EzParking

Real Time Parking

Recommendation System

21°

Explore Next Generation No Hassle Parking Experience

About EzParking

- A software dedicate to provide user the optimized parking lot selection
- Provide service to all age group and background

Meet us

Meet the team Apollo

Ziwen Tan

Backend Developer

Zhuo (Kyle) Chen

Frontend Developer

Yilin (Kevin) Ren

Frontend Developer &
Scrum Manager

Kecheng Yu

AI Developer &
Presentation Hoster

Why?

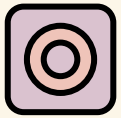
Vehicle is part of our life

Hard to find a parking spot when occur in a heavy traffic time

Even find a parking spot but far away from the destination

No indoor navigation

What sets us apart?



Simplicity

In just three simple steps, this project fulfills the users' requirements

Flexibility

The waypoint map can be customized by administrators as per their requirements

Reliability

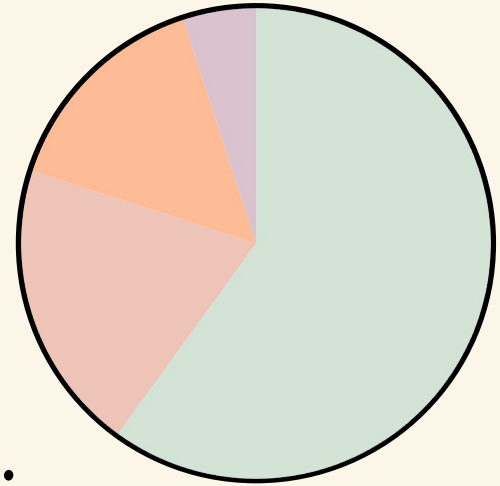
The system offers up to five recommended alternative parking lots that are optimal

