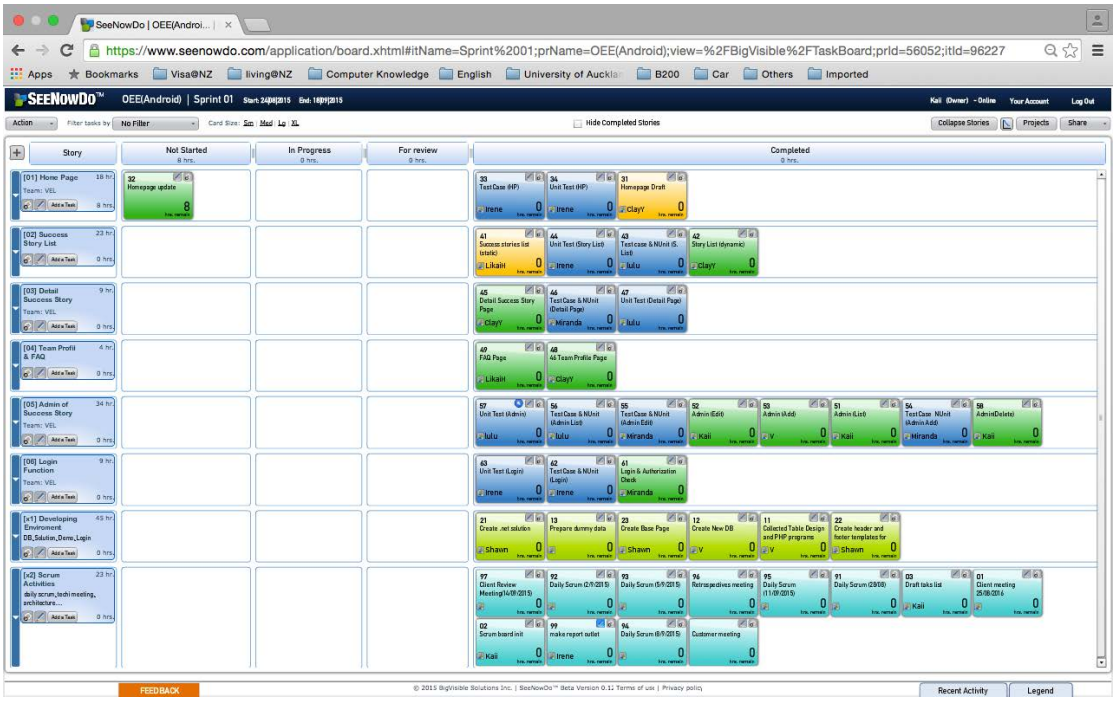


- Test result of new system: Mobile friendly

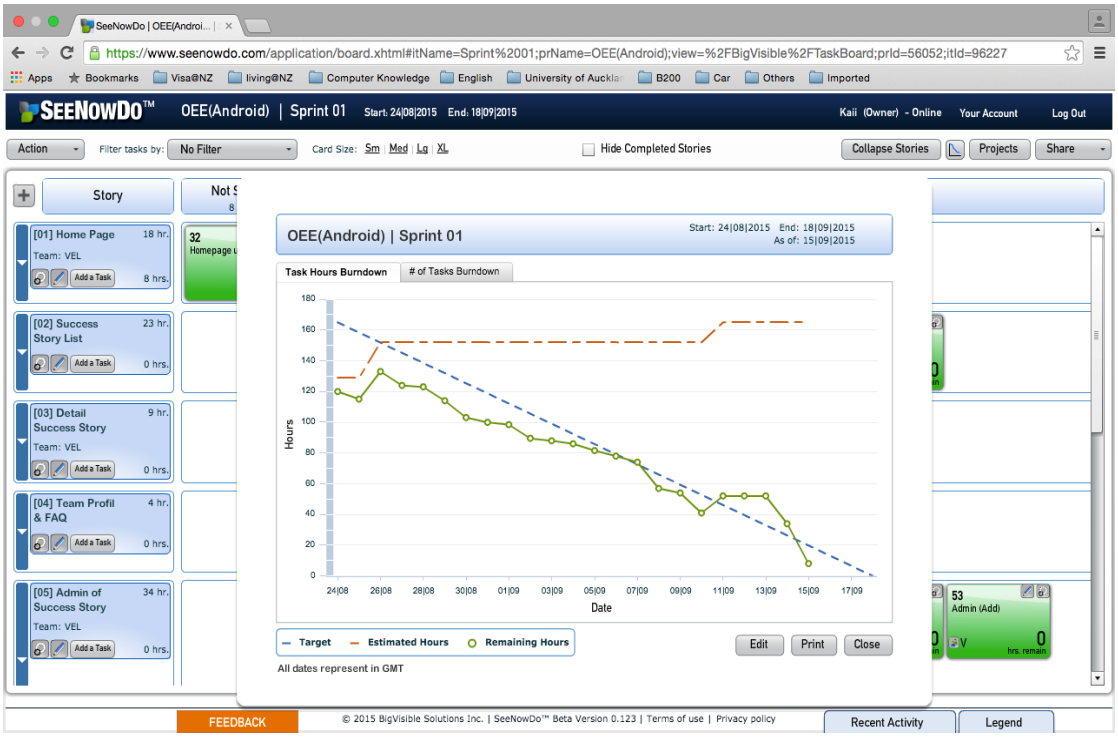


5.5. Sprint Management

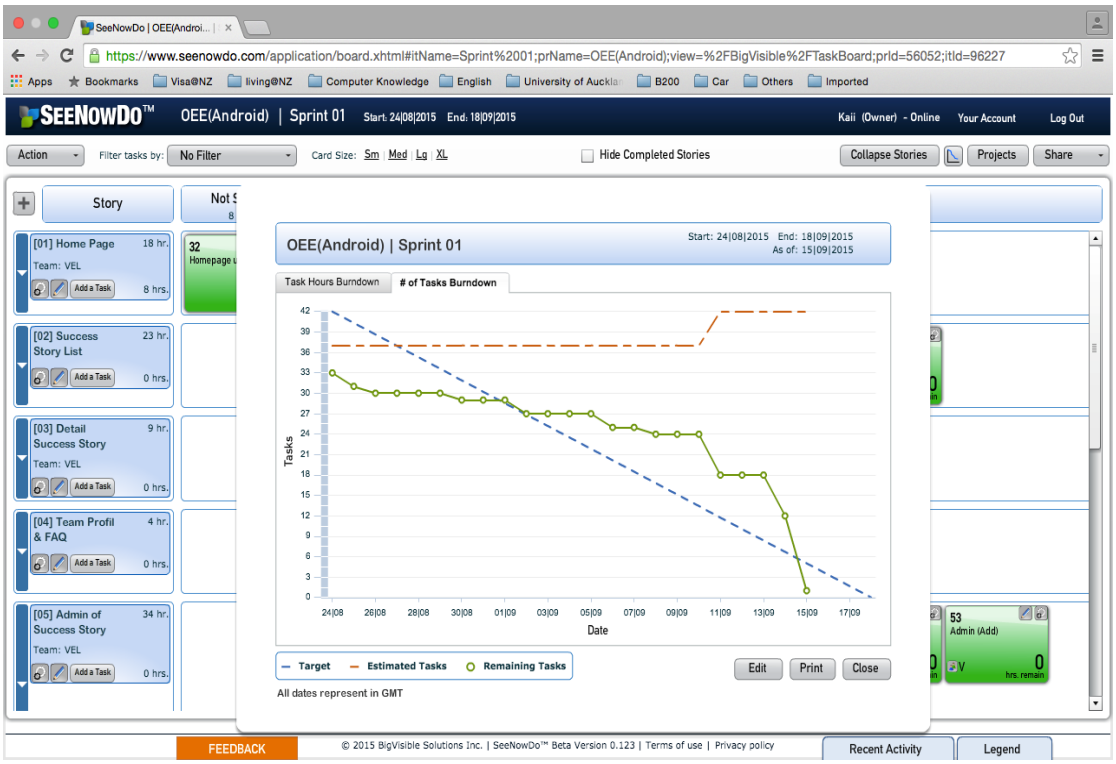
- Scrum Board (Sprint 01)



- Burn-down chart (By hours)



- Burn-down chart (By tasks)



5.6. Sprint Review

Our team had a Sprint Review meeting with the attendances of Scrum Master, team members and Product Owner–Yadwinder on September 14th. We've displayed our prototype to client. We've get positive feedbacks on most of our efforts for the project.

