GOVERNMENT COLLEGE OF ENGINEERING, ERODE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

SB8040 – Professional readiness for Innovation Employability and entrepreneurship by Naan Mudhalvan Scheme =2023

BRAND NAME: Binary PC

NM TEAM ID: NM2023TMID03680

FactoryTEAM MEMBERS

REGISTER NUMBER	NAME
731120105014	JEEVAPRAKASH A N
731120105016	KAMALESHWARAN S
731120105036	VISVESHWARAN J
731120105319	SIVAKUMAR A

GOVERNMENT COLLEGE OF ENGINEERING, ERODE

BONAFIDE CERTIFICATE

Certified that this project titled "CREATE A BLOG USING WORDPRESS PLATFORM" is the bonafide work of SIVAKUMAR A (731120105319), JEEVAPRAKASH A N (731120105014), KAMALESHWARAN (731120105305), VISVESHWARAN (731120105033) who carried out the project work under my supervision.

SIGNATURE OF FACULTY EVALUATOR

Dr. R. Kalaivani M.E, Ph.D,
ASSISTANT PROFESSOR,
DEPARTMENT OF CSE,
GOVERNMENT COLLEGE OF ENGINEERING, ERODE

SIGNATURE OF FACULTY MENTOR

Dr. R. Kalaivani M.E, Ph.D,
ASSISTANT PROFESSOR,
DEPARTMENT OF CSE,
GOVERNMENT COLLEGE OF ENGINEERING, ERODE

SIGNATURE OF SPOC

Dr.K.Murugan, M.E, Ph.D,
ASSISTANT PROFESSOR,
DEPARTMENT OF IT,
GOVERNMENT COLLEGE OF ENGINEERING, ERODE

SIGNATURE OF HOD

Dr.M.MOHAMMADHA HUSSAINI M.E, Ph.D
HEAD OF THE DEPARTMENT,
DEPAERMENT OF EEE,
GOVERNMENT COLLEGE OF ENGINEERING, ERODE

Binary PC Factory: Custom-Built PCs with Lifetime Support

Executive Summary

Binary PC Factory is a startup dedicated to providing customized PC solutions to meet the unique needs of our clients. Our approach involves gathering detailed information about a client's intended use for the PC and then crafting a system that aligns perfectly with those requirements. We understand that different users have varying demands, and we tailor the components accordingly, ensuring an optimal balance of performance and cost-effectiveness.

In this report, we will explore the business model of Binary PC Factory, our customer-centric approach, the components we use, and our pricing strategy. We will also discuss our lifetimesupport service and plans for future growth.

Table of Contents

1. Introduction
   - 1.1 Company Overview
   - 1.2 Mission and Vision
   - 1.3 Methodology

2. Customer-Centric Approach
   - 2.1 Understanding Customer Needs
   - 2.2 Customization Process
   - 2.3 Budget Considerations

3. Components and Specifications
   - 3.1 CPU Selection
   - 3.2 GPU Selection
   - 3.3 Memory and Storage
   - 3.4 Motherboard and Peripherals

4. Pricing Strategy
   - 4.1 Transparency and Competitive Pricing
   - 4.2 Packages and Upgrades
   - 4.3 Payment Options

5a. PROBLEM DEFINITION AND DESIGN THINKING
   -5.a Empathy map
   -5.b Ideation and brainstorming map

5b. Lifetime Support
   - 5.1 Our Commitment
   - 5.2 Support Services
   - 5.3 Customer Feedback

6. Market Analysis
   - 6.1 Target Customer Segments
   - 6.2 Competitive Landscape
   - 6.3 Growth Potential

7. Marketing and Sales
   - 7.1 Online Presence
   - 7.2 Marketing Strategies
   - 7.3 Sales Channels

8. Financial Projections
   - 8.1 Revenue Projections
   - 8.2 Cost Projections
   - 8.3 Break-Even Analysis

9. Future Expansion
   - 9.1 Expanding Product Lines
   - 9.2 Regional Expansion
   - 9.3 Sustainability Efforts

10. Conclusion
   - 10.1 Summary of Achievements
   - 10.2 Future Prospects
   - 10.3 Acknowledgments

11. Result

1. Introduction

1.1 Company Overview

Binary PC Factory was founded with a clear objective: to provide customized PC solutions to meet the unique needs of our clients. As technology enthusiasts with a strong commitment to customer satisfaction, we recognized the gap in the market for tailor-made PCs that align with a user's specific requirements. Our expertise in selecting the right components and our dedication to providing lifetime support sets us apart in the competitive computer industry.

