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Requirement Management Report for case study

“Green groceries Online Platform”

Section – A

1.Introduction about Online Green Groceries Platform

Presenting GreenGrocery.com.bd: Your Number One Source for Eco-Friendly Online Grocery

In the fast-paced world of today, convenience is everything. The emergence of e-commerce has brought about a notable shift in the grocery shopping experience, providing customers with the unrivaled convenience of obtaining fresh produce and necessities from the comfort of their homes. When it comes to online grocery shopping, GreenGrocery.com.bd stands out as a shining example of sustainability and freshness among the many platforms available. GreenGrocery.com.bd is more than simply an online store; it's a symbol of our commitment to sustainability and environmental responsibility as we work to transform the way we shop for groceries. We recognize the significance of decreasing the environmental impact of traditional grocery shopping while providing people with access to fresh, locally sourced goods.

Our website offers a carefully chosen assortment of fruits, vegetables, and necessities that are obtained from reliable local suppliers and farmers who share our dedication to sustainability. We work to improve the environment and the communities we serve by emphasizing produce that is grown nearby and using environmentally responsible methods.

Convenience and conscience converge at GreenGrocery.com.bd. Making sustainable decisions without compromising convenience is now simpler than ever for customers thanks to our intuitive interface and flawless delivery service. Come along as we work to open up sustainable living to everyone, one fresh produce at a time. Welcome to GreenGrocery.com.bd, the place where convenience and conscience meet sustainability and freshness.

2.Drawback pf Traditional Software Development Methodology

When a bug needs to be fixed, the following bugs may arise because the greengrocery website uses a waterfall model.

Concerning the website for the green grocery, the following are the drawbacks of the Waterfall model:

1. **Delayed Bug Detection:** In the Waterfall model, testing typically occurs towards the end of the development cycle, after the implementation phase. This could cause delays in the project's timeline and bug-fixing process since bugs might not be discovered until much later in the process.

2. **Inflexible Design:** The Waterfall model follows a linear and sequential approach, with each

phase being completed before moving on to the next one. In the process of developing a website, it may become challenging to adapt to modifications in client demands or project specifications.

3. Lack of Customer Feedback: The Waterfall model does not solicit customer feedback until the end of the development cycle. A final product that may not live up to the customer's expectations could arise from this disconnect between the needs of the customer and the website being developed.

4. High Documentation Requirements: The Waterfall model often involves extensive documentation requirements, which can be time-consuming and resource-intensive. Development may be slowed down as a result of prioritizing documentation over code.

5. Longer Development Time: The Waterfall model can result in a longer development time, as each phase must be completed before moving on to the next one. This might result in a delayed return on investment and delays in getting the website to the customer.

Regarding the website for the green grocery, these are a few drawbacks of the Waterfall model. Though contemporary techniques like Agile, Scrum, or Lean may also have disadvantages of their own, it is crucial to remember that not all conventional software development methodologies have these problems. The particular requirements and circumstances of the project, in addition to the organization's goals and objectives, should all be taken into account when selecting the development methodology.

3. Agile Frameworks Methods and its Overview.

1. RAD (Rapid Application Development): • Overview: RAD is an iterative approach to software development that emphasizes rapid prototyping and quick feedback loops. Short software iterations are the main focus, and users are usually involved at every stage of the development process. RAD seeks to speed up responsiveness to evolving requirements and shorten development times.

• Key Features: Prototyping, Incremental Development, Iterative Process, User Feedback, Time-Boxed Development Cycles.

2. Prototype: • Overview: The Prototype methodology involves creating a basic version of the software to demonstrate key features and gather feedback from stakeholders. Prototypes are improved based on feedback in an iterative manner until the end product satisfies the specifications.

• Key Features: Rapid Prototyping, Feedback Gathering, Iterative Refinement, Low-Fidelity Representation.

3. Timebox Approach: • Overview: Timeboxing is a project management technique where fixed periods of time, known as timeboxes, are allocated for completing specific tasks or phases of a project. It aids with scope management, cost containment, and on-time delivery assurance.

• Key Features: Fixed Time Periods, Incremental Delivery, Scope Management, Continuous Feedback.

4. JAD (Joint Application Development): • Overview: JAD is a collaborative approach to requirements gathering and solution design. Together, users, development teams, and stakeholders are brought together in facilitated workshops to establish project objectives, define requirements, and make clear expectations.

• Key Features: Collaborative Workshops, Stakeholder Involvement, Requirements Elicitation, Problem-solving Sessions.

5. Sprint and Scrums: • Overview: These are key elements of the Scrum framework, which is an Agile methodology for managing and completing complex projects. In sprints, development work is finished and possibly shippable increments are delivered within time-boxed iterations, typically lasting 2-4 weeks. With Scrum, the team meets on a regular basis to discuss goals, obstacles, and progress. These meetings are referred to as "stand-ups" or Scrums.

- Key Features: Iterative Development, Time-Boxed Sprints, Daily Stand-up Meetings, Cross-functional Teams, Product Backlog, Sprint Planning, Sprint Review, Sprint Retrospective.

6. DSDM (Dynamic Systems Development Method): • Overview: DSDM is an Agile framework that focuses on delivering projects quickly while maintaining high standards of quality. It places a focus on cooperative teamwork, frequent increment delivery, and active user participation. Agile project management and delivery have an organized framework with DSDM's principles, practices, and roles.

