COMP1787:

REQUIREMENTS MANAGEMENT

ID: 001389288

University of Greenwich – Da Nang Campus

Table of Contents

Section A: Management Summary

1. Business goals

Introduction

Green Groceries, a reputable mid-sized company, has carved out a niche in the market for organic and locally sourced grocery products over the past five years. With a strong commitment to sustainability and environmentally conscious practices, the company has built a solid reputation among consumers seeking ethically sourced and eco-friendly products environment.

Vision for the Future

The vision for Green Groceries is to broaden its market presence and make sustainable products more accessible to a wider customer base. Recognizing the increasing popularity of online shopping and the growing demand for organic products, the company aims to launch an online platform within the next three months. This strategic move aligns with Green Groceries' overarching goal of promoting sustainability and supporting local producers.

Current Issues

Despite its success in the traditional retail sector, Green Groceries faces challenges in expanding its reach and adapting to changing consumer preferences. Issues such as reliance on paper-based order processing systems and limited flexibility in meeting dynamic market demands have hindered the company's growth potential. Additionally, the absence of an in-house software development team necessitates outsourcing, posing challenges in project management and communication.

Business Goals

From a vision for the coming years and current difficulties, Green Groceries needs to have clear business goals:

- To expand market reach.
- To make sustainable, organic, and locally sourced grocery products more accessible.

Aim of the Project

To build an online platform within the next three months that supports the business aim by making it easier for customers to access and purchase Green Groceries' products.

Outsourcing

Outsourcing to System Concepts is inspired by Green Groceries' aim to overcome prior issues found with conventional waterfall methodologies. By cooperating with System Concepts, recognized for their experience in Agile methodology, Green Groceries receives access to new solutions and flexible project management approaches. This cooperation helps Green Groceries to react fast to changing needs, expedite project schedules, and produce a high-quality online platform that fulfills client expectations.

2. Methodologies

2.1. Methodologies and frame work

Agile methodology

Agile methodology arose as a reaction to discontent with traditional development methodologies like Waterfall. It strives to improve adaptation and speedier software delivery by promoting human relationships and cooperation above technologies. Agile's emphasis on user interaction and adaptability to change, rather than inflexible plans, assures the delivery of functional software over documentation. It stresses team efficiency and internal feedback to prioritize customer satisfaction via the ongoing supply of proven items. Agile's development iteration cycles, replicating short-term projects, offer a simplified approach to product delivery (rikkeisoft, 2022).
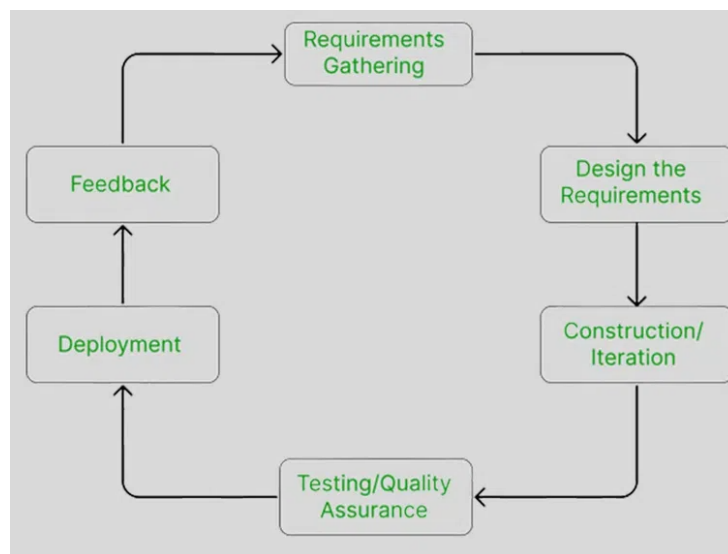
Figure 1 Agile model

Scrum framework

Scrum, a lightweight framework within Agile development, cuts down the program development process into brief phases called sprints, often lasting one to four weeks. Each sprint has four segments. The first is Sprint Planning, at beginning of the sprint, the Product Owner outlines the sprint objective. Second, daily Scrum Meeting - the Scrum team meets everyday for roughly 15 minutes to review progress and any impediments. Third, we have the team presenting finished work to stakeholders, like the Product Owner and consumers, this process is called Sprint Review. Finally, Sprint Retrospective, this is feedback is collected

