Design Thinking Project Workbook

Team Name:“Task-Flow: A Comprehensive Task Management System”

Team Members:

Nandini, Creating The Code Of Project, 2320030397
Akhilesh, interaction with clients and research of project in social platforms, 2320030369
3.Lahari, PPT creaction and collection information,2320030306

1. Problem/Opportunity Domain

Domain of Interest: Task Management System Using AI

Description of the Domain:

Managing daily tasks efficiently is a common challenge for individuals and teams. People often struggle to organize tasks, keep track of deadlines, and prioritize work effectively. This can lead to missed deadlines, decreased productivity, and increased stress when handling multiple responsibilities.

Many existing task management tools either lack intelligent automation, task prioritization, or AI-driven recommendations, making it difficult for users to manage their workflow optimally. Users need a system that not only organizes tasks but also predicts task completion time, analyzes productivity patterns, and recommends optimal schedules.

Our project aims to develop a smart task management system that enables users to create tasks, set deadlines, assign priority levels, and receive AI-driven suggestions. The system will analyze task efficiency, provide rescheduling recommendations, and offer productivity insights.

Why did you choose this domain?:

1. **Personal interest in AI applications for real-world challenges.**
2. **This Application have a lot to learn from and has a potential to solve real world challenges**

2. Problem/Opportunity Statement

Problem Statement: Individuals and teams struggle with inefficient task management due to lack of AI-based automation, real-time productivity insights, and adaptive scheduling, leading to missed deadlines, poor prioritization, and reduced efficiency.

Problem Description:

1.Many task management solutions do not adapt to user habits or changing priorities.

2.Users manually organize tasks, making it time-consuming and ineffective.

3. No predictive insights on task completion time, user focus levels, or efficiency tracking.

4.Overloaded schedules lead to productivity decline, stress, and missed deadlines

Context (When does the problem occur):

1.During High Workload Periods: Users struggle with multiple deadlines and shifting priorities.

2.When Tasks Are Manually Managed: No AI-driven assistance for rescheduling or prioritization.

3.Frequent Task Interruptions: Lack of insights into distractions and productivity levels.

Alternatives (What does the customer do to fix the problem):

1.Manual Methods: Paper lists, spreadsheets (error-prone, hard to update).

2.Basic Calendar Apps: Lacks AI-driven prioritization and smart rescheduling.

3.Generic Task Management Tools: No predictive analysis or automation features.

Customers (Who has the problem most often):

1.Students & Researchers – Need time management tools with AI-driven study schedules.

2.Freelancers & Remote Workers – Require smart prioritization for multiple projects.

3.Project Managers & Teams – Benefit from intelligent task recommendations and workload balancing.

Emotional Impact (How does the customer feel):

1. **Overwhelmed by the volume of tasks.**
2. **Stressed about missing deadlines or overlooking important details.**
3. **Frustrated by the lack of clarity and control over their workload.**

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Quantifiable Impact (What is the measurable impact):

- **Reduced productivity and efficiency (measured by output per time unit).**
- **Increased project delays and missed deadlines.**
- **Higher error rates and rework.**
- **Increased employee burnout and turnover.**

Alternative Shortcomings (What are the disadvantages of the alternatives):

1. **Manual: Error-prone, hard to share, lacks automation.**
2. **Calendars: Limited features, poor project management.**
3. **Generic Tools: Overly complex, slow setup, lacks customization.**
4. **Generic AI: Inaccurate, lacks specific workflow knowledge, privacy concerns.**

3. Addressing SDGs

Relevant Sustainable Development Goals (SDGs):

SDG 8 (Decent Work):

- **AI streamlines tasks, leading to more efficient work and less wasted time.**
- **Automation and intelligent prioritization reduce stress and burnout.**

SDG 9 (Innovation):

- **AI implementation fosters technological advancement in workflow optimization.**
- **It improves the digital infrastructure of task management.**

SDG 12 (Responsible Consumption):

- **AI enables better resource allocation, minimizing waste.**
- **Less time wasted on unorganized work, reduces overall energy use.**

How does your problem/opportunity address these SDGs?:

Improved forecasting can mitigate climate-related disasters.

AI-driven solutions enhance technological innovation in meteorology.

4. Stakeholders

1.Who are the key stakeholders involved in or affected by this project?

The primary stakeholders for "Task-Flow" include individual users who need task management, teams and project managers coordinating work, developers building and maintaining the AI system, businesses implementing it for efficiency, investors funding its development, and data security experts ensuring user privacy and compliance.

