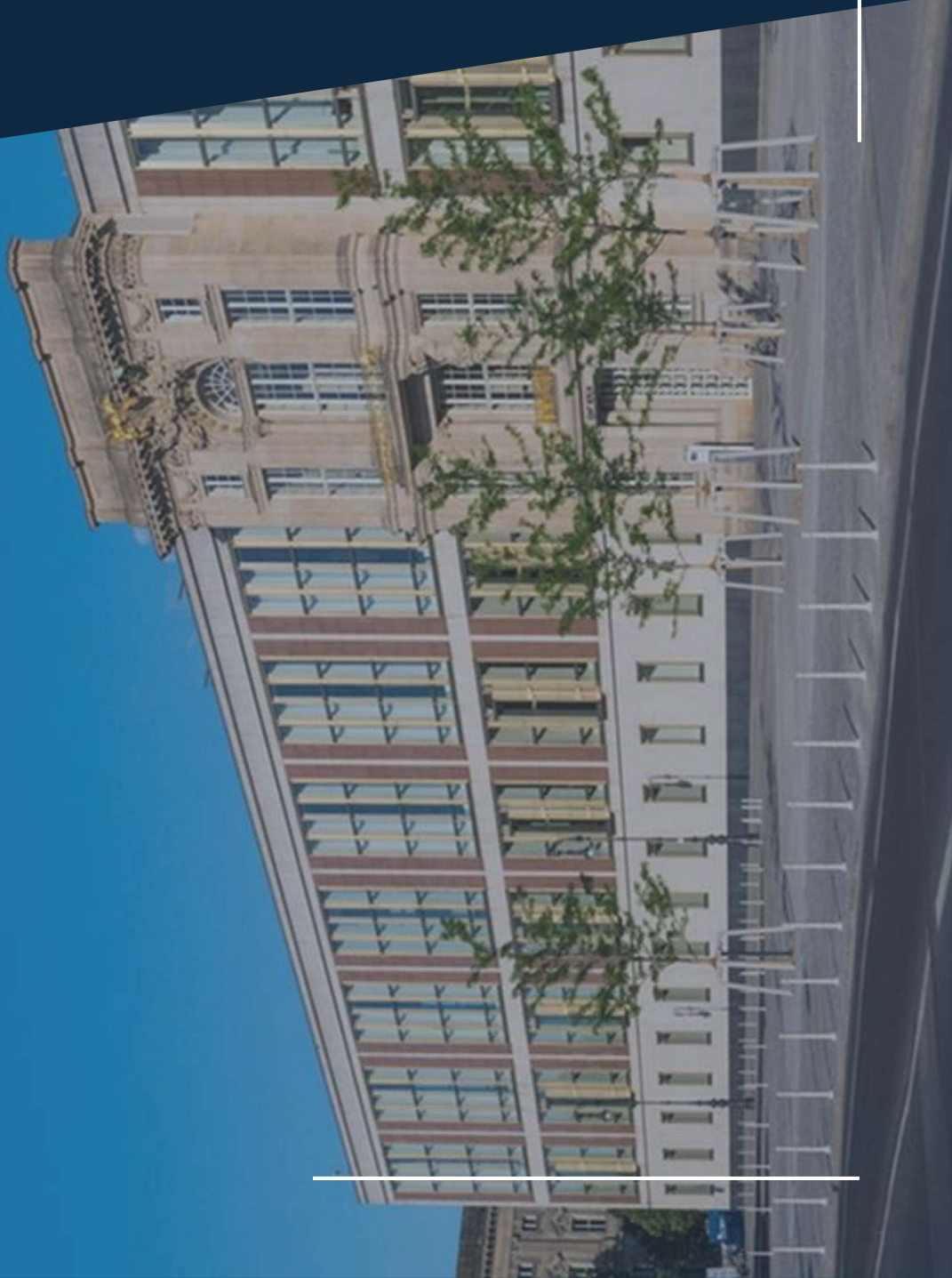
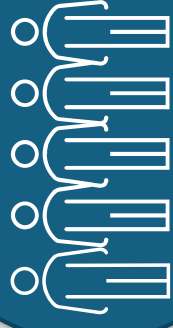


Food Truck Bus "5 Pandas

Group A
Data Scraping



MEET THE TEAM



Krisztián



Ákos



Anna



Fynn

TODAY'S AGENDA



01

OVERVIEW OF THE BUSINESS

02

CHALLENGES AT HAND

03

BREAKDOWN OF THE APIS

04

SOLUTION DEVELOPMENT

05

APPLICATION & OUTLOOK

BUSINESS OVERVIEW

What is our plan?

