Course Name- Product Design Thinking Framework

Collage Name- Quantum University

Batch Number-01

Week 3 , Task 6

Hp laptops:-

Key Areas for Skill Gap Analysis:

- **Hardware Performance:** Understanding the latest components (processors, RAM, storage, etc.) and ensuring that HP laptops stay competitive in terms of speed and power consumption.

- **Software Integration:** Integration with OS (Windows, ChromeOS, Linux, etc.) and security features.

- **Design and User Experience:** Developing more user-friendly interfaces, ergonomic designs, and features that cater to a wider range of users.

- **Sustainability & Green Technologies:** Innovations in sustainable production, energy efficiency, and the use of eco-friendly materials.

- **Customer Support and Troubleshooting:** The skills required to provide robust customer service, troubleshooting tools, and user education.

Gap Analysis Table for HP Laptops:

Area	Current State	Desired State	Skills Gap	Skills Developed Through Design Thinking
Hardware Performance	HP laptops use competitive but sometimes aging processors (e.g., Intel i7, i5) and standard RAM/SSD setups.	Integration of next-gen processors, RAM, and storage solutions (e.g., DDR5, NVMe SSDs).	Lack of knowledge about the newest tech trends and cutting-edge hardware.	Empathy and Prototyping: Understanding user needs for high-performance laptops and

				testing new configurations.
Software Integration	Laptops are typically optimized for Windows OS; limited customization for Linux or other OS.	Seamless OS integration, providing flexibility across OS options (Linux, macOS compatibility).	Lack of cross-platform software skills and optimization for different environments.	Ideation and Iteration: Brainstorming OS integration ideas and iterating on software compatibility.
Design And User Experience	Standard design with some focus on business and consumer needs, but could be improved for niche needs (gaming, ultra-portability).	Designs that cater to niche markets (e.g., ultra-thin for portability, customizable gaming aesthetics).	Lack of in-depth user-centered design research, especially for niche markets.	Empathy and Prototyping: Observing user interactions, prototyping different designs, and testing for comfort.
Sustainability & Green Tech	Limited focus on sustainability; some efforts in energy efficiency, but lack of significant eco-friendly materials.	Fully recyclable laptops, use of sustainable materials, zero carbon emissions in manufacturing.	Skills gap in sustainable design, eco-friendly materials, and energy-efficient processes.	Ideation and Empathy: Understanding the environmental impact and developing new solutions based on sustainable design thinking.
Customer Support & Trouble Shooting	Standard support with limited proactive engagement or advanced troubleshooting.	24/7 AI-based support, proactive troubleshooting features, more self-help tools.	Skills in AI-based customer support, predictive troubleshooting, and automation tools.	Ideation and Prototyping: Brainstorming proactive support ideas, creating prototypes for AI chatbots, and testing for effectiveness.

Skills Developed through Design Thinking in Addressing Gaps:

- **Empathy**: Understanding the needs and challenges of HP laptop users, particularly those who need higher performance, specific software integration, or sustainable products. Through user interviews, surveys, and testing, you can better empathize with their pain points.

- **Define**: The identified skills gap in hardware, software integration, user experience, sustainability, and support can be defined clearly after gathering user insights. For example, customers may express a need for better battery life or improved cooling systems in high-performance laptops.

- **Ideation**: Brainstorming different solutions for the identified skills gaps (e.g., incorporating next-gen processors, or focusing on sustainable production) using cross-functional collaboration and a wide range of ideas.

- **Prototyping**: Building low-cost, quick prototypes for features such as an eco-friendly laptop or a new OS integration that allows HP laptops to better function with Linux. It helps visualize new solutions and test out assumptions.

- **Testing**: Testing prototypes or new features with real users (e.g., testing energy-efficient models in real-world conditions or providing OS compatibility tests with users in specific industries) to refine and improve the solution iteratively.