# **Section A — Management Summary**

## **1 Introduction the case study**

### **About Green Groceries**

Green Groceries is a thriving medium-sized company dedicated to providing organic and locally sourced grocery products to its customers. Through collaborations with nearby farmers and eco-friendly suppliers, the company has established a strong foothold in the market. Their main goal is to expand the range of organic products available to consumers, thereby enhancing accessibility to their offerings.

### **Introducing Green Groceries' project goals**

The overarching goal of the project is to develop an online platform for Green Groceries within the next three months. This initiative is driven by a strategic vision aimed at achieving several key objectives:

Green Groceries aims to extend its market reach by embracing e-commerce, catering to customers who prefer the convenience of online shopping or are unable to access physical stores. By establishing an online presence, the company seeks to broaden its customer base and penetrate new markets.

The development of the online platform is geared towards making organic and locally sourced grocery products more accessible to consumers. By leveraging technology, Green Groceries strives to promote its eco-conscious lifestyle and encourage responsible consumption practices among a wider audience.

The launch of the online platform serves to enhance Green Groceries' reputation as a provider of high-quality, sustainable goods. By delivering a seamless and user-friendly online shopping experience, the company aims to build trust and credibility among its customer base.

Expansion into the online space presents an opportunity for Green Groceries to drive revenue growth and capitalize on the increasing demand for organic and locally sourced products. By diversifying its sales channels and tapping into new markets, the company seeks to boost sales and profits.

Beyond facilitating transactions, the online platform enables Green Groceries to engage with customers beyond the point of sale. Through interactive features and personalized communication, the company aims to foster meaningful relationships and enhance the overall customer experience.

### **Introduction to Online Platform Development**

Green Groceries has opted to outsource its software development projects due to the absence of an in-house software development department. Past experiences with traditional 'waterfall' projects have presented challenges for the company. After careful consideration, Green Groceries has selected System Concepts (SC) as its partner to develop their online platform. System Concepts is a renowned Agile software development consultancy known for its expertise in implementing SCRUM and Agile concepts.

Scrum is a hybrid of Iterative and Incremental models used for object-oriented software development. It aims to accelerate development, harmonize values, establish a performance-focused culture, generate shareholder value(Srivastava et al., 2017). This methodology emphasizes collaboration, flexibility, and adaptability, allowing teams to respond swiftly to changing requirements and market dynamics. By embracing SCRUM, Green Groceries aims to streamline the development process, enhance team productivity, and deliver high-quality software within the stipulated timeframe.

In addition to SCRUM, System Concepts follows the Dynamic Systems Development Method (DSDM) Atern framework for project management. The DSDM is a reliable delivery framework that may provide the appropriate answer when it's needed. It emphasizes early delivery with an eye on business advantages(Sharma and Hasteer, 2016). Agile modeling is a technique that is practice-based and consists of a set of ideals, guidelines, and procedures for efficient modeling and documentation, ensuring alignment with Green Groceries' goals and priorities.

The team tasked with executing the online platform development project at Green Groceries comprises members from the esteemed software consulting firm Agile (SC). The team consists of five individuals, each bringing unique skills and expertise to the project:

Millie: A highly skilled programmer with extensive expertise in web development and exceptional communication skills.

Peter: An outstanding web developer renowned for his technical prowess, although occasional disagreements with clients have been noted.

Anita: Possesses strong web development skills and actively engages in volunteer work for the homeless community.

Cheryl: Brings to the table vast experience as a Team Leader in Agile development projects, coupled with proficiency in web development.

Pat: Available part-time throughout the project, Pat possesses a solid understanding of web development and testing.

This collaboration between Green Groceries and System Concepts aims to deliver a robust online platform aligned with the company's values of sustainability and accessibility. The Agile approach adopted by the team is expected to address challenges encountered in previous projects by providing flexibility and responsiveness to changing requirements throughout the development process.

In addition to the project team, stakeholders involved in the project include the CEO and Founder, Operations Director, Chief Accountant, Logistics Director, Financial Controller, and Marketing Manager. Each stakeholder holds vital responsibilities within the organization, contributing to the project's success from various perspectives.

Evaluation of the project team members reveals a consistent level of expertise in Agile web development, with Cheryl bringing valuable experience in team leadership. This ensures efficient coordination and communication within the team, particularly in instances where client disagreements may arise. The combination of skilled team members and visionary stakeholders positions the project for success, with ample support provided for the development of Green Groceries' online platform.

