eatLocal

where you get all your fresh local food products online

CP5406 – ICT ADVANCED PROJECT 1

Assignment 1_Project Documentation

Team #5 – LocalGrocery

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Syed Abdul Rahman (13433616)

Mohammad Saif

Lecturer: Laura Antochi

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- Finalized and formatting this document

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PROJECT DESCRIPTION

Justification for the project

In order to support local business, an online platform (comprising a website and associated database), to enable local farmers and small batch food-producers to market and sell their products as well as to promote their products, is requested by the client, who is a designer and a social activist. As it is now a golden age of online trading, the client envisions that a new website for local business to promote local products will appeal to environmentally conscious customers and create a lot of opportunities for local farmers and food producers, and their healthy local food products would be easier to be reached by consumers.

The client specifically requests a new website be created rather than using existing eCommerce systems that offer consumer-to-consumer and business-to-consumer sales. This is partly because the client wishes to be able to add additional features in the future that will tightly integrate with the existing website, has plans to extend the website to a mobile app, and also wishes to maintain control over the product, supplier, and customer data.

Project goals

The project will deliver a new website that will be able to be hosted by common hosting services and that will connect to a hosted database (common database types are supported). The hosting provider(s) will be agreed with the client. Also, appropriate domain name(s), domain name hosting, and SSL certificates will be provided as part of the project.

The project will proceed in three main phases: the alpha, beta, and final releases. Client requirements are determined prior to the alpha release and client feedback will be obtained between the alpha and beta release, and the beta and final releases.

The website will be based on the client's requirements; however, the developers will also develop according to the following guidelines:

- Use of common and well-supported programming languages and technologies to allow the website to be easily hosted.
- Use of responsive website design principles to allow optimal viewing experience over a range of devices.
- Prioritise the user-experience and ensure that it is considered from the start of the project.
- Adhere to best-practice security guidelines and ensure that security is implemented from the start of the project.

Based on the user stories log, the developers will aim to achieve every task on time, and achieve the final goal step by step, and are ambitious to deliver a user-friendly website with clean design and an efficient, responsive user interface to our client.

Project milestones

As detailed in the user stories log, there are three major, sequential releases that span the lifetime of the project. The conclusion of each release forms a milestone of the project. It is believed that three milestones are appropriate. The alpha release will present a working version of the website that will allow testers to find initial bugs and reveal any misinterpretations of the original specifications. The client can also get an actual feel of how the website will look and work in reality and report any bugs, or more likely minor changes, improvements, or new features, for implementation in the beta phase.

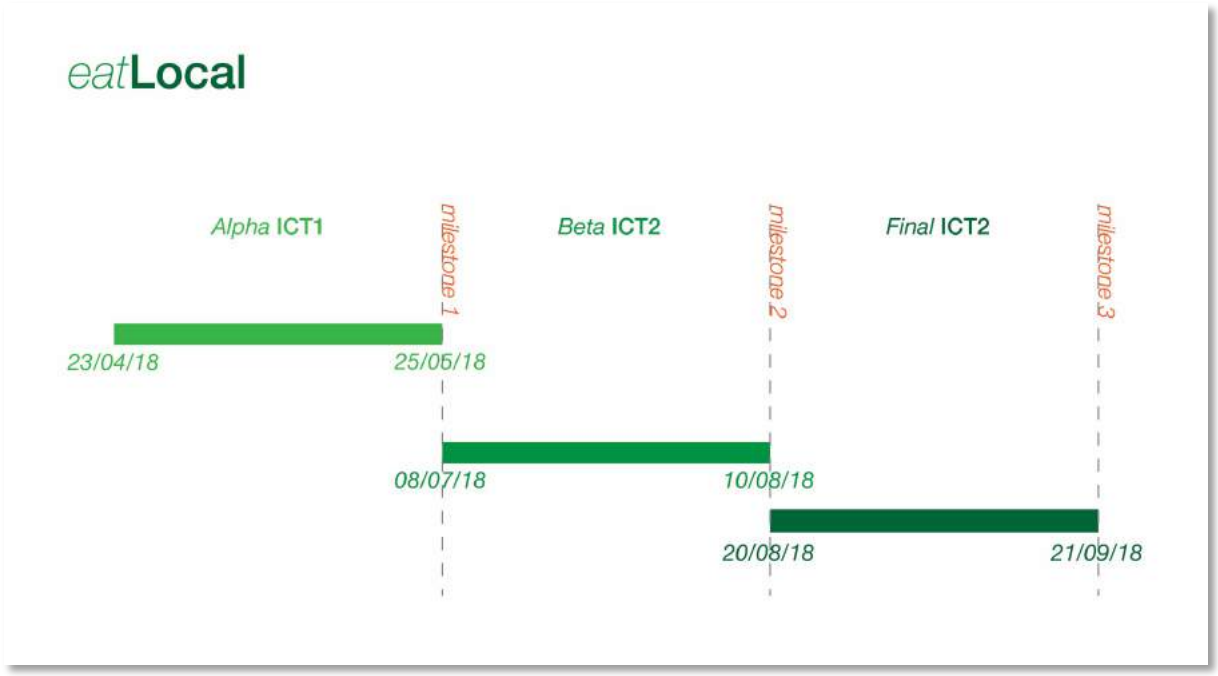
The beta release will allow testers to confirm that bugs have been corrected, to report any new bugs, and for the client to confirm changes were also correctly implemented.

Finally, the final phase will correct outstanding bugs and allow further acceptance testing to be performed.