to reflect on how the team performed in the previous sprint and suggest areas for improvement (geeksforgeeks, 2024).
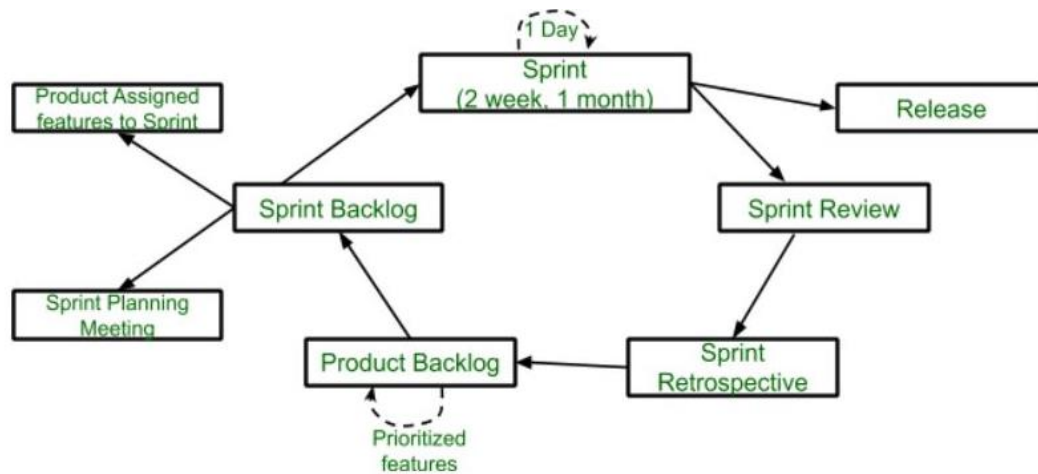
Figure 2 Scrum model

DSDM framework

An agile project delivery framework primarily used in software development, encompasses a wealth of project management knowledge. Initially anchored in software development, DSDM has grown into a flexible framework appropriate for difficult problem-solving activities across different areas, including business development. It allows both agile and conventional development methods and offers a clear framework based on best practices for project delivery. While DSDM provides simplicity and versatility, it doesn't pretend to be a one-size-fits-all solution for all applications (Elbeheri, 2016).

Figure 3 DSDM project structure

2.2. Chosen method for the scenario

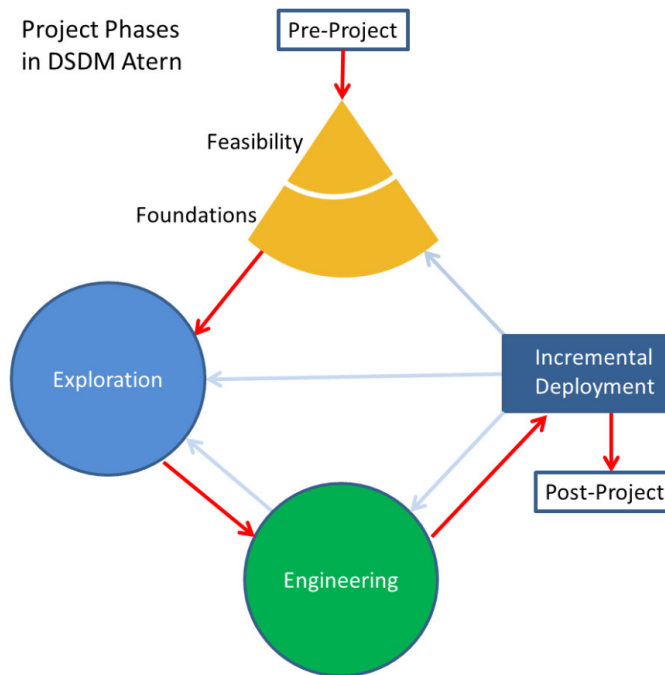For an overview of why Green Groceries selected Agile methodology along with frameworks like SCRUM and DSDM, let's first look at the issues they encountered with conventional waterfall methods. The case study indicates that Green Groceries faced issues in the past with typical 'waterfall' initiatives. These obstacles likely include concerns such as restrictive project planning, difficulty in adapting to changing needs, and delays in providing value to clients.

In response to the issues encountered with conventional waterfall methodologies, Green Groceries sought a more flexible and adaptable approach to software development. Therefore, they selected for SCRUM, an Agile methodology recognized for its iterative and collaborative approach.

Strengths of SCRUM:

Firstly, SCRUM stresses iterative development, allowing for regular examination and adaption to changing needs. This correlates nicely with Green Groceries' need to adjust fast to growing consumer wants and market realities, especially given their plan to deploy the online platform within the next three months. Secondly, SCRUM encourages openness and cooperation within the development team and with stakeholders via its defined rituals and responsibilities. This develops a culture of trust and responsibility, boosting team productivity and stakeholder satisfaction.

Examples from the case study: Firstly, the partnership between Green Groceries and System ideas intends to provide a solid online platform employing SCRUM and Agile ideas. This highlights Green Groceries' grasp of the need for a more flexible and collaborative approach to software development, particularly given their ambitious timeframe for releasing the

platform. Secondly, Cheryl, an experienced Team Leader in Agile development projects from System Concepts, is well-versed in SCRUM principles. Her experience will help to the effective adoption of SCRUM within the development team.

On the other side, the DSDM framework will also be adopted in their project. Perhaps the reason for this is understandable. System Concepts follows the DSDM Atern framework.This paradigm presents a complete approach to Agile project management, focused on providing value early and regularly while allowing changes throughout the development process.