Project commercial

01

Technology Use

Tech Stack



60%

Python

AI Detector

20%

Java

Backend services

15%

JavaScript

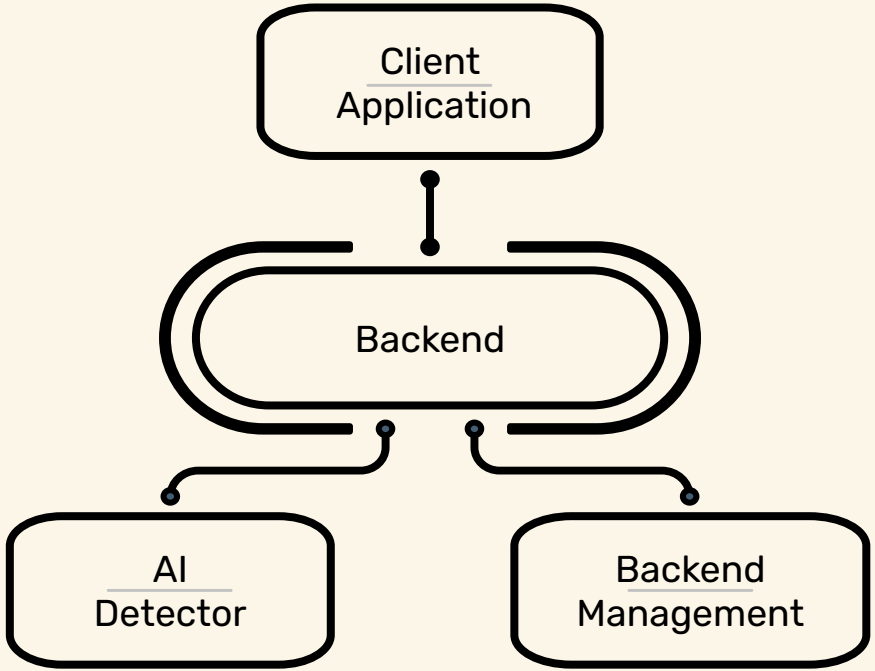
Frontend, React and Redux

5%

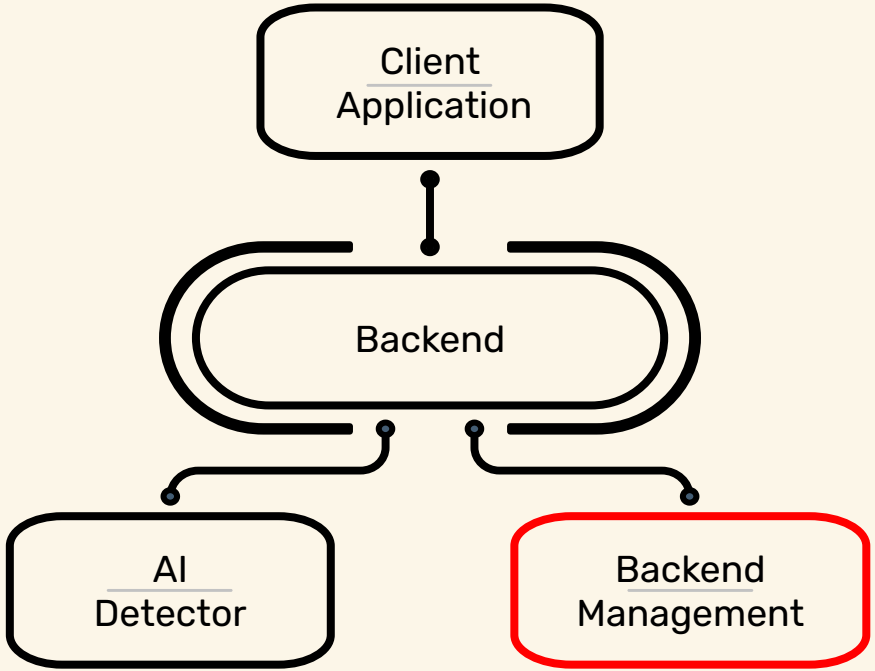
Other

HTML, TypeScript, Shell, etc.