## **2 Introduction to Agile**

### **2.1 Agile information**

Agile encompasses a broad range of software development principles. It is a conceptual framework for software engineering that starts with the planning stage and progresses through the project life-cycle in an incremental and iterative manner, leading to the deployment phase. Agile approaches' primary objective is to streamline the software development process by allowing for the adoption of changes without undue risk to the process or needless rework (Al-Saqqa et al., 2020). Every Agile approach is made up of a unique set of practices that describe the day-to-day work that software developers perform. Each approach varies from the others by selecting the proper vocabulary and procedures.

**Advantages of Agile**

**Continuous Quality Improvement:** Continuous feedback loops are promotes by agile, which makes it easier to identify and fix problems early on and produces software that is of a better caliber.

**Customer-Centric Approach:** Agile approaches place a high priority on improving customer happiness, software quality, and software satisfies end-user demands.

**Adaptability to Changing Requirements:** Agile welcomes change, which makes it appropriate for projects that are dynamic and require software quality engineers to adjust to changing requirements.

**Early Bug Detection:** Agile's iterative design facilitates continuous testing, which lowers work required to resolve problems later in the lifecycle and results in early defect identification.

**Faster Time-to-Market:** Agile's incremental development methodology allows for shorter time-to-market and quick reaction to market needs by facilitating the release of working software more quickly.

**Collaborative Team Environment:** Agile ensures a comprehensive approach to software quality engineering by fostering collaboration between developers, testers, and quality engineers.(Pargaonkar, 2023)

**Disadvantages of Agile**

**Resource Intensive:** Agile requires team members and stakeholders to actively participate in and continuously collaborate on tasks, which can be resource-intensive and may affect other existing work.

**Complexity in Large Projects:** Due to the requirement for several iterations, thorough testing, and ongoing modifications, bigger and more complicated projects may find Agile management difficult. These complications might impact project coordination and delivery schedules.

**Lack of Comprehensive Documentation:** Agile places a higher priority on flexibility than thorough documentation, which might lead to less documenting of design choices and procedures than with more conventional approaches like Waterfall.

**Dependency on Customer Availability:** Agile's customer-centric methodology greatly depends on consistent input and participation from customers. An inability to reach clients or ambiguous criteria might impede software quality engineering efforts.

**Potential for Scope Creep:** Because of its adaptability and frequent modifications, agile can cause scope creep, a situation in which the project's scope grows beyond its original parameters, placing a burden on resources and influencing the software quality engineering process.

**Overemphasis on Speed:** Agile's emphasis on producing usable software rapidly might trump thorough testing and quality control procedures, which could result in the delivery of software with unfixed bugs.(Pargaonkar, 2023)

### **2.2 Identify the Agile framework as a suitable method for the project**

After examining Green Groceries' plan to launch an online platform within the next three months and considering their outsourced project goals, it's clear that the Dynamic Systems Development Method (DSDM) would be an ideal fit for this endeavor. Here's a breakdown of the rationale behind this recommendation, along with potential advantages and disadvantages:

**Suitability of Agile Framework:**

**Flexibility for Evolving Requirements:** Agile methodologies like SCRUM enable teams to quickly adapt to changing requirements, addressing Green Groceries' evolving needs and market dynamics in software projects.

**Incremental Value Delivery:** Agile frameworks like DSDM divide projects into manageable sprints, enabling regular delivery of software components and user feedback, promoting early platform benefits and iterative improvement.

**Collaboration and Transparency:** Agile methodologies promote collaboration among development teams, stakeholders, and clients, ensuring alignment between Green Groceries and System Concepts, enhancing communication and meeting their requirements and vision.

**Risk Mitigation:** Agile methodologies involve regular inspection and adaptation to minimize risks, identifying potential issues early and making necessary adjustments to ensure project success.

**Advantages of Agile Framework:**

**Accelerated Delivery:** Agile methodologies expedite time-to-market for Green Groceries by prioritizing short iterations, enabling faster platform launch and gaining a competitive edge.

**Enhanced Customer Satisfaction:** Agile methodologies foster customer collaboration and responsiveness, enhancing satisfaction. System Concepts, through active involvement with Green Groceries, ensures the final product meets or exceeds their expectations, fostering ownership and alignment with their vision.

