NOTE TO MARKER(S):
AS THE FINAL DOCUMENT WILL BE A PUBLICLY ACCESSIBLE DOCUMENT,
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INFORMATION POTENTIALLY AFFECTING SOCIAL STANDING,
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OR CONTRIBUTING TO IDENTITY THEFT.

SOME NAMES HAVE BEEN REDUCED TO INITIALS,
WITH STUDENT NUMBERS ACTING AS IDENTIFIERS.

THANK YOU FOR UNDERSTANDING.

RMIT UNIVERSITY COSC2196

OUA SP2 2019

INTRODUCTION TO INFORMATION TECHNOLOGY

ASSESSMENT 3: OUR IT PROJECT

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Section 1 - Team Profile

Team Name

Our team name is PRIMACODE.

Team Member Personal information

Name	PRIVATE (PB)
Student number	s0157832
Background	Ex Department of Aviation / Telecom + Telstra / Self-employed / Trainer + Training Coordinator for an I.T. business / Freelance tech writer for Fairfax Media
Hobbies	PRIVATE
IT interest	IT in education. Recently qualified as a Secondary school teacher.
IT experience	Graduate Diploma in Technology Education Diploma of I.T. (Networking) Hardware Designer using Wiznet(Korean) modules, custom firmware / Programmer / Tech Support / Website designer/Manager 30+ years. API's + Programming Languages: Assembler, C/C++, C++ BUILDER, PHP, Fortran, SQL, MySQL, HTML, CSS, Javascript, JQuery, Apache Web Server, Windows API, PayPal API Shareware Author: Windows Applications
Team Name	PRIMACODE

Name	Christian Mudd
Student number	s3791190
Background	Completed a Bachelor of Science at Melbourne University in 1994 and after various jobs in technology and communications sales, I started an IT business in 1999 focussed on providing service to small and medium businesses (networks, desktops, servers, Internet, email etc). In 2009 I merged my business with another similar business to create a larger organisation to focus more on midmarket sized customers and more specifically driving Citrix technologies to deliver wide range of benefits to our clients. In 2015 I sold out of that business to start a career in accounting and finance, joining my family's tax accounting practise and completing an Advanced Diploma of Accounting in 2018. My skills in IT besides management, salesmanship and project management are quite broad from virtualisation and storage area networks (I have skills in HyperV, XenServer and VMware) to mail servers/services and desktop virtualisation (I am an Exchange expert as well as having skills in the Citrix' XenDesktop product range). I still work part time (1 day a week) in IT.
Hobbies	Basketball Coach, Reading, Travelling
IT interest	IT in finance & accounting
IT experience	Multiple industry certifications including Microsoft, Citrix, DataCore HP, Dell EMC.
Team Name	PRIMACODE

Name	Sarah Choi
Student number	s3756411
Background	My major was mathematics and studied the computer programming in early ‘80s as my sub-major and learned the computer programming for the IBM mainframe.
Hobbies	walking a lot everyday. Watching the LOL computer games.(not playing.) Watching Youtube clips about politics/economic and history..
IT interest	During the IT study in RMIT, What kind of e-commerce/m-commerce would have the future potential.
IT experience	I worked in a heavy industry company as an engineering computer programmer. After I came to Australia, I worked in self-employed e-commerce business.
Team Name	PRIMACODE

Name	Timothy Forde
Student number	S3304381
Background	I have worked in the security industry for many different company's over 13 years, covering a large variety of roles from clubs, events, maritime, control room and corporate sites. I've done about 1.5 years of a mechanical engineering degree many years ago. I was also in the army reserves for a while as a combat engineer.
Hobbies	Live streaming video games and basic video production for about 4 years. Some basic electronics and tinkering including combat robots many years ago. Runnings/cycling when I find the time.
IT interest	I'm planning to use the IT skills I'm learning as a stand alone new career or possibly later in the police if I get in. I also plan to use new knowledge I gain to assist my listed hobbies. Programming will open up many new possible projects for me.
IT experience	Basic computer use in the security industry including some CCTV and access control systems. I build and maintain my own desktops and network at home. I have done some basic website design as part of my live streaming hobby. I have a decent knowledge of the programs, equipment and technology used in that hobby. I have some very basic programming experience from throwing simple code together for tinkering.
Team Name	PRIMACODE

Name	Joshua Her
Student number	s3609764
Background	I'm Korean living in Melbourne, working as a barista at Starbucks.
Hobbies	My hobbies include playing games, watching movies/dramas, cooking and working out.
IT interest	IT gaming industry and marketing.
IT experience	I have no IT experience yet but look forward to experiencing more Throughout my studies to see where it will take me.
Team Name	PRIMACODE

Name	Nimo Sheikh
Student number	s9857403@student.rmit.edu.au
Background	I'm originally from Africa I can speak three different languages, I moved from Africa with my family to Australia at a very young age. My family lived in Perth (West Australia)then we moved to Melbourne twenty years ago.
Hobbies	I love music all types of music, my dream to be a successful Web developer**.**
IT interest	I have strong passion for coding i have been reading, searching and learning coding for long time. I'm interested in IT because it's the greatest knowledge of our time, IT is controlling all the world around us. medical teaching airline and many others. It has the ability to change for better, IT makes our life easy and more interesting. One day while I was working we had a problem with one of the computers at work and we had to call software engineer person to fix it. I loved the work he was doing and I saw the passion inside my heart for coding and software then ask myself why not study IT? I have spoken with my family members and all advised me to do it and that is why I'm studying at Information technology at RMIT . I expect to learn during your studies all technology that will help me to gain skills to become web developer, then design my own applications and web sites.
IT experience	Outline my IT experience is not much, I have done some studies earlier stages ,i have basic skills in HTML. CSS, JAVA SCRIPTS, MYSQL,PHP AND SSL.
Team Name	PRIMACODE

