IT Project Management & Entrepreneurship

Course Code: 5112

Project Proposal Report

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Greeneries

Chapter 1: Introduction

Green Beginnings!

In our busy cities, people are craving a touch of nature more than ever. We all want some greenery in our lives like indoor plants, outdoor flowers, tools for our little gardens. That's where my idea comes in: a shop that's not just about selling plants, but about bringing nature's beauty right to your doorstep.

The mission is simple: to make it effortless for you to discover and nurture your favorite plants. Whether you're passionate about native landscaping, mesmerized by colorful flowers or enchanted by decorative houseplants, my app will be your go-to destination. My plan is to create a cozy place where you can find special plants and cool tools for your home garden. And it's not just about selling stuff, I want to help you even after you've bought something with tips and services to make your green friends thrive.

But I'm not stopping virtual browsing. I'm also opening a physical nursery where you can see, touch and smell the plants before you take them home. It's my way of bringing the magic of the natural world closer to you. And it doesn't end there. Once you've chosen your plants me & my team will be there for you every step of the way, offering after-sale services and assistance to ensure your plants thrive in their new environment. Because I believe that buying plants should be just the beginning of a beautiful journey. But my business is about more than just plants—it's about people, too. By promoting jobs in the plant industry, we're not only growing our business, but also cultivating a new generation of green enthusiasts. And by offering support and guidance, we're empowering everyone to embrace their inner gardener with confidence.

But the most important thing about our business is that we want to make a positive impact on the world. By using new ideas and technology in the plant industry, we're not just helping the planet stay healthy, but also making the world's economy stronger.

I'll make the following contributions in my project:

- Educate customers about the value of plants in various industries such as agriculture, horticulture, and landscaping.
- Conduct a Customer-Centric Approach like survey to understand customer's preferences and requirements regarding plants. Customize our offerings according to customer feedback to guarantee satisfaction and authenticity.
- Online Platform for Buying and Selling: Provide a user-friendly mobile application and website for convenient online plant shopping. Offer a diverse range of plants to cater to different tastes and needs.
- Arrange training sessions on agriculture and technology to empower customers with knowledge and skills.
- Competitive Mobile App Market: Acknowledge the highly competitive nature of the mobile app market with millions of apps available on Google Play and Apple's App Store. My approach is to ensure the importance of choosing a cost-effective approach to app development while ensuring quality and functionality.

Chapter 2: Detailed Description of the project

I'm starting a new business called "Greeneries" that focuses on delivering unique indoor and outdoor plants, flowers and gardening tools. We'll have a mobile application where you can easily find and buy your favorite plants. My goal is to show people how important plants are for our planet and our economy. **'Greeneries'** is an app where you can buy indoor and outdoor plants easily from sellers. You can also get help with planting. It's useful for plant lovers and sellers to connect and trade plants at fair prices. My project is made for commercial use. Many people in cities don't have access to plants from rural areas and rural farmers struggle to reach customers. Some Facebook pages sell plants, but they're not always trustworthy in price and quality. To fix this, we're introducing 'Greeneries' for plant enthusiasts, creating a reliable platform for buyers and sellers. Users can also get planting tips from our experts.

2.1 Identify Project Categories and Criteria

As I am building a startup company, various issues have come out to implement these projects. Various concepts in different categories are discussed in this phase but I've decided not to choose any complex project initially. Because Bangladesh is a small country with limited resources and various issues. I focused mainly on problems related to the environment or impact on the climate. I want to solve climate related issues like global warming in our country. And with this hope I've categorized my project concepts into four types. In short, I split the projects into derivative, platform, breakthrough, or technological advanced and research & development initiatives. A project is significantly easier to manage when it is categorized or segmented into groups. And that's how based on the time value of money and priority I came up with a project among them. Additionally, criteria are established for each area to differentiate between outstanding and superior actions.

Derivative Projects
These projects usually seek to replace or enhance existing approaches (lower-priced version, upscale version).

Platform Projects
The outcomes of these initiatives are expected to differ significantly from previous offers in terms of the product/service itself, as well as the method of production and distribution. They act as "systems" for the future generation of corporate services.

Breakthrough projects
Platform initiatives are less likely than breakthrough projects to use cutting-edge ideas. The company may have been working on a well-known "disruptive" technology for a while. Instances of breakthrough projects include transmission of data, funds pension systems, and gasoline-electric hybrid vehicles.

R & D projects
Research and development, also known as R&D, the process through
which a business creates new information that it may use to build new technologies, products, services, or systems that it will either employ internally or sell is known as research and development, or R&D. Before starting production, a business performs operations or tests its products or services. It happens throughout a product or service's research and development (R&D) phase to increase its efficiency.

2.2 Collect Project Data

Existing Products & Features: Physical plant shop
Products: Mobile app and website.
Features: Encourage people in planting, and offer highly demanded plants at a reasonable price
Platform Opportunities: There are a few platforms available that manage online plant selling and anyone can buy and sell plants online, staying on their premises.
Possible new products or services: Organize free plant distribution campaign.
Services: Arrange training sessions both on agriculture and technology; Collaborate with several gardening businesses and recruit as many young and experienced people as possible.

2.3 Core questions

There are 4 (four) core questions that can arise for my project which I tried to answer.

Q1. Why should our biz venture, named "Greeneries Co.", exist?

Answer: Greeneries should exist to encourage people in planting which offers highly demanded unique & useful plants easily at a reasonable price and in an authentic way. It improves the image of agriculture and plant-related jobs among youth and provides after-sales service.

Q2. What are the few inherently essential things that we won't compromise on?

Answer:

- Treating all customers with courtesy, dignity, and respect
- Ensuring honesty and fairness in all actions.
- Ensuring good quality products.
- Consistently delivering on commitment.
- Not compromising with customers' trust.
- Taking the proper precautions for safety.

Q3. Where do we want to go in the next 5 to 10 years?

Answer: In the next 5 years, our plan is to have at least a hundred thousand target customers who will buy trees constantly. To increase the skilled workforce in horticulture and develop a strong pipeline of future talent. To further our purpose, we cultivate and expand partnerships and collaborations. We will diversify funding sources and increase financial support to ensure project sustainability. And our goal is to double this number in the next 10 years.

