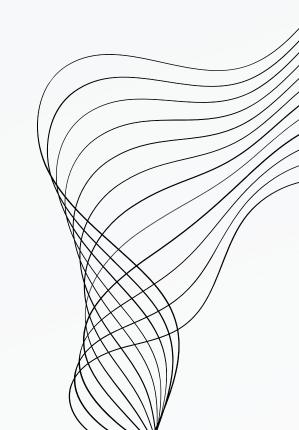


EPPS 6354 ASSIGNMENT 1

JANNELLE NAVALES



APPLICATIONS I'VE USED

Spotify

A popular music streaming service,
Spotify uses a database to store listener and artist data, music catalog, and song and playlist details (number of listens, saves, mood tags, etc.)

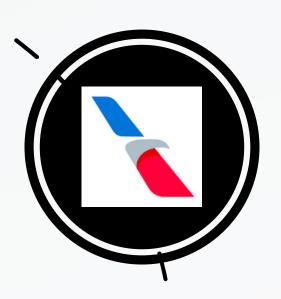
Lyft

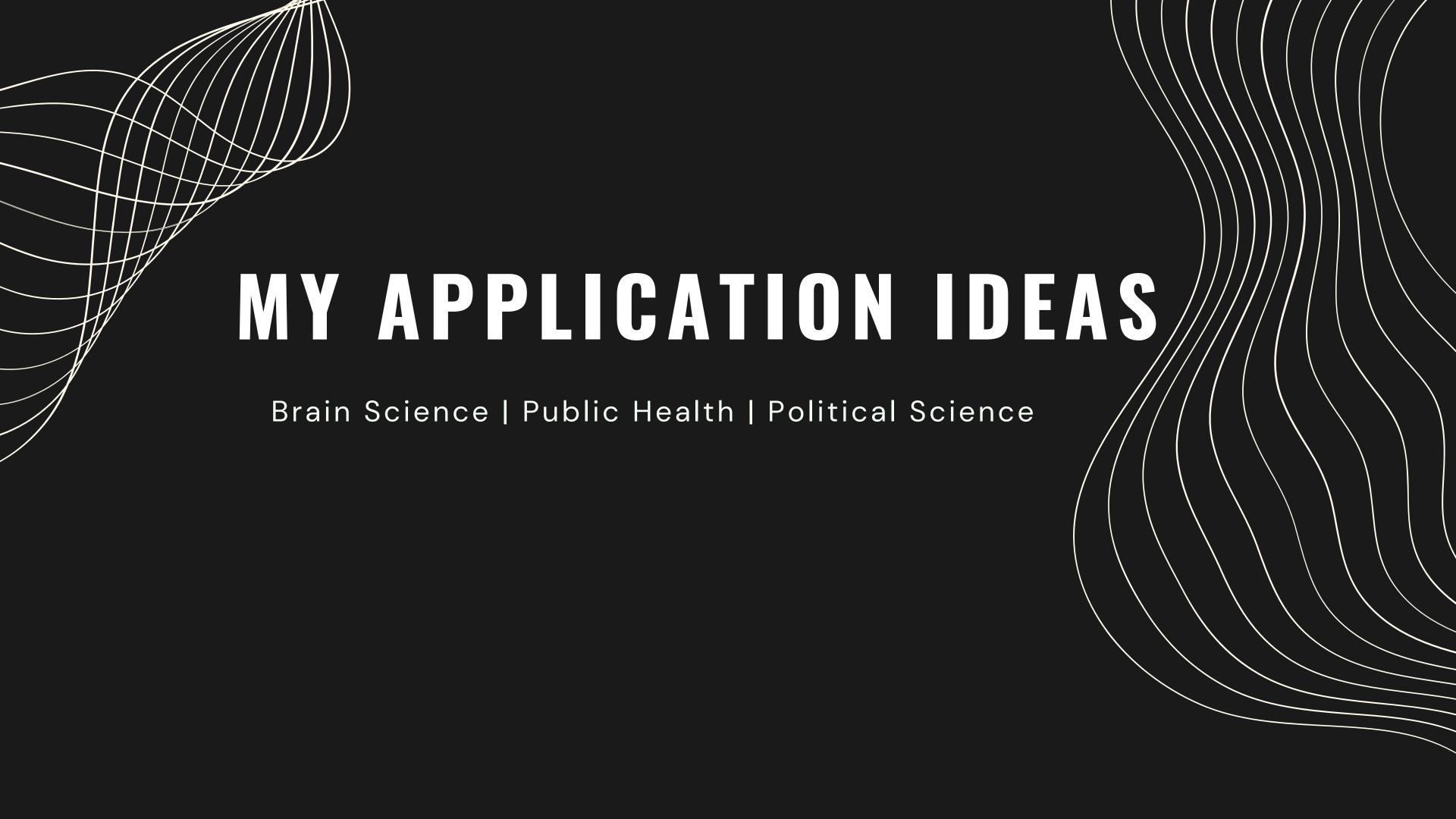
Lyft must store rider and driver data (name, rating, etc.). It must also keep track of transactions and geospatial information.