- **Food Truck Business**
 - Starting to operate in Berlin
- **Not stationary but can choose location flexibly**
 - Trying to serve the largest customer base possible
 - Most interesting: Big events



Restriction:

We are full-time students.

1. Only able to work in the evening / night hours
2. No time for long decision process
 - ✓ Location decision is made once every Sunday for the entire next week

CHALLENGES AT HAND

Our Goal: “We want to...

MAXIMIZE PROFIT

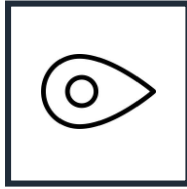
...to be able to finance our studies.”

Our profit is influenced by...



Weather

- Customers are not as likely to buy something a stand if the weather is bad
- Data: OpenWeather API



Location / Event

- Our possible customer base varies by the population / location / event we choose to attend
- Data: Google Events API & Google Maps API



Operation Cost

- Costs affiliated with our operations (fuel, materials) reduce our profits
- Data: Expert Interview

API BREAKDOWN



OpenWeatherMap API

Purpose for our Business:

To retrieve real-time and forecast weather data to predict behavior based on weather conditions.

Key Features:

- Current weather data (temperature, humidity, wind speed)
- Forecast data (hourly and daily forecasts)
- Historical weather data for trend analysis

Ease of Use / Challenges:

- **Ease of Use:** Simple RESTful API with clear documentation for various programming languages.
- **Challenges:** Rate limits on API calls; potential inaccuracies in forecasts for specific locations.

Real-World Use Cases:

- Event planning for outdoor activities
- Retail businesses adjusting inventory based on weather forecasts

API BREAKDOWN



Google Events API

Purpose for Business:

To access information about local events, enabling strategic food truck locations based on popular gatherings.

Key Features:

- Retrieve event details (name, time, location)
- Search for upcoming events based on keywords and location
- Access public calendars to find local festivals or concerts

Ease of Use / Challenges:

- **Ease of Use:** Well-documented API with extensive support and community examples.
- **Challenges:** Requires proper OAuth 2.0 authentication and a need for user permission to access certain calendars.

Real-World Use Cases:

- Event-driven marketing strategies for local businesses
- Scheduling vendors for large events like fairs and concerts
- Food trucks selecting high-traffic locations during events

API BREAKDOWN



OpenStreetMap Nominatim API

Purpose for Business:

To identify optimal locations for setting up the food truck based on proximity to events and customer traffic patterns.

Key Features:

- Maps and geolocation services for navigating to event locations
- Places API for finding nearby amenities (e.g., restroom, parking)
- Directions and distance calculations for route planning