Q4. What are the game plans to really go there?

Answer: Stages will contain marketing strategies to grow our business, tree plantation campaigns, free tree distribution, etc. We will break down the number of targeted customers yearly or even monthly. We will assign actions to each breakdown and analyze the output. To increase the number of customers, we will provide an after-sell service. To attract more customers, we'll provide some special offers and gifts like buy one get one offers, 10% discount to the first 10 buyers every day. We will freely adjust our plan if we learn something new, but that doesn't mean we will change the direction of our goal.

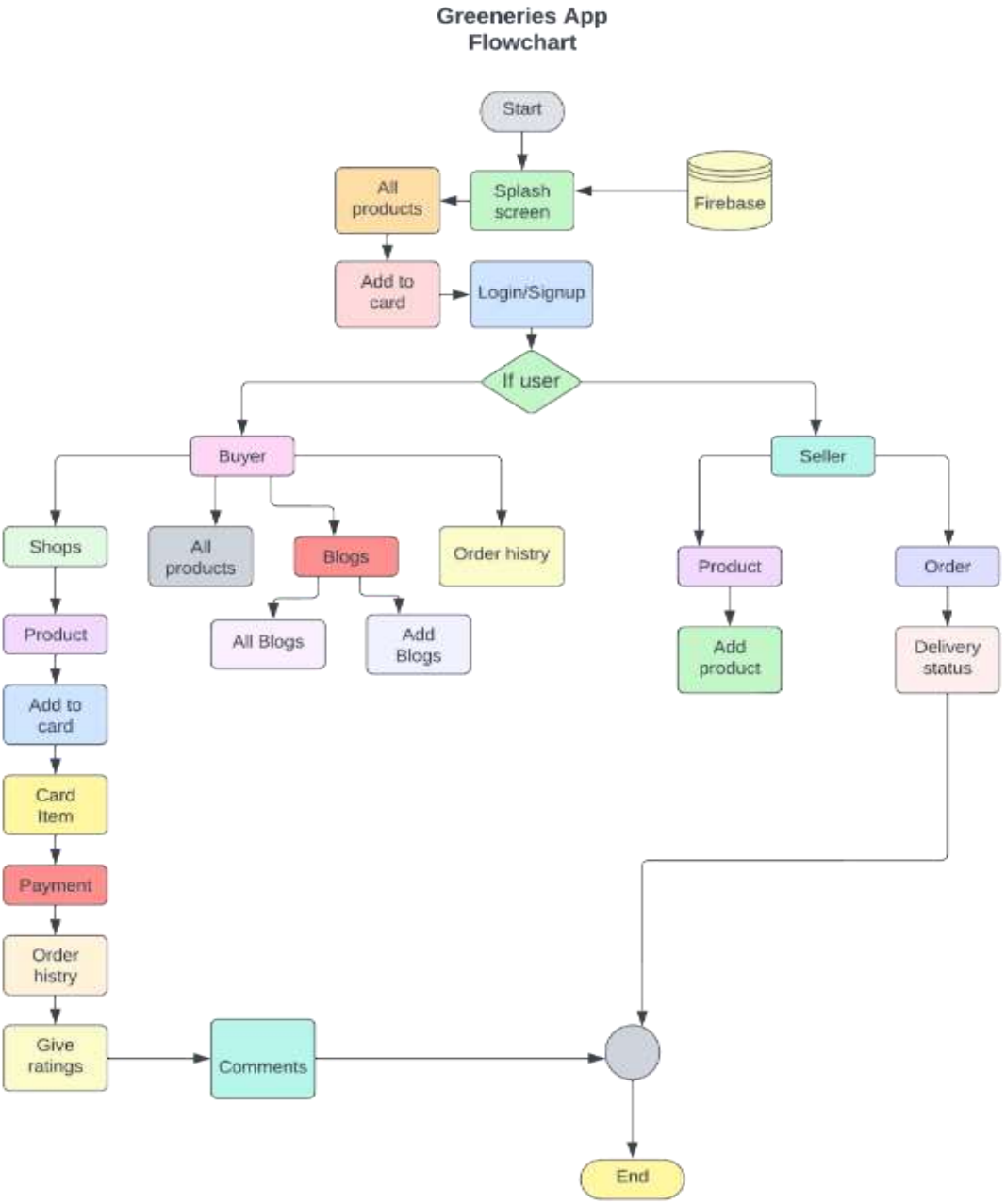

Figure 2.1 Block diagram of my proposed system.

2.4 Objective

My main aim with this project is to help people see why plants are so important for our world. To do this, I'll ask you what kinds of plants you like and make sure we offer them in the best way possible. You'll be able to buy and sell plants on our app and website. We'll also have special deals and training sessions to help you learn more about plants and gardening. By working together with other plant businesses and hiring talented people, we'll make sure our company grows and everyone gets a fair share of the earnings.

2.5 Problem Statement

In Bangladesh, where resources are limited and challenges are many, it's crucial to focus on environmental issues like global warming. Many people don't realize how important plants are for our environment and economy. Urbanites often struggle to buy plants from rural areas while rural farmers struggle to reach customers. Existing platforms for buying plants, like Facebook pages, aren't always reliable. That's why we're introducing "Greeneries" - a reliable platform for plant enthusiasts to buy and sell plants, with helpful planting tips available too.

2.6 Suggested Solution

To solve these problems, I'm launching "Greeneries" with a focus on delivering plants and raising awareness about their importance. We'll have a wide range of plants available, from indoor houseplants to outdoor flowers, along with tools for gardening in small spaces. My app will make it easy for you to buy and sell plants and we'll offer special deals and training sessions to help you learn more about plants and how to take care of them. By working together with other plant businesses and hiring talented people, we'll make sure our company grows and everyone benefits.

2.7 System Design

This system design outlines the key components and technologies involved in developing the Greeneries Android Java application, focusing on delivering a reliable, secure, and user-friendly experience for plant enthusiasts and sellers.