2.What roles do the stakeholders play in the success of the innovation?

Users are crucial for adoption and feedback, developers ensure the system's functionality, businesses drive implementation and usage, investors provide financial support, and security experts guarantee data protection. Each stakeholder's role is essential for the successful development and widespread adoption of the "Task-Flow" system.

3.What are the main interests and concerns of each stakeholder?

Users prioritize ease of use and increased productivity, teams need seamless collaboration tools, developers focus on technical feasibility and innovation, businesses seek improved efficiency and ROI, investors desire financial returns, and security experts are concerned with data privacy and compliance.

4.How much influence does each stakeholder have on the outcome of the project?

Users and businesses have high influence through adoption and implementation decisions, developers control the system's functionality, investors dictate resource allocation, and security experts ensure compliance, all playing significant roles in the project's success.

5.What is the level of engagement or support expected from each stakeholder?

Users are expected to provide feedback and actively use the system, developers should offer continuous support and updates, businesses need to implement and promote the system, investors should provide financial and strategic guidance, and security experts must conduct audits and ensure compliance.

6.How will you communicate and collaborate with stakeholders throughout the project?

Communication will occur through user feedback channels, regular developer meetings, business progress reports, investor updates, and security consultations, ensuring all stakeholders are informed and engaged throughout the project's lifecycle.

5. Power Interest Matrix of Stakeholders

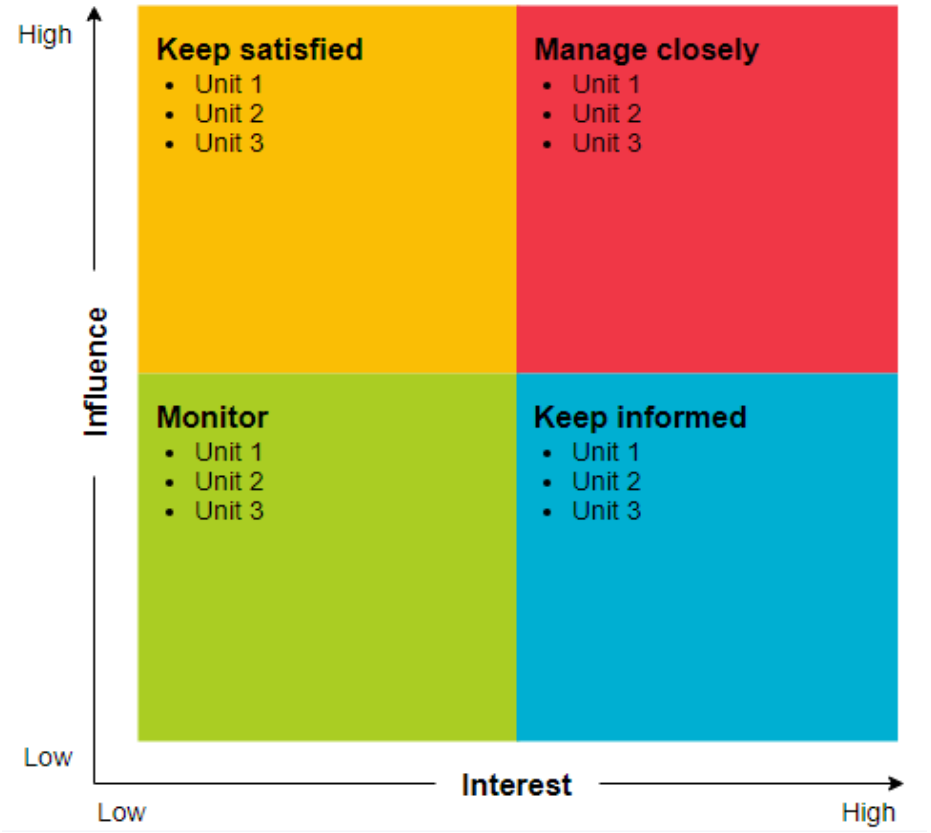
High Power, High Interest:

- **Business Owners/Executives: They have the power to implement the system and a strong interest in improving productivity and ROI.**
- **Developers/AI Engineers: They have the power to shape the system and a high interest in its technical success and innovation.**

High Power, Low Interest:

- **Investors/Funders: They have the power to fund the project but may have a lower day-to-day interest in its specific features.**
- **Regulatory Bodies (Data Privacy): They have the power to enforce regulations but may have a low interest in the daily usage of the task management system.**

  Low Power, High Interest:
- **Individual Users/Teams: They have a high interest in using the system to improve their workflow but limited power to influence its core development.**
- **Project Managers: Have high intrest in the project's success, but may have limited power over the development itself.**