System Workflow

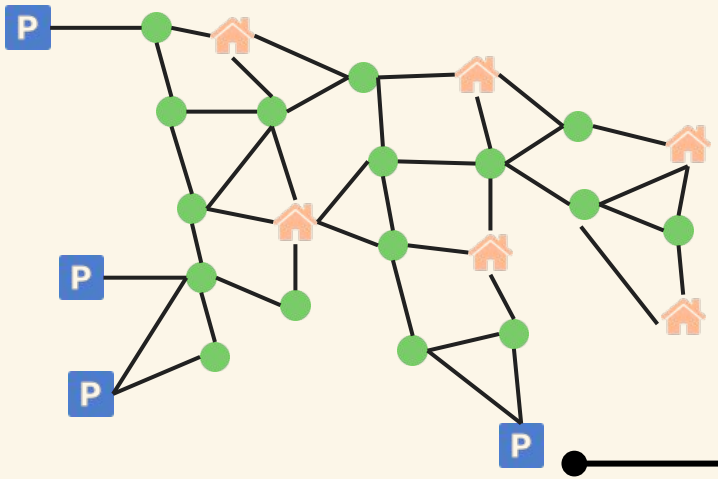


System Workflow



Waypoint Graph

Destination P Parking Lot Mid Way point



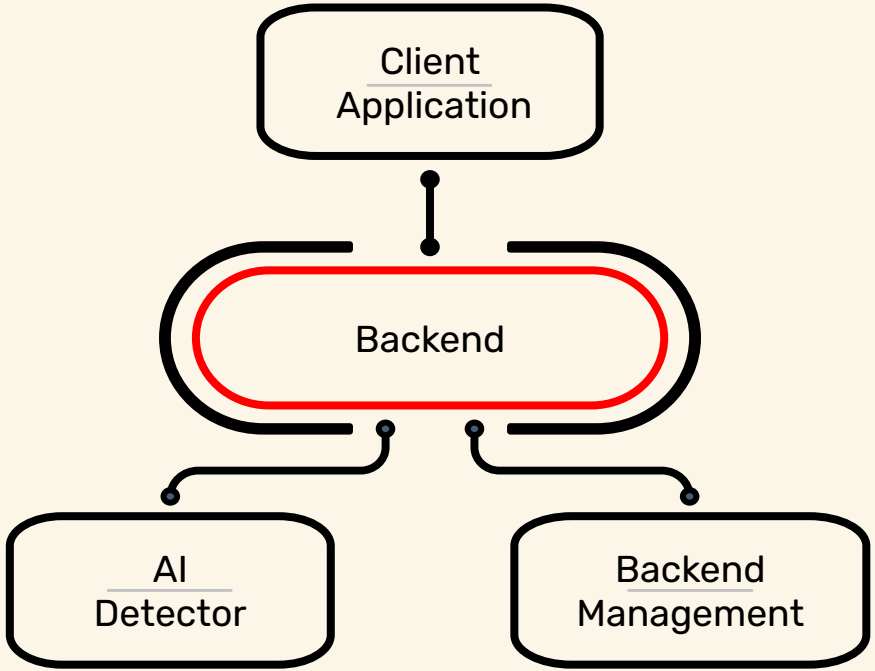
Destination

Name: Gym
Latitude: 50.4155
Longitude: 104.5878

Parking lot

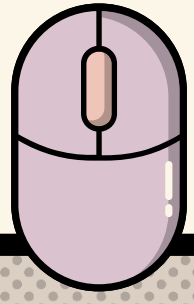
Name: Lot 10
Available Spot: 55
Latitude: 50.2113
Longitude: 104.1266

System Workflow

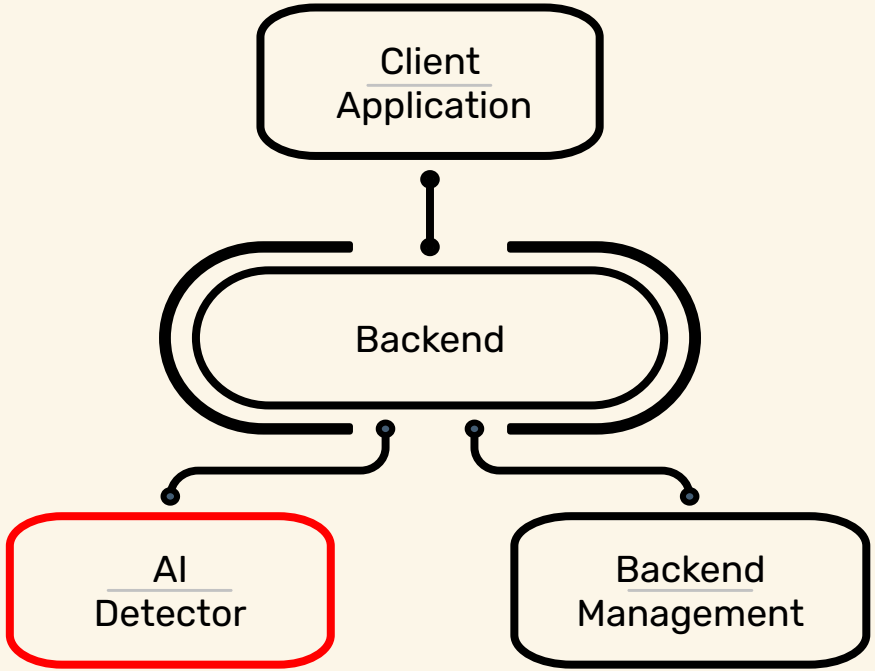


Dijkstra's algorithm

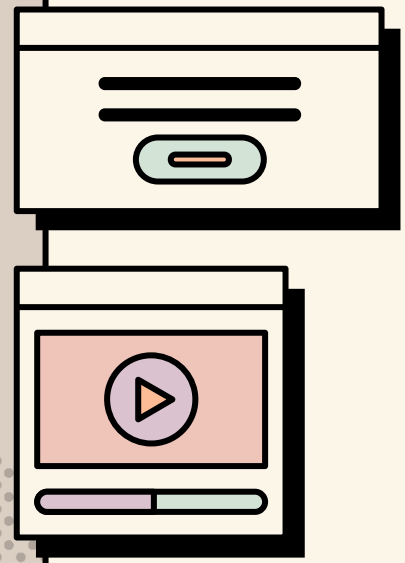
- Why Ezparking use dijkstra‘s algorithm?
- What problem does the dijkstra‘s algorithm help EzParking solve?