**Disadvantages of Agile Framework:**

**Resource Allocation:** Agile methodologies require active customer participation throughout the development process. Green Groceries should allocate sufficient resources and involve key stakeholders in regular meetings to ensure timely feedback and project success.

**Scope Management:** Agile methodologies face challenges in managing expanding scope, especially with frequent requirements changes. Green Groceries and System Concepts must establish clear priorities and mechanisms to prevent delays or budget overruns.

# **Section B — High level requirements analysis and MoSCoW prioritization**

The following table presents the initial list of requirements for the website.

Table 1. Initial Requirements List

|  |  |  |
| --- | --- | --- |
| **No.** | **Requirements** | **Funcition/ Non-function** |
| F1 | As an Order Handling Clerk, I want to use the website to process telephone purchases, replacing the paper-based system. | FR |
| F2 | Maintain at least 20 office plants as part of the company's commitment to a green and healthy workspace. | NFR |
| F3 | As a customer, I want to be able to change my account details to ensure my most up-to-date information is recorded. | FR |
| F4 | Organize a virtual celebration on the website for the CEO's birthday to showcase the company's fun and friendly culture. | FR |
| F5 | As the Managing Director I want to be ensured that the site is Data Protection Act safe so that we do not get fined hundreds of thousands of pounds. | NRF |
| F6 | As a customer register an account. | FR |
| F7 | As a Customer I want a choice of delivery slots so that I can arrange my diary appropriately. | FR |
| F8 | As a customer, I want to be able to modify my shopping cart so that I can change my mind about what I want to buy. | FR |
| F9 | The company should adopt pet-friendly policies to create a positive and inclusive work environment. | NRF |
| F10 | The system must be designed to handle a 30% increase in traffic during peak periods without degradation in performance. | NFR |
| F11 | As a customer, I want to enter separate delivery and invoice addresses so that I can receive bags when staying at a friend’s house. | FR |
| F12 | As a Customer I want to be able to change my account details so that my most up to date details are recorded. | FR |
| F13 | As an Order Handling Clerk I want to use the Web site to process telephone purchases so that I can stop using the paper-based system. | FR |
| F14 | As a customer, I want to choose whether or not I am sent marketing information to avoid receiving excessive junk mail. | NF |
| F15 | All user data, including personal information and payment details, must be encrypted to ensure the highest level of security. | NFR |
| F16 | Maintain consistent branding elements and design across the website to reinforce their brand identity. | NFR |
| F17 | The development team should participate in a team-building event every quarter to foster collaboration and a positive work environment. | NFR |
| F18 | As the Marketing Director I would like an offers or discount page so that we can inform our customers of the aforementioned. | NFR |
| F19 | As the Chief Accountant I want to the Web site to adhere to legislation regarding VAT so we are not hit with a hefty fine. | FR |
| F20 | As the Operations Director, I want to accept all forms of payment to capture the largest market possible. | FR |

## **1 Review the base line requirements' list**

### **Present nonconforming requirements at a high-level requirement level**

The table below outlines requirements found to be inconsistent with the high-level project objectives, along with reasons for their exclusion.