- Key Features: Active User Involvement, Incremental Delivery, Timeboxing, Prototyping, Iterative Development, MoSCoW Prioritization.

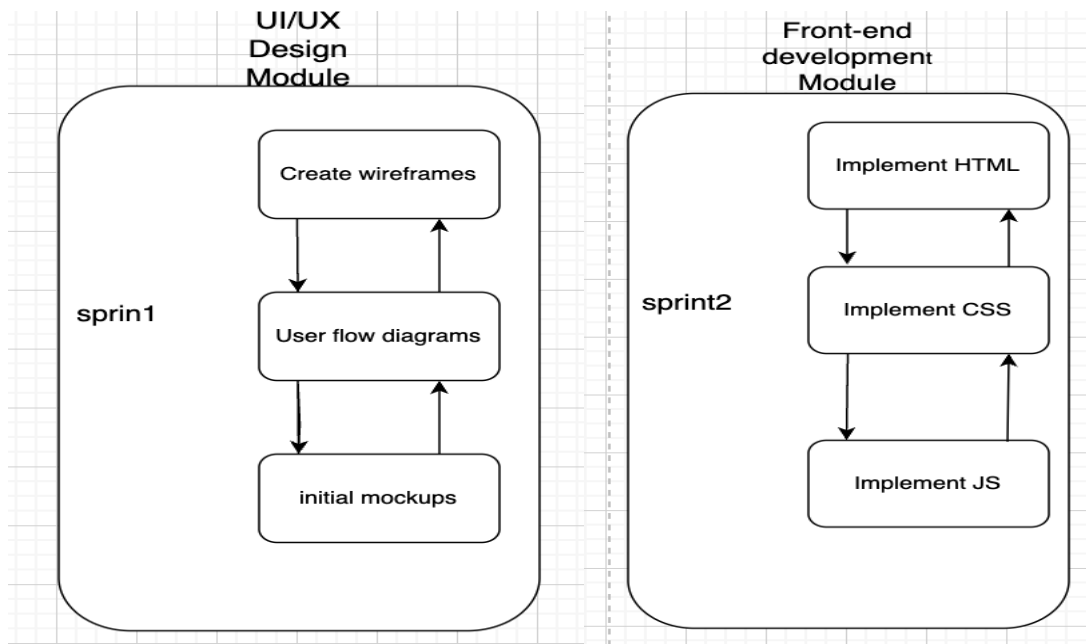
7. Facilitated Workshops: • Overview: Facilitated workshops are collaborative sessions conducted with stakeholders, users, and project teams to achieve specific objectives such as requirements gathering, problem-solving, decision-making, or planning. Usually, a neutral facilitator leads the group through the process and makes sure everyone is engaged and actively participating in these workshops.

- Key Features: Collaborative Sessions, Neutral Facilitation, Structured Activities, Stakeholder Engagement, Decision-making Support.

4.Systematic Workflow of Green Groceries Online Platform done with Agile method:

By altering the Agile approach to stretch out the construction of the green grocery website over a 12-week period, you can more effectively connect the sprints to your project objectives and goals. Over a 12-week period, the responsibilities in each module, the development team, and the project completion may be arranged as follows:

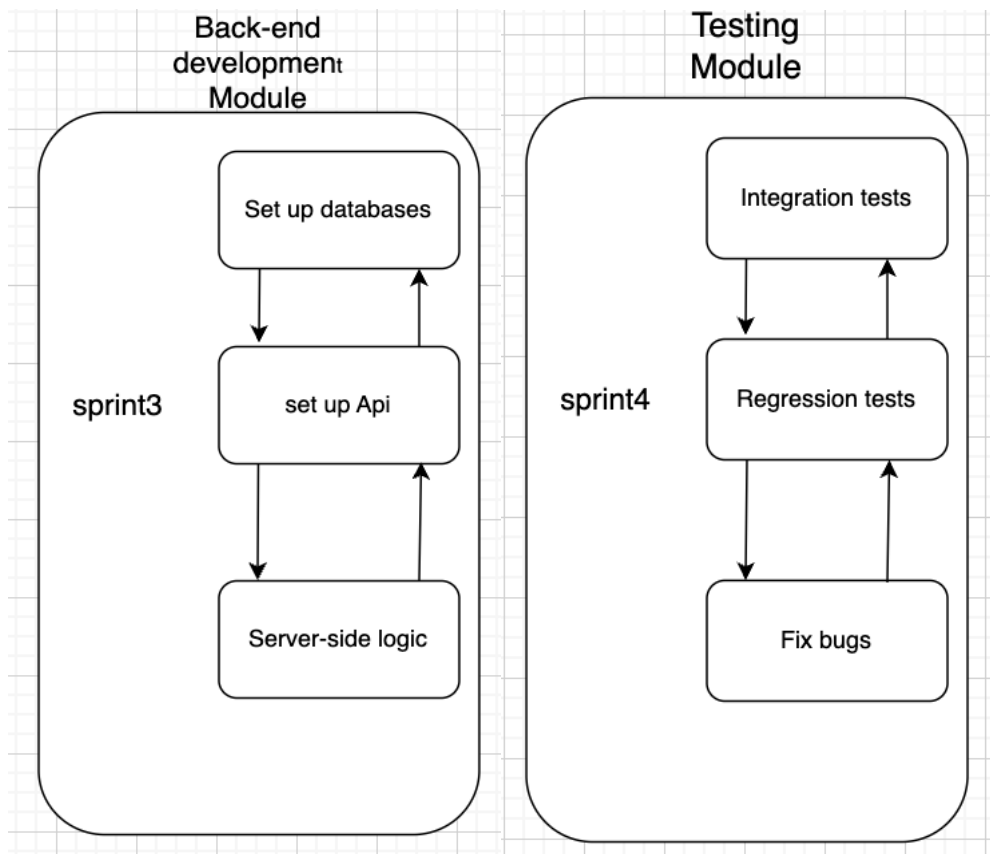
12-Week Agile Timetable for Project Finalization: Details of the Extended Sprint