Product Owner–Yadwinder inspected the project and give us four suggestions in adapting the Prototype.

1) Team Profile pages need to be more colourful and interactive.
   i. Add LinkedIn profile links of each member on Team Profile pages.
   ii. Design and provide Admin Pages for Team Profiles in next Sprint.
2) Shift "contact us" link form the footer to Navi-bar (Heater).
3) Adjust the pictures and ISTQB logos in Home Pages.
4) Add "share to social media (Twitter/Facebook) function" on Success Story List Pages and Success Story Detail Pages.

According to PO's suggestions, we will adjust our project by the end of this Sprint on September 18th Fri.

5.7. Retrospective

Clay: In this sprint I initiated the layout of the website using Bootstrap framework and carefully crafted the home page, success story list page and success story detail page. I have developed model class, controller and views for success story list and success story detail. By pair programming with Kaii, I have learned to develop controller in a very short time.

Likai: In this sprint, I focused on the mobile friendly static webpage. I designed a successful story list static webpage and work with Clay in FAQ page and Team Profile page. It is my first time to design a webpage and I already prepare some new knowledge (such as how to make a dynamic page) for the next sprint.

Irene: In this sprint, I put more efforts on writing test cases and unit tests by using NUnit. I have also gained some experience of mobile-friendly website development. By following agile development processes, I've been taught lots of useful knowledge and gained experiences from our group members.

V: By following the scrum, I played several different roles within one project, which is interesting one, which cannot be achieved in normal waterfall method. For example, some days as a Scrum master, some days DBA, some day's software developer, some day's Business Analyst which gives a feel of I had a full meals (Indian Food variety, with many items in the content).

Miranda: At first, I designed and built the database with V. Then I designed two login pages for choice and developed login pages for Admin with Shawn. In addition, I wrote test cases for admin pages and successstory pages with Lulu. I really learned a lot in this sprint and I hope I can do more work in the next sprint.

Kaii: Acted as scrum master in the first half of sprint one, assist the team in sprint meeting, system architecture, DB design, as well as the initialization of scrum board. Responded for the admin functions of success story and NUnit testing environment. Applied daily scum, estimation game, simple design, pair programming, small release, refactoring and coding standards to our project.

Lulu: For the first sprint, I built some models and designed several dynamic pages including about.chtml, contact.chtml and create.chtml. Besides, I

completed test cases for AccountController and SuccessStoryController with Miranda. Finally, I wrote the prototype document with Irene and Miranda. Overall, I learned a lot in the process and tried to make contribution as much as possible.

Shawn: I organized solution in MVC architecture with demo codes. It's widely used by the whole team. I also built and configured a remote Azure server and a remote MySQL server to support team demo. Layout template, included a footer and a header for front web page, is developed by myself. Miranda and I cooperated on developing login page for Admins.

6. Sprint 02

6.1. Delivered software increment

Since most of our tasks have been done during the first sprint and our customers are pretty satisfied with the outcomes, in the second sprint the team focused on refinements of the project.

To be specified, according to the feedbacks we got from customer representatives, first we modified the content layout on main page and fill the content with real data, which make the project practical. Then we added share buttons for each success stories on the story list page. We also create a new dynamic page about team profile for admins to manage. The automatic testing page, which is filled with introductive information about our customers' main product, is implemented in this sprint as well. Furthermore, we integrated the "contact us" functionality on main page and linked it to the original API. Last but not least, as our customer required, our team also did some research about google searching strategies, providing them a report with suggestion for searching key words.

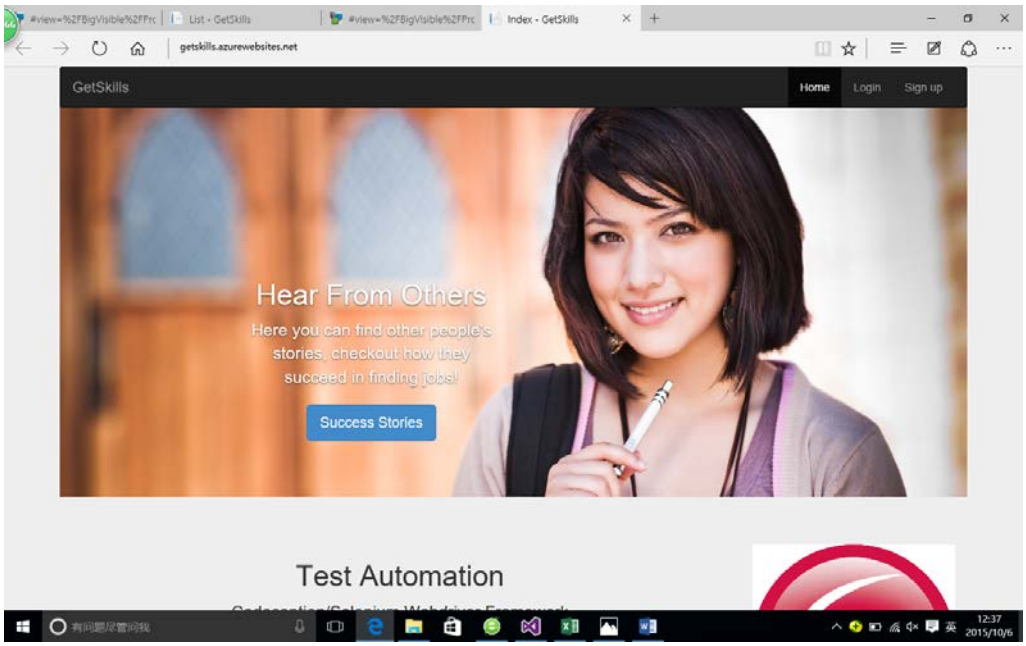
6.2. Sprint backlog

Story ID	User Story	Task ID	Task	Owner & Participant	UPI	Hours
1	Refine Home Page	11	Change carousel to success story & Height	ClayY	cyan988	5.0
	Refine Home Page	12	Website statistics	Irene	ygao742	3.0
	Refine Home Page	13	Test for carousel	Shawn	syu702	2.5
	Refine Home Page	14	Test for websit statistics	LikaiH	lhe838	1.5
2	Refine Success Story (List & De	21	Share icons for social media	Shawn	syu702	6.0
		22	Refine success story list page	Lulu	jlu986	3.0
		23	Refine detail page	LikaiH	lhe838	3.0
		24	Test for social media shareing	Kaii	hxie519	3.0
		25	Test for success story list page	Kaii	hxie519	1.5
		26	Test for detail page	Irene	ygao742	1.5
3	Team Profile Admin Function	31	Team profile dynamic page & Admin function	Miranda	yguo325	8.0
		32	Linkin Add-in	Shawn	syu702	1.0
		33	Test for team profile page	Kaii	hxie519	4.0
		34	Test for Linkin icon add-in	Kaii	hxie519	0.5
4	Test automation page	41	Update description on HP and add detail page	ClayY	cyan988	4.0
		42	Test for Test automation (HP & detail)	Lulu	jlu986	2.0
5	Contact Function	51	Add "contact us" function	V	vbor051	8.0
		52	Test for "contact us" function	LikaiH	lhe838	4.0
6	Google Search Keyword	61	Google searching keywork	Irene	ygao742	4.0
X1	Scrum Activities	01	Sprint meeting	ALL members		8.0
		02	Daily scrum (09/23)	ALL members		4.0
		04	Daily scrum (10/02)	ALL members		4.0
		05	Daily scrum (10/04)	ALL members		4.0
		06	Daily scrum (10/05)	ALL members		4.0
		03	Client Review (10/01)	ALL members		3.0
		07	Client Review (02)	ALL members		3.0
		08	Scrum Review meeting	ALL members		6.0

