

Team spinningchuckers :: Julia Lee, Nicholas Tarsis, Hui Wang, Nicole Zhou  
SoftDev  
P04 Design Doc  
target ship date: May 22, 2023

Topic: Exploring NYC

Potential App Ideas:

- Crime rates
- Environmental tracker (weather/climate)
- Health tracker (hospital visits? mental health reports?)
- Transportation
- Energy
- Job Market
- Disaster map
- Fun things to do!

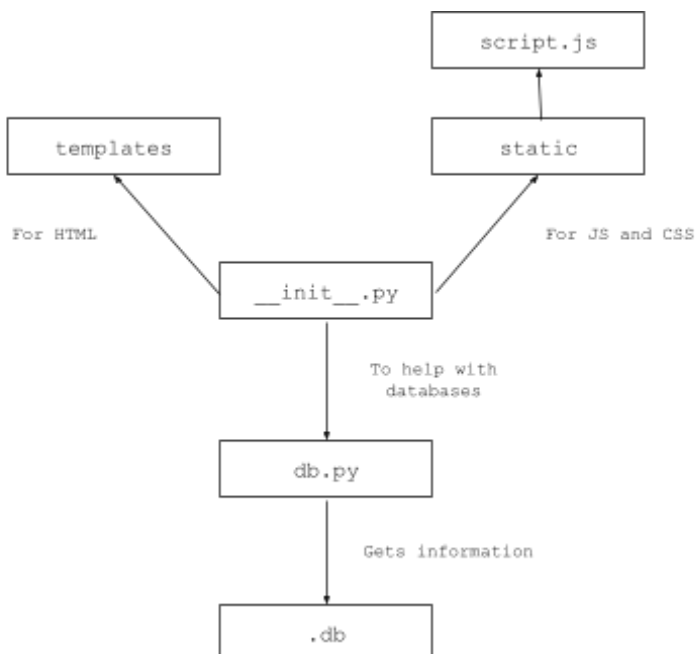
Overview:

Welcome to New York! Whether you be a fellow New Yorker hoping to roam the streets of Manhattan with your new date or solo traveller from abroad, our website provides you will everything you'll need to know about this bustling city. From practical necessities like an environmental tracker to a tailored list of attractions just for you, venture no further than the cozy confines of our online brochure.

Program Components:

1. `__init__.py` - driver
2. `db.py` - code for our databases
3. `templates/` - contains the pages that we will display
4. `static/js/script.js` - includes any js that we need for our page
5. `static/css/` - to decorate our page that FEF doesn't take care of
6. `keys/` - keys for any APIs that we use

Component Map (how each component relates to the others):



## Database Organization:

### Transportation

VMS	Main Roadway	Direction	Cross Street	Borough	Barcode	BoroCD	CounDist	AssemDist
int	string	string	string	string	int	int	int	int

StSenDist	CongDist	Type	Owner	FEMAFldz	FEMAFldT	HrcEvac	Latitude	Longitude	the_geom
int	int	string	string	string	string	int	float	float	string

### Health

Facility Type	Borough	Facility Name	Cross Streets	Phone	Location 1	Postcode	Latitude
String	String	String	String	String	String	String	Float

Longitude	Community Board	Council District	Census Tract	BIN	BBL	NTA
Float	int	int	int	int	long	String

### Crime

Date	Title	Organization	City	State	URL	Keyword	Summary
string	string	string	string	string	string	string	string

### Environment

Property ID	Property Name	Parent Property ID	Parent Property Name	Month	Electricity Use (kBtu)	Natural Gas Use (kBtu)
int	string	string	string	string	string	string

### Jobs

Job ID	Agency	Posting Type	# of Positions	Business Title	Civic Service Title	Title Code No
int	String	String	int	String	String	String

Level	Job Category	Full-Time/Part-Time Indicator	Salary Range From	Salary Range To	Salary Frequency	Work Location
String	String	String	int	int	string	string

Division/Work Unit	Job Description	Minimum Qual Requirements	Preferred Skills	Additional Information	To Apply	Hours/Shift
string	string	string	string	string	string	string

Work Location 1	Recruitment Contact	Residency Requirement	Posting Date	Post Until	Posting Updated	Process Date
string	null	string	string	string	string	string