Table 2. Inconsistent Requirements Analysis

|  |  |  |
| --- | --- | --- |
| **No.** | **Requirements** | **Reason** |
| F2 | Maintain at least 20 office plants as part of the company's commitment to a green and healthy workspace. | This requirement is considered non-functional as it doesn't directly contribute to the online platform's functionality and may divert resources from the core objectives of the project, making it better addressed as a separate initiative. |
| F4 | Organize a virtual celebration on the website for the CEO's birthday to showcase the company's fun and friendly culture. | The requirement for a virtual celebration for the CEO's birthday is considered non-functional as it diverges from the main objective of the online platform, which is to promote the company's products and enhance customer accessibility. The short implementation period necessitates prioritizing requirements that align with core goals and objectives, with cultural activities best implemented in future phases. |
| F5 | As the Managing Director I want to be ensured that the site is Data Protection Act safe so that we do not get fined hundreds of thousands of pounds. | The proposed solution for a site's safety and compliance is deemed non-functional due to its inconsistency with existing technical standards and protocols, such as HTTPS encryption. Modern development frameworks offer robust encryption methods like bcrypt, making the proposed solution less effective in protecting sensitive information. Therefore, data protection is crucial. |
| F7 | As a Customer I want a choice of delivery slots so that I can arrange my diary appropriately. | The project's main focus is on expanding market reach and improving accessibility, but the need for third-party delivery services introduces complexities and dependencies. Coordinating schedules and meeting carrier requirements can impact the project's execution, posing risks to timeline and resource management. Therefore, the proposed solution may not align with the project's objectives. |
| F9 | The company should adopt pet-friendly policies to create a positive and inclusive work environment. | The requirement for a positive work environment is non-functional as it pertains to company policies and workplace culture rather than the functionality of the online platform. While promoting a positive work environment is commendable, it may divert attention from the primary project goals and be considered tangential to the project's scope. Therefore, fostering a positive workplace environment may be more suitable as a separate initiative. |
| F10 | The system must be designed to handle a 30% increase in traffic during peak periods without degradation in performance. | The non-functional requirement for Green Groceries' online platform focuses on performance, reliability, and scalability, rather than core functionalities. While handling increased traffic during peak periods is crucial for user experience, prioritizing optimization may not be immediate. As the platform matures and the company gains experience in online development, addressing performance optimization may be more strategic. |
| F17 | The development team should participate in a team-building event every quarter to foster collaboration and a positive work environment. | The requirement for team-building events in an online platform development project is non-functional due to its focus on organizational culture and team dynamics rather than functional aspects. Allocating resources to these activities may detract from core development tasks and hinder progress towards meeting user needs. Therefore, prioritizing team-building events during the development phase may not align with the project's immediate objectives. |
| F15 | All user data, including personal information and payment details, must be encrypted to ensure the highest level of security. | The requirement mandates encryption for user data, including personal information and payment details, to enhance security. However, this solution may not be optimal due to its focus on non-functional requirements and the use of built-in encryption features in modern development frameworks. Therefore, the proposed solution may not be the most efficient way to ensure data protection. |
| F16 | Maintain consistent branding elements and design across the website to reinforce their brand identity. | The requirement falls under non-functional requirements, which are essential for system performance but not directly fulfilling functional needs. Focusing on UI/UX design may not be feasible without clearly defined functional requirements. The absence of established brand identity standards poses challenges for effective implementation, potentially prematurely dedicating resources. |

### **Present the high-level functional requirements necessary to build the system**

Displayed in the table below are requirements aligned with the project's high-level objectives.

Table 3. Consistent Requirements with High-Level Project Goals

|  |  |  |
| --- | --- | --- |
| **No.** | **High level functional requirements** | **Reason** |
| F1 | As an Order Handling Clerk, I want to use the website to process telephone purchases, replacing the paper-based system. | The website's Order Handling Clerks can now process telephone purchases, enhancing accessibility and communication. This feature is particularly beneficial for elderly users who may have limited technology familiarity, making the ordering process more inclusive. This integration not only streamlines order processing but also aligns with the company's objectives of enhancing accessibility and user experience. |
| F3 | As a customer, I want to be able to change my account details to ensure my most up-to-date information is recorded. | The online platform's functionality is significantly enhanced by allowing customers to update their account details, ensuring their information remains accurate and up-to-date. This feature empowers customers to manage their accounts independently, addressing common scenarios like updating contact information or modifying preferences, thus fulfilling customer needs and maintaining the platform's usability and effectiveness. |
| F6 | As a customer register an account. | Customers must register an account for the online platform's functionality, which includes personalized features like order management, transaction history, and customer support services. This ensures secure interactions, enhances user experience, and builds trust in the company's services, thus meeting user needs and expectations for a seamless and user-friendly experience. |
| F8 | As a customer, I want to be able to modify my shopping cart so that I can change my mind about what I want to buy. | Enabling customers to modify their shopping cart is crucial for improving the online platform's user experience. This feature allows customers to adjust their shopping cart as their preferences change, ensuring flexibility and convenience. This not only enhances user satisfaction but also minimizes frustration, boosting customer engagement and retention. |
| F11 | As a customer, I want to enter separate delivery and invoice addresses so that I can receive bags when staying at a friend’s house. | Customers need to input separate delivery and invoice addresses for flexibility and convenience when ordering items from locations other than their primary residence. This feature ensures accurate and efficient delivery, enhancing the overall user experience and satisfaction. It is essential to meet customer needs and expectations effectively, making it a crucial feature in the platform. |
| F14 | As a customer, I want to choose whether or not I am sent marketing information to avoid receiving excessive junk mail. | The company's marketing communication feature allows customers to opt out of marketing communications, demonstrating its commitment to customer satisfaction and personalized experiences. This feature reduces the risk of unwanted emails and promotes trust and loyalty towards the brand, thereby enhancing customer satisfaction. |
| F18 | As the Marketing Director I would like an offers or discount page so that we can inform our customers of the aforementioned. | Implementing an offers or discount page on an online platform can provide strategic benefits for a company. It attracts new customers by offering attractive discounts, expanding the market reach. It enhances the shopping experience for existing customers, fostering loyalty and repeat purchases. A strong online presence allows the company to compete effectively in the digital marketplace. The platform also facilitates efficient inventory management, optimizing turnover, minimizing costs, and maximizing profitability. This aligns with the company's strategic objectives of customer acquisition, market competitiveness, and operational efficiency. |
| F19 | As the Chief Accountant I want to the Web site to adhere to legislation regarding VAT so we are not hit with a hefty fine. | Adherence to VAT legislation is crucial for organizations, especially those developing online platforms. It not only ensures legal compliance but also reduces the risk of fines and penalties. Implementing features that facilitate VAT compliance and invoicing helps the platform operate within the law and avoid legal repercussions. This also enhances the organization's reputation and credibility, instilling trust among customers and stakeholders. |
| F20 | As the Operations Director, I want to accept all forms of payment to capture the largest market possible. | The project aims to improve platform accessibility and market reach by offering multiple payment methods. This inclusivity reduces barriers to purchase and maximizes revenue by capturing a larger market share. Prioritizing the acceptance of all forms of payment is crucial for a seamless customer experience on the platform. |