The timeframes proposed for each phase, as described below and in more detail in the next section (alpha phase only), are considered appropriate (i.e. not too ambitious and not overly conservative).

The first release spans from 23/04/2018 to 25/05/2018; the second, from 08/07/2018 to 10/08/2018; and the last from 20/08/2018 to 21/09/2018. At the end of the last release (the final release) of the project, the website will be ready to be released. The following diagram illustrates the three releases of the project, with further detail in the user stories log.

Timeline



SCOPE OF ALPHA-RELEASE

Available days: The lifetime of the whole project will comprise one-and-a-half teaching periods, a total of 15 weeks. There are four students (developers/testers) and each will spend two days per teaching week on the project. Therefore, the total available days will be 15 x 4 x 2 = 120 (days).

The alpha release includes the following user stories:

User story 1: Home page Effort estimate: *2* (days)

User story 2: Register Effort estimate: *3* (days)

User story 3: Log In Effort estimate: *3* (days)

User story 4: List Products Allows users to list their products on the website; Effort estimate: *7* (days)

User story 5: Browse Products Sorts products into categories, and makes them searchable by keywords; Effort estimate: *7* (days)

User story 6: Purchase Adds products into shopping carts and displays the total amount of the purchase; Effort estimate: *8* (days)

User story 7: Payment Allows payment via PayPal (make direct link to PayPal); Effort estimate: *5* (days)

A breakdown in further detail of the three releases is shown in the following user stories log.

Project Name:	eatLocal- the local online grocery					
Developers:	Jiahao Tan					
	Manjinnder Singh					
	Mohammad Saif					
	Syed Abdul Rehman					
User stories log						
Release	**Nr**	**User Story**	**Description**	**Priority**	**Time (days)**	**Status**
Alfa ICT1 5 weeks	1	Homepage	Main Page	10	2	in progress
	2	Register	Fill form to Rgister	10	3	in progress
	3	Log In	Log In to buy/sell products	10	3	
	4	List Products	Allow users to list products	10	7	
	5	Browse Products	Search products by keywords; categorised	10	7	
	6	Purchase	Adding products to shopping cart	20	8	
	7	Payment	Direct Link to PayPal	20	5	
Beta ICT2 5 weeks		*Testing*				
		Bug fixes				
	1	Communication	Contact between buyers and seller	20	7	
	2	Edit Products	Edit infomations about products	20	7	
	3	Track Sales Record	Check sales performance	30	8	
	4	Leave a Review	leave feedback about the transaction	30	5	
	5	View a Review	Check all feedbacks	30	5	
Final ICT2 5 weeks		*Testing*			8	
		Bug fixes				
	1	Rating Product	Rate a specific Product	40	8	
	2	Link to Social Media	Link to Social Media	50	8	
		Testing				
		Bug fixes				
		Testing				

PROJECT DEVELOPMENT AND RELEASE ICT INFRASTRUCTURE

Development Environment

This section describes the proposed development environment, including programming languages, source code repositories, other configuration management, collaboration tools, development tools, and server infrastructure. It also describes the proposed approach to testing, and demonstrates prototypes to justify the proposed alpha-release.

Configuration management/version control

The Git system, via the GitHub hosting service, will be used for source-code management (SCM). Git/GitHub will provide the developers remote, distributed access to the source code, as it is developed, and act as an offsite backup of the source code. It will also provide the usual features of source-code management, such as atomic commits, concurrent access/updates, version merging, and baselines/labels/tags.

Each developer will create an account (or use an existing account) on the GitHub site. The project's source code will be stored in a private repository created on the GitHub site. The (private) repository will be called jc451631/LocalGrocery with access limited to developers and testers.

Developers will access and modify source-code using the desktop plugin, the Git command line utilities, and/or support built-in to any Continuous Integration (CI) or Integrated Development Environment (IDE) systems that may be used during development and maintenance of the software.

Github is a web-based provider of Git repository hosting for software source-code version control using Git. Although Git can theoretically manage many type of file, it is most commonly used for the version and management of computer source-code. GitHub effectively hosts remote repositories for its users and, as such, offers all of the distributed version control and source-code management functionality of Git. It effectively acts as an offsite backup for each repository.

GitHub also provides useful features such as access control, and collaboration features such as bug tracking, feature requests, task management, and wikis. It allows developers to collaborate by providing tools for managing possibly conflicting changes from multiple developers. GitHub offers both private (access controlled) and public /(publicly-accessible) repositories.

Project tools

Programming languages

A number of programming languages will be used, primarily Hypertext Markup Language (HTML), JavaScript, Cascading Style Sheets (CSS), and PHP: Hypertext Preprocessor (PHP).

The websites pages will be created in HTML with embedded and/or separate CSS and JavaScript, where required. The collection of pages will be a combination of static files and PHP-generated output. PHP will be employed primarily for functions that integrate with the database (used to store user and product information, order information, etc.).

Bootstrap will be used to implement some of the user-interface elements on the web pages and add a responsive layout.

It is expected that the JavaScript library, jQuery, will also be utilised to perform and optimise certain functions client-side.

Hypertext Markup Language (HTML) is the standard language for creating web pages. HTML describes the content of the web page and typically includes text and images and also structural information such as content divisions, spans, ordered and unordered lists, etc. HTML consists of a set of elements bounded by start and end tags.

JavaScript is a high-level, interpreted programming language, tightly integrated with modern browsers, that can be embedded within HTML pages, typically to add increased levels of client-side interactivity to a web page.