2.7.1 Frontend

User Interface (UI): Design using XML layouts with Material Design principles for a modern and intuitive user experience.

Activities and Fragments: Each screen or view is represented by an activity or fragment, handling user interactions and displaying data.

Navigation: Implemented using Navigation Component or custom navigation logic to navigate between different screens.

Widgets: Utilize Android UI components like RecyclerViews, Spinners, and Buttons to interact with users.

2.7.2 Backend

Server-side Logic: Develop using Java or Kotlin for handling business logic and data processing.
RESTful APIs: Implemented using frameworks like Spring Boot or Java Servlets to provide communication between the app and server.
Database: Utilize a relational database like MySQL or PostgreSQL to store user data, product information, and transaction details.
Authentication: Implement user authentication and authorization using OAuth, JWT, or Firebase Authentication to secure user accounts and data.

2.7.3 Networking

HTTP Requests: Utilize libraries like Retrofit or Volley to make HTTP requests to the server to fetch data or perform actions.

Handling Responses: Parse JSON responses from the server using JSON parsing libraries to extract relevant data.

2.7.4 Data Storage

Local Database: Use Room Persistence Library or SQLite for storing offline data such as user preferences, cached data, and app state.
Shared Preferences: Store small key-value pairs for storing user settings and preferences.

2.7.5 Security

HTTPS: Ensure all communication between the app and server is encrypted using HTTPS to protect user data.
Data Encryption: Implement encryption algorithms to secure sensitive user information stored locally on the device.

2.7.6 User Experience

Performance Optimization: Optimize app performance by minimizing network calls, caching data, and using background tasks for heavy operations.
Error Handling: Implement robust error handling mechanisms to gracefully handle network errors, server failures, and unexpected scenarios.
Accessibility: Ensure the app is accessible to users with disabilities by following accessibility guidelines and providing features like screen readers and text-to-speech.

2.7.7 Testing

Unit Testing: Write unit tests using JUnit and Mockito to test individual components and functionalities.
Integration Testing: Perform integration tests to validate interactions between different modules and components.
UI Testing: Conduct UI tests using Espresso or Appium to ensure the app's UI behaves correctly across different devices and screen sizes.

2.7.8 Deployment

Google Play Store: Publish the app on the Google Play Store for distribution to users.
Continuous Integration/Continuous Deployment (CI/CD): Set up CI/CD pipelines using tools like Jenkins or GitHub Actions for automated build, testing, and deployment processes.

Chapter 3: Business Model Canvas

Table 3.1 Business Model Canvas (BMC)

<table>
<tr>
<td rowspan="2">Key Partnerships
Manufacturers
Suppliers
Investors
Marketing companies</td>
<td>Key Activities
Advertising
Providing unique & best quality plants
Auto suggestion or recommendation of plants based on seasons
Keeping price competitive</td>
<td rowspan="2">Value Propositions
Simple ordering process
A wider range of products to choose from
Competitive Price
Rating system
Efficient payment method</td>
<td>Customer Relationships
Customer support
Personal assistance
Customer and relationship management</td>
<td rowspan="2">Customer Segments
Mass Market</td>
</tr>
<tr>
<td>Key Resources
Funding
Hardware and software equipment
Manpower
IT experts and website designer
Professional workers</td>
<td>Channels
Greeneries.com website
Greeneries application</td>
</tr>
<tr>
<td colspan="3">Cost Structure
Initial investment cost
Application maintenance
Employees’ wages
Training cost
Marketing and branding cost
Transportation cost</td>
<td colspan="2">Revenue Streams
Product sales
Membership
Advertisement on a website
Sponsorship
Commission</td>
</tr>
</table>

3.1 Key Partnership

Collaborate with manufacturers, suppliers, investors, and marketing companies to ensure a seamless supply chain and effective marketing strategy.

3.2 Key Activities

- Engage in advertising activities to promote the brand and products.
- Source and provide unique and high-quality plants to meet customer demands.
- Implement auto suggestion or recommendation features for plants based on seasons to enhance customer experience.

3.3 Key Resources

- Secure funding to support business operations and growth.
- Acquire necessary hardware and software equipment for website and application development.

- Hire skilled manpower including IT experts, website designers, and professional workers to manage operations effectively.

3.4 Value Proposition

- Offers a simple ordering process for customers' convenience.
- Provides a wide range of products for customers to choose from.
- Ensure competitive pricing to attract price-sensitive customers.
- Implement a rating system for customers to provide feedback on products.
- Offering efficient payment methods for seamless transactions.

3.5 Customer Segments

Target the mass market of plant enthusiasts and gardening hobbyists.

3.6 Customer Relationship

- Provides responsive customer support to address inquiries and resolve issues promptly.
- Offers personalized assistance to guide customers in selecting the right plants.
- Implement customer relationship management strategies to nurture long-term relationships with customers.

3.7 Channels

Utilize the Greeneries.com website and mobile application as primary channels for customer interactions and transactions.

3.8 Revenue Streams

- Generate revenue through product sales.
- Offers membership programs for additional revenue streams.
- Generate revenue through advertisements on the website.
- Secure sponsorship deals with relevant partners.
- Earn commissions through partnerships and affiliate programs.

3.9 Cost Structure

- Invest in initial startup costs including infrastructure, equipment, and technology.
- Allocate funds for ongoing application maintenance and updates.
- Budget for employees' wages to sustain daily operations.
- Invest in training programs to enhance employee skills and productivity.
- Allocate funds for marketing and branding initiatives to promote the brand and attract customers.
- Budget for transportation costs associated with product delivery and distribution.

3.10 Key Metrics

- Measure the cost of acquiring new customers.
- Assess the long-term profitability of each customer.
- Track the percentage of website/app visitors who complete desired actions.

Chapter 4: SWOT analysis

4.1 Strength

1. **Unique Business Concept:** Offering a wide range of plants and flowers with unique features and after-sale services distinguishes the business in the market.
2. **Technology Utilization:** Leveraging cross-platform frameworks like Flutter and Firebase infrastructure enhances development efficiency and reduces costs.
3. **Customer-Centric Approach:** Focusing on customer satisfaction through personalized services, training sessions, and plant recommendation features.
4. **Ownership and Confidentiality:** Ensuring ownership of source code and maintaining confidentiality of client data enhances trust and security.