## **MoSCoW/Tmebox rules to prioritize the requirements' high level requirement list'**

Due to the project's three-month timeline, the SCRUM methodology will be adopted, dividing the project into Sprints of two weeks each. The table below outlines the team's composition, total effort, and estimated time for each Sprint based on available resources.

Table 4. Sprint Planning and Resource Estimation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Requirement ID** | **Requirement** | **Break tasks** | **Estimation (man.hour)** |
| 1 | F3 | As a customer, I want to register an account. | 1. Create tables in DB (40 man.hours)  2. Design UI for registration page (40 man.hours)  3. Create Authentication (40 man.hours)  4. Test API for registering users (90 man.hours)  5. Create routes and methods for registering users (40 man.hours)  6. Testing (20 man.hours) | 270 |
| 2 | F1 | As a customer, I want to be able to change my account details to ensure my most up-to-date information is recorded. | 1. Design UI for account details page (40 man.hours)  2. Implement account details update form (40 man.hours)  3. Validate account details update form (50man.hours)  4. Update user account in database (50man.hours)  5. Testing (20 man.hours) | 200 |
| 3 | F8 | As an Order Handling Clerk, I want to use the website to process telephone purchases, replacing the paper-based system. | 1. Design order handling system (50 man.hours)  2. Implement order processing functionality (90 man.hours)  3. Integrate order processing with database (80 man.hours)  4. Test order processing system (50 man.hours) | 270 |
| 4 | F11 | As a customer, I want to be able to modify my shopping cart so that I can change my mind about what I want to buy. | 1. Create tables in DB (30 man.hours)  2. Design UI for shopping cart (60 man.hours)  3. Code function for shopping cart (200 man.hours)  4. API for function shopping cart (130 man.hours)  5. Testing (20 man.hours) | 440 |
| 5 | F19 | As a customer, I want to enter separate delivery and invoice addresses so that I can receive bags when staying at a friend’s house. | 1. Design separate address entry form (30 man.hours)  2. Implement separate address fields (50 man.hours)  3. Validate address entry (40 man.hours)  4. Update user profile with addresses (20 man.hours)  5. Testing (20 man.hours) | 160 |
| 6 | F20 | As the Chief Accountant, I want the website to adhere to legislation regarding VAT so we are not hit with a hefty fine. | 1. Research VAT legislation (50 man.hours)  2. Implement VAT calculation functionality (120 man.hours)  3. Test VAT calculation accuracy (20 man.hours) | 190 |
| 7 | F18 | As the Operations Director, I want to accept all forms of payment to capture the largest market possible. | 1. Research payment gateways (60 man.hours)  2. Implement payment gateway integration (130 man.hours)  3. Test payment processing (30 man.hours) | 220 |
| 8 | F14 | As the Marketing Director, I would like an offers or discount page so that we can inform our customers of the aforementioned. | 1. Design offers/discount page (50 man.hours)  2. Implement page functionality (70 man.hours)  3. Integrate with marketing database (60 man.hours)  4. Test page functionality (20 man.hours) | 200 |
| 9 | F3 | As a customer, I want to choose whether or not I am sent marketing information to avoid receiving excessive junk mail. | 1. Design marketing preferences page (50 man.hours)  2. Implement preference options (70 man.hours)  3. Store preference in user profile (30 man.hours)  4. Testing (20 man.hours) | 170 |