Sprint 1-2: Designing UI/UX for the Website (Weeks 1–4)

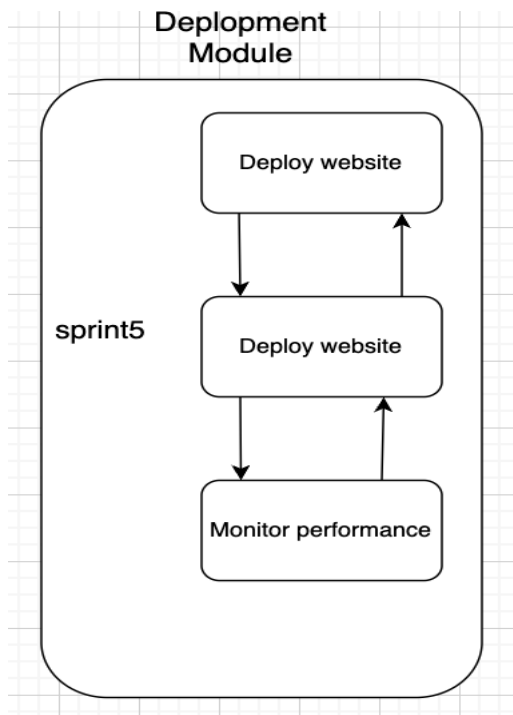
Establish comprehensive wireframes and mockups for the website's UI and UX. For the typeface, color scheme, and other visual elements, provide explanations.

Assemble user stories before adding them to the queue.



Sprint 3-4: Build the front end of the website (Weeks 5-8)
Implement the UI and UX ideas developed in the first sprints.
Create reusable components and templates.

Verify if the design is cross-browser compatible and responsive.

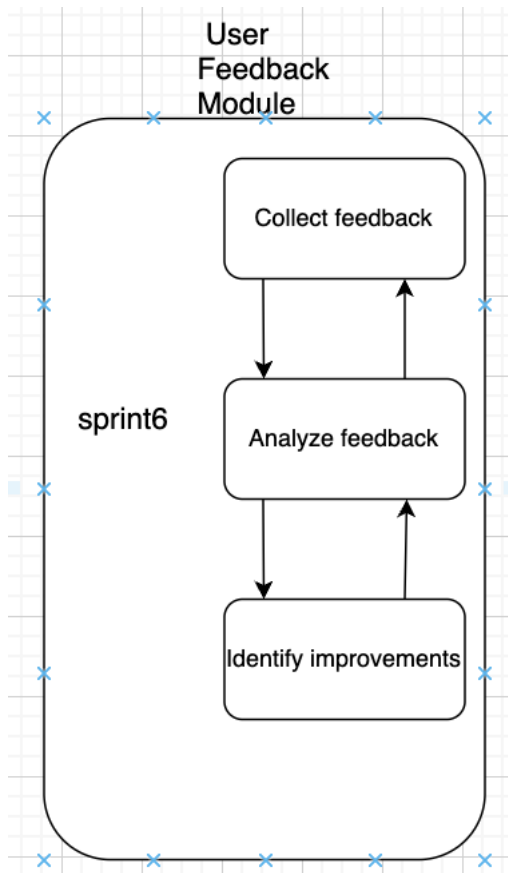


Sprint 5: Construct the Back End of the Website (Weeks 9–10)

Linkages and database schema should be established.

Implement logic and server-side APIs.

Attach the systems' front and back ends together.

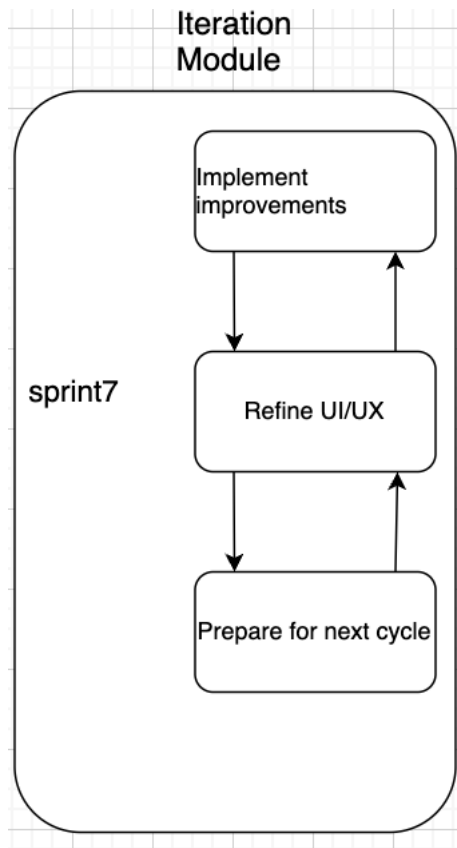


Sprint 6: Check and make changes to the website (Week 11)

Test for functionality, integration, and regression.