System Workflow



AI Vehicle Detection



– Camera Detect

Easy to place and more versatile than sensors

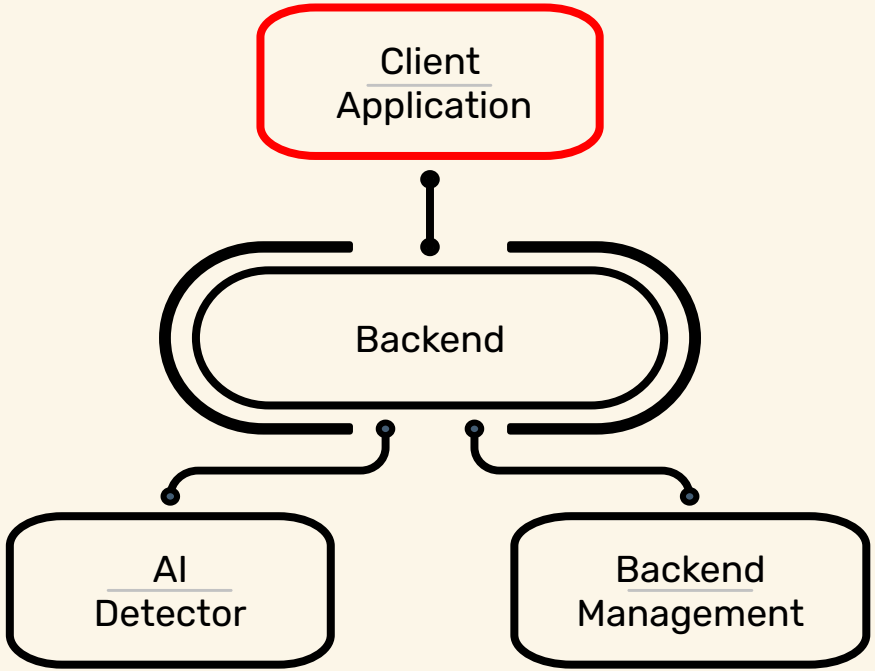
– YOLO v5

The best choice of both performance and requirements

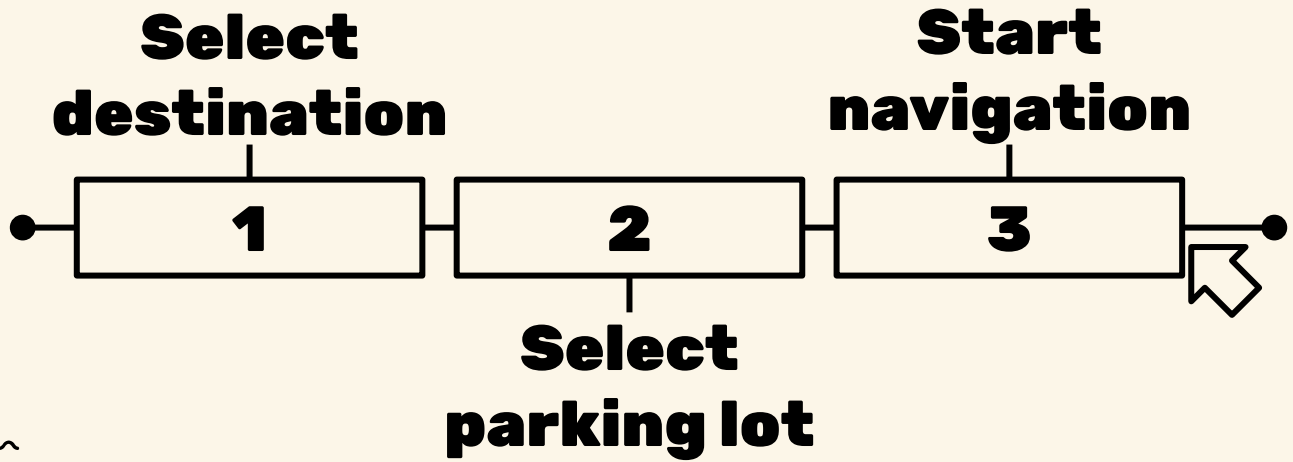
– Multi-process APIs Call

No pausing issue anymore, won’t miss any frame in the video