Cascading Style Sheets (CSS) is a style sheet language used to describe the style or presentation of HTML elements, usually for a web page written in HTML. It can describes how HTML elements are to be displayed on screen, paper, and other media. A single CSS file can control the layout of multiple web pages. CSS can be located in files separate to the HTML, or embedded inline in HTML files.

HTML, CSS, and JavaScript form the three of the core technologies of the World Wide Web.

PHP Hypertext Preprocessor (PHP) is a common, server-side scripting language that is especially suited for web development and that can be embedded into HTML. Although PHP can also be used as a general-purpose programming language, a typical use is to embed it into HTML code. When the HTML is served by the web-server, a special module interprets the embedded PHP and transforms it into the HTML output that results from the particular PHP function currently being interpreted.

Integrated Development Environments (IDE)

The key IDEs used by the developers will be Adobe Dreamweaver and/or Brackets. The IDEs will provide standard source-code development features such as syntax highlighting, grouping of related files, providing dynamic hints or documentation on language keywords and library functions and intelligent code completion, build-related functionality, and debugging features.

IDE integration with GitHub will be achieved with a plugin or manually by developers where plugins are not supported.

New team members

New team members will need to obtain a GitHub account and install any necessary plugins or command-line tools to access the repository. The team member can then download the latest copy of the project repository locally. The team member should have, or should install, any other required software, such as the IDEs above, etc. to begin development of the website.

Collaboration Tools

The primary collaboration tools to be used by the project are scheduled developer meetings, email, and GitHub. There will be several scheduled meetings of the developers during the course of the project. During these meetings it is expected that the core design and approach will be primarily developed. Email will then be the key collaboration tool at most other times. Some of the collaboration features of GitHub, such as documentation/wikis, bug and issue tracking, feature requests, labels, milestones, assignees, etc. may be utilised by the team.

Other web-related development tools
Various other web-related development tools will be used during development of the website, including Adobe Photoshop, Adobe Illustrator, and Adobe XD.

Server infrastructure
It is expected that developers may be able to perform some development and testing by running the website (or parts of it) locally on their own workstations. It is expected that a hosted web server will also be available to which developers can upload versions of the website in order to test more of the integrated functions involving the database. It is expected that a hosted database instance will also be available. The development version of the website may have a domain name that is not reflective of the final domain name of the site.

The release version would need to be deployed to a hosting service agreed with the client. The appropriate domain name would also need to be obtained and hosted, as well as other related items such as an SSL certificate to help secure the site.

Testing
Testing will be performed both by the testers (which will be a members of the assignment team, each undertaking the role of tester instead of developer) and by the client.

Automation
Although there are automated unit-testing systems for PHP, the testing performed during this project will be predominantly performed manually.

Scheduling
Testing will occur at predominantly at two key points during the lifetime of the project, after the alpha development phase, in order to detect the bugs and any feature requests and specification changes that need to be addressed in the beta development phase; and after the completion of the beta development phase, to determine bugs that need to be corrected before the final release.

Types of test
Testing will comprise a mix of component or unit-level testing (not necessarily down to the level of individual code functions) and higher-level, integration or end-to-end style tests. Testers are likely to perform more white- and grey-box testing, while the client will perform black-box testing. All testing will have the ability to uncover bugs that will be addressed in the subsequent development phase. In addition, the client may be able to add relatively minor feature requests, or alter the specification of existing features for (re)implementation in the subsequent development phase.

Test Setting
Some testing may be performed on the developer's local workstation, where a local copy of the project may be in operation. All other test, including any testing by the client will be performed against a development version of the website, hosted on a web-server accessible by both testers and the client (but not necessarily to the general public).

Test Plan
A test plan outlining the minimum level of testing to be performed by testers will be documented and will contain test inputs and expected outputs/outcomes, and any specific test procedures to be carried out.

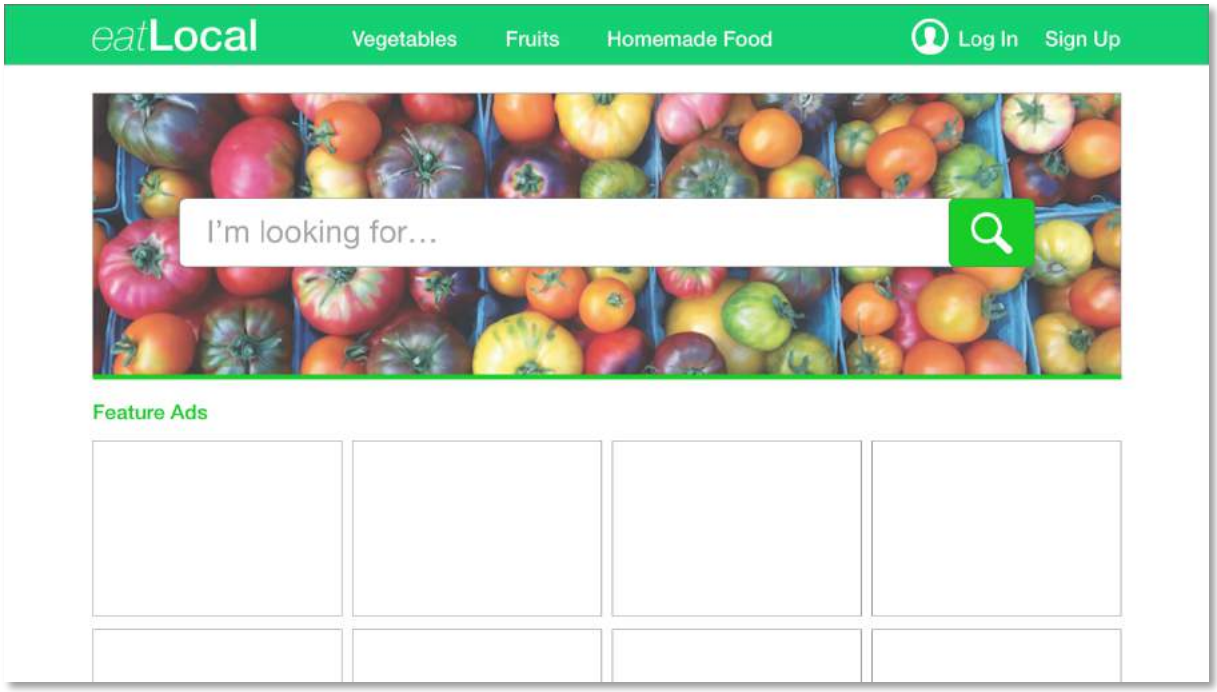
The test plan will be developed based on the client's requirements, with input from developers, in an attempt to obtain a wide-enough coverage of functionality by the test cases.

