

Project: Home Foods
Team Members:
Tim Brown
Anish Bhati
Ashley Schriefer
Ding Gu

Table of Contents

I.	Team Collaboration Plan	1
II.	Project Charter	2
III.	Project Scope	3,4
	a. Project Statement	3
	b. Non-Functional and Functional Requirements	4
IV.	System Requirement	5-7
	a. Identified Requirements	5
	b. Benchmarking	6,7
	c. Outcome Analysis	8
V.	Project Plan	9-14
	a. Human Resource Staffing Management Plan	9
	b. Organizational Chart	10
	c. Feasibility Analysis	11-13
	i. Technical	11
	ii. Organizational	12
	iii. Economic Feasibility	13
	d. Work Breakdown Structure and Scheduling	14
	e. Gantt Chart	15
VI.	Functional Modeling	16-21
	a. Case Descriptions	16-19
	b. Use Case Diagrams	20
	c. Activity Diagrams	21,2
VII.	Structural Modeling	23
	a. Class Diagrams	23
VIII.	Behavioral Modeling	24-30
	a. Sequence Diagrams	24-26
	b. Communication Diagrams	
	c. Behavioral State Diagram	30
Appe	endix A	

Team Collaboration Plan

Meeting Times:

We will:

- Meet after class on Tuesdays and Thursdays 10:50 12:20 in the conference in the basement of the Linder College of Business building.
- Meet when any team member feels that there is an issue that needs to be discussed or worked through in person.
- Our meetings will revolve around a certain problem/deliverable that needs to be completed.

Communication Methods:

We will:

- Keep each other updated and delegate work through Basecamp and GroupMe.
- Hold deadlines for when everyone should post their work.
- Use Google Drive to collaborate all of our projects.
- Use Microsoft Project for scheduling our project.
- Use Microsoft Visio for diagrams.

Members:

- Ashley Schriefer, **Project Manager**, (513) 675-3878, schrieal@mail.uc.edu
- Anish Bhati, **Project Champion**, (513) 675-7944, bhatiah@mail.uc.edu
- Ding Gu, Technical Lead, (310) 600-6039, gudn@mail.uc.edu
- Tim Brown, Analyst Lead, (513) 212-7448, brownte@mail.uc.edu

Project Charter

Title/Name for the Project: Home Foods

Problem We are Addressing:

Customers who:

- Do not cook.
- Work long hours.
- Spending a lot of money on eating food from restaurants, fast food joints or getting prepare home food deliver to their house.
- Have busy schedules and no time to cook meals

Chefs and Home cooks who:

- Experimenting new ideas for meals.
- Gain exposure to new clients.

Value Benefit of the System:

- Linking Customers and Chefs together to supply hassle free home cooked meals.
- To offer local chefs the opportunity to enhance their cooking expertise and client base.
- We are linking an international community to the public through their own style of food.
- Excel in a market that hasn't been targeted from this angle before.
- Providing a homely qualities of home cooking at an affordable and convenient rate.

Primary Audience/Consumer:

- Foodies
- Busy professionals and families who want a home cooked meal.
- Live in a densely-populated area.
- Aspiring chefs, home cooks, and culinary students who are looking to gain real-life experience.

Key Assumptions:

Home Food will have:

- Enough people will want to become chefs and incur a potential loss in not selling what they make.
- Enough traffic to become profitable.
- Chefs that are motivated to go through the process of becoming a chef.
- Quick and efficient way to get the food from chef and home cooks to the consumer.

Anish Bhati Ashley Schriefer	 Tim Brown	Ding Gu
Anish Bhati Ashlev Schriefer		
	 Anish Bhati	Ashley Schriefer
	All team members read, understand and	agree to the terms stated above:

Project Scope

Project Statement

System Will:

- Connect customers dedicated to eating healthy home cooked meals.
- Inspire chefs to further their careers and offering up their homemade expertise.
- Allow people who accumulated recipes a chance to show new ideas.
- Chefs and home cooks a chance to turn a passion into a financially stable occupation.
- Provided a connection for customers to the local chefs and home cooks in their area.
- Allow customers to choose food items off of menus created by the chefs themselves and have their food delivered by one of our drivers.