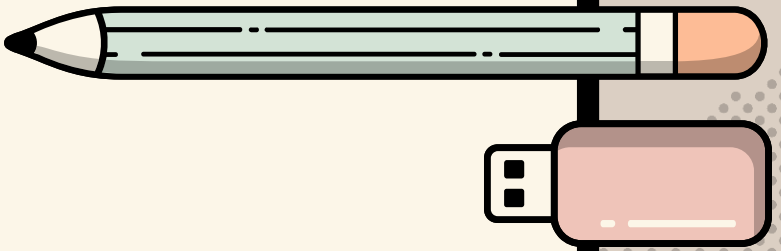
System Workflow



Client Application

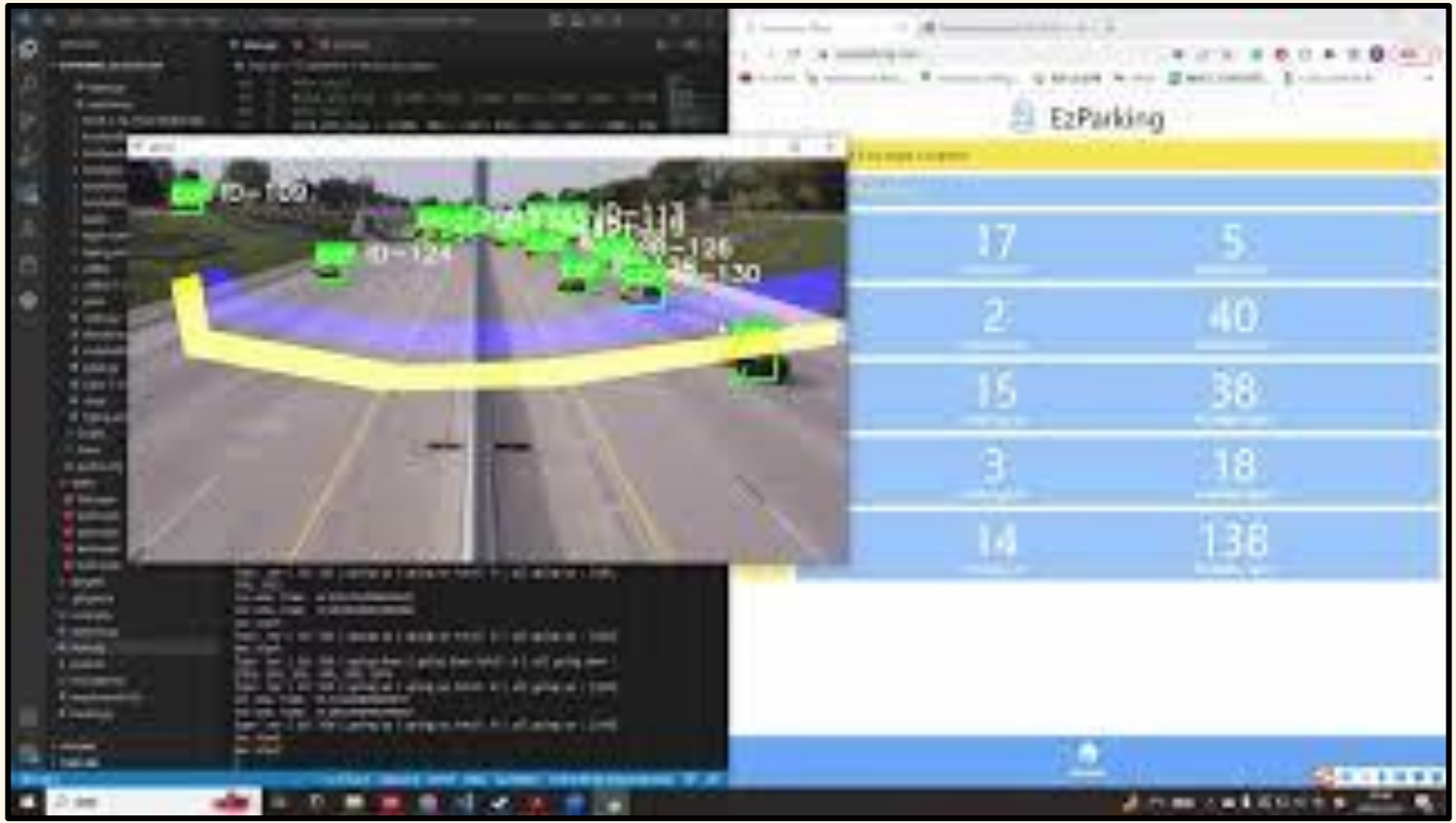


02



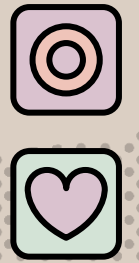
Demo

AI Demo



03

Never Stop Exploring



Future

Implemente advanced analytics

- More personalized recommendations

Develop additional features