4.2 Weakness

1. **Dependence on Skilled Workforce:** Relying on skilled teams for design, development, and testing may pose challenges in recruitment and training.
2. **Complex System Design:** The complexity of the system design and implementation process may lead to delays and difficulties in meeting project requirements.
3. **System Testing Challenges:** Inadequate testing procedures and resources may result in overlooked defects or functional gaps in the system.
4. **Project Delivery Risks:** Potential delays in project delivery can impact on budget constraints and diminish market competitiveness.

4.3 Opportunities

1. **Growing Mobile App Market:** The increasing demand for mobile applications presents opportunities for capturing a larger customer base.
2. **Expansion of Partnerships:** Collaborating with manufacturers, suppliers, and marketing companies can enhance product offerings and market reach.
3. **Promotional Activities:** Effective promotional campaigns can increase brand awareness and attract new customers.
4. **Market Differentiation:** Offering unique features and innovative solutions can differentiate the business from competitors and attract niche market segments.

4.4 Threats

1. **Competitive Market:** Intense competition in the mobile app market may pose challenges in gaining market share and sustaining growth.
2. **Technology Risks:** Dependence on technology platforms and tools may expose the business to risks such as compatibility issues or security vulnerabilities.
3. **Project Execution Risks:** Risks associated with project execution, such as delays, budget overruns, or quality issues, may impact the overall success of the venture.
4. **Negative Publicity:** Mishaps during promotional activities or system malfunctions can lead to negative publicity and damage the company's reputation.

Chapter 5: Competition Analysis

1. **Market Landscape:** Assess the current landscape of the plant and flower market, including competitors offering similar products and services. Identify key players, their market share, and customer demographics.
2. **Product Offerings:** Compare the range of products and services offered by competitors in terms of uniqueness, quality, and variety. Evaluate how the project's offerings differentiate from competitors and address customer needs.
3. **Technology Utilization:** Analyze competitors' technology stack and development approaches, including mobile app platforms, frameworks, and database solutions. Assess how the project's technology choices provide a competitive edge in terms of efficiency, scalability, and user experience.
4. **Customer Experience:** Evaluate the overall customer experience provided by competitors, including website/app usability, ordering process, after-sale services, and customer support. Identify areas where the project can improve or differentiate to enhance customer satisfaction.
5. **Marketing and Promotion:** Analyze competitors' marketing strategies, promotional activities, and brand positioning. Assess the effectiveness of their advertising campaigns, social media presence, and customer engagement initiatives. Identify opportunities to differentiate and capture market share through targeted marketing efforts.
6. **Pricing and Value Proposition:** Compare pricing strategies and value propositions offered by competitors, including pricing tiers, discounts, and membership benefits. Evaluate how the project's pricing and value proposition align with customer expectations and market trends.
7. **Customer Feedback and Reviews:** Gather insights from customer feedback, reviews, and ratings of competitors' products and services. Identify strengths, weaknesses, and areas for improvement based on customer perceptions and preferences.
8. **Market Trends and Opportunities:** Monitor industry trends, consumer preferences, and emerging market opportunities. Identify niche segments, untapped markets, or new product categories where the project can innovate and gain a competitive advantage.
9. **Regulatory and Legal Environment:** Consider regulatory requirements, industry standards, and legal implications that may impact the project's operations. Ensure compliance with relevant laws and regulations to mitigate risks and maintain a competitive position in the market.

5.1 Assess Resource Availability

Resource requirements matrix

To start up this business I need time management and planning, build up a strong team with educated workers and need funds to implement our plan. As I am planning to open a nursery we need to collaborate with farmers and the agriculture department. It will be a challenging platform project to implement the final product web application of fast delivery of both unique indoor and outdoor plants.

5.2 Reduce Criteria set

The fact that resources like solar energy, wind, rain, tides, waves, biomass, and thermal energy are almost constantly available in some form is a benefit of having them stored in the earth's crust. They nearly never end. But to use them, we need certain devices such as solar cells, photovoltaic cells, turbines, etc. People must be knowledgeable about these instruments, such as how they function. People will learn about things from us, and we'll also raise their awareness of the need to protect the environment. We may also use recyclable materials to construct the tools.

Chapter 6: Detailed Growth Strategy

Stages will contain marketing strategies to grow our business, tree plantation campaigns, free tree distribution etc. I will break down the number of targeted customers yearly or even monthly. We will assign actions to each breakdown and analyze the output. To increase the number of customers, we will provide an after-sell service. To attract more customers, I'll provide some special offers and gifts like buy one get one offers, 10% discount to the first 10 buyers every day. I will freely adjust my plan if I learn something new, but that doesn't mean we will change the direction of our goal.

I thought I had gathered enough information, and our organization reached the conclusion of pursuing the project "Greeneries," which was based on selling plants and providing necessary tips for tree planting.

Then my organization evaluated the results and was ready to develop a strategy to handle future opportunities and risks to their project.

1. **Market Penetration:** We'll spread the word about our app to get more people using it. Offering special deals and asking our users to tell their friends will help us grow.
2. **Development:** Let's keep making our app better by adding things like personalized tips and ideas. We'll listen to what our users say to make sure we're giving them what they want.
3. **Market Development:** We want our app to be used everywhere, so we'll make sure it's available in different places and communities. Partnering with local gardening groups will help us reach more people.
4. **Diversification:** My app won't just be about buying plants - we'll also offer tools and services to help with gardening. This way, we can give our users everything they need in one place.
5. **Lean Startup Methodology:** We'll start small and grow fast, learning from our mistakes along the way. By listening to our users and making changes quickly, we'll make sure our app is always improving.
6. **Scaling through Technology:** As more people start using our app, we'll use technology to make sure it keeps working smoothly. This means using the latest tools and software to handle all the new users.
7. **Strategic Partnerships:** Working with other businesses and experts in gardening will help us reach more people and make our app better. By teaming up with the right people, we can make sure our app is a success.