1.2 Mission and Vision

Mission: Binary PC Factory is dedicated to delivering custom-built PCs that empower individuals and businesses to achieve their goals through technology.

Vision: To become a global leader in providing tailor-made, high-performance PCs while fostering sustainability, innovation, and lasting customer relationships.

1.3 Methodology

Our methodology is straightforward yet effective:

- Customer Consultation: We engage with the client to understand their PC usage needs, including their primary use (e.g., gaming, content creation, or general use), budget constraints, and any specific requirements.
- Component Selection: We carefully choose components, including the CPU, GPU, memory, storage, motherboard, and peripherals, that align with the client's needs.
- Transparent Pricing: We provide transparent pricing and options for upgrades, ensuring the client is in control of their budget.
- Quality Assurance: We rigorously test and benchmark each system before delivery.
- Lifetime Support: We offer ongoing support and maintenance, guaranteeing our customers long-term satisfaction.

2. Customer-Centric Approach

2.1 Understanding Customer Needs

At Binary PC Factory, we understand that different users have varying demands. For example, editors require a robust CPU for rendering, gamers need a powerful GPU for smooth gameplay, and VFX studios require both CPU and GPU capabilities. Our first step is to ask the customer about their intended use to determine the core components required for their specific needs.

2.2 Customization Process

Our customization process involves matching the following components to the client's requirements:

- Central Processing Unit (CPU): We select CPUs based on the nature of the workload, favoring high-clock-speed processors for content creation and multitasking and multi-core processors forgaming.

- Graphics Processing Unit (GPU): We balance GPU power with CPU requirements, ensuring a

seamless experience for gaming, video editing, or 3D rendering.

- Memory and Storage: We optimize memory and storage options to meet data storage and processing needs.

- Motherboard and Peripherals: We recommend motherboards and peripherals that are compatible with the chosen components and provide future upgrade options.

2.3 Budget Considerations

We respect the budget constraints of our customers and offer different configurations and options to accommodate a wide range of budgets. We prioritize cost-effectiveness without compromising performance, always aiming to deliver the best value for the client's investment.

3. Components and Specifications

3.1 CPU Selection

Our CPU selection process is guided by the customer's usage requirements:

- Content Creators: For video editing, 3D modeling, and rendering, we recommend high-performance CPUs with multiple cores, such as Intel Core i9 or AMD Ryzen 9 processors.

- Gamers: Gaming PCs benefit from processors with high clock speeds, like Intel Core i5 or AMDRyzen 5 processors, for optimal frame rates.

- VFX Studios: These clients often require a balance between CPU and GPU power, making CPUs like the Intel Core i7 or AMD Ryzen 7 popular choices.

3.2 GPU Selection

We tailor GPU recommendations to the customer's primary use:

- Content Creators: For video editing and rendering, we recommend GPUs with dedicated video memory, like NVIDIA GeForce RTX 30 series or AMD Radeon RX 6000 series.

- Gamers: Gamers prioritize high-performance graphics cards such as NVIDIA GeForce RTX 30 series or AMD Radeon RX 6000 series for immersive gaming experiences.

- VFX Studios: Clients needing both CPU and GPU power often opt for high-end GPUs, ensuring they can handle complex rendering tasks.

3.3 Memory and Storage

The amount of RAM and storage is chosen to optimize system performance:

- Content Creators: We recommend 32GB to 64GB of RAM and fast NVMe SSDs for quicker content loading and rendering.