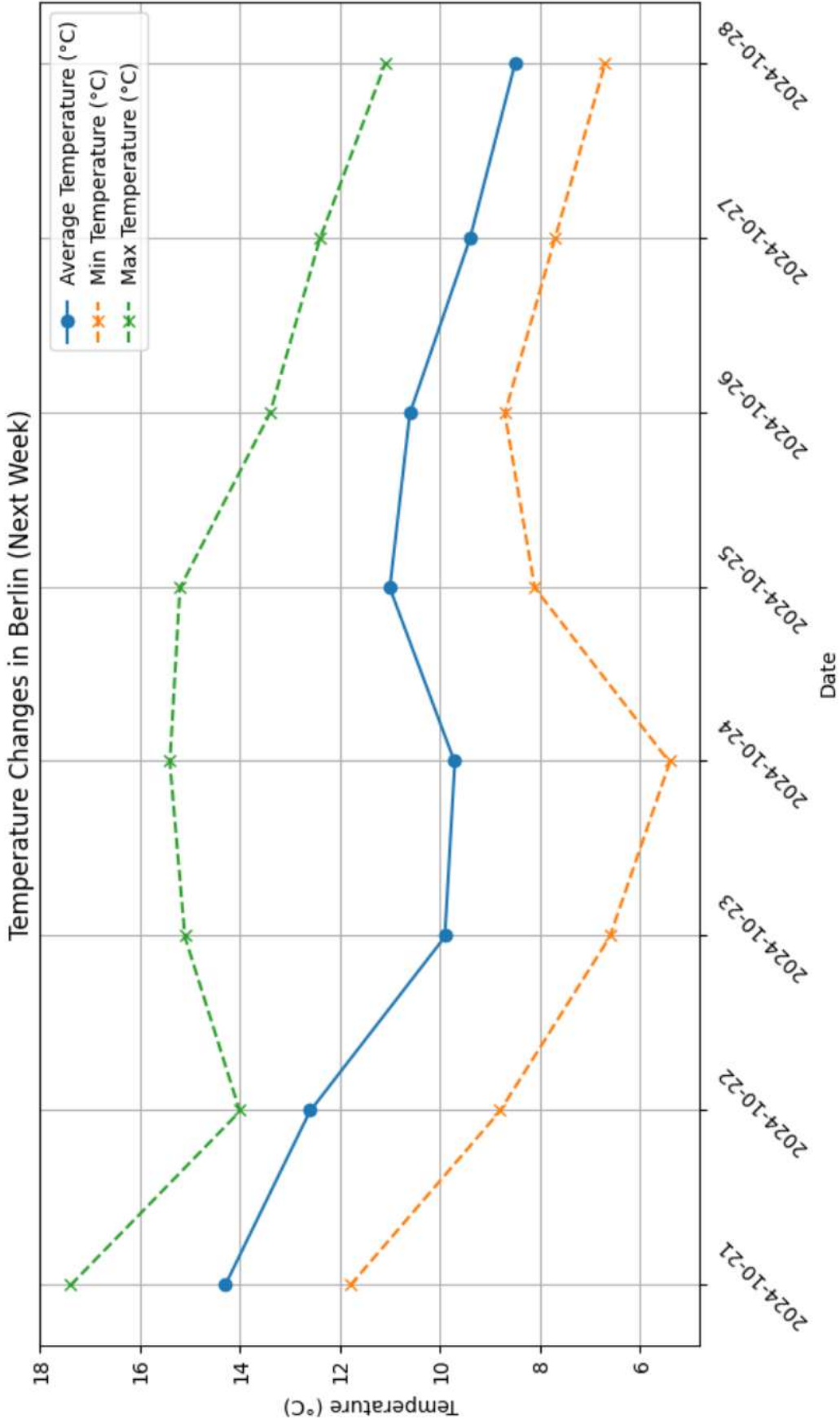
Ease of Use / Challenges:

- **Ease of Use:** Intuitive API with extensive libraries for various queries
- **Challenges:** Billing based on usage; complex queries require advanced knowledge of the API.

Real-World Use Cases:

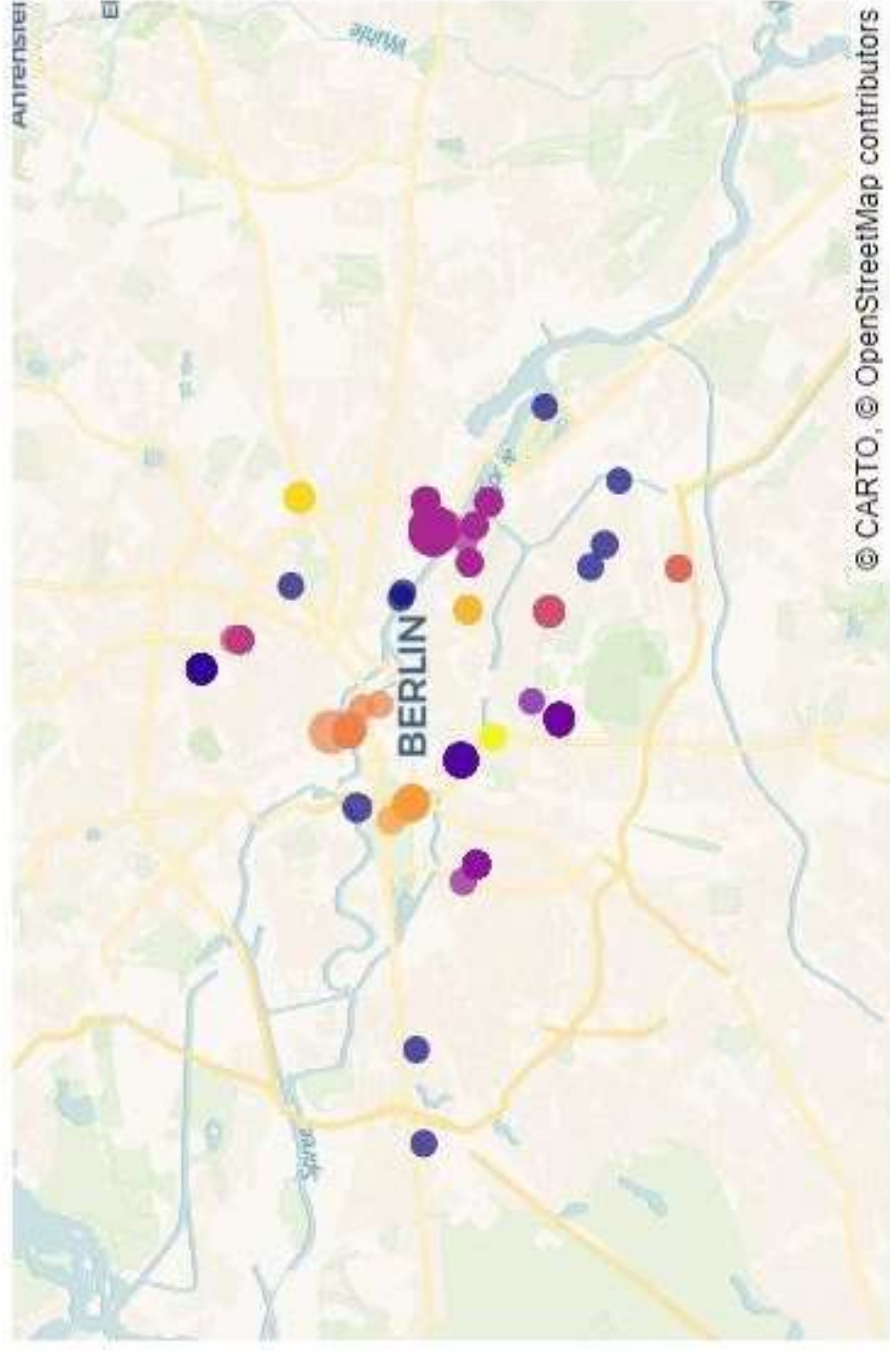
- Ride-sharing companies optimizing driver routes
- Local businesses determining foot traffic patterns
- Food trucks identifying high-demand areas based on historical data