Strengths of DSDM:
Firstly, DSDM stresses business-driven delivery and user interaction, ensuring that project objectives are aligned with business goals and priorities. This allows Green Groceries to offer value to consumers fast and efficiently. Secondly, the framework allows flexibility in modifying its methods to meet the demands of unique projects, enabling teams to adapt and develop their approach depending on changing requirements and circumstances.

Examples from the case study: Firstly, Green Groceries deploys specialized teams to each project, using the DSDM methodology. This illustrates their dedication to a systematic and business-driven approach to project management, which is vital for providing value to consumers within a short timeline. Additionally, the participation of Anita, who has great web development abilities and is interested in volunteer work for the homeless, demonstrates the focus on user interaction and stakeholder engagement in DSDM. Her views and contributions will guarantee that the online platform fulfills the demands of its users efficiently.

3. Feasibility of the project

Technical feasibility:

Analyzing the facts about Outsourcing, dev team, and the specified techniques and frameworks helps us to analyze the technical viability of the project. For instance, Green Groceries' choice to outsource software development to System Concepts suggests a deliberate effort to harness external expertise in web development, guaranteeing access to the essential technical talents and resources needed for the project. Additionally, the use of Agile techniques such as SCRUM and DSDM Atern indicates a recognition of the necessity of flexibility and agility in reacting to shifting technological requirements and market circumstances. This technique increases the project's technical feasibility by allowing iterative development and rapid responsiveness to changes, hence improving the chance of successful implementation.

Economic feasibility:

Here, it is vital to examine the company's financial capacities. Green Groceries is recognized as a credible mid-sized firm with a robust market presence, showing high economic potential. The feasibility study should dive into the estimated costs involved with the

project, including outsourcing charges, software development costs, and prospective income streams from the web platform. By completing a full economic study, including cost-benefit analysis and return on investment calculations, Green Groceries can analyze the financial sustainability of the project. This analysis will assist establish if the predicted benefits surpass the investment expenses, ensuring that the project matches with the company's financial goals and objectives.

Legal feasibility:

Legal feasibility comprises analyzing whether the proposal conforms with applicable laws, regulations, and ethical standards. Green Groceries must verify that the online platform conforms to data protection standards, customer privacy laws, and other legal requirements. Additionally, the organization should assess any possible legal risks or liabilities linked with the project and devise measures to manage them. By completing a full legal study, Green Groceries can guarantee that the project runs within the confines of the law and ethical values, limiting the danger of legal challenges and reputational harm.

Operational feasibility:

Operational feasibility analyzes how effectively the organization can adapt to the project and how the project fits the organization's objectives and purpose. Green Groceries has to analyze its internal capabilities, including personnel preparation, organizational structure, and operational procedures, to determine its readiness to execute the project. Furthermore, the feasibility study should analyze how the idea works with Green Groceries' strategic aims and purpose of promoting sustainability and supporting local producers. By assessing these operational elements, Green Groceries may identify possible problems and opportunities and establish strategies to guarantee the effective execution of the project.

Scheduling:

Scheduling entails determining a realistic timeframe for the project and establishing expectations for milestones or objectives. Green Groceries has to consider elements such as resource availability, project dependencies, and possible hazards while designing the project timetable. Additionally, the feasibility study should include measures to overcome any delays and assure timely project delivery. By carefully planning and organizing the project operations, Green Groceries may reduce project risks and improve resource usage, improving the chance of project success.

4. Summarize for section B

About section B, involve refining high-level requirements and prioritizing them using the MoSCoW method and timeboxing. This comprises detecting incorrect needs, updating the list with functional requirements, and sorting them according to significance. The SCRUM approach will be employed, grouping work into sprints based on the MoSCoW prioritizing to guarantee efficient development within the specified period.

5. Summarize for section C

The section highlights the responsibility of the Data Controller in ensuring data protection and compliance with legal, social, ethical, and professional norms. I also outlines the BCS Code of Conduct, outlining its four fundamental elements. Furthermore, examples from the case study explain how these ideas work in reality. The section presents a full assessment of the legal, social, ethical, and professional considerations pertinent to the project.

Section B: High level requirements analysis and MoSCoW prioritisation

ID	Description	Stakeholder
GWO-1	In my work as an Order Handling Clerk, I intend to migrate to internet-based administration for telephone payments, decreasing dependency on paper-based methods.	
GWO-2	Green Groceries Company pledges to maintaining a minimum of 20 workplace plants to promote a healthy and environmentally friendly environment.	Staff
GWO-3	Customers desire the opportunity to amend their account data to verify the correctness of their information.	
GWO-4	The CEO intends to create a virtual event on the internet for their birthday to promote a healthy business culture.	Staff
GWO-5	The Managing Director highlights the need of maintaining the website's compliance with Data Protection Act regulations to prevent any fines.	Director
GWO-6	Customers desire to register accounts for simple access to services.	
GWO-7	Customers demand a range of delivery slots to successfully manage their calendars.	Customer
GWO-8	Customers seek the capacity to update their purchasing carts to simplify decision-making.	
GWO-9	Green Groceries Company promotes for the implementation of pet-friendly policies to build a healthy and inclusive working environment.	
GWO-10	The system must be capable of managing a thirty percent increase in traffic during peak hours without performance deterioration.	
GWO-11	Customers desire the opportunity to designate alternate delivery and invoicing addresses for flexibility.	
GWO-14	Customers want to select whether they get marketing materials to minimize unwanted solicitations.	
GWO-15	It is vital to safeguard all customer data, especially personal and financial information, to guarantee utmost security.	

