Department of Computer Science

Level 2 Group Project

Individual Portfolio

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1 Project Idea

After choosing a SDG to focus on, then, drafting several ideas afterwards, we all had a mutual consensus to create a website centred around foodbanks. Allowing users to register, search and donate food - focusing on the "world hunger" SDG.

1.1 Ideation

Lean Canvas

Problem	Solution	Unique Value Proposition	Unfair Advantage	Customer Segments
• The inability of people to get food • Lack of donations due to lack of trust in the charity • People are unable to donate to those around them	• Food donation and collection/delivery system • Transparent payment system so users can see where their money goes • Area code where people around you could get your donation.	We are unique and different to other charities as we focus on more of a close area where you can donate food to your post code and people nearby could collect it. Another unique value we hold is the transparent donation system where people could see exactly where their money is going	Unique idea that would assist many people	People who are concerned about their food shortage at home but are unable to do anything due to a lack of many reasons.
Existing Alternatives	**Key Metrics**	**High-Level Concept**	**Channels**	**Early Adopters**
Food shelters are the best way for people to achieve our goal but not as effective as they might run out of food and some people are too ashamed to go there.	How many people donated How many people received donations How many accounts signed up How many daily, weekly, and monthly users we have.	More efficient way of receiving food for people who cannot usually afford it. Also, better for people to donate as they see their donations.	Social media, University, working with other charities	People who struggle with food at home People who buy too much food that they throw away

Cost Structure	Revenue Structure
Fixed: Domain Variable: Ads ones such as no ads	Could include adverts for a simple revenue scheme. Could pay for membership which gives no ads

Discussions and Idea Feedback

Group discussions were very harmonious, with each group member being consciously aware of each other's presence and actively encouraging new ideas and opportunities to share opinions and

feedback. This allowed for a quick discussions and mutual consensus. Each member was aware of members who were quiet and patiently allowed for them to explore their thoughts.

To ensure that we were staying on track with the goal and not deviating from the SDG, we made constant reference to the SDG – dedicating a section in the discussion to write out and record ideas the points on how they refer to their SDG. We have documented and pinned a record of all this information digitally and in our collaborative online chat as well.

Idea Selection Process

Our group first decided to pick a suitable SDG to focus on first, then construct the idea upon that. Initially, the group leaned towards mental health, as this would spread awareness allowing people to recognise mental health as an equally detrimental issue to physical health.

However, as more ideas came forth, we started to deviate towards the climate action SDG. Creating another idea promoting renewable energy by creating a website to calculate energy usage and carbon footprints as well as tracking day to day usage.

Therefore, we concluded with another idea of a foodbank website. Where users are able to register, donate and search for foodbanks quickly in their area. Having options to stay anonymous and to drop off food items nearby. Ultimately, our SDG of choice is "zero hunger".

Contribution

I put forth an idea to create a website to display the weather forecast with additional features such as nutritional tracking and a calory intake calculator – the idea was based on a general lifestyle improvement helper intended for daily use. The group responded that the idea was too rough and did not focus too specifically on an SDG.

Additionally, I added that we should consider a point system to "gamify" the whole process with "weekly streaks" and charts displayed to the user. However, the group concluded that we should keep that idea in mind first, as they chose to focus on the basic functions of the website before moving on to more advanced additions.

1.2   Requirements analysis

Requirements

Epic	User Story
User Registration	As a Donor, I want to create an account so that I can start donating. (Functional)

	As a Donor, I want to sign in so that I can view my donation history. (Functional)	
	As a Donor, I want to reset my password so that I can access my account in case I forget the password. (Functional)	
	As a donor, I want to sign out so that the account stays safe. (Functional)	
	As a Donor, I want the sign-up form to contain the name, address, and contact details. (User-Interface)	
	As a Donor, I should be given the option to either have my personal details shared or kept anonymous. (Non-Functional)	
Home Page	As a user, I should be able to know the purpose of the organisation. (Functional)	
	As a user, I should be able to know what type of charity website this is. (User Interface)	
	As a user, I should be able to get to know how this charity was formed. (Non-Functional)	
	As a user I should be able to access all pages on the website from one main welcome page. (functional)	
	As a user, I should be able to know the purpose of the organisation. (Functional)	
	As a user, I should be able to know what type of charity website this is. (User Interface)	
	As a user, I should be able to get to know how this charity was formed. (Non-Functional)	
Donor Form	As a user, I should be able to provide all the information related to the donation. (Functional)	
	As a user, I should have the option to either have my donation kept anonymous or public. (Non-Functional)	
	As a user, I should be able to select whether I am making a monetary donation or a physical donation. (Functional)	
	As a user, if making a monetary donation, I should be able to state the amount I wish to donate as well as allocate those funds towards causes selected from a predefined list. (Functional)	

	As a user, if making a physical donation, I should be able select between Pickup or delivery. (Functional)	
	As a user, if I select physical pickup, I should be able to input my address and then view & select most convenient location. (Functional)	
	As a user, if I select physical delivery, I should be able to input my address and select from list of available collection times. (Functional)	
Food List	As the owner of a food shelter, it would be extremely helpful if there were any more ways I could see a list of excess or left-over foods available in my area. (User-Interface)	
	As a food shelter volunteer I need a way to see not only where available foods are, but also details of what is left over in writing - possibly including quantities of how much is available and even details such as expiration date to properly plan in a way in which no food goes bad or gets wasted. (Non-functional)	
	As the general manager of a couple local food shelters I find it would be extremely useful would be the ability to order the databases results based on quantity of food or perhaps by location (Non-Functional)	
Food Details (Detailed information of food in the list)	When you click on an item in the food list you'll be able to see all the information (as previously stated in Donor Form)	

Refining And Validating Requirements

After detailing the basic functions of the website as epics, we combined them with user stories; and furthermore, we included task estimations; story points; task delegations and estimated time taken to complete the task.

