

***INNOVATION:
ECO FRIENDLY
PACKAGING FOR
SMALL BUSINESS***



Date: March 21, 2025

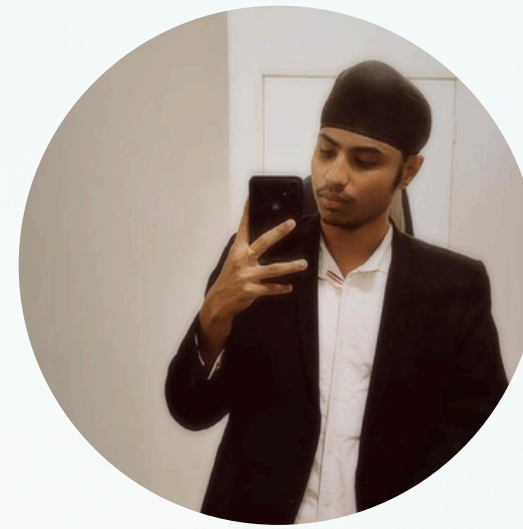
TEAM MEMBERS



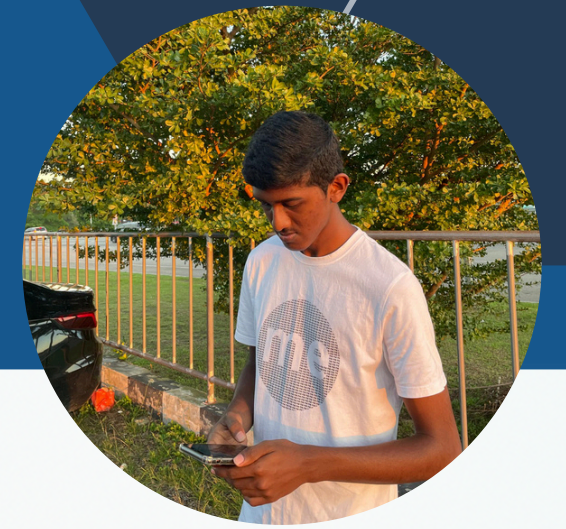
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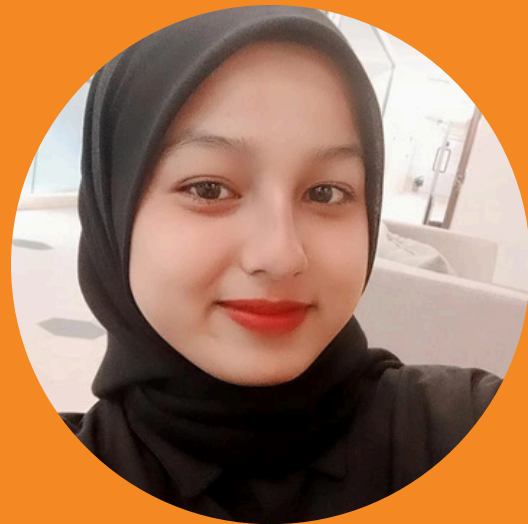
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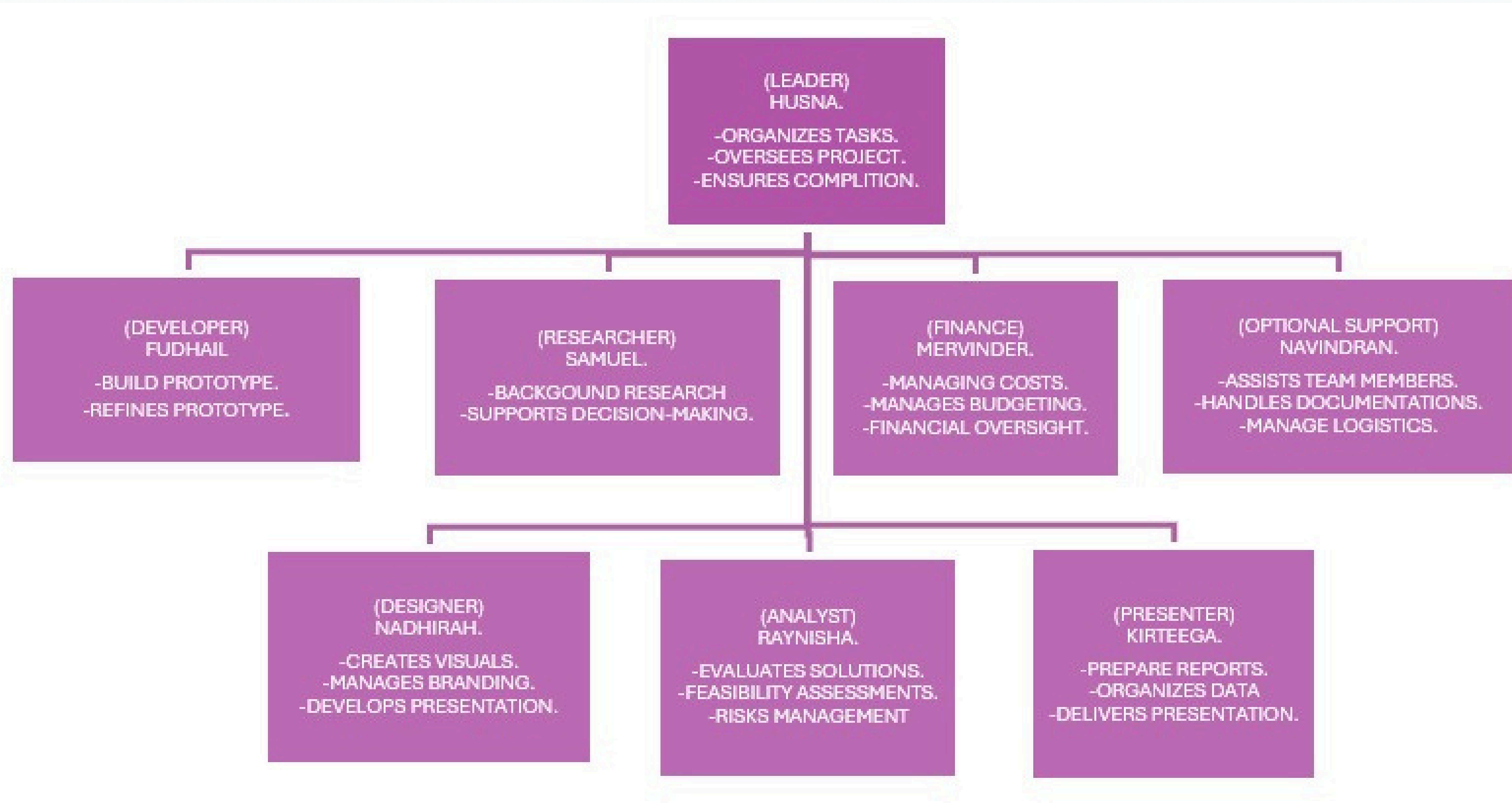