Project Will Deliver:

- An app called Home Foods that can link customers to chefs and home cooks in their local areas for homemade meals.
- Excellent customer service to the customers.
- An opportunity for home cooks and chefs to showcase their talents.

Work Required to Complete Project:

We will need to:

- Find a location to market to that is densely populated and heavily interested in their food consumption.
- Vet and hire chefs
- Vet and hire drivers for our delivery service.
- Make sure our drivers have a clean driving history.
- Find a consultant IT firm.

Value Created For Customer:

Customers:

- Will have a hassle-free dinner prepared for them.
- Can order meals that will please the whole family.
- Can track their meals and know when the meal is going to be delivered.

Customers won't have to worry about:

- Grocery shopping.
- Meal planning.
- Cooking and cleaning.
- About going out to pick up dinner.

Project Scope

Non-Functional and Functional Requirements

Non-Functional Requirements

Operational Requirements:

The system will:

- Work on iOS, android, and windows.
- Updated daily.
- User friendly and modern.

Performance Requirements:

The system will:

- Process the transaction within 15 seconds.
- Load the menu section of the cook within 15 seconds on a mobile device.
- Menu section within 10 seconds on a physical computer.
- Require webmaster to update the site daily.
- Available every day from 11AM EST until 8PM EST.

Security Requirement:

The user:

- Data will be encrypted and stored where only internal people have access to it.
- Can see past orders.
- Able to turn off the app features to alleviate concerns about battery life and privacy.

Cultural and Political Requirements:

- The company will in-house the servers and have server just for the user's data.
- The system should comply with laws of that state.

Functional Requirements

The system will:

- Be a place to order.
- Track order.
- Have write reviews.
- Deliver meals to customers.

System Requirement

Identified Requirements

Observation:

We will:

- Observe individually our competitor's system.
- Look at the systems from OrderUp, UberEat, and EatStreet.
- Come up with what they like to incorporate and what not to incorporate about our competitors.
- Have JAD sessions on how we will build our system.
- Meet with developers and coders to have incorporated our ideas into reality.

JAD:

- JAD sessions will be used for meetings structure when we feel we need a change to the system.
 - O Every employee will be trained to do JAD sessions.
 - O We will follow the anonymous policy when discussing ideas.
- Meeting rooms will be setup for when JAD sessions occur.

Document Analysis:

- Document Analysis will be used for operational process.
- Human Resources and other internal processes.

Questionnaire:

- We are using questionnaire in the setup process of the system.
- Questionnaire: See Appendix A
- Long term: We will send a survey out to customer's email addresses listed in their profile for feedback on every order they place and their satisfaction level.
- We will do a bi-weekly meeting to discuss what improvements and challenges lie ahead of us.

System Requirement

Benchmarking

- The feature comparison table shows who "Home Foods" would be directly in competition with.
- Some of the competition would be "Uber Eats", "Order Up", and "Eat Street".
- All of these food delivery apps offer their customers the ability to order food from restaurants to their homes.
- The biggest differentiation that needs to be made is that Home Foods services for homemade food while no other competitor does that.
- Some other important functions the comparison table shows are what these systems contain in order to operate successfully.
- Examples of this include: GPS, Delivery, IOS/Android capability, Customer Reviews, Nutrition, and Split Payments.
- See next page for the Feature Comparison Table.