Through multiple online and in-person group meetings, we were able to have discussions where the group would go through each epic; then, a section of the discussion was dedicated on the practicality of each epic. Assessing validity, completeness and displayed their steps unambiguously. We then came to a consensus with each task and estimation. A notable discussion was the decision to separate the original "Food Index" epic to two smaller "Food List" and "Food Details" epic to delegate two people spread on the tasks. There was a suggestion to separate the user login and registration to two people as well, however, a group member suggested that he had experience creating a website before and can be done easily.

2   Term 1 - Deliverables Summary

Deliverable	Done?	Individual contributions if group submissions

Project pitch	Y	Provided ideas with the group, held multiple group discussions, made notes and documented discussions.
Initial project and sprint plan	Y	Made notes and template documents for the group to work on, clarified questions on the task, provided user story points for each task, held online group meetings.

3   Project Management and Development

Group Project Management

After completing the first few deliverables, it was clear that most of the group members desire to meet online due to busy schedules and long-distance travels. Therefore, most of the group meetings going forward will become online through Microsoft Teams. This effectively provides us a chance to meet more times with less effort.

Holding a discussion for the future, we intend to carry out sprints for the agile project management in 3 weeks per sprint. There will be daily meetings carried out within 15 minutes and a sprint review and retrospective at the end of each sprint.

Any ideas that may appear during the sprints can be added to the backlog after careful consideration, as this is a flexible methodology, we can afford to add additional features after completing the basics.

The majority of the tools we use is Microsoft Teams (including OneDrive) to store files as well as GitHub for collaborative work. We may consider to use CodePen if a pair of members work together on the same component, however, due to the way we spread each member to their own component, this might not be needed. If help is required, each member can always respond swiftly in Teams chat.

Considering LO3, our project by it's nature is data-driven due to the registration system and food index. Each component supports each other therefore GitHub allows us to work in tandem piecing our components together.

4   Personal Development and Self-Evaluation

The section here will highlight some of my personal issues relating to the project, in addition to a critical evaluation of my skills and knowledge in order to pull the project into success and achieve the listed LO.

4.1 Personal Development

There are some situations where I do not push my idea well enough to convey to the group, even though I do think it is a good idea at heart, I lack the confidence and tenacity to do so. Another more personal and skill note regards my experience in frontend and backend development ; although I am more adept at Java and Python in the backend, I lack anything in the former side. To ensure my lack of experience will not hinder my group too much, I will dedicate a lot of time to studying HTML, CSS and JavaScript as well as asking for help when needed.

4.2 Groupwork Participation

I have made several contributions to group work and attended most of the group meetings we have conducted (barring only 3 instances where unfortunately I was not well). After the first few meetings, it was clear to me that the group needed some clarification on what their goals were, as with the nature of this project assignment, there were the lack of restrictions and directions which lead to ambiguity along with the fact that most ideas and decisions are made from within the group – each member seemed to be very unsure sometimes in group unanimity. Therefore, realising the problems at hand, I pushed forward and took upon the role of Scrum Master. During my time in the role, I recorded each idea and provided debates for their viability. With document templates and panning out our tasks at the start of each deliverable, I successfully sparked the group in the right direction.

Having used WhatsApp previously for our online communications, I advised to alternatively use Microsoft Teams instead due to it's file storing system for our draft documents – and due to the fact that all of us are provided with Microsoft Office by the university, it is the best course of action as we can voice chat there too for our group meetings.

4.3 Expected performance

		LO Met (Y/N)	Individual Contribution Summary
LO1	Plan, manage and track a substantial group project activity.	Y	As the Scrum Master, it is my duty to keep track of the group's tasks and documents, providing an optimum workflow. (P+)
LO2	Take an open-ended problem, collect, and analyse relevant information and define and refine the requirements.	Y	I contribute by critically analysing each members' idea and to process and refine them into more realistic versions then to their requirements. (P+)

LO3	Independently and systematically design, develop and test a piece of software that is data-driven and has non-trivial functionality	N	
LO4	Compare and evaluate alternative problem solutions according to the given criteria, including from a technical perspective	N	
LO5	Effectively present, communicate and market ideas and solutions to different audiences	Y	I conveyed my ideas to the group and am able to debate the pros and cons of them. Also providing alternative designs for the project. (P+)
LO6	Understand and apply the principles of professional and ethical behaviour in a group context	Y	The group allows for each members' opinions to have the chance for contribution equally. (P)
LO7	Reflect and learn from the group project	N	
	experience.		

References