By implementing this growth strategy, the project can effectively scale operations, expand its market presence, and achieve sustainable long-term success in the competitive plant and flower industry.

6.1 Implement the Process

After observing all cases I've chosen 'Greeneries' for my main project which I will work on. I can see that I need funding, investors, and research in the business competition. To keep ahead of the competition and determine which project I should invest in and what can be more beneficial and easier for a startup, I continuously monitor environmental impacts, customers' minds, and agricultural trends. Furthermore, I highly believe that my selected project is beneficial to both customers and our environment. Also, this will be a highly advanced and user-friendly platform for users.

Chapter 7: Work Breakdown Structure to launch and carry out this project

7.1 Work Breakdown Structure (WBS)

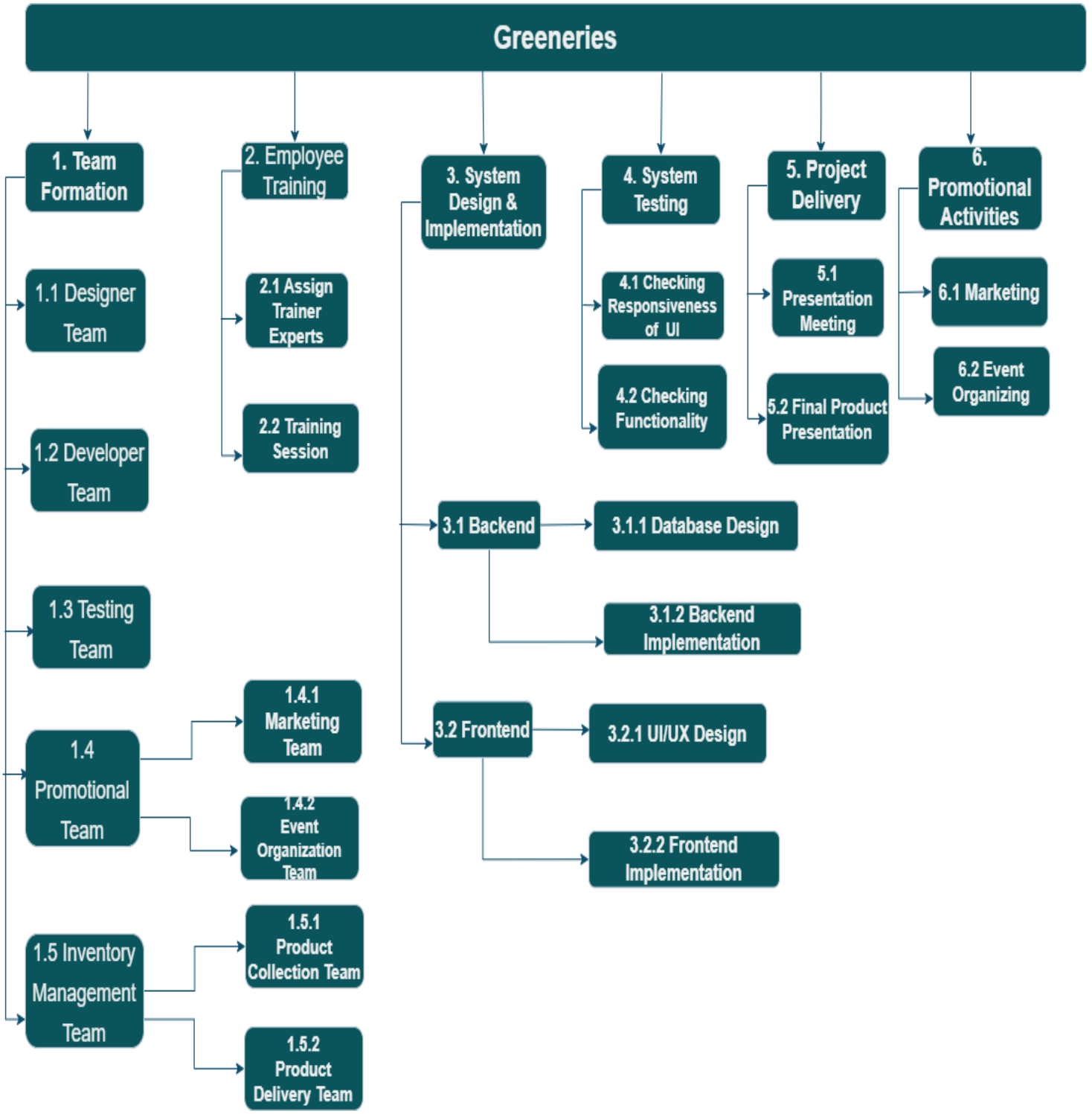

Figure 7.1 Work Breakdown Structure

Chapter 8: Pricing Strategy

To start up this business I need time management and planning, build up a strong team with educated workers and need funds to implement our plan. As I am planning to open a nursery I need to collaborate with farmers and the agriculture department. It will be a challenging platform project to implement the final product web application of fast delivery of both unique indoor and outdoor plants.

8.1 Resource requirements

Table 8.1 Resource requirements for each task

Task	Requirements
Team Formation	Skilled manpower
Employee Training	Skilled Trainer, Training Cost
System Design & Implementation	Workforce, Working Cost
System Testing	Computational Resources, Workforce, Working Cost
Project Delivery	Workforce
Promotional Activities	Promotional Costs, Banner, Creative Workers, Sponsors

8.2 Personnel

To complete this project, I need to have multiple teams like the designer team, developer team, system testing team, promotional team, and Inventory management team. I require a skilled workforce for each team formation. To get the best output, I may need to hold training sessions for design and development phases. To achieve that, I may need trainers.