Name	Luke Martin
Student number	s3528610
Background	Hello my name is Luke. I am studying online at RMIT University through OUA. I have been studying with RMIT since 2016. I graduated from Churchlands Senior High School in 2010. I am currently working as a Kids Parkour Coach at a gym in Perth called Movementco. I have a beautiful Groodle called Freddy, his 3 years old and full of energy.
Hobbies	My hobby and focus of my project is aquariums, aquaponics and hydroponics. I have in the past built a fully functioning aquaponics system in my shed. I used two aquariums that are plumbed together which are plumbed to a vertical grow tower. The system is currently out of action as I am now living in an apartment, when I move into a house in about 6 months I will get everything back up and running again. I have kept cichlids, more specifically I had a school of Red Zebras and I have also kept Barramundi.
IT interest	My interest in IT started when I was about 10 years old. My grandparents were moving house and I was tasked with the job of packing up and setting up their computer. I had never done it before and I just went for it. Unplugging everything was no hard task but when it came to plugging everything back in I just matched up the cords with the colours and receiving heads on the motherboard and that was it. I had done it and I was so happy with myself. At a later date my grandparents upgraded their computer and gifted me their old one and that secured my interest in IT. I had my own computer. From about 16 years old, I realised I didn't really like working for people. I wanted to work for myself and I felt that IT was a great way to make that happen. I realised that I couldn't make a lot of money fixing computers and I needed to expand my skill set. That’s when I found OUA and RMIT and I haven't looked back.
IT experience	I currently have pretty basic skills in HTML, CSS, Javascript and Jquery, PHP and SQL. I have also done a little bit of work with frameworks like bootstrap and UIKit. Every project we embark on comes with learning curves and forces me to develop my skills a little bit further. I get a lot of satisfaction out of taking a design spec and building a web application that perfectly resembles that design spec in the most efficient way possible.
Team Name	PRIMACODE

Group Processes

Although the group worked well together in Assignment 2, there was room for improvement. There are also new requirements for assignment 3. These will require changes to the existing workflow patterns.

Accordingly, the following changes have been implemented.

- A published communications plan
- A compulsory online conference, each week
- An “as soon as possible” notification requirement, if group members cannot attend the compulsory conference
- An optional, weekend online conference, for those requiring extra assistance
- The establishment of subgroups (Programming / Research / Management / Technical / Digital Imaging / Marketing) with deliverables and deadlines

Career Plans

pb	Teacher of I.T. secondary schools, ideally close to home for a quick commute.
tf	Member of the Victoria Police with specialization into an IT focused role after the first 2-4 years. This could cover many ideas so I need a very general IT education till I know where to focus later.
sc	I would not be going to seek a job. I would seek the e-commerce / m-commerce business on my own business with my family as one of my family will start fashion brand in a few years. As a former mathematician, learning Crypto currency has been the most exciting part of this course. But starting a business with blockchain technology is very attractive to me but more research/bringing new ideas from the real world are essential as well as the programming skills.
jh	I.T Marketing (somewhere where I can interact with people)
lm	My ideal job is not on seek. My ideal job is to be working for myself. Currently I am doing some freelance web development for a friend who is a graphic designer. I work with two friends, the graphic Designer, Boris and another developer, Marcus. I love working with my friends, I love working in my own time and I love the idea of making my own money. I also have a passion for gardening and horticulture and I would like to combine the IT side of things with my passion for growing food to build an autonomous system for growing food and perhaps when the time comes, Cannabis.
cm	Chief Technology Officer

Comparing and contrasting the ideal jobs for each person in the group, reveals the following:

- the outstanding common element is the need for an IT qualification for all jobs.
- there are specialisations, or distinct disciplines, within the whole field of IT, as indicated by the diversity of roles.
- the career plans are highly diverse - as distinctly unique as the individuals who are seeking them. This gives an indication as to the scope of variation and opportunity within the IT industry.

Section 2 - Tools

Our Team Website

https://primacode.github.io/assessment2/index2.html

Group repository

https://github.com/primacode/assessment3

Github as a repository

Github has been used primarily to store images of food, dishes and branding information for the PRIMAFOOD idea.

I think this is a good reflection of our planning process. It contains images of various dishes from different cultures that would be used for a web application demonstrating our idea if time permits. It also helps to illustrate the concept of the idea.

(sc)

I have never heard of the Github before I started this course.

In the first assignment, I was at a loss; I just simply did not know what to do. But now I am getting more confident in doing the group work starting assignment 3. Our group leader explained it very well and I could keep up step by step.

(sc)

(ns)

I was new to Github, and spent lot time trying my head around it, and it is getting easier.

I was not successful with my first group; luckily working in my third assignment with a much helpful and well organized group, made up for it. It was lot to catch up with, especially the way they did the work, but at the end I think I'm there.

(ns)

3. Project Description

Project Overview

A butcher's shop near me has the sign: "Halal. Is it meat you're looking for?".
Bill Bailey

In this project, a static, basic food ordering website will be developed. A limited menu of food and beverages will be available to purchase using secure credit card processing facilities (provided by PayPal). User feedback will be sought on the basic site to garner ideas for expansion.

The project plan will then be expanded to include features found on other sites. Research findings will inform this expanded feature list. The expanded website will not be static, but database driven, with all the benefits (sorting, searching, edits, updates, deletions) becoming available for use.

The project is called PRIMAFOOD. Food businesses will be invited to join PRIMAFOOD. In doing so, they will receive a hosted, database driven website that provides an online food delivery service for their business. Custom forms will allow businesses to upload and edit their menu item descriptions and images.

Our competitive rate (compared to the major corporates) of 7.5% will be one of the most attractive features PRIMAFOOD. PayPal takes another 2.5%. This keeps calculations simple.

The heavily promoted slogan 'Proudly on Primafood', will be available for use by our business clients.

Motivation(s)

The online food ordering revolution is upon us. The growth in this type of service has been exponential. Celebrity-driven, dinner-time promotions saturate television channels. Even Clive Palmer cannot compete in this timeslot ;-).

Despite the growing popularity of such services, reports of a backlash against the excessive commissions taken by the major corporates, are growing.

For example Menulog charges a 14% commision fee for order placed on their website. This includes orders that are to be picked up by the customer themself. That adds up to a lot of money for what is a food based search engine and money transaction. Services such as Uber Eats and DeliverRoo charge commissions around 30% as well as delivery fee.

This is putting huge pressure on restaurants as they struggle to pay the middleman - with little benefit to them (Forbes, n.d) (Special Broadcasting Service, n.d)(Choice, n.d) .

This gives PRIMACODE an opportunity to offer an effective alternative. A feature packed website with a competitive commission, plus secure credit card payments provided by PayPal, may prove be a viable project worthy of pursuit.

Future Employment Prospects

If the expanded project was to be realised, participants would be able to include it in their portfolio of completed work. Portfolios of work are often requested by employers to gauge both depth of experience and the standard of work.