System and Acceptance Testing

System and acceptance testing will be performed to ensure that the client's requirements are met.

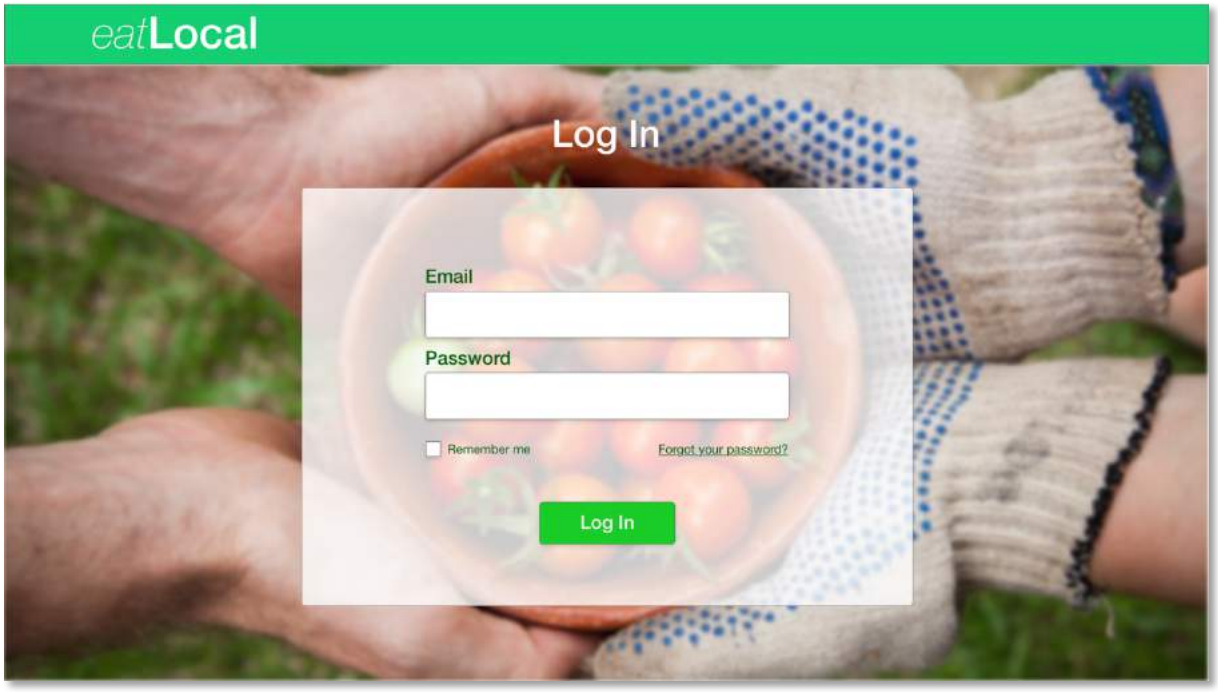
Prototypes

Home Page

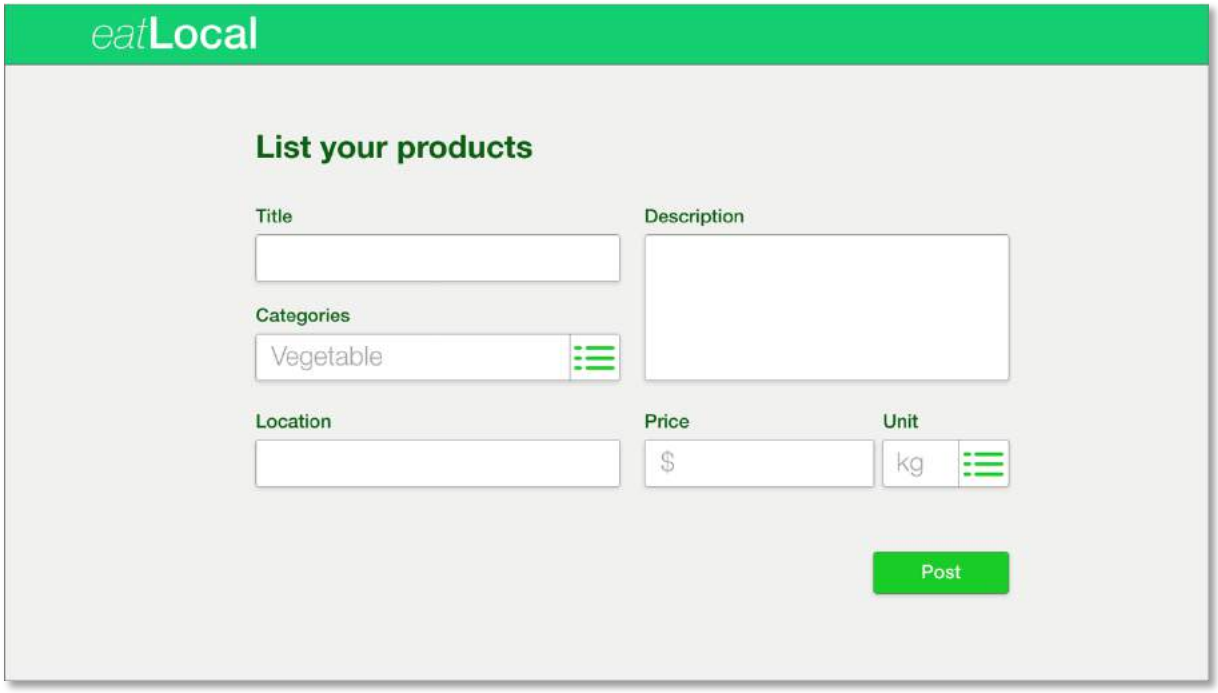


Register Page

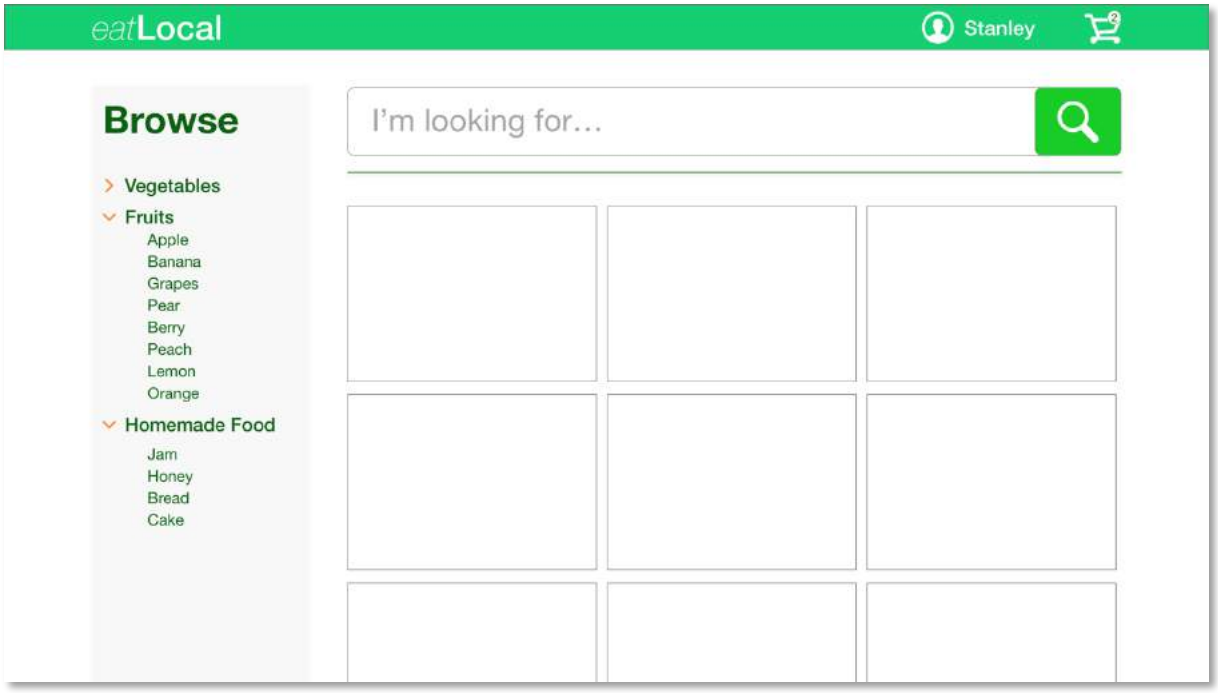
Log In Page



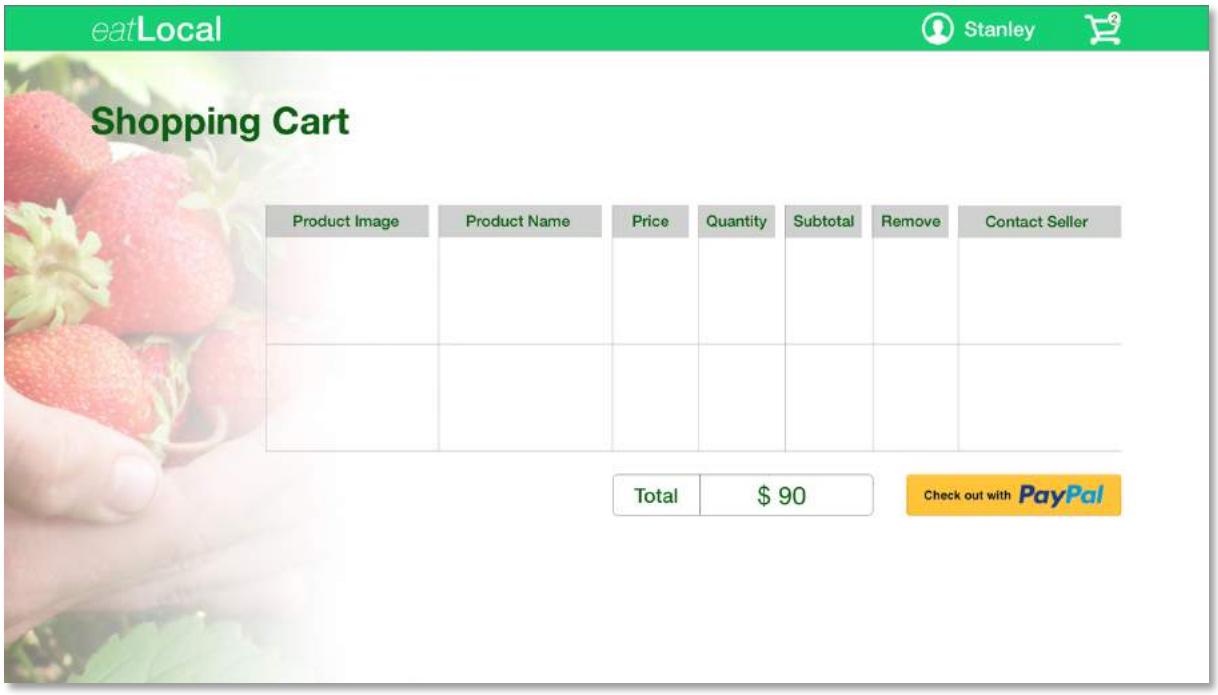
List Product Page



Browse Products Page



Purchase Page



CLIENT AGREEMENT

JAMES COOK UNIVERSITY AUSTRALIA
Brisbane Campus

ICT ADVANCED PROJECT AGREEMENT

This Agreement for CP5046 - CP5047 ICT Advanced Project (the "Agreement") is signed between:

Jiahao Tan; **Manjinder Singh**; **Mohammad Saif** and
Syed Abdul Rahman (the "Developers")
James Cook University Brisbane, 349 Queen Street Brisbane, Queensland

AND

Jay Yam (the "Client")
44 Brighton Road, Highgate Hills, QLD 4101

The Agreement governs the rules between the Client and the Developers regarding the project to be developed as academic subject at James Cook University Brisbane.

1. PROJECT DESCRIPTION AND GOALS

In order to support local business, an online platform for small local farmers and local small batches food producers to sell their products as well as to promote their products is requested by our client, who is a designer and a social activist. As it is now a golden age of online trading, a website for local business will create a lot of opportunities for local farmers and food producers, and their healthy local food products would be easier to be reached by consumers.

2. DELIVERABLES

A user friendly with clean design and efficient user interface responsive website.

3. APPROACH TO DEVELOPMENT

a) This project has the timeframe between the 14th March 2018 and 15th October 2018 to be completed and is subject to the trimester structure corresponding to Study Periods 23 and 24 2018 from James Cook University Brisbane.