6.3. Development details

1) User story 1: Refine home page

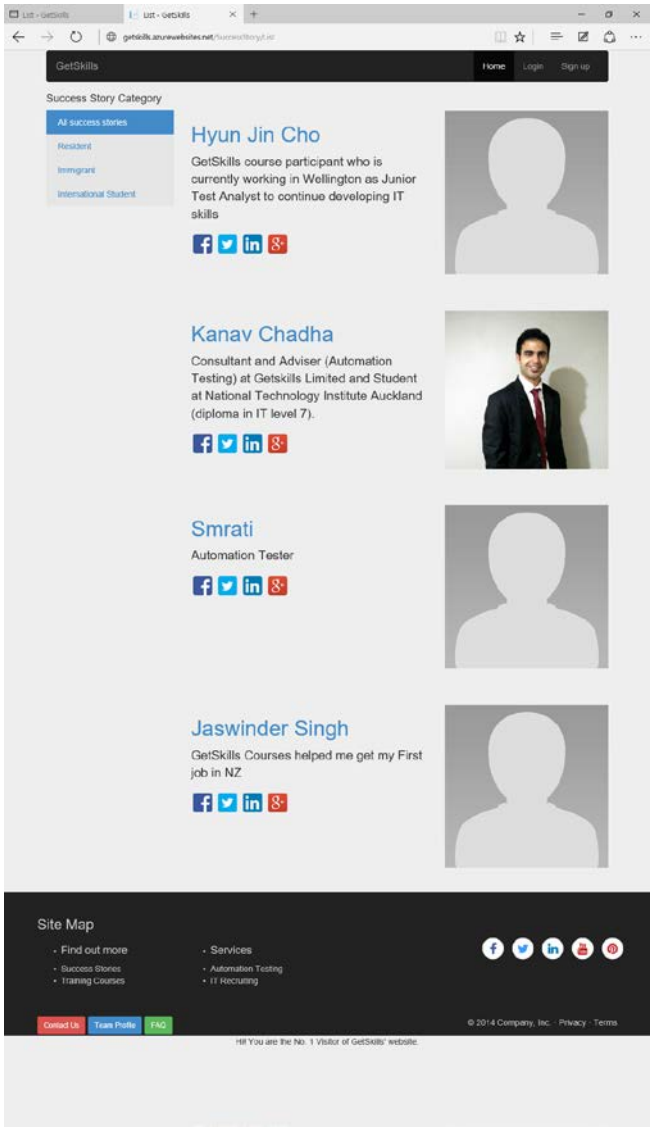
URL: http://getskills.azurewebsites.net/



2) User story 2: Social share links

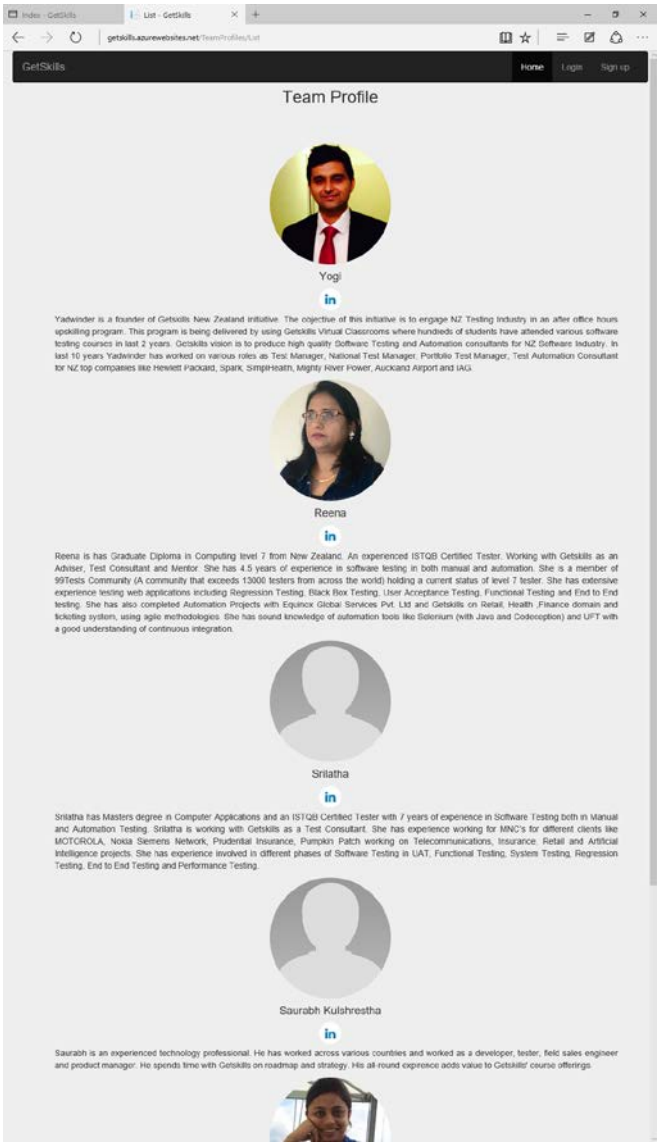
URL: http://getskills.azurewebsites.net/SuccessStory/List

For each success story, there is a box of social sharing button to share the story on other social network website.

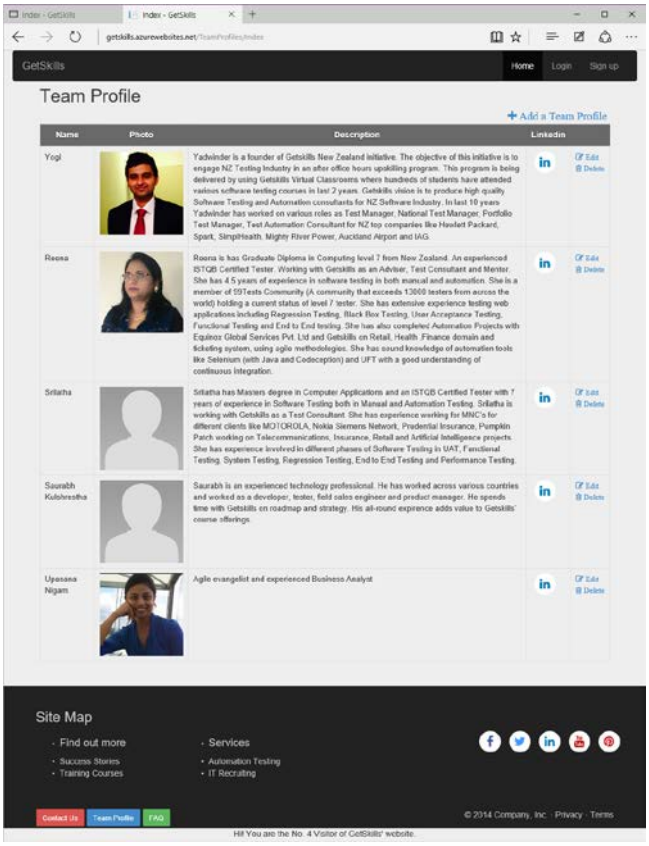


3) User story 3: Edit team profile and LinkedIn links

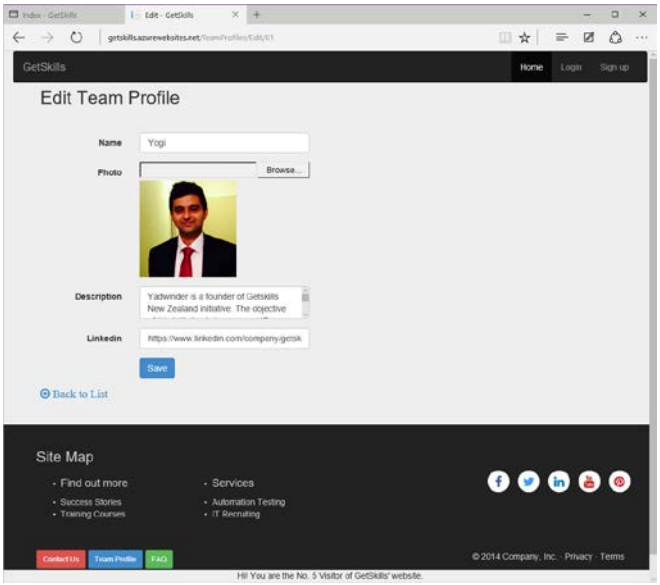
url: http://getskills.azurewebsites.net/TeamProfiles/List



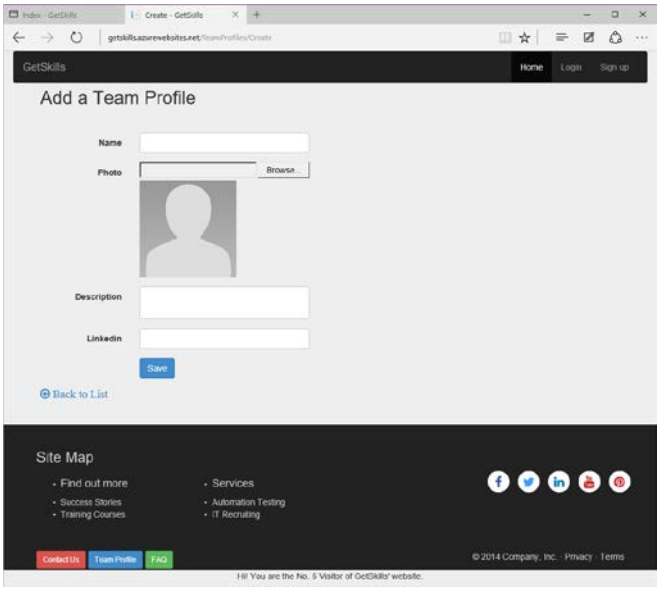
URL: http://getskills.azurewebsites.net/TeamProfiles/Index