Benchmarking:

Feature Comparison Table::

Competitors	UBER EATS	ORDER UP	EATSTREET	Josephine	Ø FEASTLY	HomeFoods
GPS Functionailty	*	*	*	*	*	*
Delivery Service	*	*	*	*		*
IOS and Andriod Capabilities	*	*	*	*	*	*
Customer Reviews	*		*	*	*	*
Menu/Nurtition Content	*	*	*	*	*	*
Split Pay	*	*	*			*
Integrated <u>ONLY</u> with Homemade Food/ Homemade Cooks						*
Integrated <u>ONLY</u> with <u>Resturants</u>	*	*	*	*	*	

System Requirement

Outcome Analysis:

Home Foods strives to create value for customers through the below four categories:

Convenience:

- Provide affordable home cooked meals with the touch of a button.
- Hassle free.
- Less time spent in meal preparation and clean up.

Variety:

- Many local chefs to choose from.
- Culturally different foods.
- Foods unique and different from the common foods in the area.
- Foods that are healthier and fresh.

Efficiency:

- Fast and reliable delivery.
- Trackable deliveries.
- Estimated meal time preparation.
- Advanced scheduling of meals.

Opportunity:

- New chances to spend time usually allocated to food on other projects or family.
- A chance to try foods from around the world at home.
- Local aspiring chefs can create a career and clientele.
- Chance for culinary students to gain real experience and expertise.

Project Plan

Human Resource Staffing Management Plan:

Name	Role	Position	Skills					
Ashley	Responsible for the overall success of the Software Upgrade Project.	Project Manager	Leadership/management, budgeting, scheduling, and effective communication					
Anish	Responsible for gathering coding requirements for the Software Upgrade Project.	Design Engineer	Proficient in programming html, C++, and Java programming languages					
Ding	Responsible for training all network users on the features provided by the upgrades to the existing software.	Training Lead	Leadership, Time Management					
Tim	Responsible for the distribution, implementation, and monitoring of the new software upgrade.	Implementation Manager	Proficient in managing network architecture					
Jake	Responsible for developing the software on a daily basis.	Software Engineer	Proficient in programming html, C++, and Java programming languages					
Tom	Responsible for identifying business needs and determining solutions to business problems.	Business Analyst	Communication, Documentation and Specification, Visual Modeling, Be able to use Business Analysis Tool					
Joe	Responsible for determines how to create a process that would best test a particular product and related to it areas.	Test Engineer	Analytical and logical thinking, sense of intellectual curiosity and creativity, Planning, time management					
John	Focuses on the aesthetics of a user interface implementing.	Visual Designer	Visual ideation/creativity, Proficient in design software					

Organizational Chart:

	Project Manager	Design Engineers	Implementatio n Manager	Training Leads
Requirements Gathering	A	R	R	С
Coding Design	A	R	С	
Coding Input	A	R		
Software Testing	A	R	С	
Network Preparation	A	С		
Implementation	A	С	R	С

Key:

- $A-Accountable \ for \ ensuring \ task \ completion/sign \ off$
- C Consulted before any decisions are made
- R Responsible for completing the work

Feasibility Analysis

Technical:

- Working with experience external IT consultants firm.
- Where they are expertise in functional area, technology, size, and compatibility of the project.

Familiarity with the Functional Area:

- Other apps already exist that our users and analysts may be familiar with like Order Up and UberEats.
- The system we are developing is a new system to our company but, it is not necessarily a new system to the food app industry.
- We will however, follow the basic application setup as these apps so, our analysts and users should be fairly if not very familiar with the functionality of the system.
- The risk of unfamiliarity with the functionality should be miniscule at best.
- Our Team of analysts currently use these similar applications, so therefore, they have experience and should feel confident in the replication/modification for our system.

Familiarity with Technology:

- The risk for our system associated to technology should be low in regards to the users of the application because the technology is not really anything they aren't used to and it should follow the basic format of similar apps.
- Users should feel comfortable with the different features our application has to offer. On the other hand, our team of analysts may be unfamiliar with some of the technology required for the creation of this software like how to operate the tracking system or how to set up bill sharing capabilities.

Project Size:

- Our system may be considered slightly risky in regards to project size.
- This is due to the fact that our project incorporates many features of other systems similar to it in nature but, it also goes beyond those other systems.
- This is because we not only have drivers or businesses employed, but we also have chefs and a potential for cooking sites depending on the expansion of the business in the future.
- Our project for now is fairly small and not complex because it does not need to connect with any other current systems.