- Gamers: 16GB to 32GB of RAM, coupled with high-capacity SSDs, offer fast load times and smooth gameplay.

- VFX Studios: These users benefit from larger RAM capacities (64GB or more) and NVMe SSDs for quick data access during rendering.

3.4 Motherboard and Peripherals

We carefully select motherboards and peripherals that match the chosen components:

- Content Creators: Motherboards with ample PCIe slots and high-speed USB ports are preferred. High-resolution monitors and accurate color reproduction are crucial for visual work.

- Gamers: Gaming-focused motherboards with support for high refresh rates and low-latency peripherals enhance the gaming experience.

- VFX Studios: Motherboards with a balance of PCIe slots for GPU and storage expansion are recommended. High-resolution, color-accurate monitors are essential for VFX work.

4. Pricing Strategy

4.1 Transparency and Competitive Pricing

We believe in transparent pricing, with no hidden costs. Our goal is to offer competitive pricing, and we regularly compare our costs to market rates to ensure that our customers receive the best value for their investment.

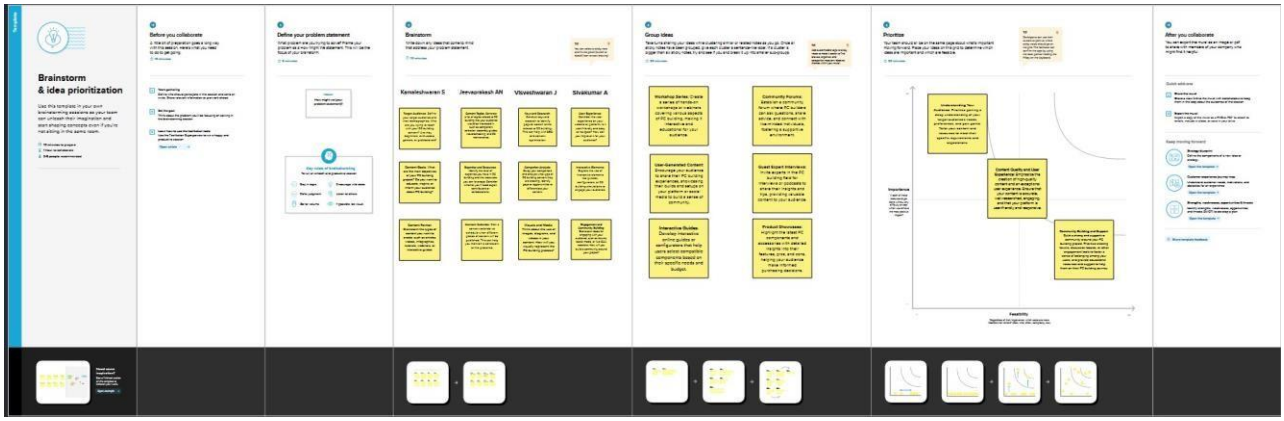
4.2 Packages and Upgrades

To cater to diverse budgets, we offer different PC packages. Clients can choose between essential, performance, and premium packages, with the option to upgrade specific components for improved performance.