b) The approach taken for project implementation is dictated by the corresponding Subject Outline and is based on Agile methodologies: the First Iteration will be dedicated to gathering requirements and project planning; the Second Iteration will be dedicated to implementing the highest priority requirements leading to Alpha Release. Similarly, the Third Iteration will lead to Beta release and The Fourth Iteration to the Final release.

c) Between releases, the Developers will seek the Client's feedback on the implemented requirements and will revisit the requirements to be developed. It is envisaged that the Client will give timely feedback on the Developers' work and will allow the necessary time for meetings and discussions. The Developers and the Client will negotiate on the requirements to be developed considering the time constraint.

d) For educational purposes, the Developers might be asked to implement a series of requirements that the Client does not need. In this case, the Developers will remove these features from the project version delivered to the Client.

e) Project release data and content (for example website content such as About us, FAQ, Policy, Disclaimer etc) is to be provided by the Client and it is not part of the development process. The Developers can contribute with data and content for testing purposes.

f) The developing environment is to be configured by the Developers using resources provided by James Cook University Brisbane. If the implementation requires the use of software which is not freely available, the Client should provide access to it.

g) The Developers are responsible of code backup for the whole duration of the project. After the project's termination, operations such as backup, updates or content changes are the responsibility of the Client.

h) For marking purposes only, the Developers will submit copies of the Project Source Code after each release.

4. TIMELINE AND PROJECT REQUIREMENTS

The following scheme describes the timeline of implementation.

a) Alpha release:

- Start date: 23rd April 2018
- End date: 25th May 2018
- Requirements to be developed:

Title	Description	Client Priority	Time estimate (days)
Homepage	Main Page	10	2
Register	Fill form to Rgister	10	3
Log In	Log In to buy/sell products	10	3
List Products	Allow users to list products	10	7
Browse Products	Search products by keywords; categorised	10	7
Purchase	Adding products to shopping cart	20	8
Payment	Direct Link to PayPal	20	5

b) Beta and Final release:

- Start date: 9th July 2018
- End date: 21st September 2018
- Requirements to be developed:

Title	Description	Client Priority	Time estimate (days)
Communication	Contact between buyers and seller	20	7
Edit Products	Edit infomations about products	20	7
Track Sales Record	Check sales performance	30	8
Leave a Review	leave feedback about the transaction	30	5
View a Review	Check all feedbacks	30	5
Rating Product	Rate a specific Product	40	8
Link to Social Media	Link to Social Media	50	8

5. BUDGET

a) The deliverables are offered free of charge by the James Cook University Brisbane to the Client through the work of the Developers. The Client may request the implementation of requirements that are excluded from the list above, but this is subject to payment as further negotiated.

b) Any third party resources which are not freely available, such as templates, images, SSL certificates, licenses, etc are to be purchased and delivered by the Client.