URL: http://getskills.azurewebsites.net/TeamProfiles/Detial

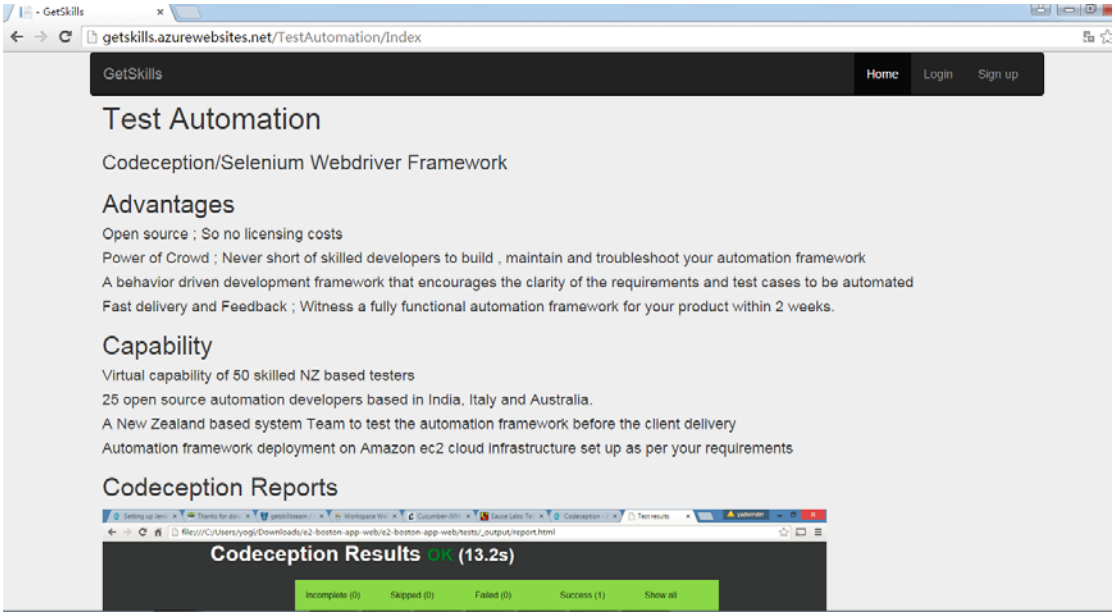


URL: http://getskills.azurewebsites.net/TeamProfiles/Add



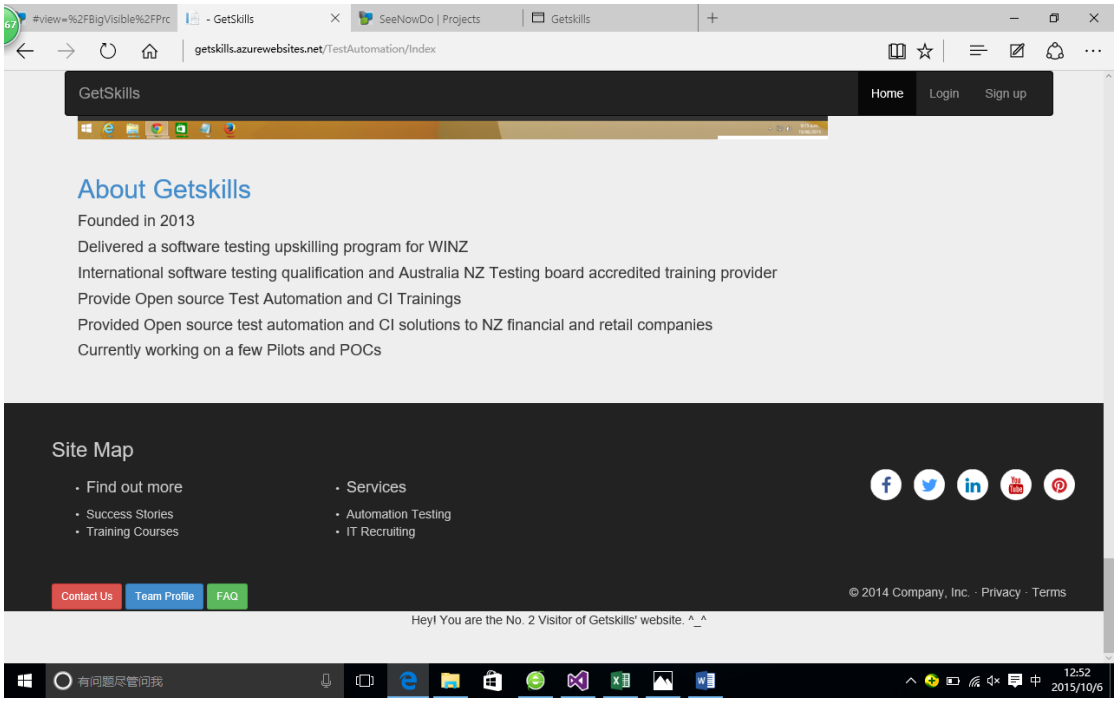
4) User story 4: Automation test page

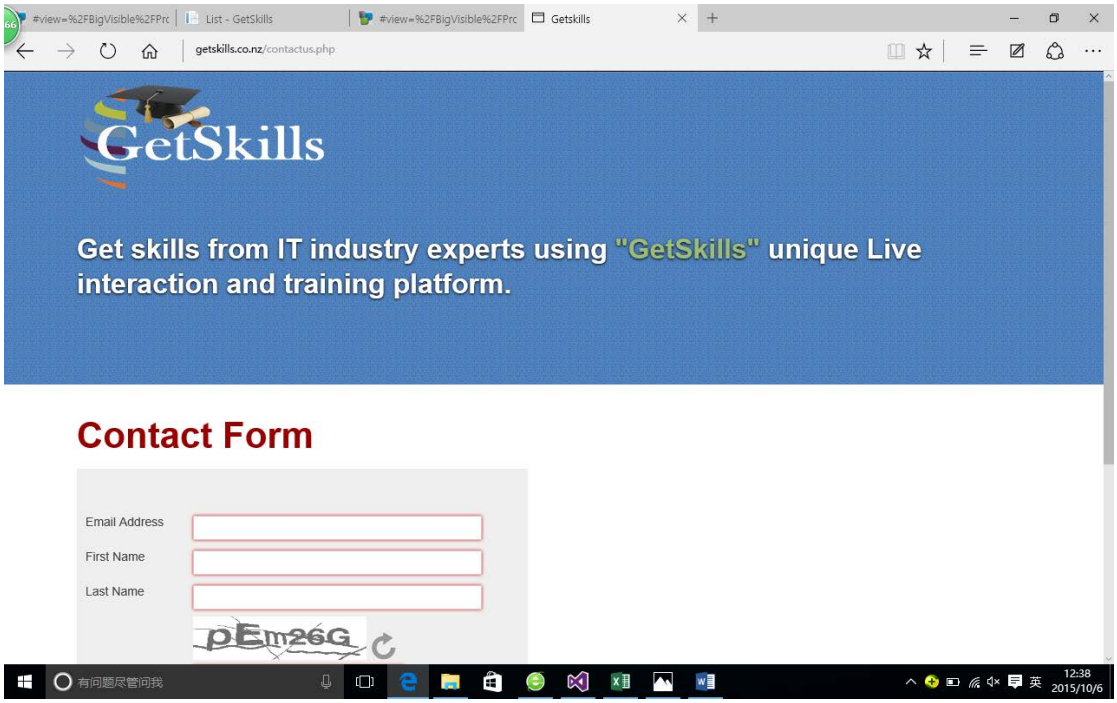
url: http://getskills.azurewebsites.net/TestAutomation/Index