KIRTEEGA



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WORK BREAKDOWN STRUCTURE





INTRODUCTION

As consumer demand for sustainable products and practices grows, businesses are increasingly seeking ways to reduce their environmental footprint. Small businesses, in particular, are under pressure to adopt eco-friendly packaging solutions to stay competitive, improve brand image, and meet environmental standards.

Packaging, often made from non-biodegradable materials, contributes significantly to waste and pollution. However, many small businesses face challenges in finding affordable and effective eco-friendly packaging options that align with their operations and cost structures.

PROBLEM STATEMENT

The use of traditional, non-recyclable packaging materials in small businesses not only harms the environment but also leads to increased operational costs due to waste management and regulatory compliance issues. Small businesses struggle to find sustainable alternatives that are both cost-effective and functional for their products. The challenge lies in identifying packaging solutions that meet environmental standards while remaining economically viable for smaller enterprises.



PROJECT OBJECTIVES

Compare the costs of eco-friendly packaging alternatives with traditional packaging options to determine the financial feasibility for small businesses.

Evaluate Cost-Effectiveness

Develop practical recommendations and a step-by-step guide for small businesses to transition to sustainable packaging solutions without compromising product safety or quality.

Provide Implementation Guideline



Research Sustainable Packaging

Investigate and identify affordable, eco-friendly packaging materials that are suitable for small businesses across various industries.

Increase Awareness

Educate small business owners on the benefits of eco-friendly packaging, including potential cost savings, brand enhancement, and environmental impact.


Measure Environmental Impact

Quantify the reduction in waste and carbon footprint achieved by adopting eco-friendly packaging materials.



