

Pixel Team



# Travel Guide



# Pixel Team



## Today's Agenda

1

Introduction

2

Team Strategies/Project plan

3

Github Collaboration

4

Summary

## Team Members



Jamshid Ganiev  
12200335



Alhammadi Mohamed  
12200181



Zhang Xiaomeng  
12240121



Diyora Bobokulova  
12214731

## Travel Guide Application

- An application to find the convenient way to travel
- Voice AI Search
- AI Chat Bot using GPT-4 API

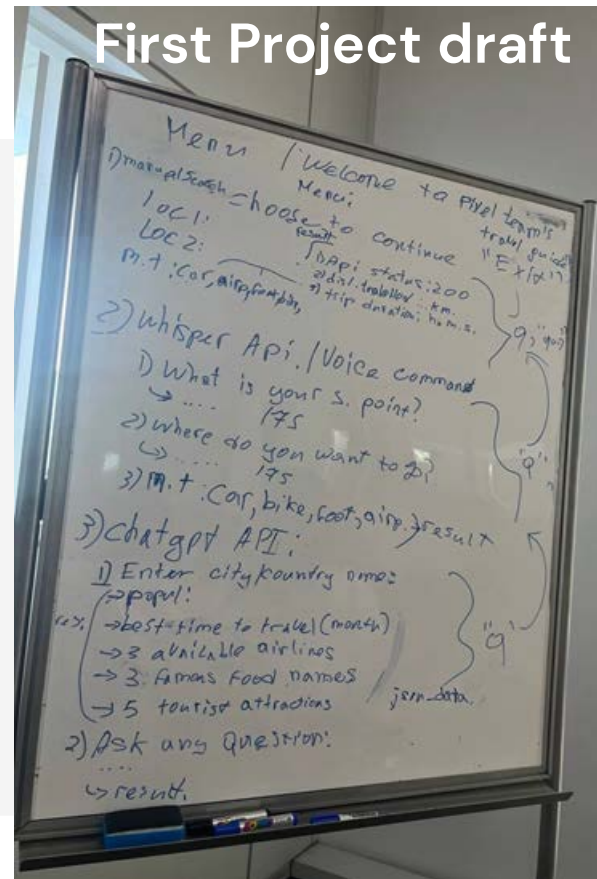


# Project Plan

- 1 Manual Search (Lab 4.9.2)
  - Graphhopper Geocoding Application
  - Graphhopper Routing Application
- 2 Voice Command (Upgraded version of the Lab 4.9.2)
  - Whisper API
  - OpenWeather Weather API
- 3 Chat Gpt API
  - To search additional information



## First Project draft



# Reasons for API

## Graphhopper:

- 1
  - includes the coordination of locations
  - shows the distance and time between 2 locations based on the mode of mobility.

## 2 Whisper API and Graphhopper API integration

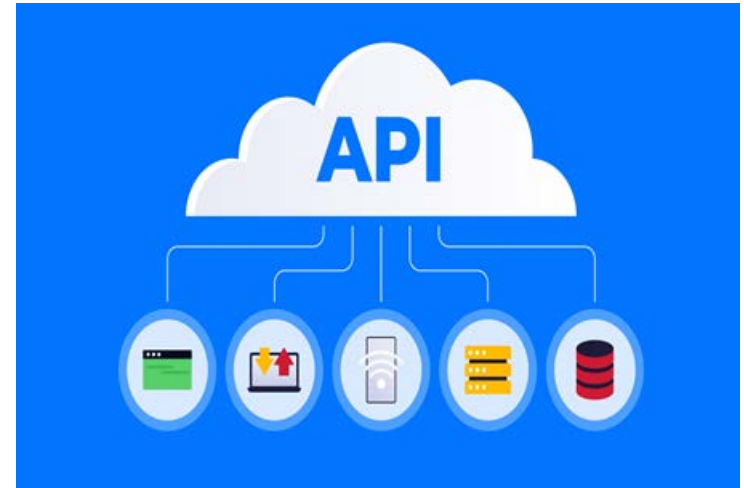
- Search via Voice Command

## 3 OpenWeather API

- includes information about the weather in different locations

## 4 GPT 4 API

- get customized info about the place of your choice
- ask general questions ( like the GPT chatbot)