Compatibility:

- The compatibility of our system is not considered a risk now because our organization has no current systems that our to-be system needs to connect with.
- We may in the future however need to connect our to-be system with a new system to produce data that will feed other systems.
- We will keep this in mind when building the system to hopefully allow for a compatible future.

Project Plan

Organizational:

Stake Holders	Key interest	Importance to Preject	Influence en Project	Participation
Customers	Get convenient quality and addivalue to the company	The terget group	High they determine requirement	Engaged through the whole process
Developers and Sponsor:	Make a profit and add value to the company	Very important to creation and development	High they determine requirement	Engaged irrough the beginning and with updates
Drù ers	Make money	High importance to success	Low the y do what they follow instructions	Engaged at the end of the process
Chefs and Home Cooks	Make money and a career for themseives	High importance to success	High they bring the product to the software	Engaged at the beginning of the process

Economic Feasibility:

Feasibility Analysis																				
Home Foods 2016 - 2017																				
Total Expenses	AUG		SEPT	ост	NOV	DEC	JAN	FEB		MAR		ARK		MAY		JUN		JUL		Total Exp
App Dovelopment Costs	\$ 39,250	s	59,250	- 5	- 5	- 5			s		s		s		\$		s			75,500
Web & App Main or Cards				250 \$	250 \$	250 \$	150	150	\$	150		150		150		150		150		1,500
Server Costs (Web/App)	800		800	800 \$	800 \$	800 \$	800	800		500		500		500		800		800		9,600
Wagos & Salarios	20,000		20,000	45,000 \$	48,000 \$	45,000 \$	45,000	45,000		45,000		45,000	\$	45,000		45,000	\$	45,000		490,000
Marketing Costs				200 \$	200 \$	200 \$	200	200		200		200		200		200		200		2,000
Dolivory Costs				500 \$	1,000 \$	1,500 \$	2,000	2,000		2,000		2,000		2,000		2,000		2,000		17,000
Office Space Rent	500		500	500 \$	500 \$	500 \$	500	500		500		500	\$	500		500	\$	500		6,000
Total Expenses	\$ (60,530)		(6Q,530)	(47,150) \$	(47,650) \$	(48,150) \$	(48,650)	(48,650)		(48,650)		(48,650)	\$	(48,650)		(48,650)		(48,650)	\$	(604,600)
Projected Sales	\$	\$		\$ 10,000 \$	10,000 \$	10,000 \$	10,000	\$ 25,000	s	30,000	\$	30,000	\$	40,000	\$	40,000	\$	45,000	\$	250,000
Grass Profit	\$ (60,550)	\$	(60,550)	\$ (37,150) \$	(37,650) \$	(38,150) \$	(38,650)	\$ (23,650)	\$	(18,650)	\$	(18,650)	\$	(8,650)	\$	(8,650)	\$	(3,650)	\$	(354,600)
															Tota	al Retained	Earm	ings	5	(354,600)