GWO-16	The Marketing Director underlines the necessity of having similar branding components and design throughout the website.	
GWO-17	The HR/Development Team highlights the necessity for frequent team-building activities to create cooperation and a healthy work environment.	COO
GWO-18	The Marketing Director recommends for the establishment of an offers or discount page to notify consumers.	
GWO-19	The Chief Accountant urges conformity with VAT rules to avoid any fines.	
GWO-20	The Operations Director seeks to accept all forms of payment to grab a wide market.	

1. B1 - Identify Requirements are not High-level Requirement

ID	Description	Stakeholder	FR/NFR	Reson
GWO-2	Green Groceries Company pledges to maintaining a minimum of 20 workplace plants to promote a healthy and environmentally friendly environment.	Staff	NFR	- Irrelevant to business objectives of expanding market reach. - Does not influence online platform functionality. - No related to the aim of online platform. - Pertains to office culture rather than project scope.
GWO-4	The CEO intends to create a virtual event on the internet for their birthday to promote a healthy business culture.	Staff	FR	- No contribute directly to the online platform's aims - No connected to business goal No selling items or developing market presence - Allocating resources to this event may distract attention that not the fundamental aims - Resource diversion from more vital activities aligned with the platform's key aims
GWO-5	The Managing Director highlights the need of maintaining the website's compliance with Data Protection Act regulations to prevent any fines.	Director	NFR	- Does not effect online platform functioning. - Compliance is a standard requirement, generally integrated inside development frameworks such as HTTPS - Employing frameworks like bcrypt helps maintain data security during transmission and storage.

				- Specific attention as a high-level need is unnecessary.
GWO-7	Customers demand a range of delivery slots to successfully manage their calendars.	Customer	FR	- Irrelevant to business aims of growing market reach. - Aim company develop the market and reach the global market, thus it is tough to set a suitable timetable. - Attached to another party for delivery, hence it is tough to organize. - Could lengthen project timeframe and complicate logistics. - Important for user convenience but must be balanced with practicality.
GWO-9	Green Groceries Company promotes for the implementation of pet-friendly policies to build a healthy and inclusive working environment.	Staff	NFR	- Related to office atmosphere, not online platform functionality. - Related to company rules, not online platform functioning. irrelevant to business aims of growing market reach. - Does not effect the operational or service components of the platform. - No connected to the objective of internet platform. - This is a nonfunctional needs.
GWO-10	The system must be capable of managing a thirty percent increase in traffic during peak hours without performance deterioration.	Staff	NFR	- This is a nonfunctional requirement - Traffic handling innovations may be introduced incrementally. - This pertains to designing for performance rather than concentrating on business objectives and project goals. - Prioritizing it as a high-level necessity may produce unnecessary complexity and delay the project's completion. - Allocating resources to this event may deflect attention that not the core goals .

ID	Description	Stakeholder	FR/NFR	Reason
				- Not actually essential in the 1st prototype.
GWO-15	It is vital to safeguard all customer data, especially personal and financial information, to guarantee utmost security.	Staff	NFR	- This is an ineffective requirement. - Data protection is established in programming, so it is already included. - High-level attention is superfluous owing to existing security measures such as AES encryption for data at rest and HTTPS for safe data transmission.
GWO-16	The Marketing Director underlines the necessity of having similar branding components and design throughout the website.	Staff	NFR	- This is an ineffective requirement. - Brand consistency must be led by UX/UI design guidelines, which might cause issues for developers. - High-level strict criteria could impede flexibility and response to customer input. - Brand identity will be enhanced time by time.
GWO-17	The HR/Development Team highlights the necessity for frequent team-building activities to create cooperation and a healthy work environment.	COO	NFR	- Essential for mental health but unrelated to platform functioning. - Better suited as part of organizational growth, not project-specific needs. - Irrelevant to business objectives of expanding market reach. - Does not influence online platform functionality. - No related to the aim of online platform.