# GPT-4-Turbo API

## Billing

Overview Payment methods Billing history F

Credit balance ⓘ

\$4.86

- ⊙ Auto recharge is off  
When your credit balance reaches \$0, your / credit balance topped up.  
[Enable auto recharge](#)

Add to credit balance

Cancel plan



Payment methods

Add or change payment method

ⓘ Help

J Jamshid Ganiev

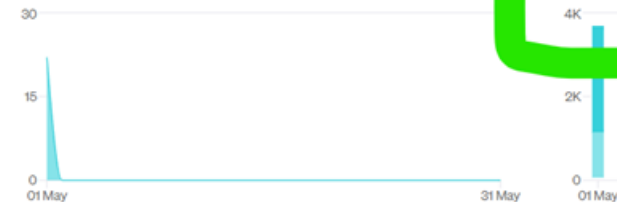
## Usage

Cost

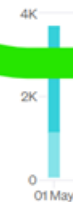
Activity

GPT-4-turbo-2024-04-09

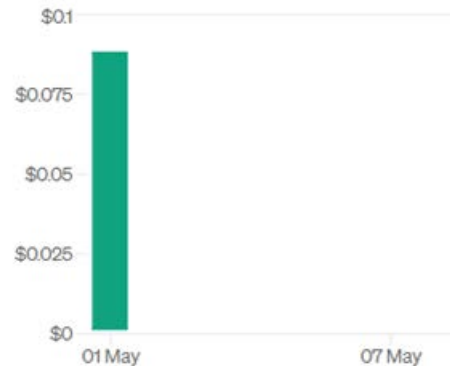
API requests 22



Tokens 3,624



GPT-4 Turbo \$0.09



# Final Output

## Menu:1

```
james@DESKTOP-James MINGW64 ~/Desktop/DevOps-Pixel-Team/mid_term_project (m
$ python main_program.py

Welcome to the Pixel team's travel guide application

Menu:
  1) Manual routing
  2) Voice command routing and weather info
  3) GPT-4 chatbot

Choose one to continue:

Enter your choice (1/2/3): 1
Enter the starting point: New Hampshire
Enter the destination: Texas
Enter mode of transportation (car, foot, bike): car
  1) API status: 200 (successful)
  2) Distance between New Hampshire and Texas: 3187.17 km
  3) Time it takes to reach the destination: 8 hours, and 15 minutes
Do you want to continue? (yes/no): yes

Welcome to the Pixel team's travel guide application

Menu:
  1) Manual routing
  2) Voice command routing and weather info
  3) GPT-4 chatbot

Choose one to continue:

Enter your choice (1/2/3): 1
Enter the starting point: New Hampshire
Enter the destination: Texas
Enter mode of transportation (car, foot, bike): bike
  1) API status: 200 (successful)
  2) Distance between New Hampshire and Texas: 3532.98 km
  3) Time it takes to reach the destination: 9 hours, and 34 minutes
Do you want to continue? (yes/no): yes
```





## Final Output Menu: 2

Welcome to the Pixel team's travel guide application

Menu:

- 1) Manual routing
- 2) Voice command routing and weather info
- 3) GPT-4 chatbot

Choose one to continue:

Enter your choice (1/2/3): 2

Voice Control Menu:

1. Routing via voice
2. Get current weather of a city

Type 'quit' to exit.

Enter your choice: 1

Speak the starting point (city and street):

Start Location: Florida

Speak the destination:

End Location: California

Enter mode of transportation (car, foot, bike): car  
200

Voice Control Menu:

1. Routing via voice
2. Get current weather of a city

Type 'quit' to exit.