Low Power, Low Interest:

- **General Public: They are unlikely to be directly affected by the system unless it becomes widely integrated into everyday work tools.**

6.Empathetic Interviews

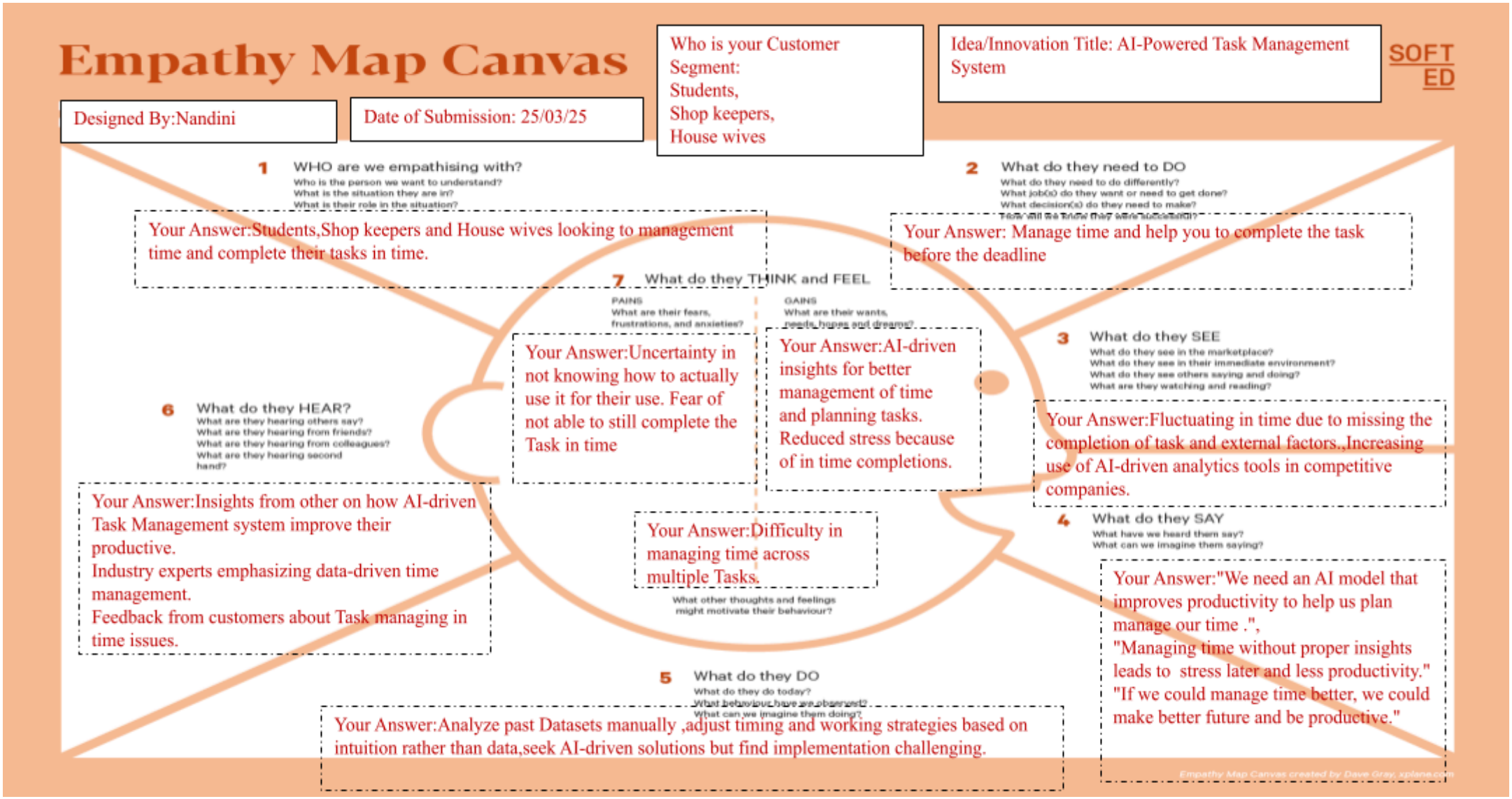
Conduct Skilled interview with at least 30 citizens/Users by asking open ended questions (What, why/How etc) and list the insights as per the format below

