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DESIGN THINKING



onmyway.app/design





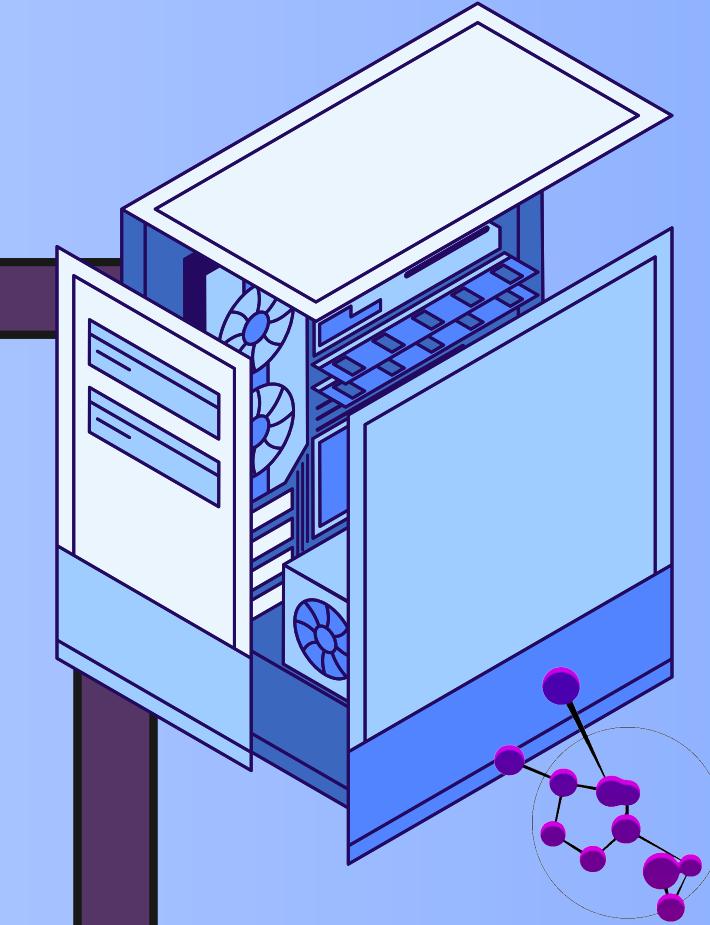
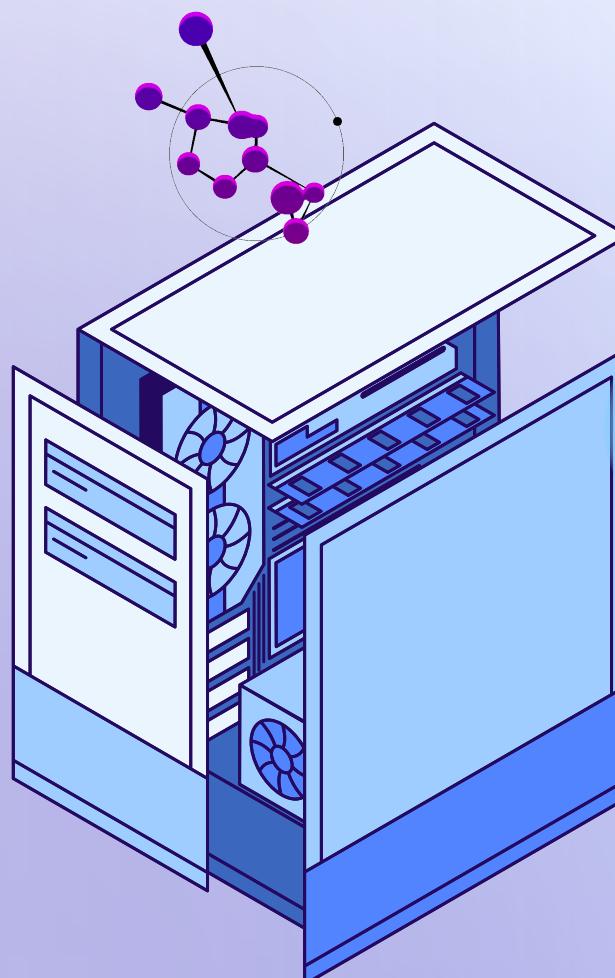
INTRODUCTION

What is design thinking?