Enter your choice: 2

Which city's weather do you want to know?

City Name: Tashkent

Weather: clear sky

Temperature: 24.97 °C

Voice Control Menu:

1. Routing via voice
2. Get current weather of a city

Type 'quit' to exit.

Enter your choice:



## Final Output

### Menu: 3

```
james@DESKTOP-James MINGW64 ~/Desktop/DevOps-Pixel-Team/mid_term_project (main)
$ python main_program.py
```

Welcome to the Pixel team's travel guide application

Menu:

- 1) Manual routing
- 2) Voice command routing and weather info
- 3) GPT-4 chatbot

Choose one to continue:

Enter your choice (1/2/3): 3

Choose an option:

1. City Information
2. Chat with ChatGPT

Enter your choice (1/2): 1

Enter the city name or country name: Mumbai

- **Best Time to Travel to Mumbai:** October to February, when the weather is cooler and less humid.
- **Available Airlines to Mumbai:** Major airlines include British Airways, Emirates, United Airlines, Air India, and Qatar Airways.
- **Famous Foods in Mumbai:** Vada Pav, Pav Bhaji, Bhel Puri, and Bombay Sandwich.
- **Tourist Attractions in Mumbai:** Gateway of India, Marine Drive, Chhatrapati Shivaji Maharaj Terminus, and Elephanta Caves.
- **Population of Mumbai:** Approximately 20 million as of recent estimates.

Do you want to continue? (yes/no): yes

Choose an option:

1. City Information
2. Chat with ChatGPT


Enter your choice (1/2): 1

Enter the city name or country name: Dubai

- **Best Time to Travel to Dubai:** October to April, when the weather is cooler.
- **Available Airlines to Dubai:** Emirates, Etihad, Qatar Airways, British Airways, Delta, and many more.
- **Famous Foods in Dubai:**
  - Shawarma
  - Hummus
  - Al Harees
  - Tabbouleh
  - Falafel
- **Tourist Attractions in Dubai:**
  - Burj Khalifa
  - Dubai Mall
  - Dubai Fountain
  - Palm Jumeirah
  - Dubai Marina
- **Population of Dubai:** Approximately 3.5 million as of 2023.

Do you want to continue? (yes/no):


# Issues



**Problem:** Whisper API couldn't recognize the user's speech and retrieve the data in the beginning

**Solutions:**

- updated the code version
- used microphone for better voice quality



**Problem:** many errors in the integration of Whisper and Graphhopper APIs

**Solution:** identifying specific API endpoints for speech recognition and routing



## Future Improvements

1. Ability to find available flight tickets
2. Ability to provide some tour programs for the users
3. The design of the User Interface.  
(Mobile / Web App)





# Branches

Overview Active Stale All

Q Search branches...

## Default

Branch	Updated	Check status	Behind	Ahead	Pull request
main	48 minutes ago			Default	...