OUR SOLUTION

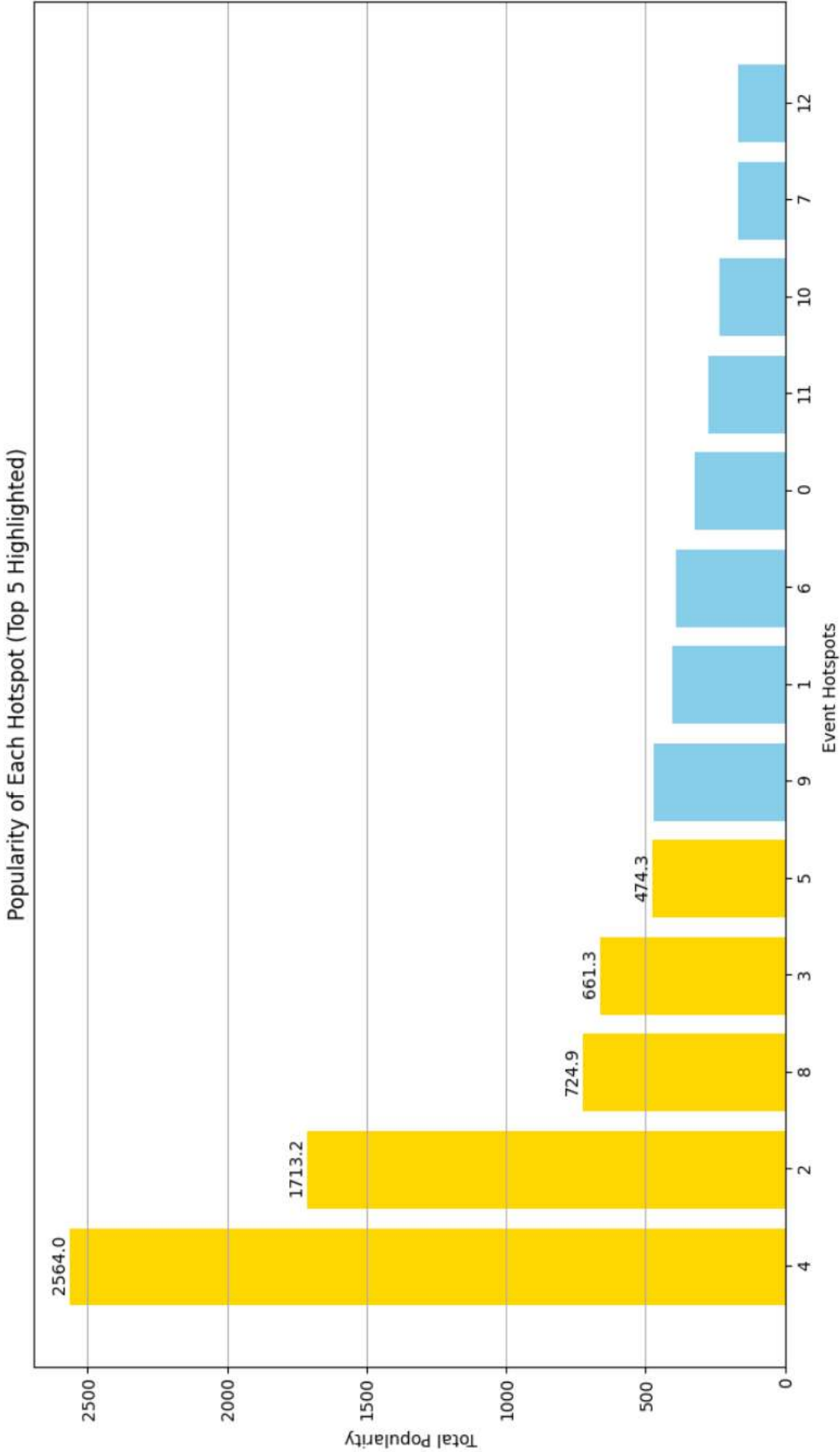


OUR SOLUTION

Screens

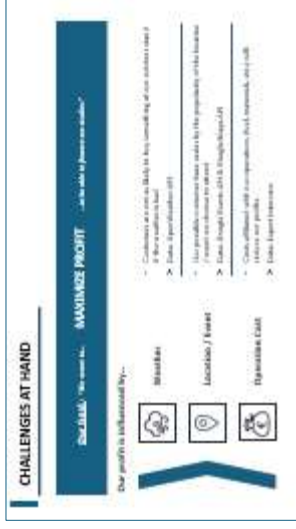


OUR SOLUTION



APPLICATION

3 Schritte im
herau



Core Decision Rule:

Trucks will only be moved to locations where...

Expected Revenue (ER) > Expected Costs (EC)

1.

Analyze weather & promising events

Check both our weather analysis and event map for the unusual insights to flag for the subsequent decision-making process.

2.

Calculate ER & EC with data from our Tools

Expected Revenue

- **Expected Attendance**
- **Weather Factor**
- Average Spending p.p.

Expected Costs

- Groceries & Beverages
- Fuel

3.

Choose Location on expected Profit

Profit/Loss = E - C

Core Decision

Trucks will be moved to profitable locations on a basis and might stay specific days, if loss is expected.

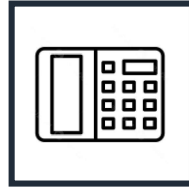
OUTLOOK

What we have planned for...



Event Assessment

- Adding the popularity of an individual artist to how many people are attending (e.g., Spotify)
- Collaborate with ticket sales platform (utilize the



Calculations

- Gain prices of Groceries and fuel automatically from our suppliers and partnered gas station
- Put the influence of weather into more accurate



Expansion

- Widen our inspected map radius to areas outside Brandenburg
- Open franchise with students in other cities

“We need to go out and test our assumptions so far.”

Thank you for your attention...



& join us to see the panda babies at the Zoo Berlin