- Additional features

Enhance algorithm and server performance

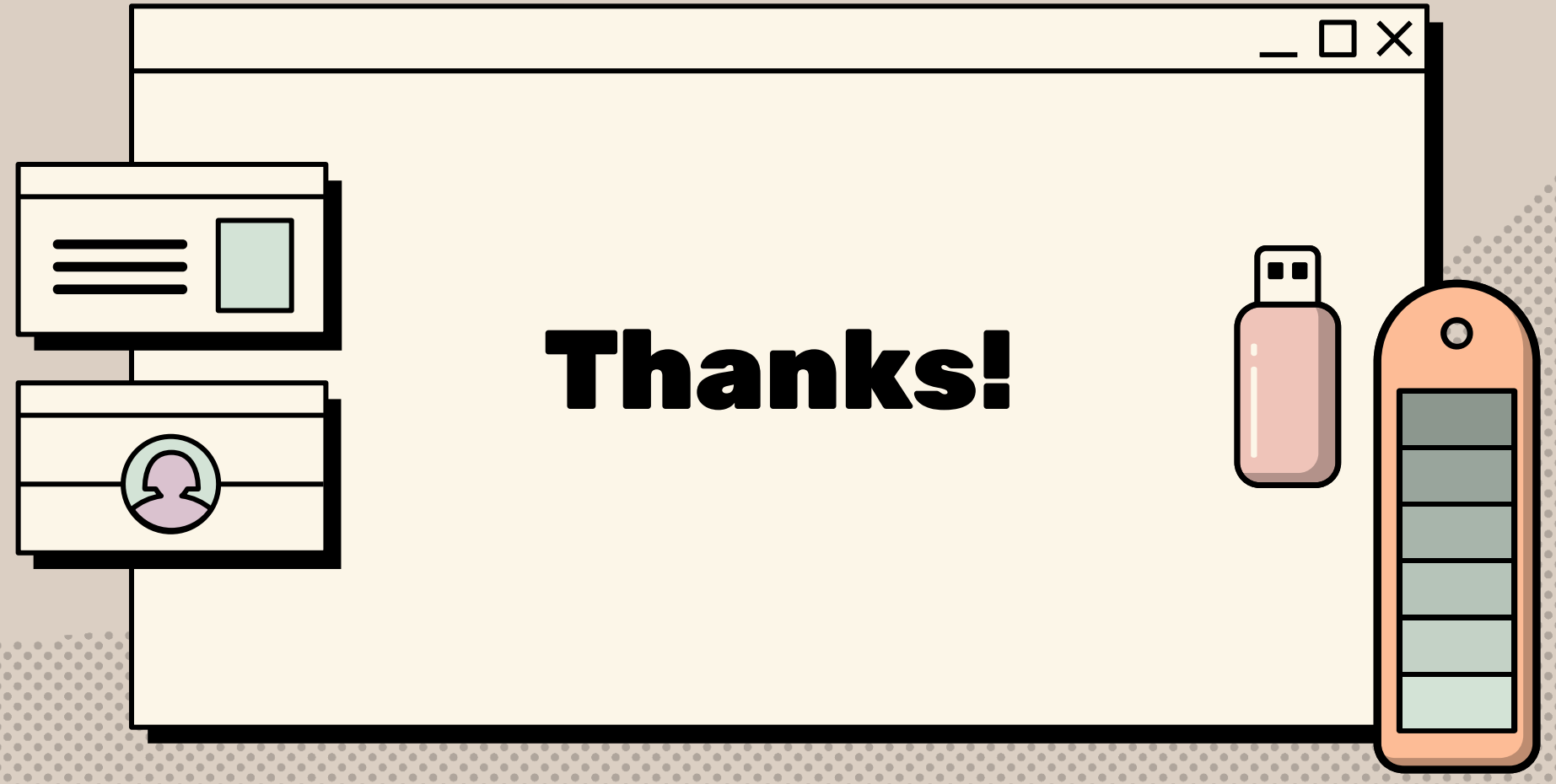
- Improving the performance

Acknowledgement

We would like to thank the following people for their involvement with our project:

- Project Advisor:Dr. Timothy Maciag
- Project Mentor:Dr. Christine Chan

Thanks!



Question