2. B2 - List of requirements needed to build system

ID	Description	Stakeholder	FR/NFR	Reason

GWO-1	In my work as an Order Handling Clerk, I intend to migrate to internet-based administration for telephone payments, decreasing dependency on paper-based methods.	Sale staff	FR	This functionality is vital as it coincides with market trends witnessed in prominent e-commerce platforms. Most individuals have access to phone numbers, making it a useful and accessible function. It improves human connection and helps Green Groceries' business aim of growing market reach and making items more accessible.
GWO-3	Customers desire the opportunity to amend their account data to verify the correctness of their information.	Users	FR	In e-commerce, having an account profile is vital for multiple reasons such as promotions, payment, shipping, and personalized marketing. Personal profiles may require modifications over time for information security, privacy, and to increase service quality via individualized offers.
GWO-6	Customers desire to register accounts for simple access to services.	Users	FR	Registration allows users to establish profiles, easing ordering, payment, delivery, order history monitoring, and wishlist management. It also enables promotional activities, customization marketing initiatives, and financial management for both users and the organization.
GWO-8	Customers seek the capacity to update their purchasing carts to simplify decision-making.	Users	FR	Allowing consumers to alter their minds, save chosen things for later purchase, and buy several items at once increases user experience and promotes additional transactions. It coincides with the objective of providing consumers with a smooth purchasing experience.
GWO-11	Customers desire the opportunity to designate alternate delivery and invoicing addresses for flexibility.	Users	FR	Customers may have several addresses for different reasons, such as personal usage, gift-giving, or mailing things to others. Providing this flexibility helps the corporate aim of easing distribution to varied

				locales, boosting customer happiness and user experience.
GWO-14	Customers want to select whether they get marketing materials to minimize unwanted solicitations.	Users	FR	Offering clients control over marketing messages assures compliance with regulatory obligations and spam restrictions. It also boosts consumer happiness and market performance by sending targeted marketing messages to interested users.
GWO-18	The Marketing Director recommends for the establishment of an offers or discount page to notify consumers.	Marketing Director	FR	Having an offers or discount page helps attract and keep consumers, raise sales, enhance customer happiness, and maintain competition in the market. It also helps manage inventories by promoting goods and freeing up space for new things.
GWO-19	The Chief Accountant urges conformity with VAT rules to avoid any fines.	Accountant	FR	VAT compliance is vital to avoid penalties, safeguarding financial stability and reputation. Adherence to tax rules promotes confidence with stakeholders and supports ethical business practices, boosting the company's reputation and credibility.
GWO-20	The Operations Director seeks to accept all forms of payment to grab a wide market.	CEO	FR	Accepting diverse payment methods extends market reach, promotes accessibility, and creates confidence with clients. It promotes the corporate aim of providing a varied client base, including foreign markets, and strengthens the company's image as a trustworthy and customer-friendly retailer.

3. B3 - MoSCoW/Timebox to prioritize the requirements.

According to System Concepts' personnel study, the development team consists of 5 persons, with 4 members working full-time and 1 member working part-time. Full-time workers are required to adhere to a fixed schedule of 5 days per week, with each day consisting of 8 hours of work, for a duration of 3 months. In contrast, part-time workers dedicate 4 hours every day to their job. This data will allow us to precisely assign jobs and calculate the duration needed for each, so improving our efficiency in planning.

- o **Total effort:** (4*8 + 1*4 for 1 day) * 5 days per week * 4 weeks per month * 3 month = 2160 hours

Utilizing the concepts of Scrum, I've determined that each sprint covers a period of 2 weeks. With this insight, we can calculate that the development team's capacity for the project within each sprint is limited at 360 hours in total and 180 hours each week.

3.1. TimeBox

ID	Requirement	Break tasks	Estimation (main.hour)
GWO-1	In my work as an Order Handling Clerk, I intend to migrate to internet-based administration for telephone payments, decreasing dependency on paper-based methods.	1. Develop user authentication and permission mechanism (50 main.hours) 2. Develop backend logic and API endpoints for handling orders and submission (30 main.hours) 3. Design wireframes/mockups for managerment order pages (10 main.hours) 4. Implement frontend interface for order management (80 main.hours) 5. Design wireframes/mockups for order tracking and status updates (10 main.hours) 6. Implement notification system for order updates (30 main.hours) 7. Test, debug, and deploy feature to production environment (50 main.hours)	260
GWO-3	Customers desire the opportunity to amend their account data to verify the correctness of their information.	1. Create table in database structure for storing user account information (20 main.hours) 2. Develop backend logic and API endpoints for handling account data modifications (60 main.hours) 3. Design wireframes/mockups for profile page (10 main.hours)	250

		4. Implement frontend interface for edit account information (80 main.hours) 5. Implement notification system for account data changes (30 main.hours) 6. Test, debug, and deploy feature to production environment (50 main.hours)	
GWO-6	Customers desire to register accounts for simple access to services.	1. Develop backend logic and API endpoints for user registration (30 main.hours) 2. Design wireframes/mockups for user registration form (10 main.hours) 3. Implement frontend interface for user registration (40 main.hours) 4. Send confirmation email to newly registered users (50 main.hours) 5. Test, debug, and deploy feature to production environment (50 main.hours)	180
GWO-8	Customers seek the capacity to update their purchasing carts to simplify decision-making.	1. Create a database structure to store order information (20 main.hours) 2. Develop backend logic and API endpoints for cart management (60 main.hours) 3. Design wireframes/mockups for create and update purchasing carts (10 main.hours) 4. Develop frontend components for add products to cart (40 main.hours) 5. Develop frontend components for cart modification (80 main.hours) 6. Test, debug, and deploy feature to production environment (50 main.hours)	270