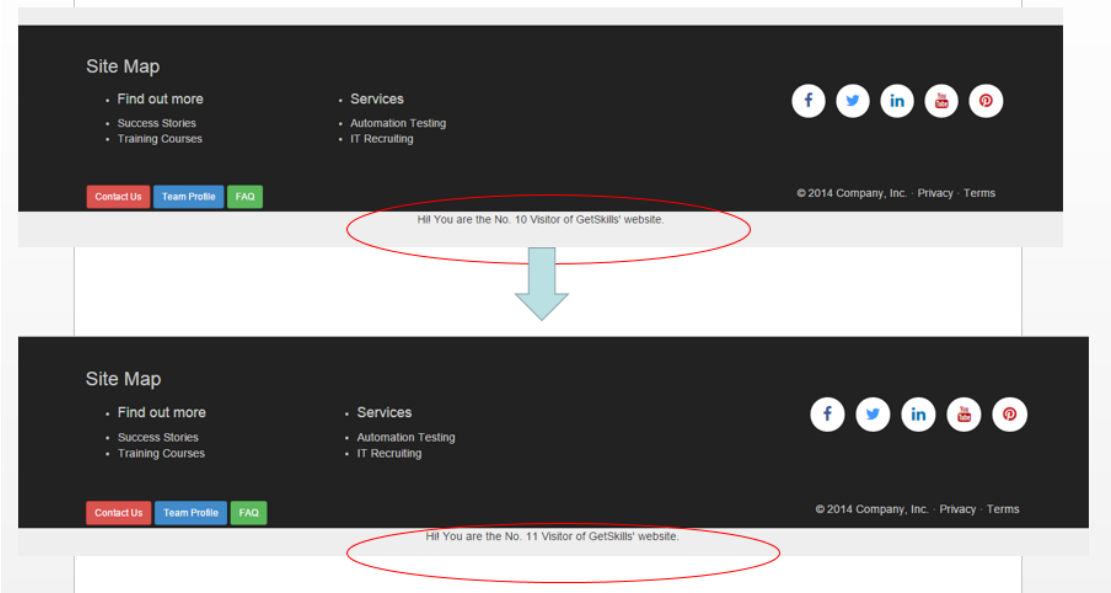
5) User story 5: Contact us

URL: http://getskills.azurewebsites.net/TestAutomation/Index





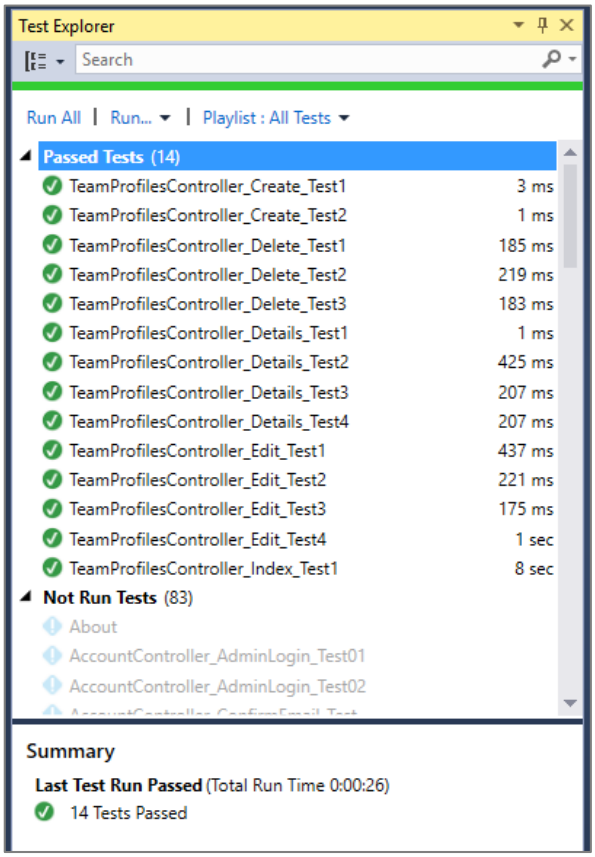
User story 6: Visitor counting



6.4. Test results

1) NUnit Test

Team profile page



2) Function Tests

Success Story List page

Page	Success Stories List page

ID	Test Case		Result	Comment	Test Result (Y/N)	Test Date	Test Owner
	Brief	Detail					
1	Header display	The header of list page should be the common component.	The common header with relative width and common buttons on both sides.		Y	30-Sep	Kaii
2	Footer display	The footer of list page should be the common component.	The common footer with full width and common links and buttons.		Y	30-Sep	Kaii
3	Deleted record	All the records displayed in the list should be "Active (status == 1)".	There is NO deleted record (status == 0) in the list.		Y	30-Sep	Kaii
4	Sort Order	Success story list should be sorted in the order of "sortOrder".	All the records in list are sorted by "SortOrder" in the DB.		Y	2-Oct	Kaii
5	List of category	All the categories are list on the left of page.	All the three categories are correctly displayed.		Y	30-Sep	Kaii
6	List of category	There is on menu "All Success Stories" over all categories.	The menu "All Success Stories" is the first one.		Y	30-Sep	Kaii
7	List of category	By default, the menu "All Success Stories" is selected.	After the initialisation, the menu "All Success Stories" is selected.		Y	30-Sep	Kaii
8	Detail item of list	The name can be correctly displayed.	The "Name" of list is correctly displayed.		Y	30-Sep	Kaii
9	Detail item of list	The picture can be correctly displayed with fixed width.	The picture of list is correctly displayed, and the width is fixed.		Y	30-Sep	Kaii
10	Detail item of list	The brief description can be correctly displayed.	The brief description of list is correctly and fullly displayed.		Y	30-Sep	Kaii
11	Detail item of list	The social shareing links can be correctly displayed.	The social shareing links can be correctly displayed.		Y	2-Oct	Kaii
12	Function Link/Button	The links of categories can response correctly.	After clicking the link "Resident", the list page can be renewed and displayed.		Y	30-Sep	Kaii
13	Function Link/Button	The links of categories can response correctly.	After clicking the link "Immigrant", the list page can be renewed and displayed.		Y	30-Sep	Kaii
14	Function Link/Button	The links of categories can response correctly.	After clicking the link "International Student", the list page can be renewed and displayed.		Y	30-Sep	Kaii
15	Function Link/Button	The links of categories can response correctly.	After clicking the link "All Success Stories", the list page can be renewed and displayed.		Y	30-Sep	Kaii
16	Function Link/Button	The link success story can response correctly.	After clicking the link of one success story, the detail page can be displayed.		Y	30-Sep	Kaii

Team Profile List page

Page	Team Profile List page

ID	Test Case		Result	Comment	Test Result (Y/N)	Test Date	Test Owner
	Brief	Detail					
1	Header display	The header of list page should be the common component.	The common header with relative width and common buttons on both sides.		Y	1-Oct	Kaii
2	Footer display	The footer of list page should be the common component.	The common footer with full width and common links and buttons.		Y	30-Sep	Kaii
3	Deleted record	All the records displayed in the list should be "Active (status == 1)".	There is NO deleted record (status == 0) in the list.		Y	30-Sep	Kaii
4	Sort Order	Team profile list should be sorted in the order of "profile_id".	All the records in list are sorted by profile ID in the DB.		Y	30-Sep	Kaii
5	Header of list	The header of list can be correctly displayed.	The header of list with "Name", "Photo", "Description", "Linkedin" and one blank column.		Y	30-Sep	Kaii
6	Detail item of list	The name can be correctly displayed.	The "Name" of list is correctly displayed.		Y	30-Sep	Kaii
7	Detail item of list	The picture can be correctly displayed with fixed width.	The picture of list is correctly displayed, and the width is fixed.		Y	30-Sep	Kaii
8	Detail item of list	The detail description can be correctly displayed.	The description of list is correctly and fullly displayed.		Y	30-Sep	Kaii
9	Detail item of list	The Linked-in url can be correctly displayed.	The description of list is correctly displayed.		Y	30-Sep	Kaii
10	Detail item of list	The functional links (Edit/Delete) can be correctly displayed.	The two links and icons are correctly displayed.		Y	30-Sep	Kaii
11	Function Link/Button	The link "Add a Team Profile" can response correctly.	After clicking the link "Add a Team Profile", the "Add" page can be displayed.		Y	30-Sep	Kaii
12	Function Link/Button	The link "Edit" can response correctly.	After clicking the link "Edit", the update page can be displayed.		Y	30-Sep	Kaii
13	Function Link/Button	The link "Delete" can response correctly.	After clicking the link "Delete", the delete page can be displayed.		Y	30-Sep	Kaii