6. INTELLECTUAL PROPERTY

a) Any idea or deliverable emerged during the implementation of this project becomes Intellectual Property of the Client. This applies to all development iterations.

b) Third party resources used (templates, themes etc.) are subject to the Terms and Conditions of their Owner.

7. PROJECT COMMENCEMENT

This agreement was signed today, 18th of April 2018, between the two parties, leading to the project's commencement:

Developers,
Jiahao Tan
Manjinder Singh
Mohammad Saif
Syed Abdul Rehman

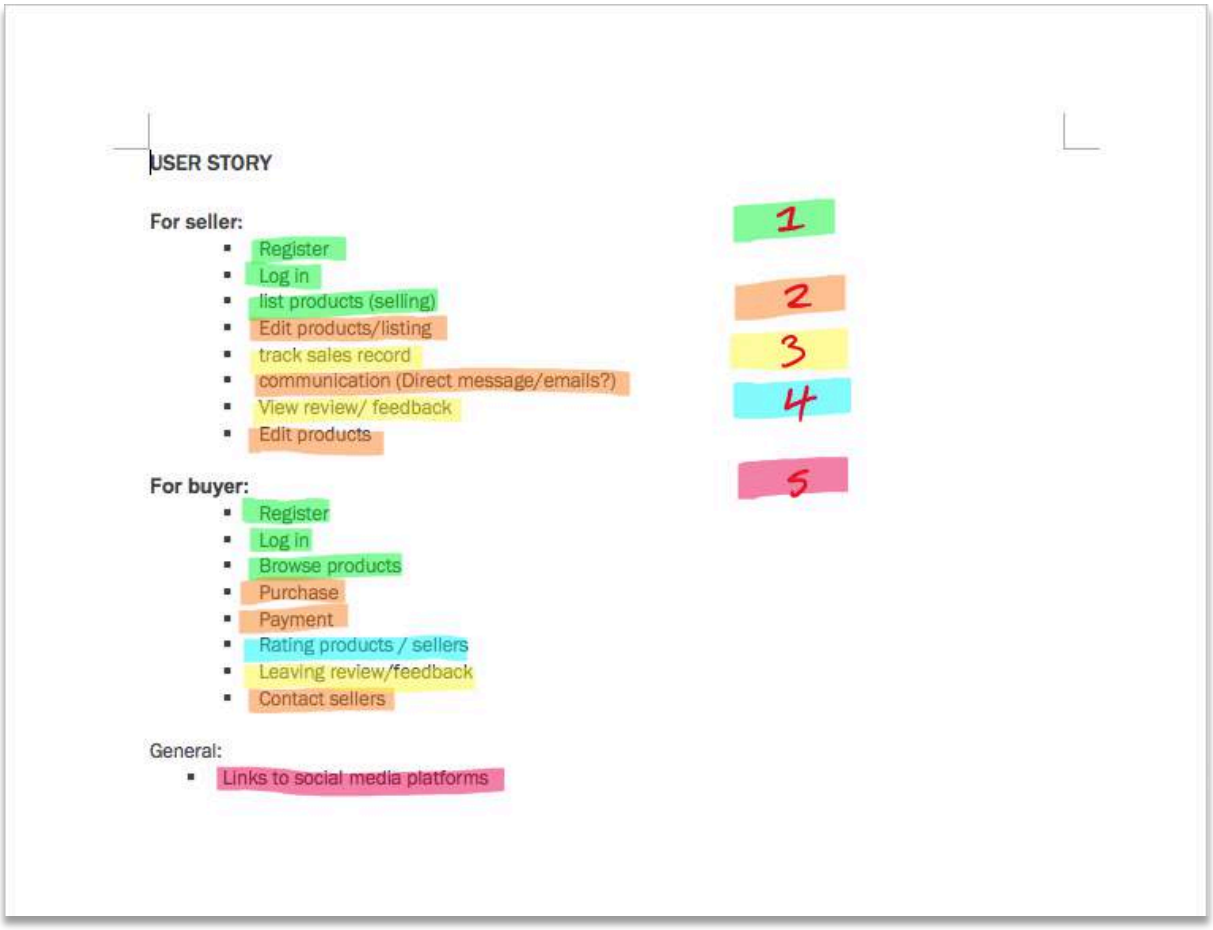
Signature

Client,
Jay Yam

Signature

APPENDIX

User story (original draft file)



USER STORY

For seller:

- Register
- Log in
- list products (selling)
- Edit products/listing
- track sales record
- communication (Direct message/emails?)
- View review/ feedback
- Edit products