Landscape

The research now presented discusses similar systems and products. In particular, the three main local (Melbourne-based) competitors are identified and evaluated.

The top three, online food ordering apps for Melbourne are Menulog, Deliveroo and UberEats.

	Menulog	Deliveroo	Uber Eats
The food ordering process	The visitor must first enter a location by typing either an address, suburb or postcode. Restaurants are then presented as a vertical list (with a photo of a sample dish) based on your location and sorted by 'best match' initially. The next step is to choose your restaurant. Once chosen the site provides a long list of all dishes broken down into sections such as breakfast, lunch etc. Each dish has a simple plus + symbol to add. the item to your cart for ordering.	The visitor must first enter a location by typing in a specific address. The Deliveroo site has an address matching database which is fairly good but won't provide search results without first confirming an address. Restaurants are then presented as a matrix divided into sections such as Featured, Top Rated and Fastest Delivery. Once a restaurant is selected the site provides 2-column list of all dishes broken down into sections such as Breakfast, Lunch etc depending on the restaurant. Clicking the item brings up a pop out which allows for selection of any addons as makes sense and has the 'add to order' button.	The visitor must first enter a location by typing either an address, suburb or postcode. Restaurants are then presented as a matrix comprising a photo of sample food/s, estimated delivery time and Uber Eats 5 star rating score. The next step is to choose your restaurant. Once restaurant is selected the site provides 2-column list of all dishes broken down into sections such as Entrees, Soups, Chef Specials etc. You must click on the item again to bring up the ordering dialogue which has size selection on it (if relevant) and the 'Add to order' button.
Delivery charges and options	Delivery is typically $5 and the site indicates what times of the day delivery is available.	Delivery ranges from $5 to $8 or more depending on location and the site allows for giving the rider a tip.	Delivery is $6.95 for food from local suburbs and the site indicates approximate delivery time.
The checkout process	Provided that the order time is within specified delivery times, the checkout process first requires the user to log in, create an account or log in with Facebook.	To check out, you must be signed in with your Deliveroo account which can be created from a Facebook or Google account or based on your email address.	To check out you must be signed in with your Uber account which has 2 anti-fraud measures (not-a-robot photo selections and a 4 digit code sent to your mobile

	The site then confirms the delivery address. The next step confirms delivery time as either asap or select from a range of future time slots as well as providing notes for the driver. The next step is payment which is by credit card or Paypal (and/or voucher).	There is no strong anti-fraud on this sign up process. Checkout provides option to order cutlery (nice) and confirm the delivery address. On the same page the payment method can be specified as either Paypal or credit card, either of which will be remembered in your Deliveroo account for next time.	phone) for first time users. Check out then starts with choosing either asap (which is the default) or scheduling a delivery for later that day or a future day/time. Next UberEats confirms your delivery address and payment method can be via Paypal or any credit card stored in your Uber account, or you can add a debit/credit card during checkout.
Website features	The restaurants can be sorted by 'best match', distance, quality score, delivery fee, minimum order, special offers, newest first or alphabetically by name. Search filters appear on the left hand side and allow the browser to refine by cuisine type or some of the categories mentioned above to refine your search. Each restaurant shows whether the delivery is by Menulog or by the restaurant itself. If the order is delivered by Menulog it can be tracked on a map. Menulog supports in house identity account as well as Facebook.	The Deliveroo website distinguishes itself with two sets of categories in its search window. The first is a set of horizontal images with very broad cuisine types delivering to your location (such as burgers, pizza etc). The second categorisation is a vertical text list on the left hand side margin of the screen. This has many more categories. The site's search is based on both delivery time as well a destination which can be changed in the top left. The site has dietary requirement options on the left hand side (halal, gluten free etc).	Like Uber drivers, your food delivery can be tracked in the iPhone/Android app (not directly on web site). The website has a search engine function that re-orders your resulting list of restaurants. The site also has a collection of categories that the user can choose from to begin the browsing process. The site indicates whether the restaurant is cheap (with a $) or expensive (with a $$). The site indicates the average feedback star rating and shows the number of transactions that feedback is based on.
Geolocation or other advanced google features?	The web site does not use geolocation services to assist ordering, it relies on the user entering a full address, suburb or postcode. A postcode is very unreliable due to the site not using a proper postcode database. It seems to rely on	The web site does use geolocation services to assist ordering, however, on a PC this can be unreliable due to the way a network connection is provided to the computer. It is more reliable using a PC on the website (as opposed to using a mobile device) when entering a full address.	The web site does not use geolocation services to assist ordering, it relies on the user entering a full address, suburb or postcode. The site suggests locations such as libraries and other landmarks as helpful suggested location to receive food delivery.

	previous entries, many of which are incorrect.		
Credit card payments and authorisation	It appears that Menulog is itself a merchant for Visa, Amex and Mcard and therefore is processing the payments itself.	It appears that Deliveroo is itself a merchant for Visa, Amex and Mcard and therefore is processing the payments itself.	It appears that UberEats is itself a merchant for Visa, Amex and Mcard and therefore is processing the payments itself.
Features that are missing from the PRIMAFOOD basic website:	Search and sort by restaurants. Track delivery. Australia wide coverage. Brand affinities such as Hungry Jack's, KFC and Crust etc.	Dietary requirements search category (halal, vegan, vegetarian & gluten free). The site has ability to promote special offers from restaurants.	iPhone / Android app integration. Search engine. Search and sort by restaurants. Australia wide coverage. Brand affinities such as Grill'd, Schnitz and TGI Friday's etc.
Images	Menulog food images are generally quite bright and colourful and definitely hero the food being described.	Deliveroo images are very colourful and typically have a light or white background for good contrast with the subject.	Not all participating Uber Eats restaurants have provided photos for their food items. The photos that are posted however are bright and colourful with typically a white or light coloured background.
Menu Content	Menulog's menu contents are vast owing to the fact that Menulog is available Australia-wide and has many restaurants signed up. Individual items described succinctly.	Deliveroo's menu contents are vast owing to the fact that they have many restaurants available. The descriptions are fairly short and succinct.	UberEats' menu contents are also vast owing to the fact that Uber drivers are available Australia-wide and Uber Eats has signed up many restaurants. Individual items are described succinctly.
Feedback mechanisms	The feedback mechanism is excellent, allowing the user to provide feedback on a specific part of their web site or to provide general feedback.	The feedback mechanism is integrated into the dining experience and exposed as a 5-star rating on the search site with number of data points.	The feedback mechanism is a simple one. It is integrated into the delivery process, requiring the user to provide a rating from 0 to 5 stars after the food has been delivered.
Marketing	Menulog's marketing is powerful and comprises extensive online and TV campaigns.	Deliveroo advertises on its rider's bikes as well as mass media print and TV.	UberEats has mass media print and TV advertising and regularly runs marketing campaigns
Staff recruitment using online job sites	Menulog has many jobs advertised on Seek https://www.seek.com.au/menulog-jobs	Deliveroo has many jobs advertised on Seek https://www.seek.com.au/deliveroo-jobs	UberEats has many jobs advertised on Indeed https://au.indeed.com/jobs?q=Uber+Eats&l=