BIODEGRADABLE BOX



- ✓ Biodegradable pots have gained popularity as a sustainable alternative to plastic in gardening.
 - ✓ Biodegradable boxes expand this concept, providing eco-friendly packaging for industries like retail, and e-commerce.
 - ✓ Made from plant fibers, compostable plastics, and recycled paper, they break down naturally without harmful residues.
 - ✓ These boxes reduce waste, meet consumer demand for sustainability, and enhance brand reputation.
 - ✓ This innovation offers a scalable, eco-conscious alternative to traditional packaging.
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BIODEGRADABLE PLASTIC WRAP

- ✓ Biodegradable plastic wrap offers a sustainable alternative to traditional plastic packaging.
- ✓ Made from plant-based polymers, it decomposes naturally without harming the environment.
- ✓ Reduces plastic waste in landfills and marine ecosystems caused by conventional wraps.
- ✓ Challenges include high production costs, limited availability, and low consumer awareness.
- ✓ The project aims to promote, assess, and develop cost-effective biodegradable packaging solutions.

RESOURCES

> **Materials**

Biodegradable box

- Biodegradable pots (coconut husk, rice husk, compressed paper).
- Natural binders (flour paste, cornstarch glue).
- Water, box frames (cardboard), cornstarch coating, beeswax, natural dyes.

Biodegradable Plastic Wrap

- Corn starch, potato starch, glycerin, vinegar, water.

> **Financial Resources**

Cost Analysis :

- Cornstarch: RM3.00, Vinegar: RM3.50, Glycerin: RM8.00, Biodegradable Pot: RM7.00.
- Total cost: RM58.40 per unit

- Market Research:

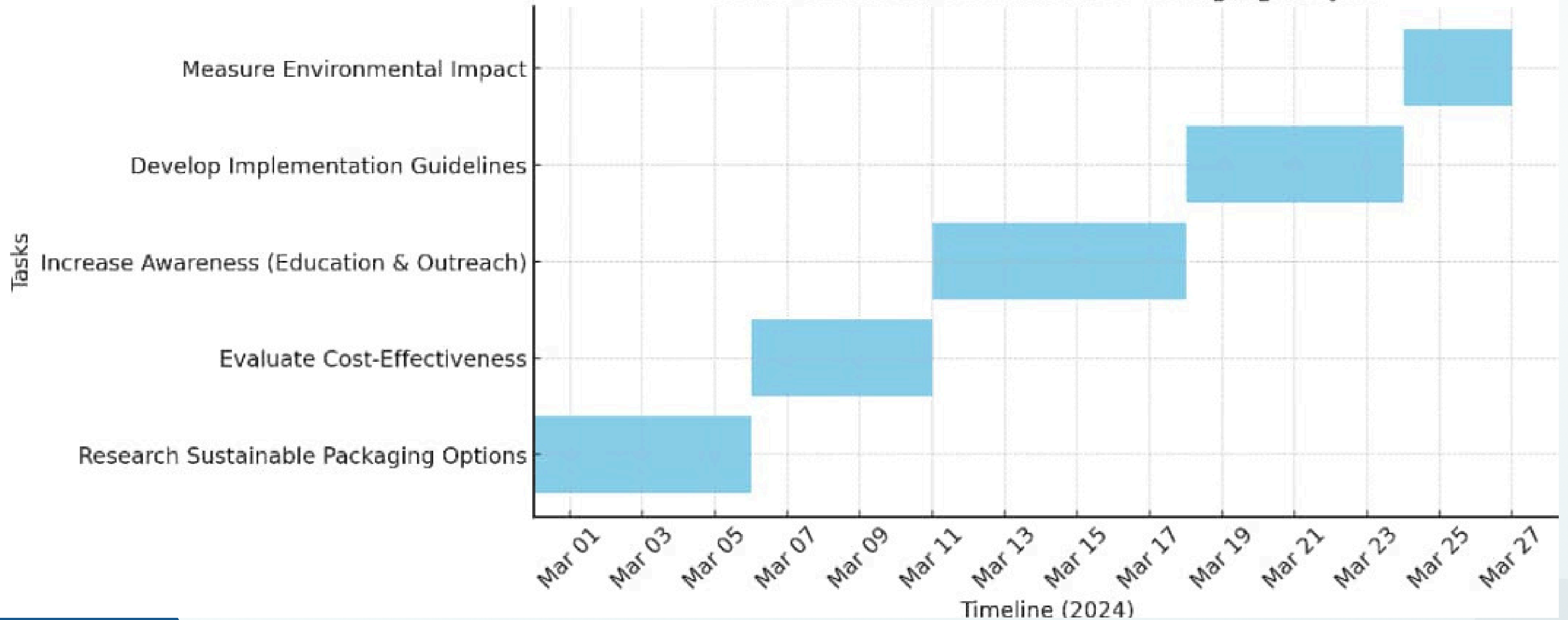
- Selling price: RM5.00 per unit.
- Profit margin: RM2.00 per unit.
- Market size: RM500 million annually.