8.3 WBS wise Resource Requirements and Resources wise Cost Budgeting

Table 8.2 WBS wise resource requirements and resources wise cost budgeting

Tasks	Task Description		Duration (Days)	Predecessor	Resources	Budget(Tk)
1. Team Formation	1.1 Designer Team		7	-	Skilled Workforce, Project Manager, Field Manager, Risk/Compliance Manager, General Manager (Marketing, Production), Expert Engineers	---------
	1.2 Developer Team					
	1.3 Testing Team					
	1.4 Promotional Team	1.4.1 Marketing Team				
		1.4.2 Event Organization Team				
	1.5 Inventory Management Team	1.5.1 Product Collection Team				
		1.5.2 Product Delivery Team				
2. Employee Training	2.1 Assign Trainer Experts		3	-	Human Resource	—

	2.2 Training Session		21	2.1	Human Resource, Computational Resources,	50,000
3. System Design & Implementation	3.1 Backend	3.1.1 Database Design	15	1, 2.2	Human Resource, Computational Resources	80,000
		3.1.2 Backend Implementation	15	1, 2.2	Human Resource, Computational Resources	
	3.2 Frontend	3.2.1 Ui/UX Design	60	3.1	Human Resource, Computational Resources	100,000
		3.2.2 Frontend Implementation	60	3.1	Human Resource, Computational Resources	
4. System Testing	4.1 Checking Responsiveness of UI		3	3.1-3.2	Human Resource, Computational Resources	40,000
	4.2 Checking Functionality				Human Resource, Computational Resources	
5. Project Delivery	5.1 Presentation Meeting		1	4	CEO, Project Manager, Field Manager, Risk/Compliance Manager, General Manager (Marketing, Production), Expert Engineers	10,000

	5.2 Final Project Presentation					
6. Promotional Activities	6.1 Marketing		7	5	Human Resource, Field Manager, General Manager (Marketing), Equipments (Banner,	40,000
	6.2 Event Organizing					
Total Cost						320,000

Chapter 9: Detailed Project timeline

9.1 Milestones

Table 9.1 Project milestones representing events

No	Events
1	Completed team formation.
2	Meeting with Employees
3	Workers trained
4	Completed initial phase of system Design & Implementation
5	Budget estimated
6	Found investors
7	Found sponsors for promotional Activities

9.2 Gantt Chart

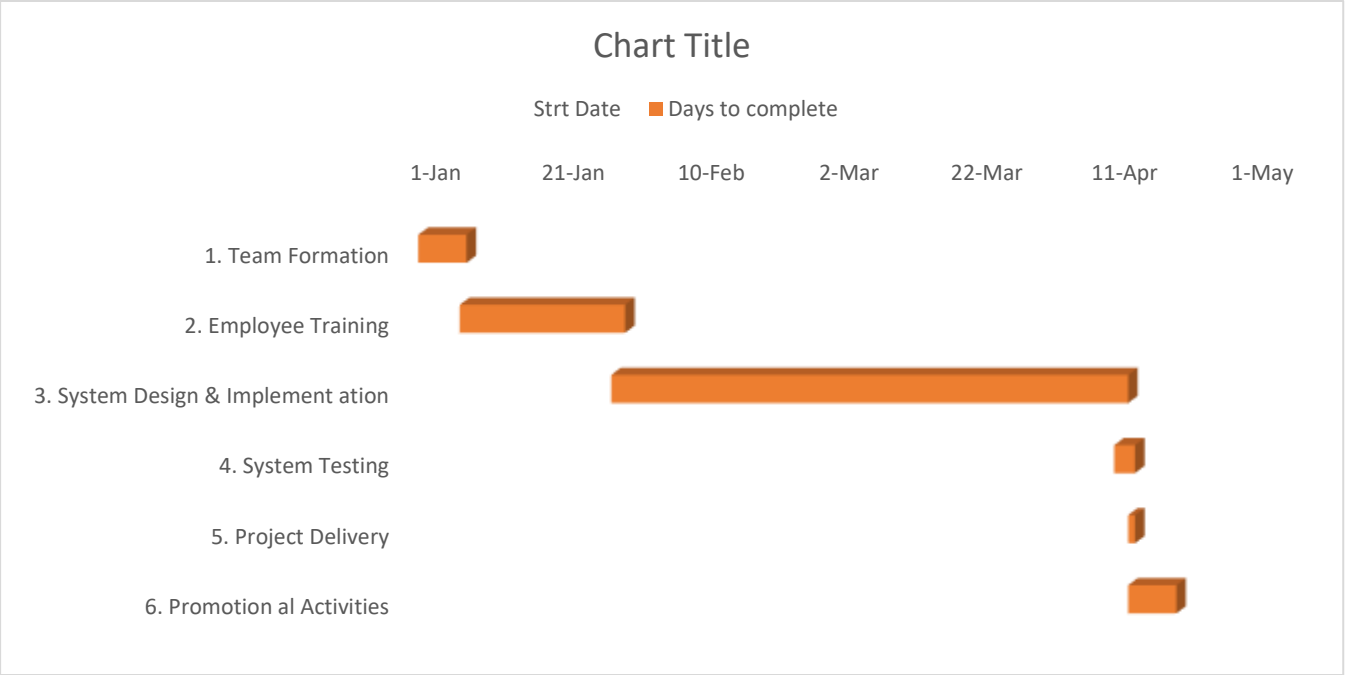

Figure 9.1 Gantt Chart

Chapter 10: User & Seller Access

10.1 User Access

- Able to view and interact with content and features.
- Limited permissions to modify or delete content.
- Typically required to register or sign in to access personalized features.
- Can submit feedback or queries but might not have access to backend management tools.
- Have access to their own profile settings for customization.

10.2 Seller Access

- Sellers can add new products, update existing ones, and remove listings.
- Access to view and manage orders, including order processing and fulfillment.
- Ability to track and update inventory levels for listed products.
- View sales data, revenue reports, and performance metrics.
- Ability to communicate with customers regarding orders or inquiries.
- Create and manage promotional campaigns or discounts for their products.
- Manage their seller profile information, including store policies and contact details.
- Access to view transaction history and manage payouts or financial settings.