	and Indeed(mostly drivers) https://au.indeed.com/jobs?q=menulog&l=	and Indeed https://au.indeed.com/jobs?q=Deliveroo&l=	And Seek (mostly drivers) https://www.seek.com.au/Uber-Eats-jobs

Deliveroo vs Uber Eats vs Menulog

Delivery service	Deliveroo	Uber Eats	Menulog
Business model	• Charges restaurants a commission, reportedly around a third. • Claims to have a fleet of 6500 couriers and 7000 restaurants. • Drivers pay an "administration fee" of 4%. • Restaurants can use their own drivers.	• Charges restaurants a commission of up to 35%. • Drivers pay a "service fee" of 30–35%. • Claims to have 15,000 restaurants.	• Most restaurants use their own drivers and pay a 14% commission (they keep delivery fees). • Recently launched third-party delivery service in Sydney and Melbourne. • Claims to have 11,000 restaurants.
How to pay	Credit card or PayPal.	Credit card or PayPal.	Debit or credit card, PayPal or (for some restaurants) cash on arrival.
Cities available	Adelaide, Brisbane, Canberra, Geelong, Gold Coast, Melbourne, Perth, Sydney and Wollongong.	Adelaide, Ballarat, Bendigo, Brisbane, Cairns, Canberra, Geelong, Gold Coast, Hobart, Melbourne, Newcastle, Perth, Sunshine Coast, Sydney, Toowoomba, Townsville and Wollongong.	Claims to cover 90% of delivery addresses.

Above: a comparison matrix for the main online ford ordering websites
Source: https://marketing4restaurants.com/menulog-vs-deliveroo-vs-uber-eats-who-is-winning-the-delivery-wars-in-australia/

Goals and Aims

User feedback as to the most valuable features of the website will highly influence what has priority. Our own importance rankings, along with an ease of implementation ranking for each feature, will also be used.

Despite this, the major goals are:

- to complete the basic website
- To develop an advanced plan to exploit an opportunity for a lower-commission rate / lower overhead player to compete in this market

The basic website introduces members to basic website design and styling, Github usage, digital imaging for website design, cuisine content creation exercises and the very simple PayPal Websites Standard API. The experience(s) gained here can now be used to assist in the development of the expanded site. That was stage 1.

Our research has revealed how much more work is needed to match the large corporates. A mock-up (at least) of the expanded website should be the deliverable at the end of stage 2. From here our extensive feature list (more of a wishlist), can be prioritised using both user surveys, and informed guesses at what has real value - to both users and our prospective business clients.

Plans and Progress

The project began smoothly enough with the stage 1 development of the basic, static website. A HTML template, preloaded with sample content, allowed PRIMAFOOD cuisine and beverage content to be simply copy and pasted into the shared document, between the tags provided.

Images were sourced and uploaded to the designated Github repository without issue.

Adding Paypal features, are also a cut and paste affair. Once the form code for one item has been defined, it may be copied and pasted into place for another item. Once pasted, changing the values of some of the FORM <INPUT> elements to required values (Eg. item price, code and name) is all that is required.

Once content additions were complete, it was time for styling the page. Some simple CSS resulted in a page with the distinct PayPal logo, food images floated right and a high contrast colour-scheme. Background wallpaper was created from grey-scaled strips of the colour food images that appear on the page.

Testing followed: add to cart buttons for each item and the view cart button. All tests were successful. We actiually created a fully working site with credit card processing.

The finished, basic website is available to view and try at: https://primacode.github.io/assessment3/indexxx.html

Stage 2 began with some difficulty. Serious thought and consultations were needed. As research results and expansion proposals arrived, an expanded feature list took shape, At the same time the technical requirements of implementing same had to be planned.

This necessitated making some changes to the existing subgroups. The changes are clearly displayed in the *Timeframe* table (below, next section).

At the same time it was realised that there would not be enough time to complete the expanded website; only the plan for it would be deliverable. It then became necessary to prioritise the feature list. Accordingly, the research group gained a new task: to conduct user research on what had value to both food ordering and business clients.

It was recognised that some groups would have lulls. It was also realised that some group members could now perform multiple tasks - thanks to experiences gained in stage 1. Thus the digital imaging and styling team could help with basic programming and testing as features were added.

The Expanded Feature List

The following table lists features (in no particular order) suggested by both research findings and brainstorming:

Filter by religious requirements. Eg. Halal. Is it meat you're looking for? ;-)
Calculator: shows estimated distance and time / from restaurant to delivery source for different modes of tranpsort. Eg. bicycle or car.
Filter by food type or rating.
Display all that deliver to your location.
Show eat-in option, if offered
Range finder: display restaurants within a specified range.
Map: a map display, centered on your location.
Show pickup option if offered
Loyalty coupons / Rewards program
No Signup (no need to create an account)
Tracking
Feedback and ratings
Drop down option lists for menu items

Sample User interface

A sample user interface is shown below:

Above: a mock-up of the user interface for the expanded project

The finish line

At the end of the allocated time for this assessment, the expanded plan was completed. In practice, it would need to be reviewed and approved by all groups.

A few notable features of the plan include:

- Formal reporting requirements
- Github usage
- ‘Floating’ members at certain stages who can complete odd jobs
- Feedback and evaluation mechanisms
- Quality control requirements
- Rigorous testing including Security evaluations
- Dual group roles for some members

A theoretical handover

One test of the quality of our work, would be the ability of a new team to continue development. This would definitely require excellent documentation: reports from each subgroup, project reports, research findings and excellent program code commentary and database design explanations.

Sample Scenarios and Personas

Scenario 1: Business Client

A PRIMAFOOD promoter engages a restaurant owner. The one-off low joining fee (to be determined by market research) and competitive low commision rate is explained.