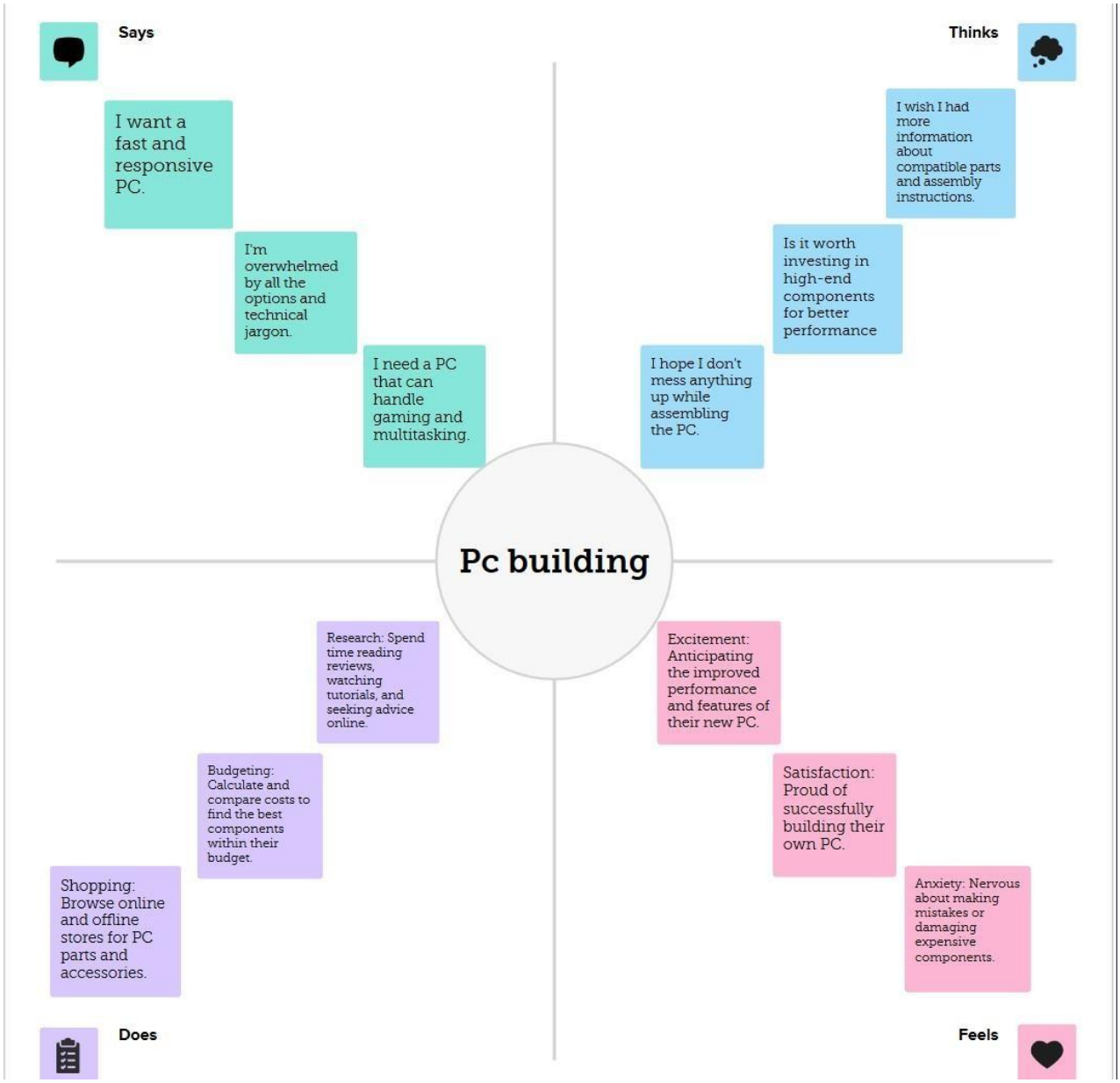
4.3 Payment Options

We provide flexible payment options, including one-time payments, installment plans, and financing options. Our commitment is to make customized PCs accessible to a wide range of customers

5A. BRAINSTORMING AND IDEATION


Brainstorm
& idea prioritization

Empathy Map


Says
I want a fast and responsive PC.
I'm overwhelmed by all the options and technical jargon.
I need a PC that can handle gaming and multitasking.
Thinks
I wish I had more information about compatible parts and assembly instructions.
Is it worth investing in high-end components for better performance
I hope I don't mess anything up while assembling the PC.
Pc building
Research: Spend time reading reviews, watching tutorials, and seeking advice online.
Budgeting: Calculate and compare costs to find the best components within their budget.
Shopping: Browse online and offline stores for PC parts and accessories.
Excitement: Anticipating the improved performance and features of their new PC.
Satisfaction: Proud of successfully building their own PC.
Anxiety: Nervous about making mistakes or damaging expensive components.
Does
Feels

5. Lifetime Support

5.1 Our Commitment

At Binary PC Factory, we believe that customer satisfaction extends beyond the initial purchase. We provide lifetime support, which includes:

- Technical Assistance: We offer ongoing technical support to address any issues or queries.