## Active branches

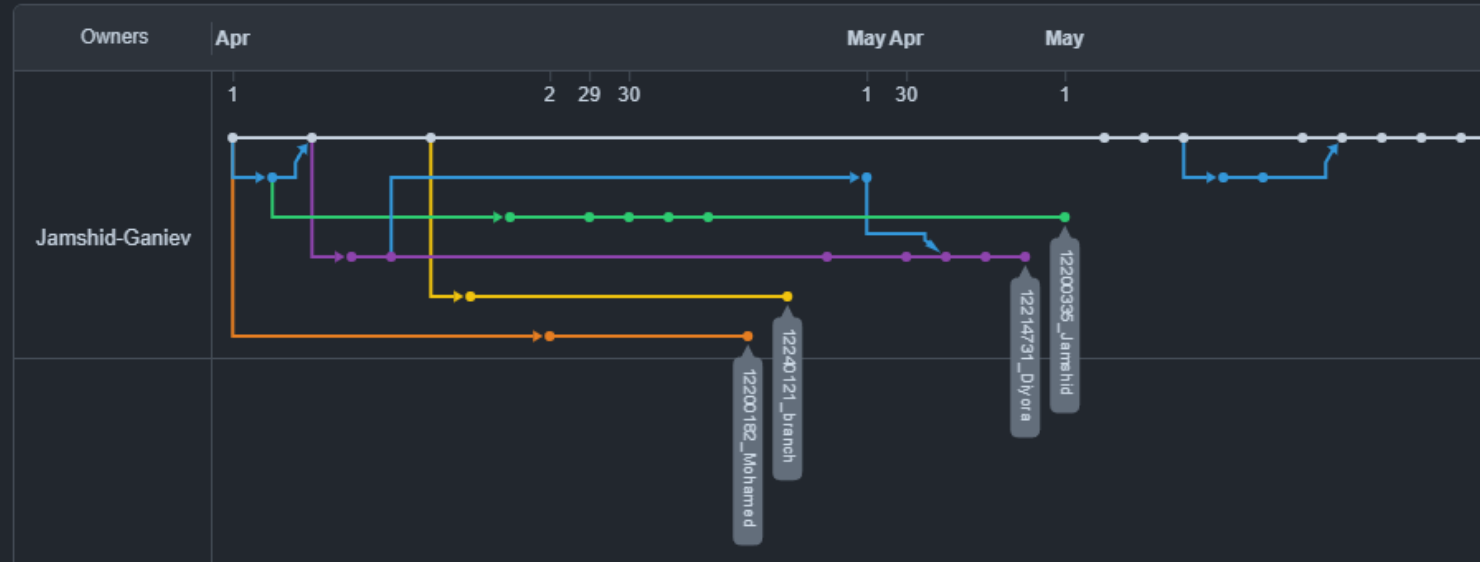
Branch	Updated	Check status	Behind	Ahead	Pull request
12200335_Jamshid	3 hours ago		5	6	...
12214731_Diyora	12 hours ago		4	8	...
12200182_Mohamed	17 hours ago		6	2	...
12240121_branch	17 hours ago		3	2	...



# Branch Contribution

## Network graph

Timeline of the most recent commits to this repository and its network ordered by most recently pushed to.



Pixel Team



## GitHub Collabration

There are our team's github  
screenshots. We did different branches  
in our own Virtual Machine.

# Let's begin!

## Summary

During the processing of this project we learnt a lot about how to plan our work in advance using a white board.

We know about the details of API and we can help someone to find the reasonable way.

We also got to know how to look thorough various API documentations on their official website.



Zhang  
Xiaomeng

Happy to work with every member , We worked on some technical difficulties together, and I learned a lot when reviewing the code in the github.

I learnt how to use various APIs in our project and handle different kind of errors (like 400) and also deal with them on the go. I realized that planning our code on the white board before starting the coding process helped our team a great deal.

Jamshid

Mohamed

I learned how to use Whisper API for voice transcription.

Diyora

I learnt how to integrate different APIs into our main project



```
.gitignore x .env
.gitignore
1 # mid_term_project:
2 mid_term_project/vir_env
3 mid_term_project/.env
4 |
5 # other files
```

This is how we maintained  
the security of our API keys.

```
.gitignore .env
mid_term_project > .env
1 # GPT-4 API KEY:
2 GPT_4_API_KEY=sk-proj-l8evTb8wjYPvenK4K3MoT3BlbkFJT
3
4 # graphhopper API KEY:
5 GRAPHHOPPER_API_KEY=6b2435ab-f952-4fed-97
6
7 # OpeenWeather API KEY:
8 OPENWEATHER_API_KEY=a9a88bc302e36a5d86e
9
10 # Whisper API KEY:
11 WHISPER_API_KEY=8xQ9m6ntVyKYH1xC3Slke2C
12 |
```

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# Thank you!

Have a great day ahead.