Presented in the table below are requirements prioritized according to the MoSCoW/Timebox rules, ensuring alignment with high-level project objectives.

Table 5. Prioritized Requirements based on MoSCoW/Timebox Rules

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Requirement ID** | **Requirement** | **MoSCoW** | **Reason for prioritization** | **Effort** | **SUMMARY (man.hour)** | **Scale** |
| F3 | As a customer, I want to register an account. | M | Prioritizing the creation of user accounts is crucial for establishing the fundamental framework for user interaction and engagement within the system. | 270 | 1180 | 56% |
| F1 | As a customer, I want to be able to change my account details to ensure my most up-to-date information is recorded. | M | Ensuring data accuracy and integrity is prioritized by allowing users to update their account information, ensuring efficient and secure management of their information. | 200 |
| F8 | As an Order Handling Clerk, I want to use the website to process telephone purchases, replacing the paper-based system. | M | The shift from a paper-based system to an online platform improves operational efficiency, accuracy, data management, and service delivery by streamlining the ordering process. | 270 |
| F11 | As a customer, I want to be able to modify my shopping cart so that I can change my mind about what I want to buy. | M | Providing a flexible and user-friendly shopping experience prioritizes allowing customers to modify their carts according to their preferences and needs. | 440 |
| F19 | As a customer, I want to enter separate delivery and invoice addresses so that I can receive bags when staying at a friend’s house. | S | Enabling customers to specify separate delivery and invoice addresses improves convenience, accommodates various delivery scenarios, and enhances user experience, satisfaction, and long-term customer loyalty. | 160 | 570 | 27% |
| F20 | As the Chief Accountant, I want the website to adhere to legislation regarding VAT so we are not hit with a hefty fine. | S | Compliance with VAT legislation is vital for mitigating financial risks and maintaining an organization's reputation, ensuring legal adherence, risk management, and financial stability. | 190 |
| F18 | As the Operations Director, I want to accept all forms of payment to capture the largest market possible. | S | Prioritizing payment options over mandatory functionalities is crucial for market reach, ensuring essential features are addressed first for a functional platform. | 220 |
| F14 | As the Marketing Director, I would like an offers or discount page so that we can inform our customers of the aforementioned. | C | Implementing an offers or discount page can be deferred until core functionalities are established, allowing focus on essential features and platform functionality before incorporating additional marketing elements. | 200 | 370 | 17 % |
| F3 | As a customer, I want to choose whether or not I am sent marketing information to avoid receiving excessive junk mail. | C | Implementing user communication preferences enhances user experience and privacy protection, but it can be added after essential functionalities are established. | 170 |

Priority requirements based on the high-level requirements list are presented in Table 3. As per the MoSCoW principles, the requirements were categorized into Must Have, Should Have, and Could Have, accounting for 56%, 27%, and 17% of the total project implementation time, respectively. This prioritization aligns closely with Rule 60:20:20 of MoSCoW.

The project plan outlined in Table 5 demonstrates that the estimated timeline and task distribution adhere to the prioritization set by MoSCoW. By implementing the SCRUM principle, the project tasks will be divided into Sprints, ensuring efficient completion of priority tasks within the allocated timeframes.

Image below illustrates the breakdown of tasks assigned to each Sprint, aligned with the corresponding priority level as determined by the MoSCoW framework.

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Description automatically generated with medium confidence

# **Section C— Legal, Social, Ethical, and Professional issues**

## **1 Data Controller**

### **Discuss about Data Protection Act (DPA)**

Data Protection Act (DPA) mandates that online platforms adhere to certain standards, including legitimate, equitable, and transparent data collection and processing; simply gathering and processing the bare minimum of data required; preserving data currency and correctness; and effectively safeguarding data. Penalties might be applied to the online platforms for breaking these rules(PART, 2018). The main purpose of the DPA is to protect individuals' right to privacy and to ensure that their personal information is handled responsibly and securely by organizations.