GWO-11	Customers desire the opportunity to designate alternate delivery and invoicing addresses for flexibility.	1. Design wireframes/mockups for adding and managing delivery addresses (10 main.hours) 2. Implement frontend components for inputting delivery addresses (50 main.hours) 3. Develop backend logic and API endpoints for storing and managing delivery addresses (50 main.hours) 4. Implement frontend components for checkout (100 main.hours) 5. Develop backend logic and API endpoints checkout and integrate payment gateway for online transactions (100 main.hours) 6. Test, debug, and deploy feature to production environment (50 main.hours)	360
GWO-14	Customers want to select whether they get marketing materials to minimize unwanted solicitations.	1. Create backend logic and API endpoints for updating marketing preferences (30 main.hours) 2. Design wireframes/mockups for managing marketing preferences (10 main.hours) 3. Implement frontend components for displaying marketing preference options (50 main.hours) 4. Test, debug, and deploy feature to production environment (40 main.hours)	130
GWO-18	The Marketing Director recommends for the establishment of an offers or discount page to notify consumers.	1. Develop backend logic and API endpoints for retrieving and managing offers/discounts (30 main.hours) 2. Design wireframes/mockups for managing offers/discounts (10 main.hours) 3. Create admin dashboard for managing offers/discounts (40 main.hours) 4. Design wireframes/mockups for the offers or discount page of customer (10 main.hours) 5. Implement frontend components for displaying	230

ID	Requirement	Development tasks (effort)	Effort
		offers/discounts to customer (60 main.hours) 6. Add notification system to inform users about new offers/discounts (30 main.hours) 7. Test, debug, and deploy feature to production environment (50 main.hours)	
GWO-19	The Chief Accountant urges conformity with VAT rules to avoid any fines.	1. Develop backend logic and API endpoints for VAT calculation and submission (50 main.hours) 2. Add inputting and managing VAT-related data (30 main.hours) 3. Develop frontend components for displaying VAT information to users (10 main.hours) 4. Test, debug, and deploy feature to production environment (50 main.hours)	140
GWO-20	The Operations Director seeks to accept all forms of payment to grab a wide market.	1. Develop backend logic and API endpoints for payment by mutiple options to custommer (160 main.hours) 2. Design wireframes/mockups for selecting and completing payment methods during checkout (10 main.hours) 3. Implement frontend components for selecting and completing payment methods during checkout (30 main.hours) 4. Test, debug, and deploy feature to production environment (100 main.hours)	300

3.2. MoSCoW

ID	Requirement	MoSCoW	Reason for prioritization	Effort	SUMMARY (man.hour)	Scale

University of Greenwich – Da Nang Campus

GWO-1	In my work as an Order Handling Clerk, I intend to migrate to internet-based administration for telephone payments, decreasing dependency on paper-based methods.	Must have	The transition to internet-based administration for telephone payments is essential as it directly tackles the need to replace the obsolete paper-based procedures. In the absence of this capability, the Order Handling Clerk is unable to effectively carry out buy processing, resulting in possible disruptions and inaccuracies in client orders. In addition, adopting internet-based administration is in line with the company's objective of updating its operations and enhancing efficiency.	260	1320	62.26%
GWO-3	Customers desire the opportunity to amend their account data to verify the correctness of their information.	Must have	Enabling clients to modify their account information is crucial for upholding data accuracy and guaranteeing a satisfactory user experience. Customers anticipate the capacity to modify their information when required, such as altering addresses or contact particulars. Failure to provide this feature may lead to user dissatisfaction and harm the company's customer service reputation. Thus, giving priority to this need guarantees that the platform adheres to fundamental usability	250		

			criteria and satisfies client expectations.			
GWO-6	Customers desire to register accounts for simple access to services.	Must have	Customer registration is essential for delivering customized services and increasing user involvement. By enabling clients to establish accounts, the platform may deliver specialized experiences, such as purchase history monitoring and personalized suggestions. Additionally, customers who have registered are more inclined to revisit the site for subsequent transactions, so enhancing customer loyalty and ensuring sustained profitability. Prioritizing this criterion creates the groundwork for creating client connections and generating company success.	180		
GWO-8	Customers seek the capacity to update their purchasing carts to simplify decision-making.	Must have	The ability for consumers to update their purchase carts strongly improves the shopping experience and influences purchasing choices. Without this feature, consumers may leave their carts if they cannot simply adjust their choices, resulting to missed sales and poor conversion rates. Prioritizing cart	270		