Team Profile Edit page

Page	Team Profile Edit page

ID	Test Case		Result	Comment	Test Result (Y/N)	Test Date	Test Owner
	Brief	Detail					
1	Header display	The header of list page should be the common component.	The common header with relative width and common buttons on both sides.		Y	30-Sep	Kaii
2	Footer display	The footer of list page should be the common component.	The common footer with full width and common links and buttons.		Y	30-Sep	Kaii
3	Titles of all items	The header of list can be correctly displayed.	The header of list with "Name", "Photo", "Description", and "Linkedin".		Y	30-Sep	Kaii
4	Initialisation of items	The "Name" is correctyly displayed in the input textbox.	The "Name" is correctly displayed.		Y	30-Sep	Kaii
5	Initialisation of photo	The picture is correctly displayed with fixed size.	The picture is correctly displayed, and the size is fixed.		Y	30-Sep	Kaii
6	Initialisation of items	The "Description" is correctyly displayed in the input textbox.	The "Description" is correctly displayed.		Y	30-Sep	Kaii
7	Initialisation of items	The "Linkedin" is correctyly displayed in the input textbox.	The "Linkedin" is correctly displayed.		Y	30-Sep	Kaii
8	Function Link/Button	The button "Save" is correctly displayed.	The button "Save" is correctly displayed.		Y	30-Sep	Kaii
9	Function Link/Button	The link "Back to List" is correctly displayed.	The link "Back to List" is correctly displayed.		Y	30-Sep	Kaii
10	Must input check	The input of item "Name" is required.	Left "Name" blank, and click "Save" button, there will be a error message: "Member name is required"		Y	30-Sep	Kaii
11	Must input check	The input of item "Name" is required.	Only item "Name" is input, and click "Save" button, the new data should be insert into DB, and return to list page.		Y	30-Sep	Kaii
12	Max length check	The max length of "Name"	Input 51 byte name and click "Save" botton, it should come with the message "The field name must be a string with a maximum length of 50.".		Y	30-Sep	Kaii
13	Max length check	The max length of "Description"	Input 1001 byte description and click "Save" botton, it should come with the message "The field name must be a string with a maximum length of 1000.".		Y	30-Sep	Kaii
14	Max length check	The max length of "Linkedin"	Input 257 byte linkedin url and click "Save" botton, it should come with the message "The field linkedin must be a string with a maximum length of 256.".		Y	30-Sep	Kaii
15	Function of save	The button "Save" can work correctly.	Input all the items and click "Save" botton, the data should be insert into DB and return back to list page.		Y	30-Sep	Kaii
16	Function of save	The link "Back to List" can work correctly.	After clicking the link "Back to List", the list page can be displayed.		Y	30-Sep	Kaii

Team Profile Delete page

Page	Team Profile Delete page

ID	Test Case		Result	Comment	Test Result (Y/N)	Test Date	Test Owner
	Brief	Detail					
1	Header display	The header of list page should be the common component.	The common header with relative width and common buttons on both sides.		Y	1-Oct	Kaii
2	Footer display	The footer of list page should be the common component.	The common footer with full width and common links and buttons.		Y	30-Sep	Kaii
3	Warning message	The warrning message is correctly displayed.	The warning message is correctly displayed. "Are you sure you want to delete this member?".		Y	30-Sep	Kaii
4	Titles of all items	The header of list can be correctly displayed.	The header of list with "Name", "Photo", "Description", and "Linkedin".		Y	30-Sep	Kaii
5	Initialisation of items	The "Name" is correctyly displayed as label.	The "Name" is correctly displayed.		Y	30-Sep	Kaii
6	Initialisation of photo	The picture is correctly displayed with fixed size.	The picture is correctly displayed, and the size is fixed.		Y	30-Sep	Kaii
7	Initialisation of items	The "Description" is correctyly displayed as label.	The "Description" is correctly displayed.		Y	30-Sep	Kaii
8	Initialisation of items	The "Linkedin" is correctyly displayed as label.	The "Linkedin" is correctly displayed.		Y	30-Sep	Kaii
9	Function Link/Button	The button "Delete" is correctly displayed.	The button "Delete" is correctly displayed.		Y	30-Sep	Kaii
10	Function Link/Button	The link "Back to List" is correctly displayed.	The link "Back to List" is correctly displayed.		Y	30-Sep	Kaii
11	Function of save	The button "Save" can work correctly.	Input all the items and click "Save" botton, the data should be insert into DB and return back to list page.		Y	30-Sep	Kaii
12	Function of save	The link "Back to List" can work correctly.	After clicking the link "Back to List", the list page can be displayed.		Y	30-Sep	Kaii

Team Profile Add page

Page	Team Profile Add page

ID	Test Case		Result	Comment	Test Result (Y/N)	Test Date	Test Owner
	Brief	Detail					
1	Header display	The header of list page should be the common component.	The common header with relative width and common buttons on both sides.		Y	30-Sep	
2	Footer display	The footer of list page should be the common component.	The common footer with full width and common links and buttons.		Y	30-Sep	
3	Titles of all items	The header of list can be correctly displayed.	The header of list with "Name", "Photo", "Description", and "Linkedin".		Y	30-Sep	Kaii
4	Initialisation of items	All the input textboxes should be blank.	All the input textboxes are blank.		Y	30-Sep	Kaii
5	Initialisation of photo	The default picture should be correctly displayed with fixed size.	The default picture is correctly displayed, and the size is fixed.		Y	30-Sep	Kaii
6	Function Link/Button	The button "Save" is correctly displayed.	The button "Save" is correctly displayed.		Y	30-Sep	Kaii
7	Function Link/Button	The link "Back to List" is correctly displayed.	The link "Back to List" is correctly displayed.		Y	30-Sep	Kaii
8	Must input check	The input of item "Name" is required.	Left "Name" blank, and click "Save" button, there will be a error message: "Member name is required"		Y	1-Oct	Kaii
9	Must input check	The input of item "Name" is required.	Only item "Name" is input, and click "Save" button, the new data should be insert into DB, and return to list page.		Y	1-Oct	Kaii
10	Max length check	The max length of "Name"	Input 51 byte name and click "Save" botton, it should come with the message "The field name must be a string with a maximum length of 50.".		Y	30-Sep	Kaii
11	Max length check	The max length of "Description"	Input 1001 byte description and click "Save" botton, it should come with the message "The field name must be a string with a maximum length of 1000.".		Y	30-Sep	Kaii
11	Max length check	The max length of "Linkedin"	Input 257 byte linkedin url and click "Save" botton, it should come with the message "The field linkedin must be a string with a maximum length of 256.".		Y	1-Oct	Kaii
12	Function of save	The button "Save" can work correctly.	Input all the items and click "Save" botton, the data should be insert into DB and return back to list page.		Y	30-Sep	Kaii
13	Function of save	The link "Back to List" can work correctly.	After clicking the link "Back to List", the list page can be displayed.		Y	30-Sep	Kaii

Web Statistics

Page	Team Profile List page

ID	Test Case		Result	Comment	Test Result (Y/N)	Test Date	Test Owner
	Brief	Detail					
1	layout display	The layout should be in the end of the webpage.	The layout should be in the end of the webpage.		Y	4-Oct	Likai
2	Footer display	The footer of list page should be the common component.	The common footer with full width and common links and buttons.		Y	4-Oct	Likai
13	Function counter	After one more people visit the webipage the counter will add one.	After one more people visit the webipage the counter will add one.		Y	4-Oct	Likai

3) Acceptance Tests

User story 1: Refine the success story list page (client view)

Relevant Tests	Test Result
1. Success story list page for client view	
1.1. Page layout in terms of common header and common footer.	Passed
1.2. No deleted record displayed in the list page.	Passed
1.3. Success stories are list by the order of given "ID".	Passed
1.4. All the available categories are listed on the left pannel.	Passed
1.5. The default list of success stories includes all the active data.	Passed
1.6. The swith of category can work correctly with right list.	Passed
1.7. Display correct data of each success story in the list.	Passed
1.8. The social shareing links can work correctly.	Passed
1.9. The page is compatible with mobile browser.	Passed

User story 2: Dynamic team profile page (client view).

Relevant Tests	Test Result
2. Team profile list page for client view	
2.1. Page layout in terms of common header and common footer.	Passed
2.2. No deleted record displayed in the list page.	Passed
2.3. Al l the active team profiles are list by the order of given "ID".	Passed
2.4. Display correct data of each success story in the list.	Passed
2.5. The linkedin link can work correctly.	Passed
2.6. The page is compatible with mobile browser.	Passed

User story 3: Team profile admin functions

Relevant Tests	Test Result
3. Team profile list page of admin function	
3.1. Page layout in terms of common header and common footer.	Passed
3.2. No deleted record displayed in the list page.	Passed
3.3. Al l the active team profiles are list by the order of given "ID".	Passed
3.4. Display correct data of each success story in the list.	Passed
3.5. The linkedin link can work correctly.	Passed
3.6. Add function can work correctly.	Passed
3.7. Edit function can work correctly.	Passed
3.8. Delete function can work correctly.	Passed
3.9. Linkedin icon in list page can work correctly.	Passed

User story 4: Automatic testing page

Test Automation Page (mobile phone and browser view).