**Data collecting** involves gathering and analyzing personal data from various sources for business purposes, ensuring transparency, limited collection, and robust security measures to protect privacy rights.

**Data storage** involves safeguarding and organizing data using on-premise, cloud, or hybrid storage methods, ensuring secure management, backup, disaster recovery, and compliance with regulations like CCPA and GDPR.

**Data sharing** involves exchanging information between stakeholders for collaboration, analysis, and decision-making, requiring measures to ensure confidentiality, integrity, and privacy compliance in various sectors and industries.

**Data transfer** is crucial for data management, involving the movement of data between systems for collaboration, synchronization, and backup, requiring robust security measures to prevent unauthorized access.

**Data processing** involves transforming raw data into valuable information through filtering, analysis, and modeling, enabling informed decision-making and business intelligence through insights and outcomes.

**Data access** requires authentication, authorization, and compliance with privacy regulations like GDPR and CCPA, requiring encryption techniques and access controls for data security and privacy protection.

**Data retention and deletion** policies ensure legitimate business use and secure when no longer needed or requested, minimizing data for compliance and privacy protection.

**Data breach response** involves an organization's swift and efficient strategies to minimize damage, protect individuals, and rebuild trust after a security incident.

### **Role of the Data Controller in Green Groceries**

The development and operation of Green Groceries' new online platform will require the organization to take on the role of Data Controller. As the Data Controller, Green Groceries will be responsible for the collection, storage, processing, and protection of customer personal data.

**Data Collection**: Green Groceries will collect personal data from clients, including names, addresses, phone numbers, email addresses, and payment information, with the data controller deciding the legitimate reasons for collection.

**Data Storage:** The Data Controller is responsible for maintaining client personal data securely, adhering to data protection laws like the Data Protection Act, including encryption, access limits, and backup plans.

**Data Processing:** Green Groceries, as the Data Controller, is responsible for processing customer data for marketing, order processing, customer assistance, and analyzing purchasing patterns to enhance products and services.

**Data Sharing and Transfer:** The Green Grocery Data Controller must ensure data security by implementing appropriate data sharing agreements and security mechanisms when transferring consumer data with external parties.

**Purpose Limitation:** Green Groceries' data controller must ensure transparency, authorized use, and uphold data protection principles to protect customers' privacy rights and ensure authorized use.

By fulfilling the responsibilities of the Data Controller role, Green Groceries can build customer trust, ensure compliance with relevant regulations, and leverage customer data to improve their online platform and business operations.

## **2 LSEPI**

### **Legal**

**Data Privacy:** Green Groceries, as the Data Controller for customer data, must adhere to data protection legislation, including transparency, customer access, and robust security measures to protect sensitive information.

**Security and Fraud Detection:** The platform must implement robust security protocols to prevent unauthorized access, data breaches, and fraudulent activities, ensuring the integrity and security of customer transactions.

**Compliance with Financial Regulations:** Green Groceries' online platform must comply with financial regulations, including VAT compliance, maintain financial transparency, and meet legal obligations in accounting and taxation.

**Clear Instructions and Accessibility:** The online platform should offer clear instructions, terms of service, and usage guidelines for key areas like order fulfillment, delivery, returns, and refunds to promote transparency and trust.

**Intellectual Property and Licensing:** Green Groceries must ensure proper licensing of third-party intellectual property and protect its brand assets to maintain brand integrity and avoid potential legal disputes on the online platform.

**Terms of Service and User Agreements:** Green Groceries must establish comprehensive service and user agreements outlining rights, obligations, and responsibilities for customers, including data usage policies and dispute resolution procedures.

**Consumer Protection:** Green Groceries must uphold consumer protection laws by providing accurate product information, fair pricing, and transparent refund policies, fostering customer trust and compliance.

### **Social**

**Impact on All Citizens:** The online platform should be inclusive, ensuring accessibility for all customers, regardless of socioeconomic background. This includes multiple language options, accessibility aids, and intuitive navigation, fostering a positive user experience.