- Design thinking is a way of solving problems by focusing on the needs of users.

Topic is BIG DATA AND ARTIFICIAL INTELLIGENT NEW INNOVATION

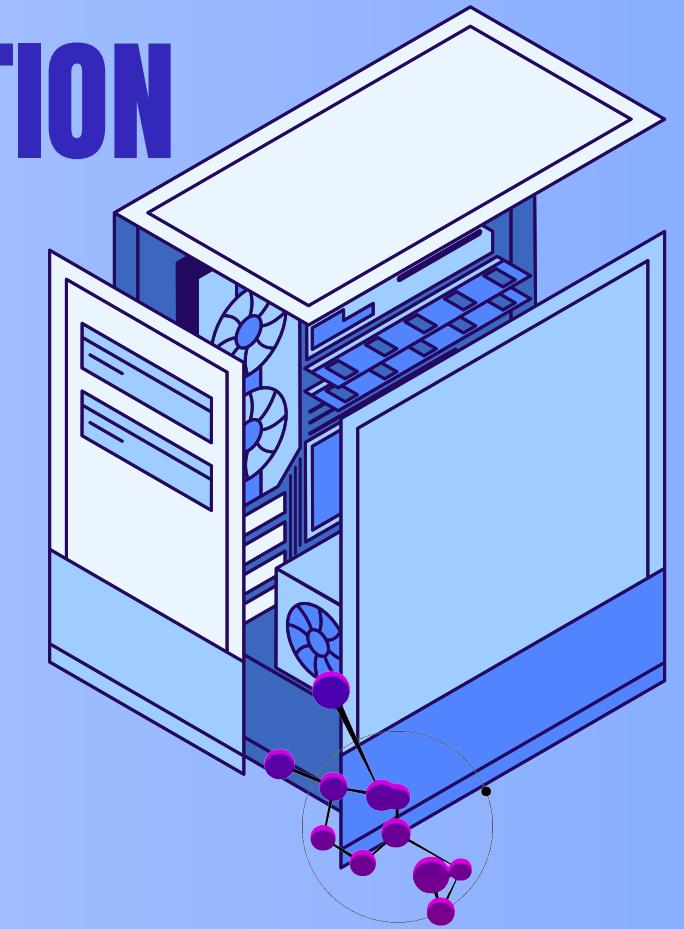
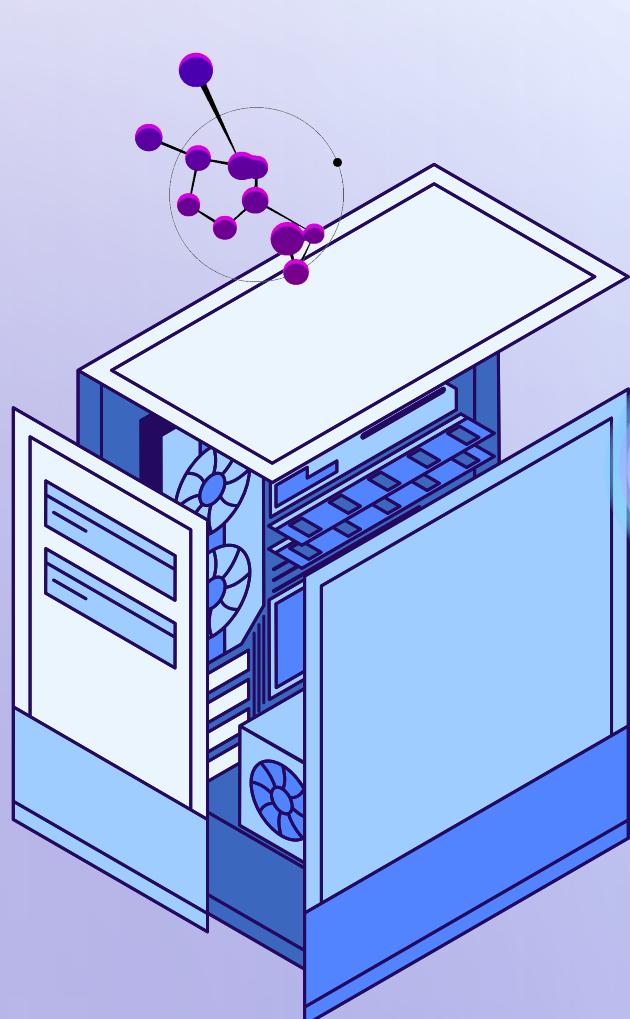