Figure 10.1 ***Register User***

Figure 10.2 ***Register Seller***

Chapter 11: Features and Functionality

Greeneries is an Android app where you can buy indoor and outdoor plants easily from trusted sellers. You can also get help with planting. It's a handy place for plant lovers and sellers to connect and trade plants at fair prices. This app has multiple features:

Figure 11.2 ***Splash screen with logo***

Figure 11.1 ***Login Page***

Figure 11.3 Edit Profile seller

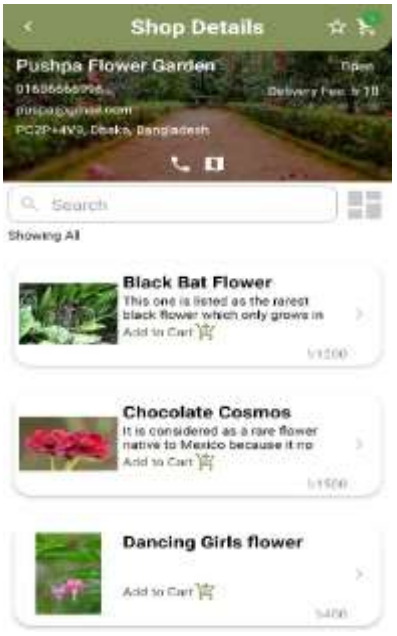

Figure 11.4 ***Shop Details Activity***

Figure 11.6 ***Add to Cart Activity***

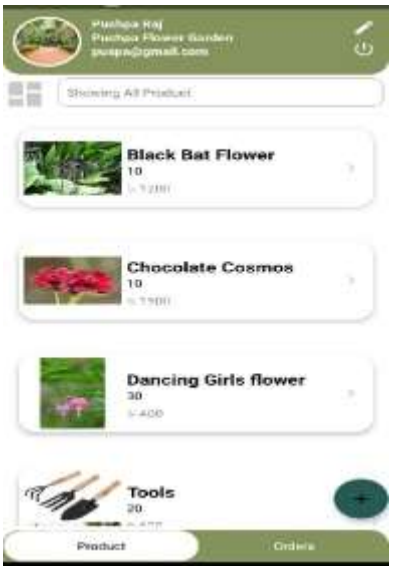

Figure 11.7 ***Shop details seller activity UI***

Figure 11.5 Payment Activity

Figure 11.10 Add to Cart 2

Figure 11.9 Write review activity

Figure 11.8 Payment details order activity

Chapter 12: Project's Risks Assessment

Team Formation: If unskilled employees are selected, it can hamper the project. Another thing is biasness. If an employee is selected due to his relationship with the project manager, he/she can be a part of the project even if he/she is not skilled enough for the project.
Employee Training: The trainer who is going to be chosen, he/she should be skilled enough. If not, he/she can hamper the project.
System Design & Implementation: The User Interface must be convenient. It should be designed in such a way that it is easy to understand. If it is complex, it will not be able to collect customers' interest. Another concern is that it must be made as per the requirements provided by the company. If the design is complex, it will be difficult to implement as well.
System Testing: The system should be tested thoroughly. If one of the functionalities is not tested properly it can affect the project badly. After the project is delivered and it is available to the customer and that fault still arises then it can hamper the business.
Project Delivery: If the project is delayed, it can affect the budget. If the project is Delayed, another company can come up with the same project. Thus, it can reduce the value of the project in the market.
Promotional Activities: General mass will not know about the project if the promotion is not done properly. If a problem arises at the time of an event, it can leave a negative impact on customers' minds. For example, the app which is going to be designed malfunctions at the time of an event, it can hamper the company image.

12.1 Tasks dependencies table

Table 12.1 Task dependencies table

Task ID	Tasks	Predecessor	Duration
A	1. Team Formation	-	7
B	2.1 Assign Trainer Experts	-	3
C	2.2 Training Session	B	21
D	3.1.1 Database Design	C	7
E	3.2.1 Ui/UX Design	C	20
F	3.1.2 Backend Implementation	D	8
G	3.2.2 Frontend Implementation	E, F	40
H	4. System Testing	G	3
I	5. Project Delivery	H	1
J	6. Promotional Activities	I	7

12.2 Failure Mode Effect Analysis (FMEA)

Table 12.2 Failure Mode Effect Analysis (FMEA)

Tasks	Failure Mode	S (Severity)	L (Likelihood)	D (Detectability)	RPN (Risk Priority Number) (SXLXD)
Team Formation	Unskilled Employees	7	4	8	224
	Biasness	6	3	7	126
Employee Training	Lack of skills	9	4	3	108
System Design and Implementation	Complex Design	9	6	7	378
	Implementation difficulty	9	7	7	441
System Testing	System Failure	8	8	9	576
Project Delivery	Budget Issue	6	8	9	432
	Competition	7	8	8	448
Promotionall Activities	Lack of promotionalskills	9	7	5	315
	App malfunction during an event	8	5	3	120