> **Educational Resources**

- Posters : Use Canva or Adobe Illustrator.
- Slide Decks : Use PowerPoint or Google Slides.
- Infographics: Use Piktochart or Venngage.
- Videos : Use Canva, Animoto, or iMovie.
- Brochures/Flyers : Printable materials for small businesses.

PROJECT TIMELINE

Gantt Chart for Sustainable Packaging Project



BUDGET BREAKDOWN

Expenses	Estimated (RM)	Overhead 10% (RM)	Total Cost (RM)	Actual Cost (RM)	Variance Cost (RM)
Cardboard Base	1.50	0.15	1.65	1.00	(0.65)
Hard Glue	15	1.50	16.50	20	3.50
Spray Paint	7	0.70	7.70	5.90	(1.80)
Biodegradable Pot	10	1	11	7	(4)
Tissue	6	0.60	6.60	10	3.40
Vinegar	3	0.30	3.30	3.50	0.20
Glycerin	5	0.50	5.50	8	2.50
Cornstarch	5	0.50	5.50	3	(2.50)
Total	52.50	5.25	57.75	58.40	18.55

RACI MATRIX

RACI MATRIX									
Innovation : Eco Friendly Packaging for Small Business									
	Responsibility	Leader : Musna	Developer : Pudhairl	Researcher : Samuel	Analyst : Reynisha	Designer : Madhirah	Finance & Budgeting : Mervinder	Presenter : Kirtega	Optional Support : Mervindran
Task									
Identify Problem	A/R	C	I	I	A		C	I	
Conduct Background Research	I	I	A	R		C	I		
Analysis Existing Solution	A	R	A	I			I		
Brainstorms and Select Best Idea	C/R	C	A/C	I	I	I	C		
Defines Project goals and Objectives	I	R	C	I	I	I	C	C	
Develop work plan and Timeline	I	C	C	I	I	C	C	R	
Assign roles and responsibility	C	I	I	R	C	I	C	I	
Prepare Budget and Required Resources	I	I	C	C	R	I	C	I	
Write Project proposal	R	I	C	I	I	A	C	C	
Design initial Prototype	C	R	A	C	C	C	R	C	
Build Prototype	C	R	I	I	I				
Rest Prototype and Identify Issues	C	R	I	I			C		
Improve and Analize Prototype	R	C	I	R			I		
Prepare Detailed Project Report	C/R	I	I	R					
Create Presentation Slide, Poster	C/R	R	I	I	R				
Refine Presentation	I	I	I	C	R	C	I	I	
Submit the Final Project	R	I	I	I	I	I	I	I	
Deliver the Presentation	C/R	R	R	R	R	R	R	R	

BENEFITS AND IMPACT

● ***Environmentally Friendly***

Biodegradable packaging breaks down naturally, reducing pollution and minimizing environmental harm.

● ***Sustainable Resource Usage***

Many biodegradable materials are made from renewable resources like cornstarch, bamboo, or paper, reducing dependence on fossil fuels.

● ***Improves Brand Image***

Companies using biodegradable packaging can enhance their reputation by showing commitment to sustainability and attracting eco-conscious consumers.

● ***Compostable & Recyclable***

Some biodegradable packaging materials can be composted, turning waste into useful organic matter, while others can be easily recycled.

● ***Reduces Waste***

Since it decomposes faster than traditional plastic, it helps in reducing landfill waste.



CONCLUSION

Eco-friendly packaging is a vital step for small businesses to reduce waste, cut costs, and enhance brand image

Our project highlights affordable, biodegradable alternatives and provides a practical guide for implementation

. Embracing sustainability benefits both businesses and the environment.

THANK YOU !!