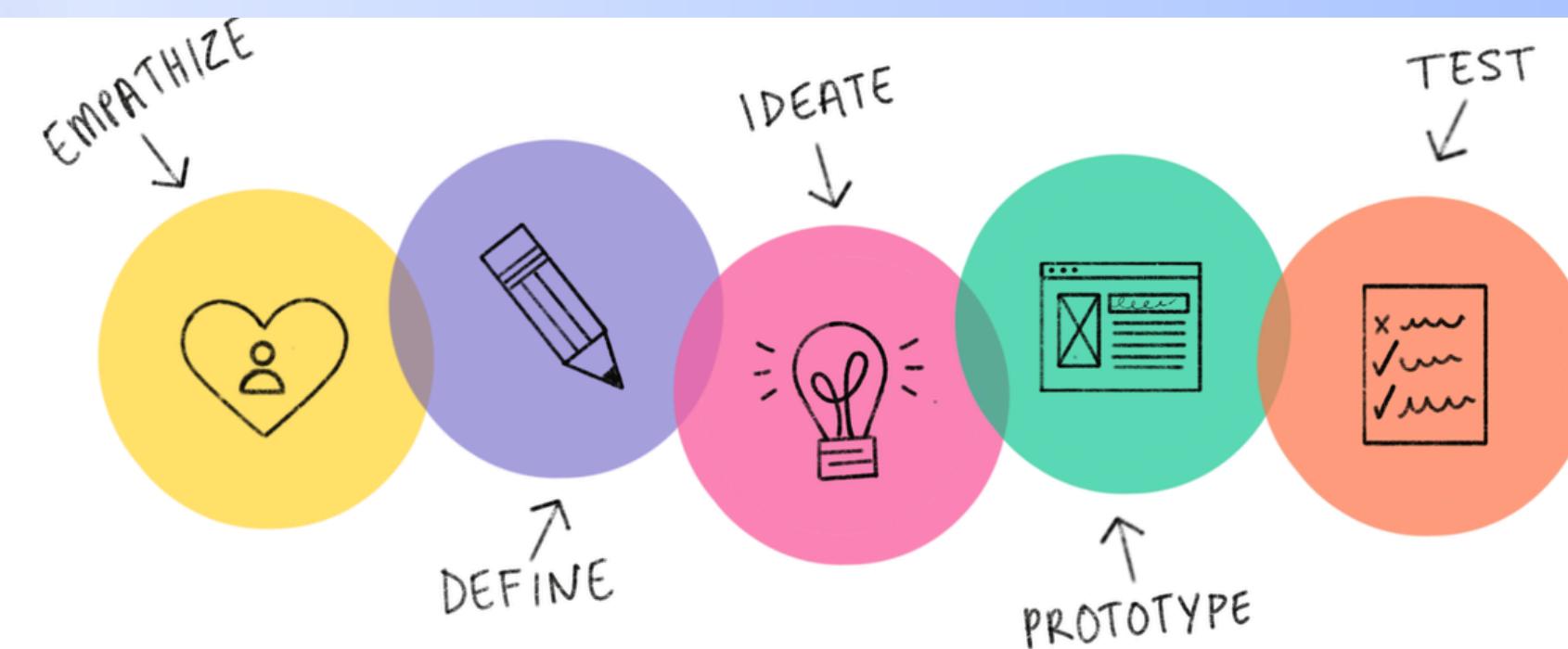
- Big data primarily refers to data sets that are too large or complex to be dealt with by traditional data-processing software.
- Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems.