			management enables a smooth and user-friendly checkout procedure, eventually enhancing customer happiness and generating revenue for the organization.			
GWO-11	Customers desire the opportunity to designate alternate delivery and invoicing addresses for flexibility.	Must have	Providing consumers with the ability to specify alternative delivery and invoicing locations promotes flexibility and meets various customer demands. This service is crucial for clients that want delivery to several locations or prefer distinct billing addresses. By emphasizing this criterion, the platform may serve to a bigger consumer base and deliver a more inclusive buying experience, hence enhancing customer loyalty and retention.	360		
GWO-14	Customers want to select whether they get marketing materials to minimize unwanted solicitations.	Should have	Allowing consumers to set their marketing choices is vital for protecting user privacy and eliminating unsolicited solicitations. While not crucial for the basic operation of the platform, this feature adds to improve the user experience and establishing trust with consumers. By prioritizing this criteria, the platform displays its dedication to customer privacy and offers	140	370	16.98%

			consumers with more control over their interactions with the organization.			
GWO-18	The Marketing Director recommends for the establishment of an offers or discount page to notify consumers.	Should have	The construction of an offers or discount page acts as a great marketing strategy for attracting and maintaining clients. While not critical for core platform operation, this capability may dramatically improve client acquisition and sales conversion rates. By prioritizing this demand, the platform may utilize promotional offers to encourage purchases and drive revenue development, eventually benefitting both the firm and its consumers.	230		
GWO-19	The Chief Accountant urges conformity with VAT rules to avoid any fines.	Could have	Conformity with VAT standards is vital for guaranteeing legal compliance and avoiding possible penalties. However, this need may have a lesser priority compared to other additions that directly effect user experience and company processes. While crucial for long-term viability, VAT compliance may be handled at a later stage of development without impacting the primary functionality of the platform.	140	440	20.75%

GWO-20	The Operations Director seeks to accept all forms of payment to grab a wide market.	Could have	Accepting various modes of payment is beneficial for capturing a bigger market and meeting varied client preferences. Similar to VAT compliance, this need may be pushed to a later phase of development since it largely concerns sales and revenue generation rather than fundamental platform functioning. While advantageous for company development, supporting different payment methods may entail more resources and integration efforts, making it acceptable for inclusion as a "could-have" need.	300		
Summary			Total effort			2120

- o **Must have:** 2120 (Hour) * 62.26% = 1320 (Hour)
- o **Should have:** 2120 (Hour) * 16.98% = 360 (Hour)
- o **Could have:** 2120 (Hour) * 20.75% = 440 (Hour)

SCRUM technique involves the organization of activities into sprints, where each sprint is dedicated to fulfilling a specific set of criteria. In the Green Groceries project, tasks will be assigned to sprints according to their importance, beginning with the Must Have criteria, then the Should Have, and finally the Could Have. The priority adheres to the MoSCoW criterion, with a ratio of about **Musthave:Should have:Could have ~ 60:20:20**. This method prioritizes the most essential features, ensuring that they are handled first and maximizing the value delivered. By following SCRUM principles, the project team may effectively oversee development iterations, adjust to evolving needs, and produce a top-notch product within the designated timeframe.

3.3. Gantt chart

		Sprint 1	Sprint 2	Sprint 3	Sprint 4	Sprint 5	Sprint 6

	180 man.hours/ week	week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week 9	week 10	week 11	week 12
Must have	RQ-1	▓	▓										
	RQ-3			▓	▓								
	RQ-6				▓	▓							
	RQ-8					▓	▓						
	RQ-11							▓	▓				
Should have	RQ-14									▓			
	RQ-18									▓	▓		
Could have	RQ-19										▓	▓	
	RQ-20											▓	▓

Section C: Legal, Social, Ethical and Professional issues

1. C1 - Role of the Data Controller within the organization

Data protection is a critical aspect of any organization's operations, particularly in today's digital age where vast amounts of personal information are collected, processed, and stored. As the Data Controller within the organization, it is essential to understand and fulfill certain responsibilities to ensure compliance with legal, social, ethical, and professional standards.

Firstly, the data collected by the organization must be clearly defined and limited to what is necessary for the intended purpose. In the case of Green Groceries' online platform, data such as customer names, addresses, contact information, and purchasing history may be collected to facilitate order processing and personalized services. It is crucial to be transparent with customers about the types of data being collected and obtain their consent for its use.

Secondly, the storage of data must be secure and protected against unauthorized access or breaches. Implementing robust cybersecurity measures, such as encryption, firewalls, and access controls, helps safeguard sensitive information from cyber threats and data breaches. Regular security audits and updates should also be conducted to mitigate potential vulnerabilities.

Thirdly, the processing of data must adhere to principles of fairness, transparency, and accountability. This includes ensuring that data is processed lawfully, fairly, and for specified purposes. Additionally, individuals' rights regarding their data, such as the right to access, rectify, or delete their information, must be respected and upheld.