Investigate and fix any issues that surfaced throughout the test.

Check to see whether accessibility and security regulations are being followed.



Sprint 7: Open the Website and Take User Feedback (Week 12)

Open a live version of the webpage.

Monitor user activity and the functionality of the website.

Use surveys, interviews, or analytics to find out what users think.

After Implementation: Continuous Improvement

In reaction to user feedback, update and improve the website.

Analyze user feedback and provide a ranking to the improvements.

React to user feedback and analytics by implementing updates and new features.

Development Teams' Functions and Organization

Product Owner

responsible for creating priority lists for user stories, managing the product backlog, and ensuring that the development team is working on the right products.

the driving force behind the demands and goals in every sprint.

Scrum Master

ensures that the development team follows Agile best practices, removes obstacles, and supports the scrum process.

enhances team chemistry and performance at every level.

Producers

Implement the features and specs found on the website.

operational for all five of the development-focused sprints.

Testers

Verify if the website complies with quality standards.

significant duties in Sprint 6 and ongoing quality control after deployment.

Scrum Meets Revised for a Twelve-Week Timetable:

Daily Gatherings

Quick meetings to discuss the work of the day, the plan of action, and any urgent problems.

Fast Planning

There are long planning sessions to define goals and deliverables at the beginning of each sprint.

Sprint Review

Show finished work to relevant parties, get their input, and talk about the next course of action.

Sprint Reflection

Consider the sprint, talking about the achievements, difficulties, and ways to become better.

Define the sequence in which the Scrum activities—such as planning, reviews, and retrospectives—take place.

This comprehensive and expanded Agile strategy should aid in effectively managing the green grocery website's development while guaranteeing alignment with Agile techniques and productive teamwork.

5. Merit of Using Agile Concepts

Agile Concepts have a lot of benefits, all of which are consistent with the principles of GreenGrocery.com.bd.

1. **Unmatched Flexibility:** Agile methodologies provide seamless adaptation to evolving requirements and customer inclinations. Projects may be broken up into manageable iterations, which enables teams to swiftly refine and alter the finished product in response to changing specifications.
2. **Accelerated Development:** Agile's iterative technique, which is separated into brief,

focused sprints, expedites the process of developing new features. By assigning certain features or modules priority during each sprint, teams may optimize productivity and reduce time to market.

3. Enhanced Transparency and cooperation: Agile bolsters transparency and cooperation by promoting regular communication between team members and stakeholders. Clear understanding of requirements and progress is ensured by regular feedback loops, demo sessions, and daily stand-ups.

4. Improved customer contact: Agile places a high value on customer contact throughout the whole development process. GreenGrocery.com.bd constantly solicits feedback and evaluation from its clientele to ensure that its offerings precisely meet their needs and expectations, fostering a closer relationship and increased loyalty.

5. Effective Risk Management: The iterative framework and gradual development of agile effectively minimize project risks. Timely detection of issues and prompt resolution mitigate risks and ensure the provision of a trustworthy, superior product that effortlessly meets customer requirements.

Section – B High Level Requirement Analysis using MOSCOW Rules:

B1: Base line requirement Review

B1.1 ->Given Requirement Analysis using Moscow Rules (Table 1)

ID	Requirement List	Moscow Rules Applied	Reasons
1	As an Order Handling Clerk, I want to use the website to process telephone purchases, replacing the paper-based system.	Should have	Increasing the effectiveness of telephone order processing is essential while transitioning from a paper-based to a digital system in order to guarantee smooth operations for Order Handling Clerks.

2	Maintain at least 20 office plants as part of the company's commitment to a green and healthy workspace.	Should have	Many different plant species contribute to the company's sustainability goals and provide a vibrant, health-conscious work environment.
3	As a customer, I want to be able to change my account details to ensure my most up-to-date information is recorded.	Should have	Ensuring the preservation of correct and secure client information is ensured by including user-friendly processes for updating account details, such as password resets.
4	Organize a virtual celebration on the website for the CEO's birthday to showcase the company's fun and friendly culture.	Could Have	Although it is not as important as other operational tasks, organizing a virtual birthday party for the CEO might encourage a sense of camaraderie and teamwork.
5	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.	Should have	Stringent data protection protocols need to be put in place in order to guarantee adherence to the Data Protection Act, guard against monetary penalties, and foster customer trust.
6	As a customer register an account.	Must Have	A quick and secure user registration process serves as the foundation for customer contact and the creation of customized experiences on the platform.
7	As a Customer I want a choice of delivery slots so that I can arrange my diary appropriately.	Should have	By giving clients the option to choose from a variety of delivery times, you may better serve them by giving them