Next the food ordering website features are demonstrated. The security offered by the PayPal credit card payments facility is stressed.

Finally, a demonstration of the forms used to upload content (titles, descriptions and images) is given.

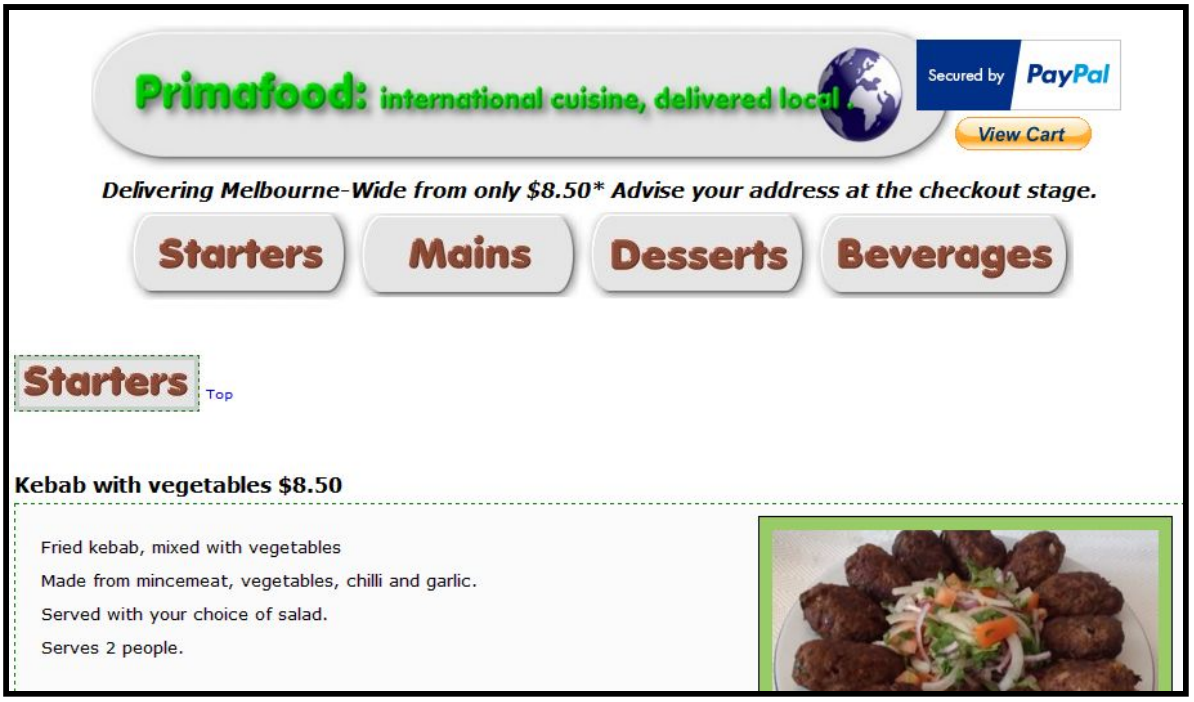
Scenario 2: Food Ordering Client

Note: an image used previously is repeated here for reference purposes.

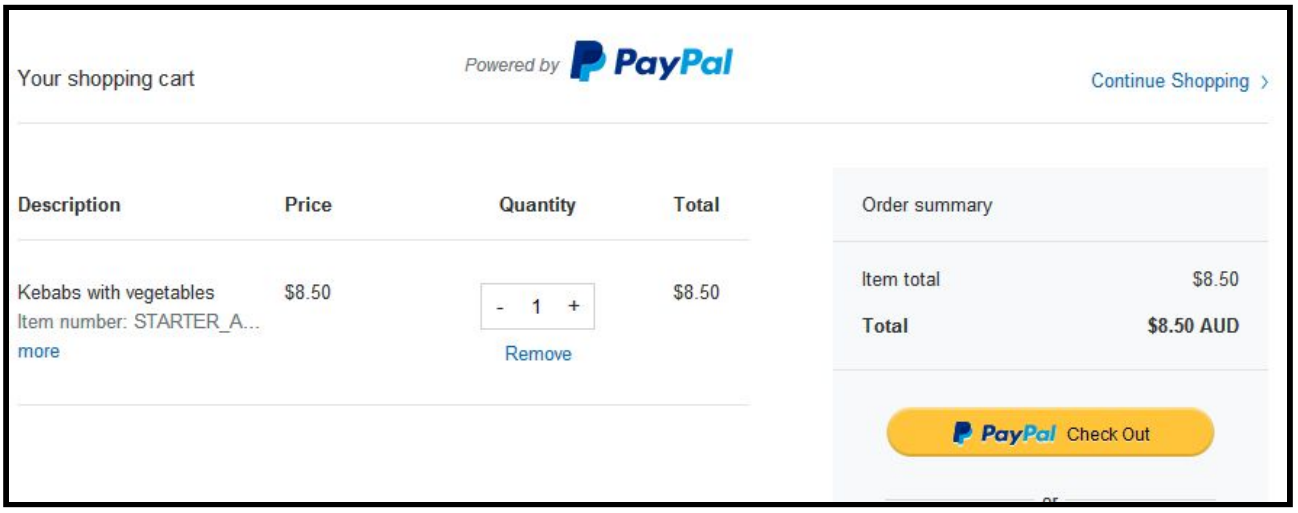
A hungry patron sees the "*Proudly on Primafood - online ordering and delivery. www.primafood.com*" slogan as they pass a food retailer. Visiting the PRIMAFOOD website, their location is automatically determined or manually entered.

A map appears, centred on the user's location. By using the filters provided, the user restricts the display of food retailers to those that match their filter choices.

Upon hovering over a balloon, more information is displayed about the retailer. Upon clicking the tooltip or balloon, the user is taken to the food retailer's food menu page. From here, menu items can added to the cart. From the cart view, checkout can be made.



Above: a screenshot of the basic ford ordering website



Above: the Paypal cart screen, with an item added; with checkout button at lower-right.