12.3 Scheduling Network Diagram (PERT/CPM)

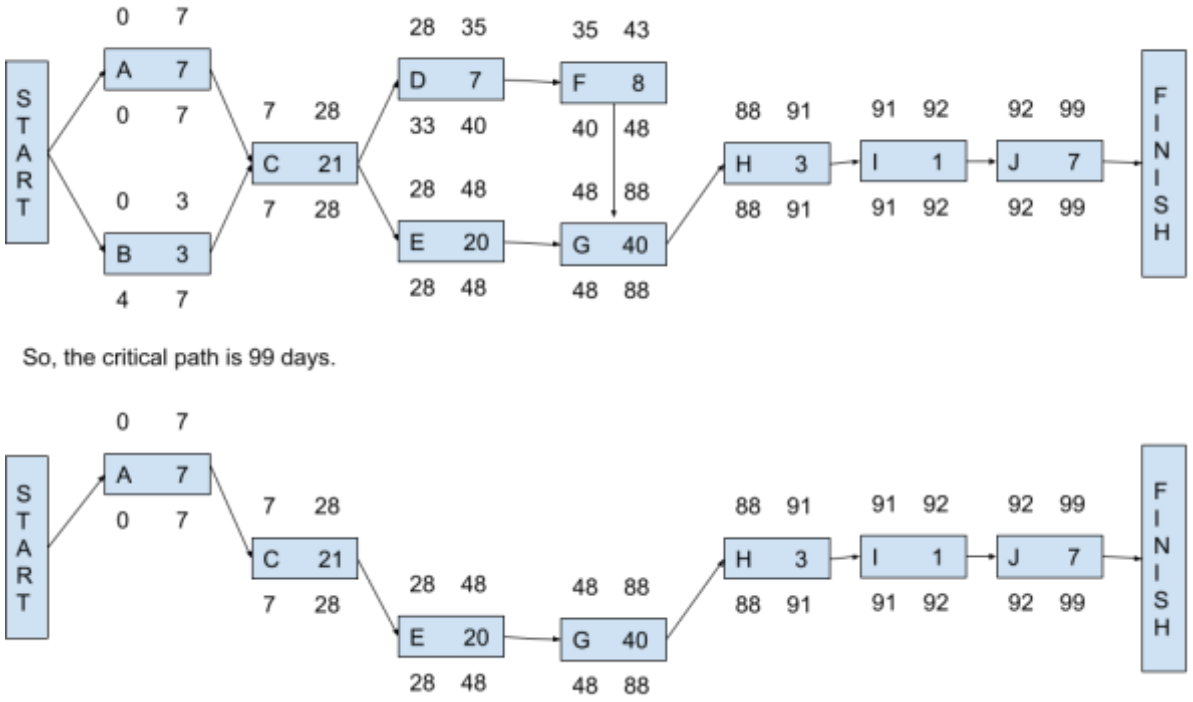

Figure 12.1 PERT/CPM diagram

12.4 EVM (Earn Value Management)

We see, our estimated budget for total project competition is started from 9 January 2023 to 20 April 2023, So the duration is 101 days or 14 weeks. So, we can break down our work by 101/3=33.67 or 34 days for EVM calculation.

The expected cost to complete the whole project is = 320,000 tk.

So, BAC = 3,20,000 TK

Table 12.3 Earn Value Management Table

Time	Duration	Duration wise progress	Estimated Cost (TK)	Actual Cost (TK) (AC)
First 34 days	9 Jan 2023- 11 Feb	100%	50,000+80,000= 1,30,000	45,000 + 77,000= 1,22,000
Second 34 days	12 Feb- 17 March	34/60=56% of whole work	(100,000*(56/100)) = 56,000	54,500
Third 34 days	18 March- 20 April, 2023	13/30 or 44% of work 3.2+ 100% of 4 + 100% of work 5 + 100% of work 6	44,000+40,000+10,000+40,000= 1,34,000	43,000+ 38,000+9,000+39,000= 1,29,000
Total			3,20,000	3,05,550

12.5 EVM Calculation

Table 12.4 EVM Calculation

	PV	Progress (%)	EV	CV = EV - AC	SV = EV - PV	CPI= EV/ AC	SPI= EV/ PV	ETC= (BAC - EV)/CPI	EAC= ETC+AC	CR= CPI* SPI
First 34 days	1,30,000	100%	1,30,000	8000	0	1.065	1	0	1,22,000	1.065
Second 34 days	56,000	98%	56,000*(98/100) = 54,880	380	-1120	1.006	0.98	1113.32	1113.32+54,500= 55,613.32	0.985
Third 34 days	1,34,000	98%	(1,34,000*(98/100)) =1,31,320	2320	-2680	1.017	0.98	2635.201	2635.201+1,29,000= 1,31,635.2016	0.989

So, above the EVM, we can see our whole project estimated duration is 101 days which we divided into 3 parts. Each segment carries 34 days of whole work schedule. So, in the 1st 34 days, the SV is 0 which means the schedule variance is right on time. Then the CV is positive so it means we can achieve more than we predict in the first 34 days. The SPI is 1 which indicates that we are right on our schedule and CPI is almost 1 so we can say we are on budget.

The next 2 segments, SV is negative which indicates we are behind on our schedule, but CV is positive which still indicates we can achieve more than we predict if we follow this path. SPI is less than 1 which indicates we are behind on our schedule and CPI is little greater than 1 so we can say we are not overspending so much from the estimated budget.

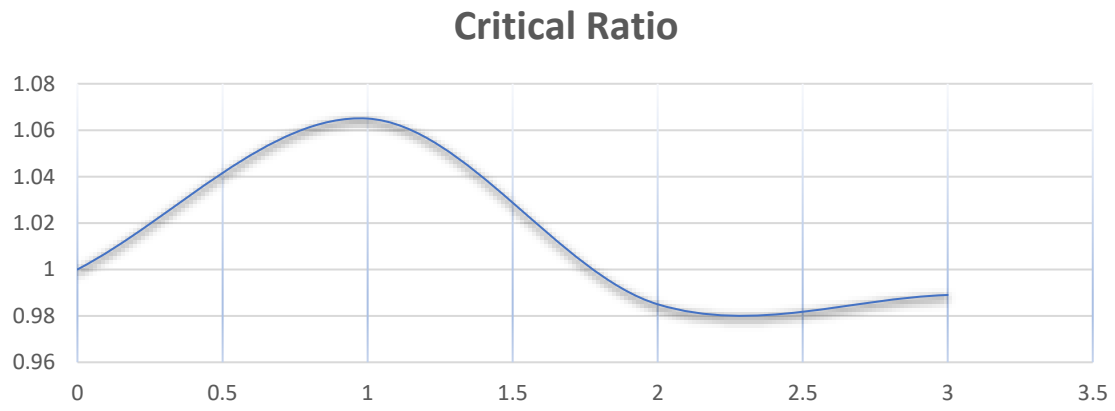

Figure 12.2: Critical ratio

We know, the ideal CR is 1.0. In the 1st phase the critical ratio is greater than 1.0 which implies the project is doing well on both cost and schedule. When ratios are below 1.0 on 2nd and 3rd phase it implies a little poorer performance than before. If we can complete 100% according to our plan, then our project will be right on our plane.

Chapter 13: Conclusion

In summary, my project isn't just about growing plants. It's about building a strong community of plant lovers while supporting sustainability, innovation, and economic development. By offering a wide variety of plants, personalized services, and using technology, I want to make gardening more enjoyable and improve people's lives worldwide. With a focus on customers, partnerships, and always getting better, I aim to become a leader in the plant business. Let's work together to create a greener, better future.