			the freedom to plan their schedules.
8	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.	Must have	The flexibility to allow customers to rearrange the items in their shopping carts is essential for a flexible and user-centered shopping experience that facilitates last-minute buying decisions.
9	The company should adopt pet-friendly policies to create a positive and inclusive work environment.	Won't Have	The implementation of pet-friendly rules may boost staff morale, but creating a welcoming environment shouldn't come before the prompt installation of full-service pet care.
10	The system must be designed to handle a 30% increase in traffic during peak periods without degradation in performance.	Must have	A 30% increase in traffic during peak hours must be handled by the system in order to maintain performance standards and user satisfaction.
11	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.	Could Have	Encouraging customers to choose alternate delivery and billing addresses satisfies a range of customer needs and improves convenience when items are delivered or received at separate locations.
12	As a Customer I want to be able to change my account details so that my most up to date details are recorded.	Must have	Facilitating the process for users to update their account details ensures that the system has accurate and up-to-date user data, which supports a secure and

			personalized user experience.
13	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.	Must have	Order handling clerks' operational efficiency and accuracy increase when the telephone purchasing process is digitalized and they are no longer dependent on paper-based methods.
14	As a customer, I want to choose whether or not I am sent marketing information to avoid receiving excessive junk mail.	Must have	Giving customers the option to opt out of receiving marketing materials is in line with data protection requirements and respects their choices.
15	All user data, including personal information and payment details, must be encrypted to ensure the highest level of security.	Must have	Ensuring that all user data, including sensitive financial and personal information, is encrypted and offering the highest level of security is essential.
16	Maintain consistent branding elements and design across the website to reinforce their brand identity.	Must have	For the purpose of developing a unified brand experience that increases user awareness and trust, uniform branding and design are essential throughout the website.
17	The development team should participate in a team-building event every quarter to foster collaboration and a positive work environment.	Could have	Regular team-building activities may contribute to a positive team dynamic and collaboration, even when they are not directly linked to the immediate success of development projects.

18	As the Marketing Director I would like an offers or discount page so that we can inform our customers of the aforementioned.	Must have	A section with exclusive deals and discounts is necessary to properly convey value propositions to customers, boost engagement, and boost sales.
19	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.	Must have	Strict adherence to VAT legislation and accurate tax calculations on transactions are essential for maintaining financial compliance and avoiding significant penalties.
20	As the Operations Director, I want to accept all forms of payment to capture the largest market possible.	Must have	Expanding market reach and enhancing transaction convenience are achieved by providing a wide choice of payment methods, which cater to a variety of client preferences.

B1.2 -> Updated high level functional requirement

ID	High level Functional Requirement	Moscow Rules	Justifications/Recommendations
1	Telephone Purchase Processing	Must Have	Will order handling clerks be able to use the platform to input and manage phone transactions via the internet
2	Office Plants Maintenance	Could Have	Can the platform sustain a minimum of 20 office plants, promoting a green and healthy work environment that enhances morale, productivity, and well-being among employees
3	Account Details Modification	Must Have	Is it possible for users to update their account details, such as name, email address, phone number, and shipping address, on the platform in order to ensure data correctness and enhance user experience

4	Delivery Slot Selection	Should Have	Can users pick from a variety of available time slots that fit their schedules and preferences on the site, providing them with flexibility in the delivery slot selection process
5	Shopping Cart Modification	Must Have	Can users of the platform change the quantity of items in their basket, add or remove items from their shopping cart, and change their order before checking out
6	Payment Method Flexibility	Must Have	Acceptance of all main payment methods by the platform would increase the clientele for the business, increase conversion rates, and optimize income potential.
7	Offers and Discounts Display	Should Have	Would the platform be able to tell users about special deals, discounts, and promotions This would encourage purchases and improve user engagement and loyalty.
8	User Data Encryption	Must Have	Can the platform encrypt all user data, including personal information and payment details, ensuring the highest level of security and protecting sensitive information
9	Real-time Order Tracking	Could Have	Is it possible for the platform to provide real-time order tracking features that boost productivity, lower mistake rates, and improve order processing procedures
10	Website Design	Must have	Can the platform maintain consistent branding and design elements across the website to make the brand more recognizable and build user familiarity and trust

B2: Timebox Rules for the Updated High Level Functional Requirements:

B2.1: ->Prioritization for the List of requirements

ID	Updated High Level Functional Requirements	Priority Levels(High or Moderate or Low)	Time scale	Assign to who
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1	Telephone Purchase Processing	Priority Level: High	12 days	Main Developer: Peter Testing/Support: Pat
2	Account Details Modification	Priority Level: High	15 days	Main Developer: Anita Testing/Support: Cheryl
3	Shopping Cart Modification	Priority Level: High	14 days	Main Developer: Millie Testing/Support: Peter
4	Payment Method Flexibility	Priority Level: High	14 days	Main Developer: Cheryl Testing/Support: Pat
5	Offers and Discounts Display	Priority Level: High	12 days	Main Developer: Anita Testing/Support: Millie
6	User Data Encryption	Priority Level: High	8 days	Main Developer: Cheryl Testing/Support: Anita
7	Delivery Slot Selection	Priority Level: Moderate	4 days	Main Developer: Peter Testing/Support: Cheryl
8	Real-time Order Tracking	Priority Level: Moderate	4 days	Main Developer: Millie Testing/Support: Pat
9	Website Design	Priority Level: Moderate	5 days	Main Developer: Anita Testing/Support: Millie
10	Office Plants Maintenance	Priority Level: Low	2 days	Main Developer: Pat Testing/Support: Peter