BIG DATA AND ARTIFICIAL INTELLIGENT NEW INNOVATION

We decide to create a new innovation in the **navigation system** that has **AI and big data**. We need to solve the problem and solution through the process of 5 steps in design thinking, which are empathize, define, ideate, prototype, and test.





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PROBLEM



Current navigation apps lack an algorithm that is capable of analyzing a new route that does not exist in the database. It also has limited functionality that does not meet users' specific needs. Users have found the app is challenging to use while driving. Besides, users are also frustrated with the outdated route data. Users will acquire satisfaction if these problems can be addressed. In addition, real-time navigation apps will also provide users with a safer and smoother journey



SOLUTION

Proposed Solution for Enhanced Navigation App

- Voice-Driven Navigation
 - Voice recognition enables hands-free control for improved safety and accessibility while driving.
- Weather Integration
 - Adjusts routes based on real-time weather data to ensure safety and avoid hazards.
- AI-Driven Route Optimization
 - Utilizes machine learning to analyze user behavior and provide optimal, dynamic routes.
- Real-Time Adaptability
 - Adapts to live updates for precise and efficient navigation.
- AI Chatbot Assistance
 - Offers immediate, personalized responses to user queries during unpredictable situations for an enhanced experience.





EMPATHY



For the empathy part, We had invite an UTM students as our users for doing some interview. We asked him a lot question that related to our prototype like:

- i) What problem you often faced when using the navigation?
 - he think navigation always not show the shortcut although there are a shortcut
- ii) If you are already familiar with the destination, do you still use the navigation ?
 - he used sometimes when he drives alone for feeling more safety
- iii) Do you think Artificial Intelligent (AI) is more helpful on the navigation app?
 - he think yes because the AI is more understand his driving habits





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DEFINE

Quick Overview

- Key features of Our Navigation App
 - Definition
 - Purpose



Key features of Our Navigation App



- **Route Learning**

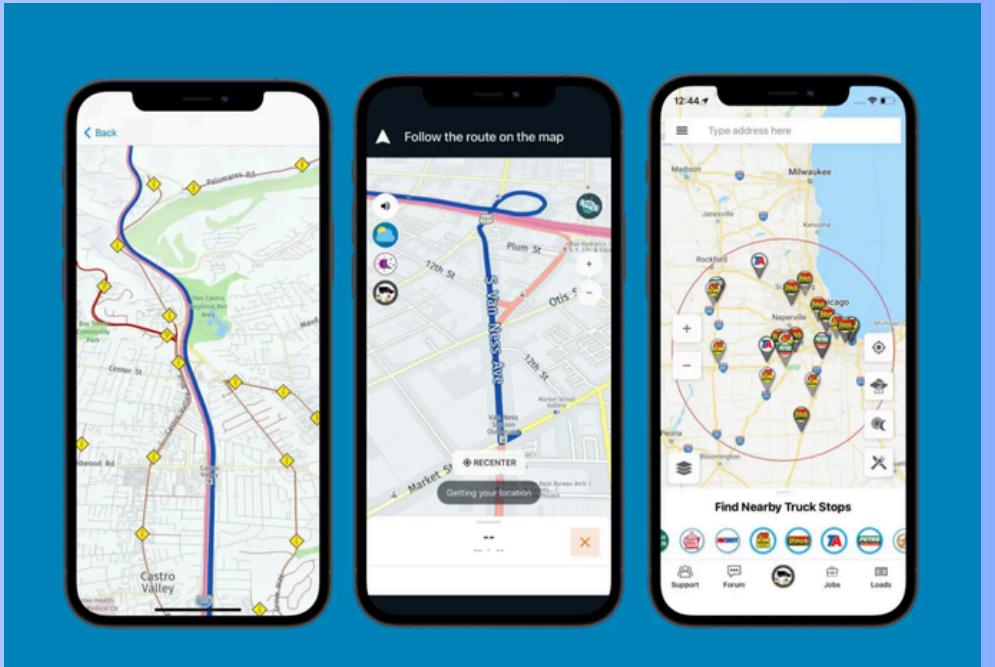
Definition: Route learning is an intelligent feature that enables the navigation app to continuously learn from users' routes.

Purpose: This feature enhances the app's ability to suggest new and optimized routes based on user preferences and driving habits, making navigation more efficient over time.

- **Voice Recognition**

Definition: Voice recognition technology allows users to interact with the navigation app using spoken commands.

Purpose: This feature promotes safety by enabling hands-free operation, allowing drivers to access navigation functions without taking their eyes off the road or hands off the wheel.