Relevant Tests	Test Result
1. Automation page for browser view	
1.1. The header of list page should be the common component.	Passed
1.2. The footer of list page should be the common component.	Passed
1.3. The link "Test Automation" can work correctly.	Passed
1.4. All of information should be displayed in TestAutomation page	Passed
1.5. The picture should be displayed	Passed
1.6. The link "About Getskills" can response correctly.	Passed

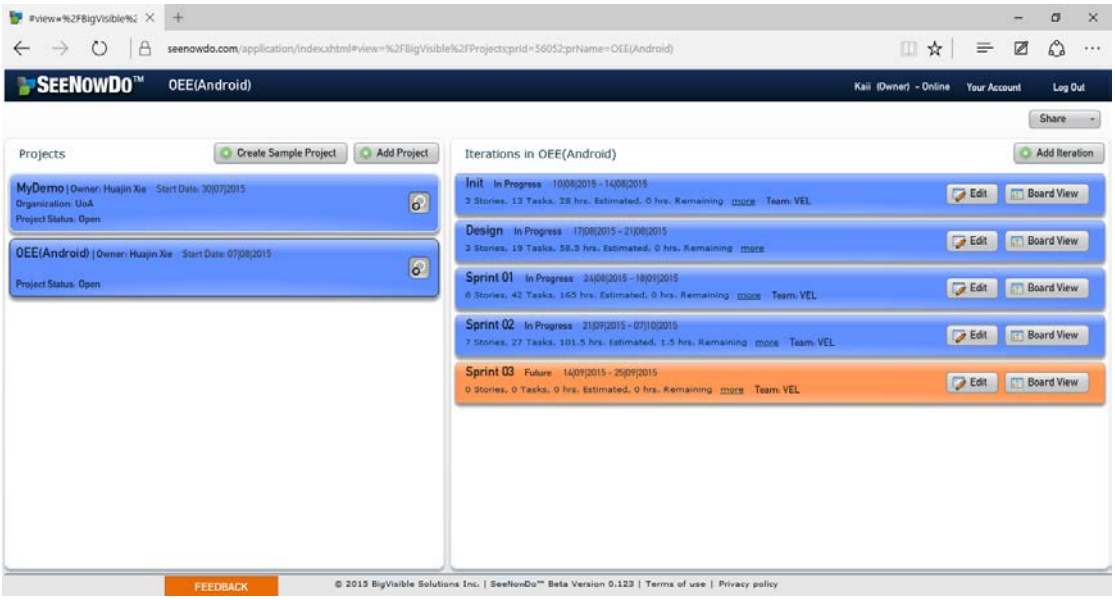
Relevant Tests	Test Result
2. Automation page for mobile phone view	
2.1. Put URL (TestAutomation page) in the test website	Passed
2.2. All pictures and contexts should adapt the users form phone	Passed
2.3. All pictures and context should be displayed on mobile phone	Passed
2.4. Touching"TestAuomation"on homepage, Automationpage can displaye	Passed

User story 5: Website statistics

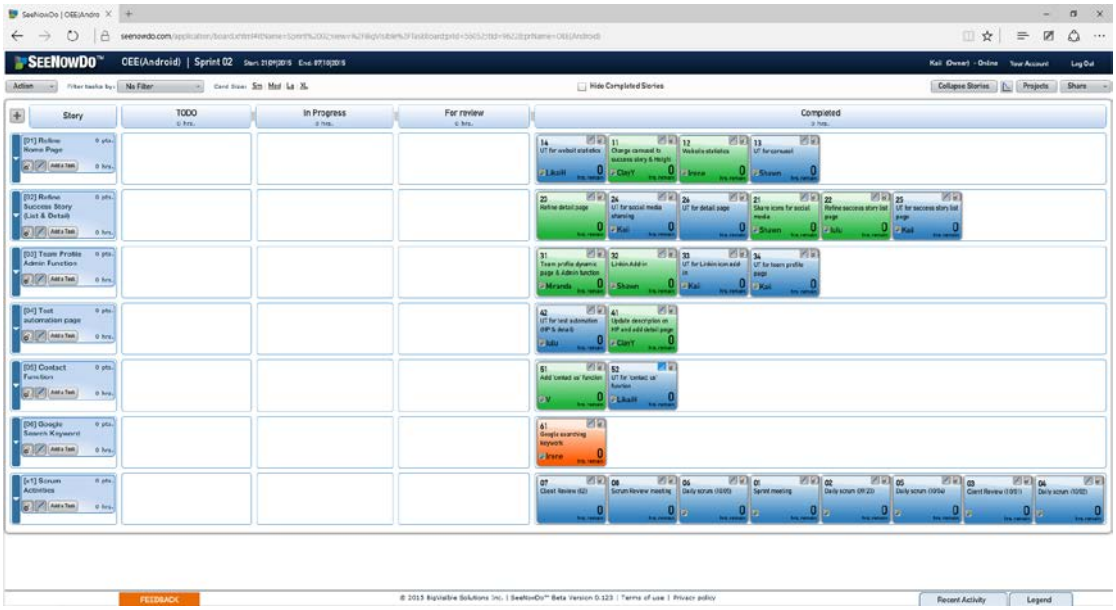
Relevant Tests	Test Result
1. Website satistics	
1.1. Page layout in terms of common header and common footer.	Passed
1.2. The layout should be in the end of the webpage.	Passed
1.3. After one more people visit the webipage the counter will add one.	Passed