WEEKLY TIME BOXING TEMPLATE

PLANNING

	HIGH LEVEL PRIORITIES	TIME NEEDED	NOTES
1	Telephone Purchase Processing	12 days	Coordination: Coordinate with Customer Service and Peter for workflow integration. Testing: Pat supports integration testing in the final week. Compliance: Ensure compliance with telecommunication regulations.
2	Account Details Modification	15 days	Security Review: Anita collaborates with the Security Department for compliance checks. UI/UX Design: Design and prototype user interface with input from Cheryl. Feedback Loop: Incorporate user feedback from pilot testing.
3	Shopping Cart Modification	14 days	Stakeholder Engagement: Millie to engage Marketing for promotional strategy integration. Testing: Peter assists in allocating the third week for feature testing. Performance Metrics: Define and measure success metrics with Marketing Manager.
4	Payment Method Flexibility	14 days	Vendor Negotiation: Cheryl contacts payment service providers for fee negotiations. Integration: Establish secure payment gateways with Pat's support. Compliance: Ensure PCI DSS compliance for all payment methods.
5	Offers and Discounts Display	12 days	Data Sourcing: Anita obtains promotional data from Business Development. Design: Millie creates engaging promotional banners. A/B Testing: Plan for A/B testing to optimize user engagement.

6	User Data Encryption	8 days	Legal Compliance: Cheryl ensures GDPR compliance. Security Testing: Anita schedules rigorous security testing. Encryption Standards: Implement industry-standard encryption methods.
7	Delivery Slot Selection	4 days	Logistics Coordination: Peter collaborates with logistics partners for API integration. User Testing: Cheryl conducts user acceptance testing for slot selection functionality.
8	Real-time Order Tracking	4 days	API Integration: Millie integrates with logistics partner APIs for real-time data. UI Design: Pat supports the design of a user-friendly tracking interface. Stress Testing: Ensure scalability under high traffic.
9	Website Design	5 days	Trend Analysis: Anita researches current design trends. User Feedback: Millie implements A/B testing with target user groups. Accessibility: Ensure web design is accessible to all user groups.
10	Office Plants Maintenance	2 days	Vendor Coordination: Pat schedules maintenance with plant service providers. Environment: Ensure alignment with office environmental standards. Employee Wellbeing: Consider employee preferences for workplace greening with input from Peter.

SCHEDULE

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 AM					
8:30 AM					

9:00 AM					
9:30 AM					
10:00 AM					
10:30 AM					
11:00 AM					
11:30 AM					
12:00 PM		Lunch break			Lunch break
12:30 PM					Lunch break
1:00 PM	Lunch break				
1:30 PM			Lunch break	Lunch break	
2:00 PM					
2:30 PM					
3:00 PM					
3:30 PM					
4:00 PM					
4:30 PM					
5:00 PM					
5:30 PM	after shift	after shift	after shift	after shift	after shift

Step 1: Calculate Total Available Work Hours

Each working day has 8 hours, working 5 days a week. For 90 days:

- Number of working weeks:

$90/7 \approx 12.86$ weeks (rounded down because there cannot be a fraction of a work week).

- Since only 5 working days per week are counted, the actual total number of working days:

$12 \times 5 = 60$ days.

- Total available working hours:

$60 \times 8 = 480$ hours.

Step 2: Calculate Total Hours Required for Each Job

Based on the information you provided, calculate the total number of hours needed for each job:

- Telephone Purchase Processing: 12 days $\Rightarrow 12 \times 8 = 96$ hours;
- Account Details Modification: 15 days $\Rightarrow 15 \times 8 = 120$ hours;
- Shopping Cart Modification: 14 days $\Rightarrow 14 \times 8 = 112$ hours;
- Payment Method Flexibility: 14 days $\Rightarrow 14 \times 8 = 112$ hours;
- Offers and Discounts Display: 12 days $\Rightarrow 12 \times 8 = 96$ hours;
- User Data Encryption: 8 days $\Rightarrow 8 \times 8 = 64$ hours;
- Delivery Slot Selection: 4 days $\Rightarrow 4 \times 8 = 32$ hours;
- Real-time Order Tracking: 4 days $\Rightarrow 4 \times 8 = 32$ hours;
- Website Design: 5 days $\Rightarrow 5 \times 8 = 40$ hours;
- Office Plants Maintenance: 2 days $\Rightarrow 2 \times 8 = 16$ hours;

Step3: Calculate the Percentage of Time Required for Each Task

- Telephone Purchase Processing: $(96/480) \times 100 = 20\%$
- Account Details Modification: $(120/480) \times 100 = 25\%$
- Shopping Cart Modification: $(112/480) \times 100 = 23,33\%$
- Payment Method Flexibility: $(112/480) \times 100 = 23,33\%$
- Offers and Discounts Display: $(96/480) \times 100 = 20\%$
- User Data Encryption: $(64/480) \times 100 = 13,33\%$
- Delivery Slot Selection: $(32/480) \times 100 = 6,66\%$
- Real-time Order Tracking: $(32/480) \times 100 = 6,66\%$
- Website Design: $(40/480) \times 100 = 8,33\%$
- Office Plants Maintenance: $(16/480) \times 100 = 3,33\%$

Step 4: Create a Percentage-Based Plan

Based on the percentage of time needed for each task calculated above and assuming 40 work hours per week, we can create a percentage-based schedule to divide the weekly time for each task:

- Telephone Purchase Processing: 20% of 40 hours = 8 hours/week
- Account Details Modification: 25% of 40 hours = 10 hours/week
- Shopping Cart Modification: 23.33% of 40 hours \approx 9.33 hours/week
- Payment Method Flexibility: 23.33% of 40 hours \approx 9.33 hours/week
- Offers and Discounts Display: 20% of 40 hours = 8 hours/week
- User Data Encryption: 13.33% of 40 hours \approx 5.33 hours/week
- Delivery Slot Selection: 6.66% of 40 hours \approx 2.66 hours/week
- Real-time Order Tracking: 6.66% of 40 hours \approx 2.66 hours/week
- Website Design: 8.33% of 40 hours \approx 3.33 hours/week
- Office Plants Maintenance: 3.33% of 40 hours \approx 1.33 hours/week

B2.2 ->Explanation about Prioritizing the Requirements and the Decision taken for the Green Groceries Online Platform (Explanation about 500 -750 words)

The following is an ordered list of the ten essential functional criteria for the Green Grocery Online Platform:

1. Telephone Purchase Processing: This function is essential for allowing order handling clerks to enter and handle phone transactions over the internet. It lowers the possibility of mistakes and guarantees effective order management.

2. **Modification of Account Details:** This feature lets users amend their account information, improving user experience and guaranteeing data correctness. Retaining consumer pleasure and trust is crucial.
3. **Shopping basket Modification:** With this option, clients may amend their order, add or delete things, and adjust the number of goods in their basket before checking out. Conversion rates are raised and the user experience is improved overall.
4. **Flexibility in Payment Methods:** By accepting all popular payment methods, this feature increases the client base, boosts conversion rates, and optimizes income potential. Gaining a greater market share and optimizing earnings are crucial.
5. **Offers and Discounts Display:** Customers may learn about promotions, discounts, and exclusive offers via this feature, which encourages purchases and improves customer engagement and loyalty. It is crucial for attracting clients and increasing revenue.
6. **User Data Encryption:** With the help of this function, all user data is encrypted, offering the greatest degree of security and safeguarding private data. It is necessary to maintain data privacy and adhere to security standards.
7. **Flexibility in Delivery Slot Selection:** This feature gives clients the option to pick from a variety of time windows that work with their schedules and preferences. In order to handle orders more accurately and efficiently, it is crucial.
8. **Real-time Order Tracking:** This feature allows for real-time order tracking, which boosts productivity, lowers mistake rates, and enhances order processing procedures. It is necessary to guarantee timely delivery and maintain a high standard of customer service.
9. **Website Design:** By preserving standardized branding components and website design, this feature strengthens brand identification and fosters user trust and recognition. Maintaining a polished and user-friendly website is crucial.
10. **Office Plant Maintenance:** By keeping at least 20 office plants in good condition, this feature promotes a healthy, green work environment that boosts morale, productivity, and well-being among employees. It is crucial for fostering a safe and effective workplace.

Section -C

C1. Should Write Four parts in this section.

Legal, social, ethical, and professional concerns (LSEPI) are summarized as follows in management: In order to ensure project success, ethical compliance, and legal and regulatory compliance, it is imperative that Legal, Social, Ethical, and Professional Issues (LSEPI) be taken into consideration while building software for green groceries. Various elements are included in these calculations:

C1.a) Legal issue explanation with one case study example

Legal Issue Explanation with Case Study Example:

- Legal Concerns: Compliance with data protection laws such as GDPR is crucial to avoiding legal issues and maintaining the trust of consumers. Requirement 5 highlights how crucial it is to connect the website with the Data Protection Act in order to minimize legal concerns.
- Using a single case study example to explain legal issues: Legal Issue: Adherence to Data

Protection: An elucidation Maintaining customer trust and avoiding legal repercussions require strict respect to data privacy laws, such the GDPR. Noncompliance with these standards may result in severe fines and damage to the business's image.

-An example of a case study: Modern data security techniques were included into Green Grocery throughout development to ensure GDPR compliance.

As an alternative, consider Zara, who highlighted the need of early compliance initiatives by introducing a similar capability in their app and triggering GDPR exams.

C1.b) Social issue explanation with one case study example

-Social problems: Addressing social problems requires promoting sustainability and inclusivity. Requirement 7 emphasizes the need of providing various delivery slots in order to meet a broad variety of customer requests and timetables. The creation of regulations that welcome pets is the focus of requirement 9.

-A description of a societal issue based on a solitary case study: Inclusivity and Sustainability as Social Issues Justification: Addressing social concerns requires the firm to prioritize sustainability and inclusivity in its operations and policies. This means implementing environmentally responsible procedures and cultivating a welcoming environment for diverse groups at work.

-An illustration for a case study: A green grocery store that was selected for its recyclable packaging and locally sourced, sustainable products.

-Model: Ben & Jerry's commitment to environmental sustainability and integrity is shown by their sustainable ingredient sourcing practises.

C1.c) Ethical issue explanation with one case study example

-Ethical Issues: Respecting customer preferences and avoiding intrusive marketing strategies are two instances of moral behavior. Requirement 14 emphasizes the need of providing customers with options about how to handle marketing messages. The need of data encryption for safeguarding personal information and preserving customer trust is further highlighted by requirement 15.

-As an example, Green Grocery uses explicit data standards to offer customers control over their marketing communications.

-As an example, DuckDuckGo limits the collection and sharing of personal information to safeguard user privacy.