I need to know (thoughts, feelings, actions)	Questions I will ask (open questions)	Insights I hope to gain
Thoughts	What are your key expectations from this AI-powered Task Management system?	What are their primary goals for AI-powered Task Management?
How accurate and reliable is the AI model?	What performance metrics do you consider essential for measuring project success?	What key indicators define success for them?
Will this project provide a competitive edge?	What regulatory or compliance factors should we consider while developing this system?	What level of financial and technical support will they provide?
Feelings	How do you see AI-powered Task Management aligning with your strategic objectives?	What policies must the AI model adhere to?
Enthusiastic but cautious about AI's potential	How can we ensure transparency and accountability in AI-generated Task Management System?	The legal, financial, or reputational risks need to be managed?
Motivated to ensure project success	What potential risks or concerns should we proactively address?	What would make them prioritize this project over others?
actions	What datasets or research insights could help enhance our AI model's accuracy?	How do industry experts and researchers want to use the system?
Actively participate in decision-making	How would you like to be involved in testing and validating the AI model?	What factors would improve confidence in AI Task Management System?
Provide funding, resources, and strategic direction	What concerns, if any, do you have about AI-generated Task Management System?	What partnerships can be leveraged for further development?

SKILLED INTERVIEW REPORT

User/Interviewee	Questions Asked	Insights gained (NOT THEIR ANSWERS)
Chaitanya Prakash, Student	How do you currently manage your daily tasks?	Users rely on **manual methods** (to-do lists, sticky notes) but find them messy and ineffective.

Naveen, brother	What challenges do you face in staying organized?	Users are open to AI-driven scheduling, but want control over changes. Task completion time prediction would help, as users misjudge durations.
Deepthi, sister	How often do you miss deadlines or forget tasks?	Distractions (social media, emails, meetings) reduce focus.Most users don’t rack productivity but want insights on when they are most focused.
Anvitha, friend	What features would make a task management system useful for you?	Parents are concerned about outdated curricula and lack of practical learning opportunities.
karthik, friend	How satisfied are you with the current waste management system?	Users prefer a flexible schedule that adjusts to their changing workload. Frequent task rescheduling happens due to urgent work and poor planning. AI-driven best time suggestions for tasks would help in better time management.


Empathy Map Canvas
Who is your Customer Segment:
Students,
Shop keepers,
House wives
Idea/Innovation Title: AI-Powered Task Management System
SOFTED
Designed By:Nandini
Date of Submission: 25/03/25
1 WHO are we empathising with?
Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?
Your Answer:Students,Shop keepers and House wives looking to management time and complete their tasks in time.
2 What do they need to DO
What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
Your Answer: Manage time and help you to complete the task before the deadline
7 What do they THINK and FEEL
PAINS
What are their fears, frustrations, and anxieties?
Your Answer:Uncertainty in not knowing how to actually use it for their use. Fear of not able to still complete the Task in time
GAINS
What are their wants, needs, hopes and dreams?
Your Answer:AI-driven insights for better management of time and planning tasks. Reduced stress because of in time completions.
3 What do they SEE
What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?
Your Answer:Fluctuating in time due to missing the completion of task and external factors.,Increasing use of AI-driven analytics tools in competitive companies.
6 What do they HEAR?
What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second hand?
Your Answer:Insights from other on how AI-driven Task Management system improve their productive.
Industry experts emphasizing data-driven time management.
Feedback from customers about Task managing in time issues.
Your Answer:Difficulty in managing time across multiple Tasks.
What other thoughts and feelings might motivate their behaviour?
4 What do they SAY
What have we heard them say?
What can we imagine them saying?
Your Answer:"We need an AI model that improves productivity to help us plan manage our time .",
"Managing time without proper insights leads to stress later and less productivity."
"If we could manage time better, we could make better future and be productive."
5 What do they DO
What do they do today?
What can we imagine them doing?
Your Answer:Analyze past Datasets manually ,adjust timing and working strategies based on intuition rather than data,seek AI-driven solutions but find implementation challenging.

Empathy Map

Empathy Map

a. **Who is your Customer?**

Description: Sravani

Key points:

- **20y, a professor, Struggling to keep with the lectures**
- **We introduced her to our AI driven Task Management System and she finds it helpful enough to never miss the deadlines again**

b. **Who are we empathizing with?**

Description:
1.Users overwhelmed with multiple tasks, deadlines, and manual scheduling.

2.People who often **miss deadlines due to poor task prioritization**.

3.Individuals frustrated with **static task management tools** that don't adjust dynamically.

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Key points:

- **the client is good, polite and very new innovative thinking**
- **Prefers an intuitive, easy-to-use dashboard for tracking tasks and progress**