**Accessibility:** Green Groceries prioritizes accessibility in its online platform, ensuring seamless navigation for users with disabilities. This includes screen reader compatibility, closed captions, and intuitive navigation aids, demonstrating its commitment to inclusivity.

**Technical Education of Customers:** Green Groceries offers clear, user-friendly guidance for its online platform, including step-by-step instructions, video tutorials, and a dedicated customer support channel, ensuring customers can confidently engage with the online shopping experience.

**Privacy and Data Collection:** Green Groceries must ensure transparency in customer data collection and usage, obtaining consent for processing activities, and providing privacy options to build trust and foster positive relationships with its customers.

**Security Awareness:** Green Groceries educates customers on online security best practices, enhancing confidence and trust in the platform. This proactive approach strengthens the company's reputation as a trustworthy provider.

**Transparency and Trust:** Green Groceries must prioritize transparency in its operations, policies, and communication to build trust with customers. This transparency fosters a sense of partnership, mutual respect, and long-term customer loyalty, demonstrating integrity and accountability.

### **Ethical**

**Fairness:** Green Groceries' online platform must uphold fairness and equality, treating all customers equally, promoting inclusivity and respect, thereby enhancing customer satisfaction and building trust within the company.

**Protecting Consumers:** Green Groceries must prioritize customer welfare by implementing robust security measures, transparent communication, fair pricing, and responsive customer support, fostering trust and cultivating long-term relationships with customers, upholding ethical responsibilities.

**Protecting Business Data and Information**: Green Groceries must ethically manage its proprietary business data and intellectual property, implementing strict security protocols and data encryption to prevent unauthorized access, demonstrating integrity, trust, and mitigating potential harm or exploitation.

### **Professional**

**Compliance with Standards and Regulations:** Green Groceries must adhere to industry standards, including web accessibility, data protection, and secure financial transactions, to enhance the reliability, security, and usability of its online platform while maintaining legal and regulatory compliance.

**Quality Assurance (QA) Testing:** Green Groceries must conduct comprehensive quality assurance (QA) testing throughout the online platform development and deployment to identify and resolve technical issues, bugs, and user experience problems, ensuring platform reliability and user satisfaction.

**Security and Data Protection:** Green Groceries' online platform must prioritize security measures to protect customer data, financial transactions, and system integrity, including encryption, access controls, and vulnerability management, ensuring customer confidence.

**Adherence to the BCS Code of Conduct:** Green Groceries, a professional organization, must adhere to the British Computer Society's code of conduct for ethical use of technology and information systems, ensuring integrity, confidentiality, and stakeholder well-being, contributing to the ethical development and operation of the online platform.

# **Section D — Conclusion**

An important turning point in the development of Green Groceries has been reached with the successful introduction of their new online platform, which demonstrates their dedication to adopting technological innovation and improving consumer accessibility. With the help of the Agile methodology more especially, the Scrum and Dynamic Systems Development Method Green Groceries has strategically positioned itself for long-term growth and market leadership in the quickly changing digital world.

The timely and effective delivery of the web platform can be attributed in large part to the choice to implement the Agile methodology. The project team has been able to meet urgent needs while keeping the flexibility to adjust to shifting customer and market expectations thanks to the collaborative and iterative nature of Scrum and DSDM Atern. This agile, incremental development approach has made it possible for Green Groceries to provide clients with real value from the outset of the project, enabling the business to take use of the advantages of the online platform sooner.

In addition, the Agile methodology's focus on cooperation, openness, and ongoing development has promoted a creative and cooperative workplace. This has given the development team and important stakeholders the ability to coordinate their efforts with Green Groceries' strategic goals and guarantee that the online platform satisfies the changing demands and preferences of the clientele.

Looking ahead, Green Groceries has the resilience and agility needed to successfully traverse the competitive industry thanks to the Agile strategy and the successful adoption of the web platform. Green Groceries will be able to maintain a competitive edge, consistently improve and refine its offers, and consolidate its position as a reliable supplier of organic and locally produced food items thanks to the Agile framework's iterative development approach and customer-centric emphasis.

In conclusion, a key element in the development and successful launch of Green Grocery's online platform has been the deliberate choice to use the Agile approach. With the help of this strategy, Green Grocery is now able to react quickly to changes in the market, give priority to the demands of its customers, and create a collaborative and innovative atmosphere that will position the business for long-term growth and a profitable future in the digital age.

# **Section E — References**

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