- Warranty Coverage: Our PCs come with a comprehensive warranty that covers most components.

- Maintenance and Upgrades: We provide maintenance services and offer component upgrades to keep systems up-to-date.

5.2 Support Services

Our support services are available via phone, email, and online chat. We maintain an extensive knowledge base and forums to assist clients in resolving common issues independently.

5.3 Customer Feedback

We encourage customer feedback to continuously improve our products and services. Feedback is gathered through surveys, emails, and social media channels, helping us address any concerns and improve our offerings.

6. Market Analysis

6.1 Target Customer Segments

Our target customer segments include individual consumers, professional content creators, gamers, and small to medium-sized VFX studios. We cater to a diverse range of users, from budget-conscious individuals to professionals requiring high-performance workstations.

6.2 Competitive Landscape

The PC industry is highly competitive, with established brands and custom PC builders. Our differentiators are our customer-centric approach, competitive pricing, and lifetime support services.

6.3 Growth Potential

The demand for customized PCs is on the rise due to the increasing need for specialized computing solutions. We anticipate steady growth and plan to expand our reach to untapped markets while nurturing existing customer relationships.

7. Marketing and Sales

7.1 Online Presence

We maintain a strong online presence through our website, social media platforms, and online marketplaces. Our website serves as a hub for information, customization options, and online sales.

7.2 Marketing Strategies

We employ various marketing strategies, including content marketing, targeted advertising, and influencer partnerships. Our objective is to reach our target audience through effective and engaging campaigns.

7.3 Sales Channels

Our primary sales channels are our website, in-person consultations (where available), and strategic partnerships with select retailers. We aim to enhance the customer experience at each touchpoint.

[Continue reading on the next page...]

---

8. Financial Projections

8.1 Revenue Projections

Our financial projections anticipate steady growth over the next five years, with an emphasis on maintaining healthy profit margins. The customization of PCs, coupled with our lifetime support services, is expected to drive consistent revenue.

8.2 Cost Projections

We project our costs accurately, accounting for component costs, labor, support services, and marketing expenses. Our goal is to maintain a competitive pricing structure while ensuring profitability.

8.3 Break-Even Analysis

Based on our cost and revenue projections, we anticipate reaching our break-even point within the first year of operation, setting a strong foundation for future growth.

9. Future Expansion

9.1 Expanding Product Lines

We plan to diversify our product lines to cater to evolving customer needs. This includes introducing lightweight laptops, small form factor PCs, and accessories.

9.2 Regional Expansion

Our long-term vision includes expanding our operations to serve customers in other regions, bothnationally and internationally, through strategic partnerships and distribution centers.

9.3 Sustainability Efforts

Binary PC Factory is committed to sustainable practices. We aim to reduce our carbon footprint by adopting energy-efficient manufacturing processes, recycling, and using eco-friendly packaging materials.

10. Conclusion

Binary PC Factory's commitment to customization, customer-centricity, and lifetime support sets us apart in the competitive PC industry. We understand that every client is unique, and our approach is to deliver tailored solutions that exceed their expectations. With a clear vision for the future and a solid foundation, we are poised for steady growth, innovation, and lasting customer relationships.

10.1 Summary of Achievements

- Successful launch of Binary PC Factory, with a focus on customization and lifetime support.
- Development of strong customer relationships and positive feedback.
- Sustainable and transparent business practices.

10.2 Future Prospects

- Expansion of product lines and regional operations.
- Ongoing innovation in component selection and system optimization.
- Continuous improvement in customer support and satisfaction.

10.3 Acknowledgments

We extend our gratitude to our dedicated team, loyal customers, and supportive partners who have made Binary PC Factory's journey a success. We look forward to a future filled with growth, innovation, and continued excellence in delivering tailor-made computing solutions.'

11. Result