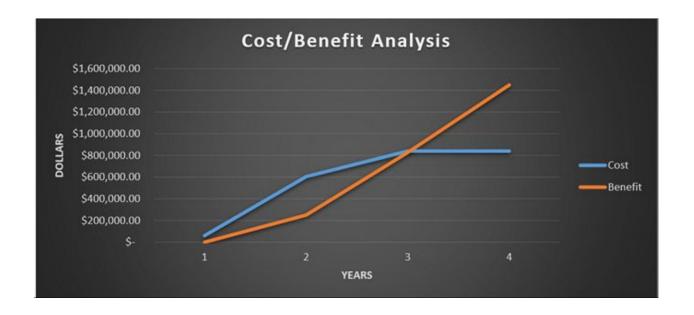
Total Expenses	\$ (60,250)	\$ (70,850)	\$	(70,850) \$	(70,850)	\$ (70,850) \$	(70,850) \$	(70,880) \$	(70,850) \$	(70,850)	(70,850	1 \$	(70,850)	\$ (70,850)	s	(540,200
Office Space Rent	\$ 500	500		500 \$		500 \$	500 \$	500 \$	500 \$	500		5	500	500		6,000
Dolivery Costs	\$ 4,000	4000		4,000 \$	4,000	4,000 \$	4,000 \$	4,000 \$	4,000 \$	4,000			4,000	4,000		45,000
Marketing Costs	\$ 400	400	\$	400 \$	400	400 \$	400 \$	400 S	400 \$	400			400		\$	4,500
Wagos & Salancs	55,000	65,000	ş	es,000 \$	65,000	85,000 \$	65,000 \$	65,000 \$	65,000 \$	65,000	65,000		65,000	65,000		770,000
Sower Casts (Web/App)	800	800		800 S	800	800 \$	800 S	800 \$	800 S	800	800	\$	500	800		9,600
Web & App MeinerCene Costs	150	150		150 \$	150	150 \$	150 \$	150 S	150 \$	150	150	5	150	150		1,500
App Davelopment Casts				- \$				- 5		- 4						
Total Exponses	AUS	SEPT		OCT	NOV	DEC	JAN	res	MAR	APR	MAY		JUN	JUL		Total Exp
2017 - 2018																
Home Foods																
Fossibility Analysis																

Fossibility Analysis																									
Home Foods 2018 - 2019																									
Total Expenses		AUG		SEPT		ОСТ		NOV		Dec	JAN		res		MAS		APR		MAY		JUN		JUL		Total Exp
App Development Costs	s		5		5		50		5		\$	5		5		5		5		\$		5		5	
Web & App Malnentance Costs		150		150		150		150		150	\$ 150		150		150		150		150	\$	150		150		1,000
Server Costs (Web (App)		900		800		800		800		900	\$ 900	\$	800		800	5	800		900	\$	900	5	900	\$	9,600
Wages & Salaries		55,000		65,000		65,000		65,000		65,000	65,000		65,000		65,000		65,000		65,000		65,000		65,000		770,000
Marketing Costs		400		400		400		400		400	400		400	5	400		400		400		400		400		4,900
Cellvery Costs	5	4,000	5	4,000	\$	4,000	5	4,000	\$	4,000	\$ 4,000	\$	4,000	5	4,000	5	4,000	\$	4,000	\$	4,000	5	4,000	5	49,000
Office Space Rent		500		500		500		500		500	500		500		500		500		500		500		500		5,000
Total Expenses		(60,550)		(70,850)		(70,550)		(70,850)	\$	(70,850)	(70,850)		(70,850)		(70,850)	\$	(70,850)		(70,550)		(70,850)		(70,850)	\$	(840,200
Projected Sales		25,000		98,000		99,000		100,000		115,000	115,000		117,000		125,000		155,000		145,000		150,000		155,555		1,449,555
Gross Profit	\$	34,150	\$	27,150	\$	28,150	\$	29,150	\$	44,250	\$ 44,250	\$	46,150	\$	54,250	\$	64,150	\$	74,150	\$	79,150	\$	84,705	\$	609,355
																				To	tal fictainer	ter	nings	5	595,655

Project Plan

Economic Feasibility:

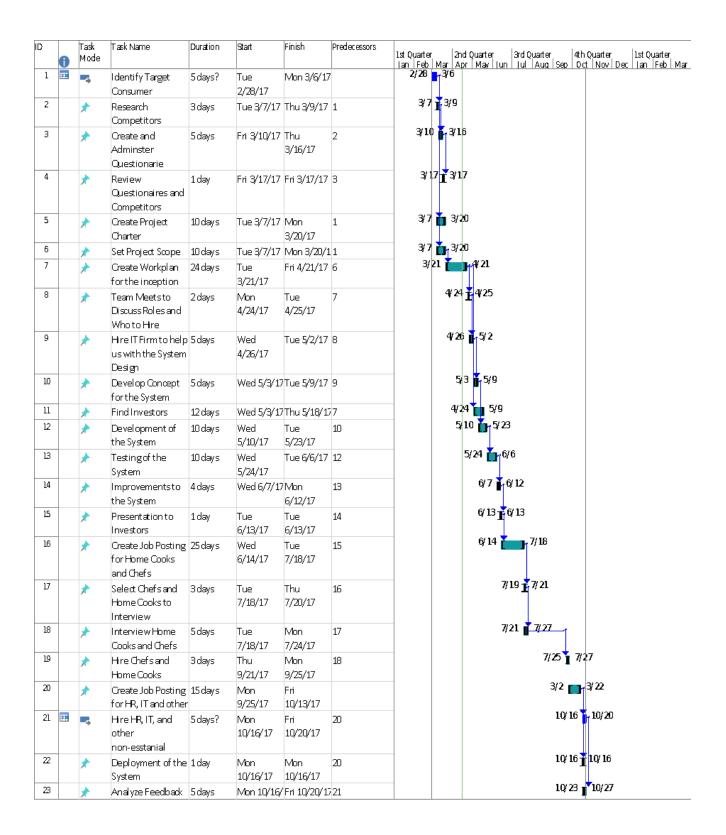
	0.00	t Present Value me Foods				
Years		Cost	Benefits	N	et Present Value	Return on Investment %
0	\$	60,550.00	\$	\$	(60,550.00)	-100%
1	\$	604,600.00	\$ 250,000.00	\$	(354,600.00)	-59%
2	\$	840,200.00	\$ 826,500.00	\$	(13,700.00)	-2%
3	\$	840,200.00	\$ 1,449,555.00	\$	609,355.00	73%
Total	\$	2,345,550.00	\$ 2,526,055.00	\$	180,505.00	8%



Work Breakdown Structure and Scheduling

		Phrases	Duration
a.		Initiation	2 Months
i.		Scope Statement	30 Days
ii.		Create the Project Charter	30 Days
b.		Planning	2 Months
i.		System Requirements	15 days
		Identify Appropriate Requirements – Gathering	
	1	Techniques	7 days
	2	Identify Functional and non-functional Requirements	8 days
	3	Determinate Requirements to Track	8 days
ii.		Create Project Plan	8 days
iii.		Identify project Effort	8 days
c.		Analysis	15 days
i.		Identify our competitive edge	7 days
ii.		Develop data and process models	8 days
iii.		Perform Feasibility Analyses	15 days
	1	Technical	5 days
	2	Economical	5 days
a.		Compute the Cost Estimate	3 days
	3	Organizational	5 days
a.		Identify Staffing Requirements	3 days
d.		Design	15 days
e.		Implementation	15 days
i.		Testing of the system	7 days
	1	Identify weakness in the system	8 days
ii.		Deployment	4 days
	1	When and where to release the system	8 days
f.		Configuration and Change Management	4 days
i.		Identify Access Controls	2 days
g.		Environment	5 days
i.		Acquire the Software and Tools Require	15 days
ii.		Installation of the Software and Tools Require	1 day
h.		Infrastructure Management	2 days
i.		Identify Appropriate Standards and Enterprise Models	1 days

Gantt Chart



Use Case ID:	1		
Use Case	Place Order	Importance Level:	High
Name:			
Created By:	Ashley	Last Updated By:	Tim
Date Created:	10/15/17	Date Last Updated:	11/19/17

Actor:	Customer	
Stake Holder and	Customer- Wants to purchase food	
Interest:	Home Foods- Wants to sell food	
Brief Description:	This use case describes how orders are placed in Home	
	Foods system	
Preconditions:	User must have download the Home Foods Application and	
	created an account	
Priority:	High: This use case depicts one of the main functionalities of	
	the system	
Normal Course of	The customer logs into their account	
Events:	The customer states their location	
	The customer chooses the preferred chef	
	 The customer chooses a meal from the menu 	
	The customer decides the delivery method	
	The customer pays for meal	
	7. The order is officially placed	
Alternative Courses:	4a. customer decides not to choose meal	
	6a. the customer's payment method is declined	
	7a. the order is not completed	
Special Requirements:	Must have an account and the Home Foods application	
Assumptions:	There will be local chefs and drivers in the customer's area	