6.5. Sprint Management

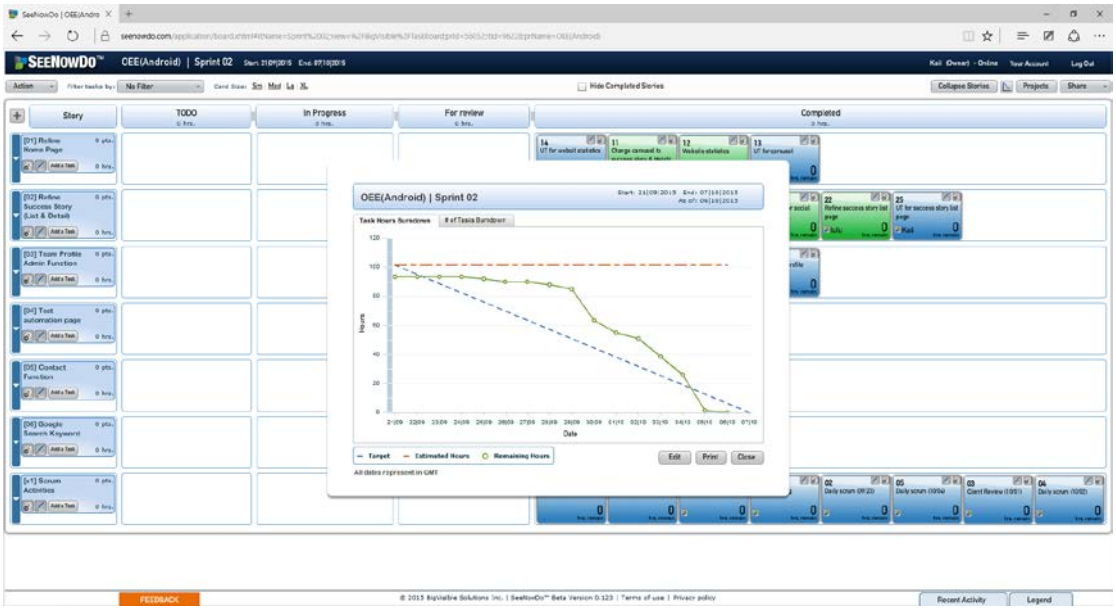
1) Project & Iteration Overview



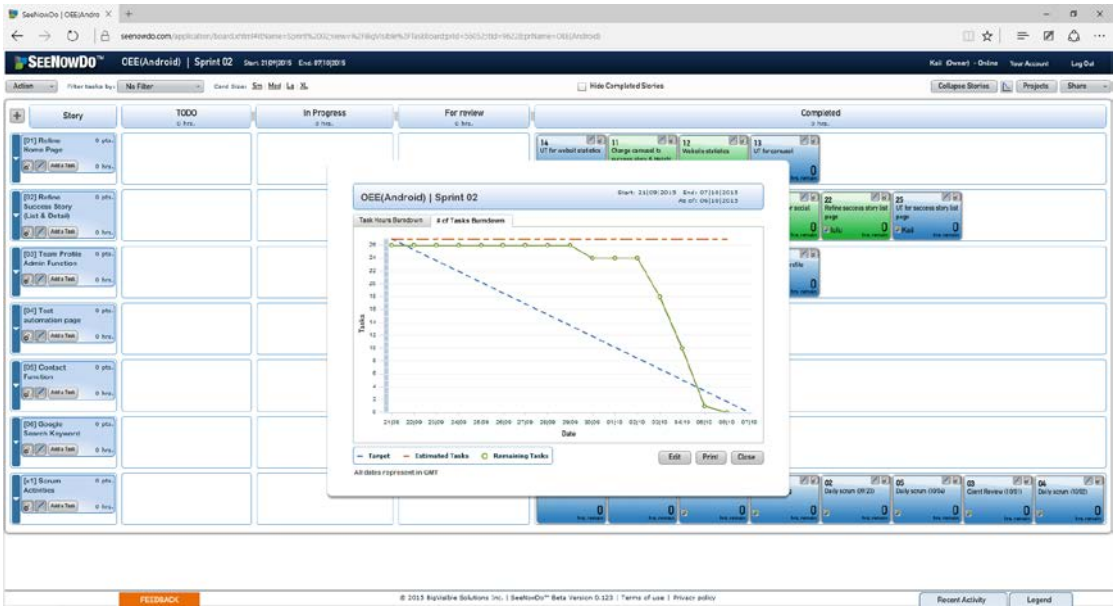
2) Scrum Board of sprint 2



3) Burn-down Chart (By hour)



4) Burn-down Chart (By task)



6.6. Sprint review

Our team had a Sprint Review meeting with the attendances of Scrum Master, team members and Product Owner–Yadwinder on October 2nd. We've demonstrated our final version product to client. The customers are very satisfied and showed interests for further coorperation.

6.7. Individual retrospective

Kaii: Cooperate with other team members to apply agile practices in our project; acted as a scrum mater in the first half of sprint one; contributed my main efforts on estimation, system architecture, DB design, layout design, programming, testing and project management; Meanwhile, I still need more effort on the coordination among team members and helping others with technical issues.

Miranda: For the second sprint, I focused on the team profile pages, including the dynamic page for website's users and admin pages for administrators. Now the administrators can scan, create, edit and delete team profiles. And the users can scan the team profiles for the website. Overall, I created four website pages and refined one page in this sprint.

Lulu: In the first week of the second sprint, as the scrum master, I organized the sprint planning meeting for our team. My major task is to refine the success story list page. Now the users can scan the success stories according to their categories. In addition, I completed the unit test for test automation.

Shawn: In this sprint, I integrated APIs of Facebook, Twitter, Google and LinkedIn to our project, successfully implementing share buttons for social networking. Meanwhile, I also added LinkedIn links for each member in the team profile page.

Likai: In this sprint. I focus on the test. I learned how to write a test case and how to use Nunit to test code. I have two test at beginning but one of them cannot be implement, because the customer delete his requirement, so I supplement some test case from last sprint to make them better.

Clay: In this sprint, I created test automation page, finished design and development tasks. Meanwhile, I managed to polish home page, changed its layout, updating action buttons. I got the feedback from tester, which is contributed to the project. It's very helpful to have team working around, so that we can achieve a better outcome.

Irene: In the second sprint, my task is to develop website counter which can record visitor statistics. I've tried many ways in implementing the task and finally achieved at an acceptable solution. During the second sprint, I've got more familiar with the agile development processes and adapted with the pace of Scrum.

V: Push (from testing) and pull (development) from our VEL team helped me to complete the work successfully. EGO is one thing that went away from me in the project, which is key for Successful as a Team. 'Appreciations' is another good thing that I made to our team members.
Group Evaluation.

7. Summary

7.1. Individual reflection

Clay: To my point of view, the concepts and methodologies learnt from lecture are way neater than the real project experience. In the real project, industry customer does not always follow best practices, for example as the product owner, our customer representative always changes his mind and give new requirements within each sprint, which gives us lots of confuse whether to proceed on previous backlog or to catch on with the new ones.
But it is wonderful to have such experience because I believe it is more realistic, and we have handled it well. The outcome of the project is what our customer really wants, and it was not too much trouble due to our smooth communication plan.

Shawn: It is admitted that agile and lean methodology works much better than other software development practices; however, I have to say it not a perfect solution for all the cases. For example, it require customer representatives who know agile and lean concepts, but for some small companies, they are reluctant to send any representative since they don't have many employees, let alone a worker who practices agile and lean.
In this case, my solution is to be more initiative so that the clients will be led by the team. I have practiced this way in this project, finding that it can not

only guide customers' action but also provide them more confidence since they will think you are professional.

Irene: Compare to the past projects that I did in some other courses previously, this 761 project make me feel more comprehensible and memorable. By working with real customers, I feel that can easily remember and understand the basic concepts and processes of agile development. Learning by practicing is always more active and interesting. I really enjoy this course.

From our group experiences, I also find out that compare to traditional academic projects, the real industry Agile projects is more flexible somehow. At the beginning, this flexibility makes me a little nervous since I was not sure about what they exactly expect from us. Our product owner also seems not sure about how well we could done. There was no accurate standards or clear requirements at the beginning. I think this is the con of working with industry compared to academic projects.

However, after keep working and make progresses, the details of the project get clearer for both of we and PO. All of the relevant people start to work and collaborate more happily and efficiently. From the collaborate processes, we have built a trust and friendly relationship with PO. I think this is the pro of real industry projects.

Lulu: Overall, after I completed this process of development by agile development, I have learned what are an effective and cross –function team. Each team member acted different role in different sprints, which made me become cross-function developer. Before I just thought a good developer who should focus on code, but now I change my mind. A good developer also needs a good ability of communication and write good documents, concern about value of software in marketing as well. In this project, I have experienced many roles such as scrum master, developer and tester. I have learned a complete process of agile development.

Likai: In my opinion, the basic knowledge about agile which we learned from the lecture is quite useful and we obey the main principle of agile. However, in real project, there are some different between practice and book. For example, in the book the product owner should make priority of the backlog, but in our case sometimes, the owner cannot give a clear requirement. To solve this problem, we host some meetings. Through these meetings we first

figure out what the user want and then make the priority by ourselves. Finally, the owner check our priority and did some changes.
Before this project I thought that the programming may take lots of time, but in the real project almost half of the time was occupied by meeting and documentation. Especially the efficiency of the first few meetings is very low. Fortunately, after we are familiar with the process of meeting and have more information about our project everything become smoothly.
It is wonderful that I can work with such a great team in my first project.

Miranda: My experience of working with our customer is kind of different with what I learnt from lecture. In theory, the sprint backlog should not be changed during the sprint. However, in the second sprint, the customer asked us to make some changes. And the real customer may not be so cooperative in the whole process. And the team is supposed to solve most problems themselves.
Overall, the experience of working with real industry customers is really interesting and impressive for me. I learnt a lot which will be very helpful for my future work. The real experience is often different from academic theory, while everyone should be prepared for that.

V: Backlog grooming is an essential process that should not be avoided, which we followed in our team. As per the Agile documentation work life balance will be Good if we follow Agile methodology, however in reality it is not so, I have to spend more time on work. In the earlier stage I thought pair programming will not be used by me, however in reality I implemented pair programming along with Kaii. I followed Plan-Do-Act methodology in our project, which is very much effective in completing the work successfully.

Kaii: Cooperate with other team members to apply agile practices in our project; acted as a scrum mater in the first half of sprint one; contributed my main efforts on estimation, system architecture, DB design, layout design, programming, testing and project management; Meanwhile, I still need more effort on the coordination among team members and helping others with technical issues.

7.2. Team evaluation

In general, our group did a good job for the two sprints and achieved a satisfied result. We defined a reasonable sprint backlog and followed SCRUM process strictly. Everyone got one task at first and after finished it he/she

could get another task. We held stand-up meetings regularly so that we could know each other's progress and obstacles. If anyone had a problem, others would help him/her. Some of us did not have programming experience before, so their progress might be slow. But everyone tried to finish the tasks as soon as possible and make the project perfect. Besides, every scrum master communicated with our customer as much as possible to ensure that the project could meet the demands.