Roles

After determining subgroups, the following roles were defined for the project:

Role Name:	Responsible for:
Project Manager	Establish communications plan Prepare and distribute project documentation Monitor and maintain progress Evaluate reports and recommend improvements Define and implement quality control
Digital Graphic Designer / Digital Imaging / Interface designer / UX developer	Website layout, colours and fonts, aesthetics, images
Website Programmer HTML / CSS / PayPal API / JavaScript / jQuery / MySQL PHP	Image effects, Credit card processing, Page styling, Special features
UX Researcher	User testing
Culinary / Cuisine Advisor	Food menu
Technical Researcher	Industry trends
Technical Report Writer	Technical reports
Multimedia Specialist	Video (if needed) Audio (if needed)
Voice over artist	For Professional Video promotion voiceover

Scope and Limits

Limitations will apply to both the basic and expanded project websites food and beverage menus. A limit of three starters, mains, desserts and beverages will be applied. There will be sufficient content to show off the potential of the online food ordering site.

Currently our planned feature list exceeds the allowable time for implementation. As mentioned before, User feedback as to the most valuable features of the website will highly influence what comes into scope. Our own importance ranking, along with an ease of implementation rank, will also be used.

All other items will remain out of scope until time permits their inclusion.

Tools and Technologies

The following software and tools are required by the project:

pb*	Eclipse and Dreamweaver and a LAMP or WAMP installation.
lm*	To develop this project there are a multitude of tools required. Firstly a computer or several computers will be required for each member in the team. It is probably best to address the tools and technologies required for the project by role. **Graphic Design** Graphic designers will need access to high performance computers and licences for adobe photoshop and adobe illustrator. **Back End Web Developer** Back end web developers will need access to a computer and an IDE to develop with. Preference changes from person to person but I personally use PHPStorm to develop PHP code. Assuming the backend for this project is done with PHP the developer hired for the job will need access to a PHPstorm licence. **Front End Web Developer** Front end web developers will need access to a computer and an IDE. Preference changes from person to person but I personally use Brackets to develop HTML, CSS and Javascript Code. It's lightweight, free and has a live preview that is very useful when doing front end development. **App Developer** If this project is launched as an App as well as a web application an app developer will be required. To develop iOS apps xcode is used and that requires a Mac Operating system. To develop Android apps again it's a personal choice. The most popular and most used IDE to develop Android apps is Android studio. Android studio is free and xcode is free when you have a mac OS.

The following software licences and hardware are needed.

pb*	Dreamweaver CS6 (Eclipse is free, MySQL, Apache and PHP too) Hardware: PC or a Mac
lm*	Graphic Design -Adobe Photoshop -Adobe Illustrator Backend Developer -PHPstorm for PHP development -Visual Studio for C#/.NET development Front End Developer -Brackets.io App Developer -Access to a Mac computer -Xcode -Android Studio

Some members are experienced programmers and technologists. Other members have some e-commerce development experience:

pb*	PHP MySQL Ajax HTML CSS jQuery Javascript Apache
lm*	I have used both PHPstorm to develop back end PHP and SQL code and I have used Brackets.io to develop front end HTML, CSS and Javascript code. PHPstorm requires a subscription and Brackets.io is free software provided by Adobe.

Project Testing

All functions of the website using a comprehensive checklist and defined testing methods. Security will be tested by executing common exploits on the MySQL databases being used. Finally, multiple browser compatibility will be confirmed by ensuring that page layouts do not ‘break’. PayPal operations will also be checked for correct operation.

User Testing

Users for testing purposes will be chosen according to used-centred design principles. After defining target groups and a screening process, a mockup of the expanded site will be presented for trial and feedback purposes. A user survey will inform the designers as to what features had most and least value. This will act as a guide for implementation.

Project Timeframe Table (Proposed)

	Primacode: Project: STAGE 1: PRIMAFOOD Basic STATIC Website Weeks 1-6			
Week	**Website Programming (pb, sc, ns)**	**Research / Project expansion (cm, jh, tf, lm)**	**Project Management (tf, pb)**	**Digital Imaging / Website content (sc, ns)**
1	Consultations Test Communications Plan	Consultations Test Communications Plan	Consultations Test Communications Plan Define subgroups. Define basic project specifications. Create online collaboration documentation. Share links via email Issue documentation: 1) Project plan (basic) 2) Website(basic) design brief 3) Research brief 4) Digital and website content requirements	Consultations Test Communications Plan
2	Add HTML / CSS as per design brief. Test.	Online Food ordering Research	Monitor and manage progress	Brainstorm as per documentation. Develop content, upload to Github
3	Add Paypal features. Test.	Industry trends Research	Monitor and manage progress	Develop content, upload to Github
4	Integrate Github content	Risks Research	Monitor and manage progress	Floating (odd jobs as needed)
5	Test Phase: multiple browsers and report	Compare basic website to top 3 Melbourne food ordering sites and report. Include improvements list in proposed expansion plan.	Monitor and manage progress Explore expanded project options.	Test website (as users) and report.
6	Respond to test reports. Apply fixes and report final results to project management	Research, expanded project plans due.	Debate and decide on expanded project (all group members).	Floating (odd jobs as needed)

	Reorganisation for expanded project: **STAGE 2: Advanced Food ordering website DATABASE DRIVEN Weeks 7-16**			
	Advanced Programming **Pb, lm,** **Basic Programming** **Sc nm**	**User Research / Marketing plan** **cm jh tf**	**Expanded Project strategies** **And documentation** **Tf lm pb cm**	**Digital Imaging / Cuisine requirements (based on research report)** **Sc ns**
7	Consultations Test Communications Plan Floating (odd jobs as needed) Expanded Project: Orientation	Consultations Test Communications Plan Floating (odd jobs as needed) Expanded Project: Orientation	Consultations Test Communications Plan Define subgroups. Define expanded project. Create online collaboration documentation. Share links via email Issue documentation: 5) Expanded Project plan and overview 6) Website(expanded) design brief 7) Marketing / User Research brief 8) Digital and website content requirements Create Github Repository	Consultations Test Communications Plan Floating (odd jobs as needed) Expanded Project: Orientation
8	Advanced Team: Develop MySQL database Github updates	User Research: are we building the right product?	Monitor and manage progress	Cuisine choices and descriptions Github update
9	Advanced Team: Develop PHP pages Basic Programming team: Add content to database Github updates	User Research	Monitor and manage progress	Allocated to Basic Programming team
10	Advanced Team: Integrate Google geolocation services (API) Integrate Major features Github updates	User Research	Monitor and manage progress	Digital Images Colour schemes Fonts (final choices - research-proven choices) Github updates
11	Advanced team: CSS using style team final choices Github updates	Client Research: who might join us?	Monitor and manage progress	Digital images for marketing Github updates