American Airlines

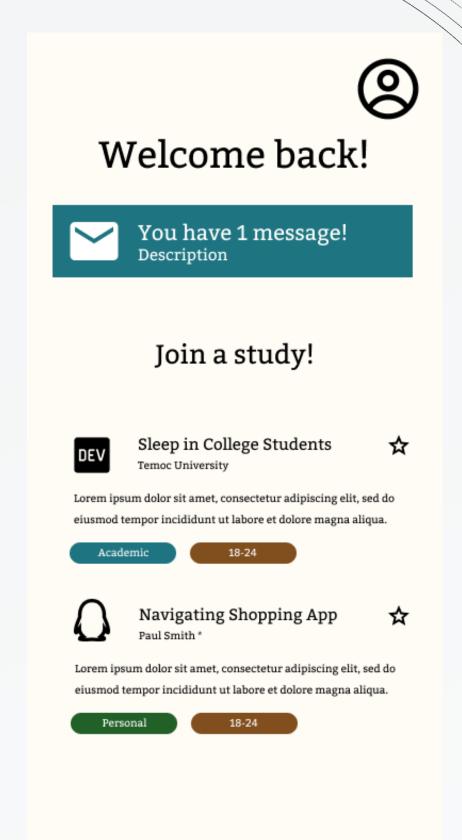
American Airlines must store data regarding flight information, as well as passenger info (such as check-in status). It must also have a way of tracking transactions.





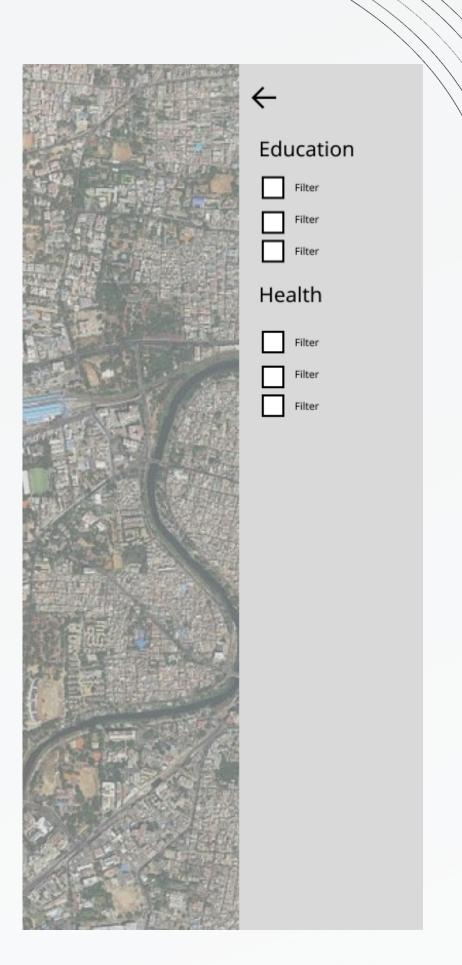
INCOGNITIO

- The purpose of this application is to allow for easy participant recruitment and data collection of various behavioral science studies (academia, industry, etc.).
- Some functions include:
 - Addition/removal of studies by researchers, signup for participants, gamification element for participants based on different metrics
- Some features of the interface design include:
 - User Profile Details
 - Study Titles, Descriptions, Tags
 - Personalized Messages based on study status (i.e. signups, completion)



HEALTHY HABITAT

- The purpose of this application is to increase people's consciousness of the effects of the social determinants of health when looking for their next place to live.
- Some functions include:
 - Ability to set and filter by preferences (education quality, proximity to hospitals/clinics/pharmacies, etc.), favorite and compare zip codes
- Some features of the interface design include:
 - Map of Zip Codes
 - Shading according to preferences/set filters
 - List of filters
 - Short description when area is highlighted



VOTESAVY

- The purpose of this application is to inform people of the latest news regarding local elections.
- Some functions include:
 - Receiving list of candidates based on elections by geographical location
 - o Compare candidate positions, media
 - Receiving alerts on events related to elections
 - Ability to access news articles based on tags, related terms
- Some features of the interface design include:
 - Feed of news (each item includes, title, source, and why it is included)
 - Custom alerts/messages based on dates
 - Profile information
 - Access to saved items



WHAT IS NOSQL?

NoSQL emerged in the 2000s due to a need for increased scalability and more **efficient** and **flexible way** to store various types of data, especially **unstructured data**.

ACID Principles

- Atomicity
- Consistency
- Isolation
- Durability

TRADITIONAL DBMS	NOSQL
Easier to increase vertical scalability	Easier to increase horizontal scalability
Fixed schema	Flexible/dynamic schema
Organizes data by tables	Various data organization types (document, key, columns, etc.)
Best used to keep integrity of transactions, multi-row changes	Best used to keep track of unstructured data



- Consistency
- Availability
- PartitionTolerance
 - 2/3 of the above
 - Eventual consistency common

TABLES IN A SOCIAL MEDIA SYSTEM



This table stores information about each registered user, including:

- Name
- Location
- Follower/Following Account
- Public/Private status
- Engagement Metrics

USER PROFILE



This table stores information about each post, including:

- Engagement metrics
 ex.: shares, comments, etc.
- (Hash)tags
- "Poster" registered user who first shared post
- Timestamp

POSTS



Many social media platforms have DM features. A potential table could include:

- Message Content
- Sender and Receiver (registered users)
- Sent/Read Status
- Reactions think emojis

DIRECT MESSAGES