1
2
3
4
5

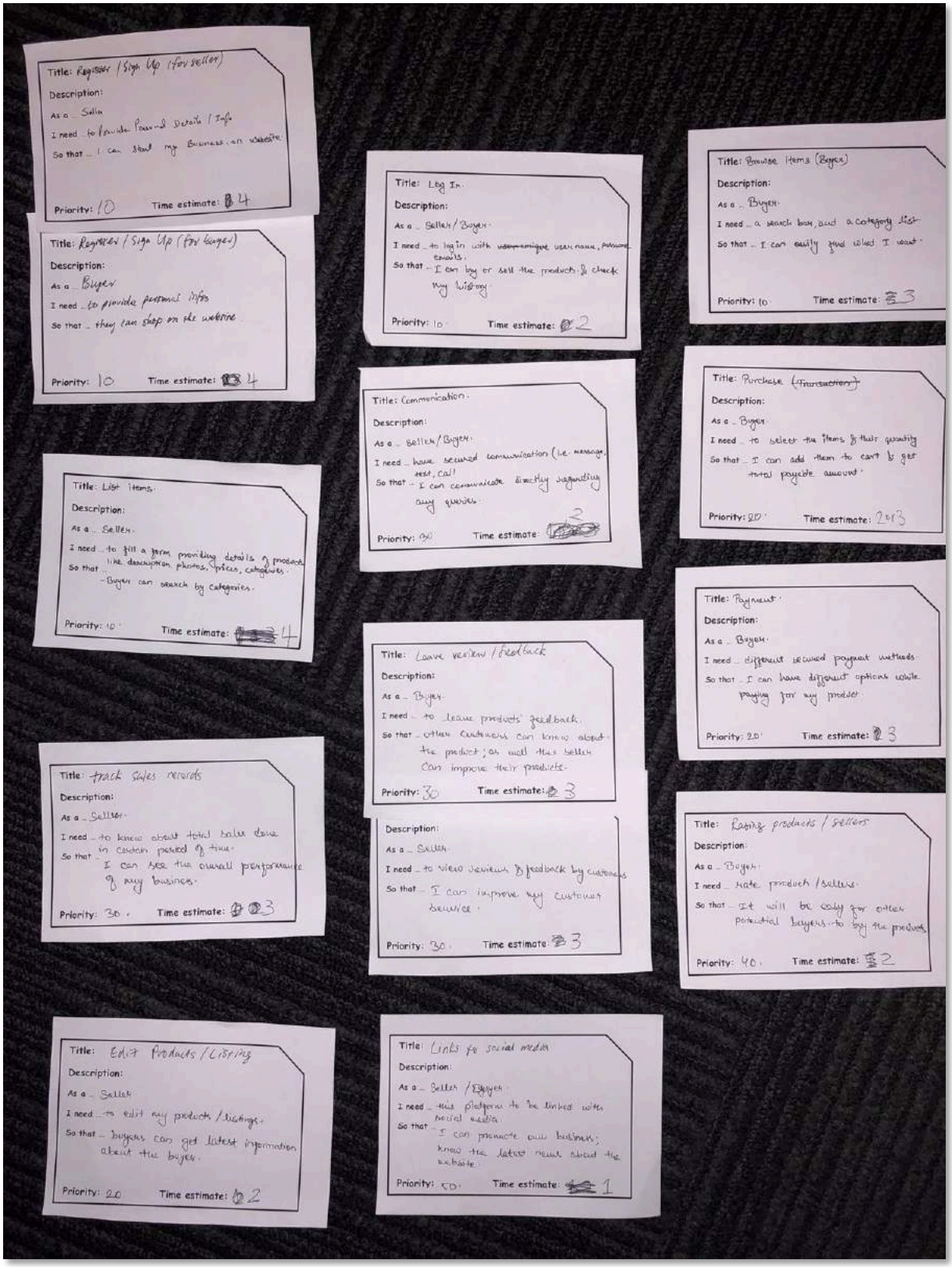
For buyer:

- Register
- Log in
- Browse products
- Purchase
- Payment
- Rating products / sellers
- Leaving review/feedback
- Contact sellers

General:

- Links to social media platforms

Photo of user story cards



User story log

		Project Name:	eatLocal- the local online grocery			
		Developers:	Jiahao Tan			
			Manjinnder Singh			
			Mohammad Saif			
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		User stories log				
Release	**Nr**	**User Story**	**Description**	**Priority**	**Time (days)**	**Status**
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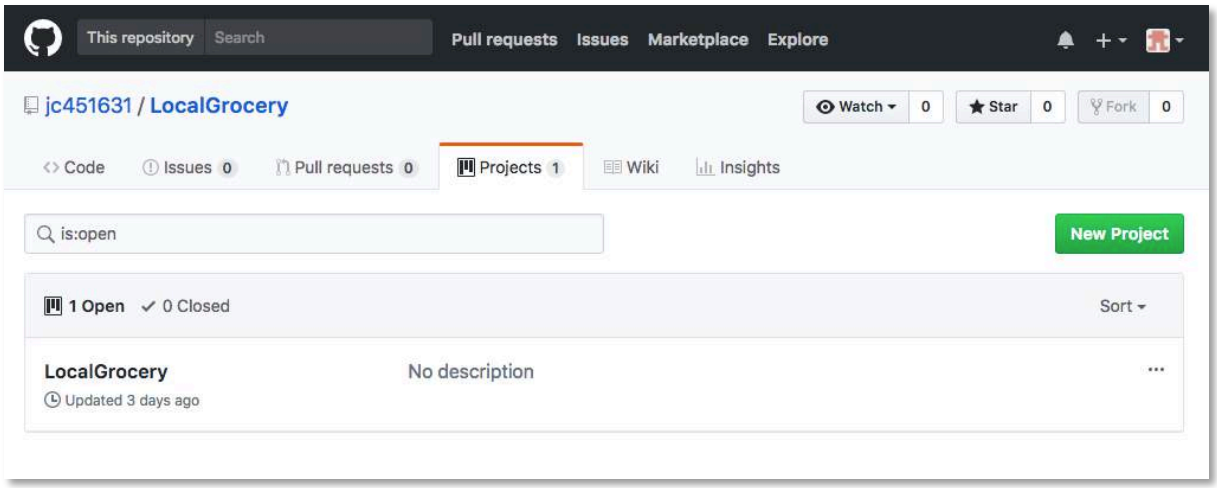
		Testing				
		Bug fixes				
		Testing				

Screenshot of GitHub Repository



- End of Document -