12	Advanced team: Ajax (autolookups) Github updates	Client Research	Monitor and manage progress	Digital images for marketing Github updates
13	Advanced team: jQuery image Slideshows Github updates	Marketing Plan / Investor Prospectus Plan	Monitor and manage progress	Final report to Expanded Project Management
14	Advanced Team: Implement and test database backup and restore Mobile-friendly duplicate site design Basic Team: user testing (multiple browsers) report results to advanced team Github updates	Marketing Plan / Investor Prospectus Documents	Define quality control policy	Allocated to Basic Programming team
15	Advanced team: Database vulnerability tests (filtered input, magic quotes, cleansed output) Basic Team: Mobile-friendly duplicate site compatibility test Github updates	Conduct external user testing on expanded website. Gather feedback. Final report to Expanded Project management	Monitor and manage progress	Allocated to Basic Programming team
16	Final report to Expanded Project management Submit feedback	Submit feedback	Review all reports and Assessments. Gather Feedback. Evaluate all. Complete Documentation Quality Control. Generate post-evaluation improvements worklist.	Floating (odd jobs as needed) Submit feedback

Risks

Database Risks

Once a static website is converted to a database-driven website, new risks present themselves.

Data security breaches destroy consumer and investor confidence. Data may also be destroyed, or maliciously altered. In the event of a security breach, encrypted (or 'Salted' data) may prevent stolen data from being used. Other protective precautions include sanitizing user input and filtering output.

Documentation Risks

The old joke goes:

> *Did you hear about the (insert racial group you wish to insult here) ice-factory closing down. Apparently they lost the recipe!*

In Assessment 2, we received warnings about uncommented code, from the professional IT programmer we interviewed. This was no joke. It was cited as a great frustration and a major barrier to completing work tasks. For the sake of a few comments, a whole section of code may have to be rewritten.

The question to be answered is this: is all documentation maintained to a standard, to permit work to continue when key employees leave? For this reason, competency in the use of a both a professional version control system and a code, artefact and document repository, such as Github, is essential.

e-Commerce Risks

For new players of the e-Commerce game, there are many traps and security challenges. Orders may be spoofed (faked), or price data tampered with before data is transmitted to the server. This will necessitate checking that payments are both made, cleared and correct, before sending out orders.

Chargeback fraud is another threat. It occurs when a buyer falsely claims that the goods they ordered were never received (or delivered), requesting a return of their funds. This leaves the burden of proof with the vendor. PayPal may freeze the funds in a vendor account upon receiving a complaint.

For this reason, it is recommended normal business practice that funds be transferred from PayPal to the vendor's bank account, hourly, or even more frequently if time permits. This results in a minimum of funds being frozen, in the case of an chargeback-initiated account freeze.

To avoid becoming a victim of chargeback fraud, a foolproof receipt system (Eg. signature upon delivery) must be implemented.

Risks to stored Data

Storing data carries with it a number of risks regardless of whether it is stored in house (i.e. on premises) or with a cloud based provider. If it is stored on the cloud, then the data is potentially outside our security domain and therefore outside of our control.

Cloud providers have many redundancies in place however there is still a theoretical risk that the cloud provider may experience an outage, which would result in lost or delayed access to our important data.

Potentially the greatest threat to our data integrity would be a malicious hack that socially engineers access to encrypt our files (local and cloud) and then hold us to ransom to decrypt the files. This is typically done via a well-constructed fake email that delivers a payload which encrypts the files whilst the staff member is unaware that they have aided the hacker.

Data Protection

The first layer of data protection proposed by this report is to ensure all local data is stored on network drives that are in turn supported by RAID disk structures. Depending on budget this RAID could be RAID 10 or RAID 6 with RAID 10 providing the better performance which RAID 6 offers better redundancy at a hit to performance. Also file stored on user's desktops must be redirected to network shares that are protected by RAID.

The second layer of data protection proposed by this report is to ensure that all cloud based storage is federated with our security domain so that it is impossible to establish a connection with the cloud provider without being authenticated with our security domain. This improves our control over the data.

The third layer of protection being proposed here concerns the level of data protection selected with cloud providers. We should at minimum take advantage of cloud providers that offer version control down to a file level so that in the event of a malicious encryption event, we can simply roll back to previous version before the file was encrypted.

The last data protection proposal recommended by this report is to install and configure a backup device which is supported by a cloud synchronisation service such as Datto. Datto covers a range of devices depending on the volume of data being protected and can take backups hourly as well as send a synchronisation of the backups to their cloud based service so that all backups on site are also shipped off site via the Internet connection (Datto, n.d).

This protection is multi-layered and protects well against encryption based attacks because the backups are not visible on the network and the system can be used to roll back to the previous version of the files within the last hour. Also if there is a total loss of on premise data (such as in a fire or some extreme catastrophe) the recovery of the data from the cloud service is relatively trivial.

Group processes and communications

Our Communications Plan involves email and online conferencing. Emails may be sent using the group or individual email feature on canvas, anytime. Group members are required to check their canvas inbox, at least every second day.

An online conference will be held each Tuesday evening, after the scheduled online session for the subject. In addition to this, a weekend session is also scheduled.

For students, the ability to initiate new conferences is disabled on Canvas; the online chat room application *Discourse* will be used.

A requirement of group membership is to advise the group, as soon as possible, of an inability to fulfill the communications plan requirements.

All participants will be asked (voluntarily), to provide a contact telephone number and to give their permission to be contacted. In the event of an absence greater than two days, an attempt to contact the member by telephone will be made. If this fails, the group member will be deemed absent and their allocated tasks transferred to suitable members.

4. Skills and Jobs

If the project was to be funded for an additional six months, the following positions would be required:

You will need to consider what skills are appropriate, which may include specific technical expertise, team work experience, leadership and management techniques, and innovative thinking.

e-Commerce Project Manager	Required skills: ● Proven team leadership skills ● Previous e-Commerce management and developer experience ● Meet deadlines and keep teams on track ● Prepare and write technical and other reports as required ● Meet KPIs ● Proven track record of innovation and problem solving ● Exceptional people management skills: conflict resolution, encourager, gives honest feedback, keen listener.
Website Graphic Designer (e-Commerce) (Food)	Required skills: ● Qualified Website Graphic designer with licences for adobe photoshop and adobe illustrator. Portfolio of past work required at interview. Professional food image creation a distinct advantage.
Back End Web Developer	Required skills: ● Proven PHPStorm (with licence) or Eclipse PHP development. ● ● Extensive MySQL experience competence with transaction and rollback functions. Portfolio of past work required at interview.
Front End Web Developer (e-Commerce)	Required skills: ● CSS / HTML(5) / jQuery / Javascript / PayPal API / Google API / Google SEO ● ● Developer with Dreamweaver or Brackets experience. ● ● PayPal Website payments standard API programming experience Portfolio of past work required at interview.
Multi platform (ios Android) App Developer	(If project is funded to be launched as an App) Required skills: ● iOS xcode app experience ● ● Android studio experience. ● ● PayPal mobile payments API experience Portfolio of past work required at interview.