C1.d) Professional issue explanation with one case study example

-Professional Issues: It's essential to adhere to professional standards and best practices in software development. Requirements 17 and 19 stress the need of participating in professional development activities and abiding by applicable laws, regulations, and organizational standards.

The Green Groceries team's ongoing professional development programs serve as an illustration of this, ensuring that their goods adhere to industry standards.

LinkedIn is a prime example of a company that values career development and stresses the need of making continuous investments in professional growth. The availability of online courses to enhance skills demonstrates this.

These examples demonstrate how managing LSEPI appropriately lowers risk throughout the development of Green Grocery software while also enhancing the project's overall integrity and value.

In the context of software development for Green Groceries, these images underscore the need of suitably addressing legal, social, ethical, and professional issues and provide insights into how these difficulties manifest in real-world scenarios.

C2. Discuss the BCS Code

BCS concerns pertaining to computing: Upholding morality and professionalism in the industry. The BCS Code of Conduct provides a framework for making decisions that prioritizes the public interest, professional competence and integrity, responsibility to relevant authorities, and duty to the profession. Requirements 10, 15, 19, and 17 align with these principles in many ways, such as adhering to relevant laws and regulations, safeguarding data, encrypting information, prioritizing the public interest, and taking part in professional development activities.

C2.a) Introduction to the professional body of the BCS code.

Upholding professional ethics, promoting professional competence, and having a good social influence are the main objectives of BCS, the Official Institute of Information Technology, the leading professional body in IT. Working IT professionals are directed by Their Code to behave in a manner that is both ethically and professionally acceptable.

C2.b) Public Interest

When the "Green Grocery Online Platform" is created, the "Real-time Order Tracking" feature is included to enhance user experience and reduce waste in the chain application, supporting sustainability goals. In keeping with BCS's Public Benefit idea, this promotes a more sustainable society.

C2.c) Obligations to Relevant Authorities

Green Grocery's CEO and System Concepts' Cheryl work together to establish the project's objectives and goals, ensuring that the project follows a methodical procedure and reflects Green Grocery's values. BCS aims to make decisions that are best for the business.

C2.d) Obligations to the Profession

As a certified Agile Project Manager and Workshop Facilitator, Green Grocery's Marketing Director offers the Systems Concepts Development Team valuable experience and knowledge. The project's ability to provide continuing education and raise professional standards is strengthened by this activity, which also reflects the obligations to the profession under the BCS.

C2.e) Competence and Professional Integrity

Even though Pat from System Concepts can only work on the project part-time, her dedication to the highest standards of security and quality reflects the competence and professional integrity ideals of BCS. By doing this, openness and consumer responsibility are maintained, and every technological product is guaranteed to meet or above industry standards.

An Example of How an Online "Green Groceries" Platform Uses the BCS Code of Conduct for Community Benefit.

The "Green Groceries" online platform's development team decided to include a feature that allows consumers to track an item's origins from the point of manufacture to their dinner table. In addition to boosting transparency and consumer trust, this feature demonstrates a commitment to the common good by assisting regional farmers and promoting sustainable agricultural practices.

Obligations to Relevant Authorities

The development team and potential customers participated in workshops led by Jane, the "Green Groceries" project manager, to identify the platform's most crucial features. In accordance with the Duty to Relevant Authorities idea, Jane ensures that every decision is taken with the company's and the end user's best interests in mind.

obligations to the field of work

Ahmed, one of the software engineers in the team, frequently trains colleagues on sustainable software development methods and upcoming technologies via internal seminars. This tactic not only broadens the group's professional knowledge but also demonstrates the members' commitment to continuing their professional development and obligation to the profession.

Competency and Professional Integrity

Maria, the leader of the information security team, discovered a potential security hole in the product while it was still being created. She promptly informed project management of the issue and recommended postponing the product's release until corrections could be made. Making user safety the first concern and maintaining professional ethics are shown by this decision.

Conclusion

Throughout the three-month "Green Groceries Online Platform" project, we used the Agile methodology efficiently, which increased our operational effectiveness and enabled us to swiftly adapt to client requests and market developments. We integrated user feedback into a series of Sprints that were implemented, each focusing on critical components such as UI design, backend development, testing, and deployment, with the goal of continuously improving the product.

A Product Owner, Scrum Master, Developers, and Testers comprise our diligent development team, who collaborate effectively to create a reliable, user-friendly online shop that showcases our commitment to sustainability and environmental responsibility. The Scrum sessions encouraged honesty, transparency, and creativity from the Sprint Planning to the Sprint Retrospective, which ultimately aided in the production of exceptional results.

In addition to offering a speedy and secure shopping experience, the "Green Groceries Online" platform promotes environmental protection and a green lifestyle. In addition to being proud of what we have accomplished, we are committed to ongoing innovation and development to better serve our customers, broaden our positive social impact, and support environmental sustainability.

In addition to the project's achievements, we have identified a few areas for improvement:

enhancing channels of communication inside the group and with outside partners to ensure a more effective flow of information and feedback.

providing more resources and training to the development team in order to keep them up to date on industry best practices and new technologies.

To effectively satisfy user expectations and enhance the platform, more time should be allocated to user testing and feedback collection.

Our goals are to enhance user experience, support our development strategy, and position ourselves as an innovative and trustworthy leader in the organic grocery sector by concentrating on these areas.

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