Use Case ID:	2		
Use Case	Deliver Meals	Importance Level:	High
Name:			
Created By:	Ashley	Last Updated By:	Anish
Date Created:	11/15/17	Date Last	12/20/17
		Updated:	

Actor:	Driver	
Stake Holder and	Customer- Wants order to be delivered in a timely fashion	
Interest:	Driver- Wants to ensure that food is delivered within an	
	appropriate time frame	
Brief Description:	This use case describes how deliveries are carried out within	
	Home Foods system	
Preconditions:	User must have placed an order and selected delivery options	
	Driver must be on payroll and ready to work	
	3.	
Priority:	High: This use case is one of the main functionalities of the	
	system that must be carried out right to keep customer	
	satisfaction.	
Normal Course of	Customer places order	
Events:	Driver receives order details (time, customer name,	
	location, product)	
	3. Driver plans route	
	Driver picks up food	
	5. Driver sets GPS tracking	
	Driver carries out delivery	
Alternative Courses:	1a. Customer cancels order and delivery is no longer needed	
	3a. Driver runs into traffic and changes route	
Special Requirements:	Must access GPS on mobile device	
Assumptions:	The customer lives in a delivery radius	

Use Case ID:	3		
Use Case	Prepare Meals	Importance Level:	High
Name:			
Created By:	Anish	Last Updated By:	Ashley
Date Created:	3/20/17	Date Last	4/30/17
		Updated:	

Actor:	Chef	
Description:	This use case describes how the chefs interact with the	
	application	
Preconditions:	Potential Chef should download the app to their	
	mobile device	
	Chef's kitchen is inspected and account is approved	
Priority:	High	
Frequency of Use:	Often	
Normal Course of	The chef creates their own unique profile	
Events:	The chef list the food they wish to sell	
	 The chef will post an ingredient list to establish allergy content 	
	 The chef receives a notification that someone has purchased his/her food at a specific time 	
	5. The chef confirms the order and cooks the meal	
	6. The meal gets picked up by delivery personnel and	
	the transaction is made	
Alternative Courses:	2a. The chef's meal listing expires after designated time	
	frame	
	5a. Order gets cancelled	
Special Requirements:	Chefs kitchen must be approved	
Assumptions:	The chef has enough inventory to complete meal	
	requirements	

Use Case ID:	4		
Use Case	Track Order	Importance Level:	High
Name:			
Created By:	Tim	Last Updated By:	Ding
Date Created:	3/29/17	Date Last	4/29/17
		Updated:	

Actor:	Customer, Chef, Driver	
Description:	This use case describes how customers, chefs, and drivers	
	track the order delivery process	
Preconditions:	Must have the Home Foods Application	
	GPS tracking must be turned on	
Priority:	High	
Frequency of Use:	Varies depending on interest	
Normal Course of	After the customer places an order, an Order ID will	
Events:	be assign to the order.	
	The Order ID will also be sent to the driver and the chef	
	Customer uses Order ID number to log in and track delivery	
	Chefs use Order ID number to determine a time frame for meal preparation	
	Drivers use Order ID number to determine a delivery time frame	
	Customer can track the delivery process from chef's kitchen to their door	
	7. Once order is delivered the Order ID is no longer valid	
Alternative Courses:	4a. Chef needs longer to cook meal making the delivery time	
	longer	
	5a. Drivers encounter traffic making the delivery time longer	

	7a. Order is cancelled and delivery is no longer needed	
Special Requirements:	Track Order ID goes to chef, customer, and driver	
Assumptions:	Every order will have an Order ID	
	Customers will want to track their orders	
	Orders will be delivered in a timely manner	