5. Feedback

For Assessment 3, we recently had no SparkPLUS access at all. A message was sent to the tutor about this. Now we have access, but SparkPLUS is mistakenly configured for our old group. We are GROUP 1: A3, NOT: GROUP 1. This means our two new group members, Nimo (Nina) Sheikh and Luke Martin, will not be able to contribute SparkPLUS feedback.

6. Group Reflection

What went well

pb*	The development of the basic food ordering website was quick and easy thanks to the creative contributions of our members. I was actually tempted to place an order. Research contributions were thorough, informative and necessary to expand the project into a second stage.
tf*	Special Consideration
sc*	For PRIMAFOODS ordering system, research the online-ordering restaurants and how well they present their service like pictures, descriptions and pricing were necessary. Thanks to the skilled members in web design and HTML coding in our group, the project could be completed successfully. Participating in the development of the basic food ordering website has made me to think more confidently and positively in my planned future business in real world.
ns*	
jh*	
lm*	
cm*	I think the group got off to a really good start owing to a very well defined project. The roles were well divided and work progressed both quickly and independently which allowed the project to progress efficiently initially. I also think the diverse skills of the group were well utilised to bring the project forward rapidly.

What could be improved

pb*	Rules needed to be established and agreed upon before conversations on our chosen internet chat room “Discord” took place. An apt name that: “Discord”. These were not in place and conversations were a struggle. Improvements would be: 1) An agreed agenda 2) Etiquette: indicate when you are leaving the chat room and alert participants when you come back. Too much time was spent trying to engage people who were just not there. 3) Manners: don’t type over each other; take your turn when it comes. 4) Send an apology before the due time - not after, if you are absent. The RMIT document (Assessment 3: Our IT Project), was a source of confusion and contention. It expects groups NOT to finish their project, (a logical assumption for a foundation subject perhaps?), but not for our group with some very experienced members. The result was a split group: I, for a completed project, with artefacts (website) AND an expanded plan, others, for just a plan. May I suggest clarifications be added to the document for such groups? Thank you in anticipation of that.
tf*	Special Consideration
sc*	Gathering all members at the same time was not easy as I am the one who cannot attend on every Sunday evening. I felt sorry about that even though I have always read all the messages left. Also as I am a just beginner at learning IT technology, I could not offer my IT skills much to our group work.
ns*	The main thing that was an issue for me was the time where members online for communication, mail communication was great, but our online chat session was issued that needed to improve for sure some team members were hard to catch up, the other issue was comprised of ideas as there were different ideas on the table I do believe if a team did communicate and chat online that would have solved it would be less confusing
jh*	
lm*	
cm*	To some degree communication could have been improved. I think the discord platform was not well subscribed and the meetings did not gather all members at one time. Although the discord platform allowed members to ‘catch up’ later I think it would have been beneficial to arrange at least one if not several meetings in which we could speak. I think this is somewhat a personal preference though as I am not saying this hampered the project in any major way, it still progressed efficiently regardless of this missing, I just think this would have been an improvement, especially for me.

At least one thing that was surprising:

pb*	I now loathe online group work. I used to tolerate it; now I hate it. Any subject now requiring online group work, I will avoid like the plague. No matter how you try to sell it, no matter how pretty the colours are in the collaboration software, no matter how much money might be saved, online group work remains a stressor we can all do without. Death to online group work. I'd rather clean public toilets with a toothbrush and a thin napkin.
tf*	Special Consideration
sc*	It was surprising that, even though we have not met physically each other even on the discord platform all together at the same time, our group work generally is being well progressed. I realised that every member of the group are doing their work very actively. It was also surprising to me that I could be involved in group work actively even I was at a loss in the beginning. The group work made me more confident.
ns*	The project was very well organized and had a great team members with strong passion to complete it. as myself I joined the team late and it was confusing at start to catch up, but team members were helpful and guided me through the designs and explain my part of work it has been a good experience and learning now I learn the early stage of designing online store and working with others.
jh*	
lm*	
cm*	Once of the surprising things for me was the progress of the work without meetings in which we spoke about the project. From regular online chats using Discord the work was disseminated and completed pretty efficiently which was a surprise for me.

At least one thing that you have learned about groups:

pb*	Two proverbs come to mind: many hands make light work, while too many cooks spoil the broth. So it doesn't matter how many people you have; it's like-mindedness, above-all, that counts.
tf*	Special Consideration
sc*	Trying to put the maximum efforts and communicate frequently made me to be able to work in group. It does not matter too much to know the IT skills itself.
ns*	Hard work , and patient with each other , while understanding we all aim for one thing passing our subject. at end i believe we all tried our best in different ways and should get the full marks.
jh*	
lm*	
cm*	I have learned that no matter how well your group is going there are always some members that need to be held more closely than others. Whether it is a confidence thing or an inability to share the vision for the project there will always be the need for leaders in the group to assist some members more than others to see the vision.

References

Choice, (n.d) Food delivery Services in Australia. Retrieved from:
https://www.choice.com.au/food-and-drink/eating-out/fast-food/articles/food-delivery-services-australia

Datto (n.d) Business Continuity. Retrieved from:
https://www.datto.com/au/

Forbes, (n.d) Why uber eats will eat you into bankruptcy. Retrieved from:
https://www.forbes.com/sites/cameronkeng/2018/03/26/why-uber-eats-will-eat-you-into-bankruptcy

PayPal (n.d) PayPal Payments Standard: Setup. Retrievd from:
https://www.paypal.com/us/webapps/mpp/standard-integration

Special Broadcasting Service, (n.d) Retrieved from:
https://www.sbs.com.au/news/are-food-deliveryare-food-delivery-services-worth-the-cost-for-small-businesses-services-worth-the-cost-for-small-businesses

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