Continue...

- **Weather Forecast Integration**

Definition: Weather forecast integration involves incorporating real-time weather data into the navigation app.

Purpose: This feature allows the app to assess current and predicted weather conditions, enabling it to suggest safer alternative routes in case of hazardous weather, thus enhancing user safety.



- **AI Chatbots**

Definition: An AI chatbot is an artificial intelligence program designed to simulate conversation and provide assistance to users.

Purpose: The chatbot offers instant support and guidance, helping users with questions about routes, app features, or unexpected situations, thereby improving the overall user experience.





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IDEATE

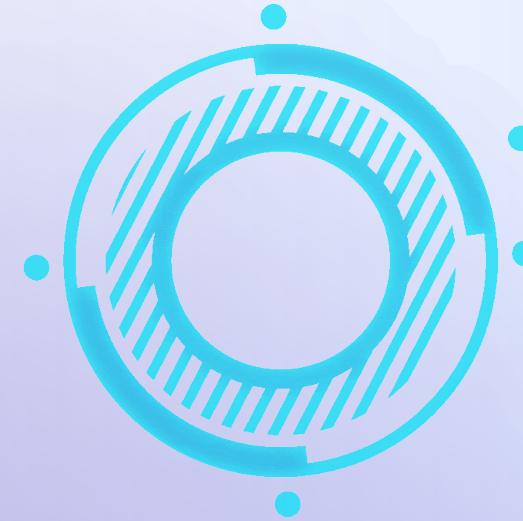
After our discussion and the brainstorming, we considered adding 7 ideas to do design prototype, 'On My Way'.

- add AI chat (My Way)
- voice control
- customize the route
- refine the shortest route
- updated the estimated route
- add picture for destination
- weather forecast





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PROTOTYPE

After discuss about the ideas for our navigation app, 'On My Way', we will design the simple version of the prototype. This is the navigation prototype that we made:

[Click here to see the prototype ➔](#)





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TEST

After we done our prototype, we invited an UTM students to test our prototype and take his feedback for refine our prototype better.

After testing, he gives us his feedback:

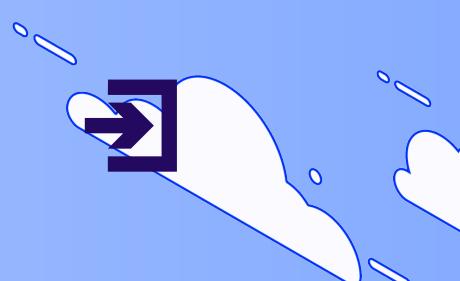
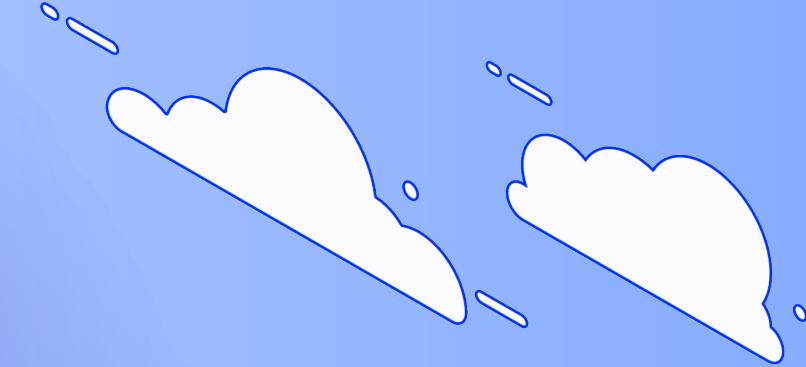
The navigation app is good but sometime got lags or loses connection in rural regions, so sometimes he miss the important junctions or turn arounds.





CONCLUSION

In conclusion, we have successfully integrated AI and big data into our navigation app, creating an innovative solution that enhances navigation efficiency. By focusing on real user needs, we have developed a user-centric design that results in a more intuitive and responsive experience. Additionally, we have leveraged big data to provide personalized experiences and improve route optimization. Looking ahead, our app is positioned for scalability and adaptability, ensuring it can evolve with emerging technologies and meet future user demands.





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THANK YOU!