Furthermore, the transfer of data, whether within the organization or to third parties, must be conducted securely and in compliance with applicable data protection regulations. This involves assessing the adequacy of data protection measures in the recipient country or organization and obtaining any necessary consent or agreements.

The purpose for data usage should be clearly defined and communicated to individuals whose data is being collected. For example, Green Groceries may use customer data for order fulfillment, marketing communications, and improving the user experience on their platform. However, it is essential to ensure that data is not used for purposes that are incompatible with the original purpose or that could cause harm to individuals.

From a legal standpoint, the Data Controller must ensure compliance with data privacy laws and regulations, such as the General Data Protection Regulation (GDPR) in the European Union or the California Consumer Privacy Act (CCPA) in the United States. Failure to comply with these regulations can result in severe financial penalties and damage to the organization's reputation.

Socially, the organization has a responsibility to consider the impact of its data practices on all stakeholders, including customers, employees, and the broader community. This includes promoting accessibility and providing technical education to consumers about data privacy and security best practices.

Ethically, the Data Controller must prioritize fairness, honesty, and integrity in their data handling practices. This involves protecting the rights and interests of individuals whose data is being processed and ensuring transparency and accountability in all data-related activities.

Professionally, the Data Controller should adhere to industry standards and best practices for data protection, such as conducting regular audits, implementing security measures, and providing training to staff on data handling procedures. Additionally, the organization should establish clear policies and procedures for data protection and regularly review and update them to address evolving threats and regulatory requirements.

In conclusion, as the Data Controller within the organization, it is essential to take a proactive approach to data protection, ensuring compliance with legal, social, ethical, and professional standards. By implementing robust data protection measures, fostering transparency and accountability, and prioritizing the rights and interests of individuals, the organization can build trust with stakeholders and mitigate risks associated with data handling.

2. C2 – Legal, Social, Ethical and Professional issues that TB may faced with

Introduction to BCS Code of Conduct:
The British Computer Society (BCS) is a professional group that promotes and advances the discipline of computers. The BCS Code of Conduct lays forth the norms of conduct required from computer professionals. It gives recommendations on ethical conduct, professionalism, and accountability in the practice of computing.

Summary of the Four Codes of Conduct in BCS:
Public Interest: Computing professionals must behave in the public interest and contribute to society's well-being. They should emphasize the safety, security, and health of the population.
Professional Competence and Integrity: Professionals must maintain and grow their professional knowledge and abilities. They should do their tasks with integrity, honesty, and

openness.

Duty to applicable Authority: Computing professionals must respect and comply with applicable laws, rules, and standards. They should also respect the rules and procedures of the companies they work for.

Duty to the Profession: Professionals have a duty to protect the reputation and integrity of the computer profession. They should encourage and promote the professional growth of individuals in the sector.

Examples from the Case Study:

Public Interest: In the case study, the construction of an online platform for Green Groceries intends to promote sustainable goods and increase accessibility. Computing specialists working in the project must guarantee that the platform contributes to the public interest by delivering accurate information, secure transactions, and user-friendly interfaces.

Professional Competence and Integrity: The experts from System Concepts must show their competence and integrity by creating a high-quality web platform that fits the demands of Green Groceries. They should utilize their skills to design safe and efficient software while retaining honesty and openness in their relationships with the customer.

Duty to Relevant Authority: Both Green Groceries and System Concepts shall comply with relevant laws and regulations regulating data protection, online transactions, and consumer rights. They should guarantee that the online platform conforms to legal regulations involving privacy, security, and financial activities.

Duty to the Profession: Professionals collaborating in the project shall contribute to the improvement of the computing profession by sharing expertise, engaging in professional development activities, and adhering to ethical principles. They should encourage ethical conduct and best practices inside their businesses and the larger computer community.

Overall, adherence to the BCS Code of Conduct guarantees that computer professionals operate responsibly, ethically, and in the best interests of society and the profession.

Conclusion and assumptions made

References

Elbeheri, A. (2016, March 14). *The Dynamic Systems Development Method (DSDM) -Agile Methodology*. Retrieved from linkedin: https://www.linkedin.com/pulse/dynamic-systems-development-method-dsdm-agile-alaa/

geeksforgeeks. (2024, February 06). *5 Most Commonly used Software Development Methodologies*. Retrieved from geeks for geeks: https://www.geeksforgeeks.org/5-most-commonly-used-software-development-methodologies/

rikkeisoft. (2022, DECEMBER 14). *What is Software Development Methodology? 10 Key Methodologies*. Retrieved from rikkei soft: https://rikkeisoft.com/blog/methodologies-in-software-development/

Varghese. (2023, December 29). *Kanban method in Agile*. Retrieved from linkedin: https://www.linkedin.com/pulse/kanban-method-agile-varghese-chacko-nx3zc/