**Natural Disasters**

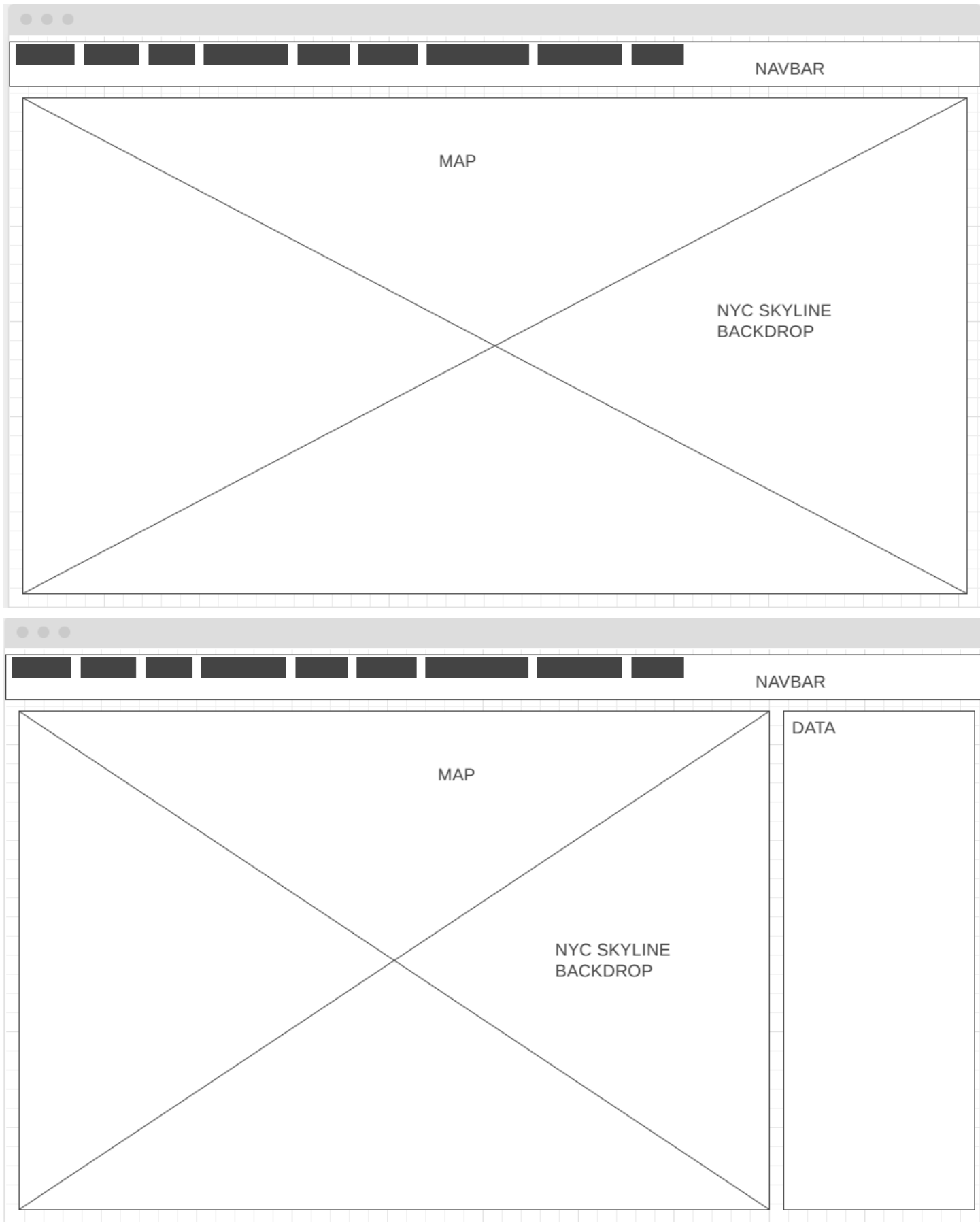
(We have separate datasets for 1990s, 2000s, 2010s)

Country ID	Countries/Areas	Occurence (Year)	Total Deaths	Persons Affected
int	string	int	int	int

**Energy Consumption**

Property ID	Property Name	Parent Property ID	Parent Property Name	Month	Electricity Use	Natural Gas Use
int	string	int	string	string	float	float

Site map:



### Tasks needed to complete this project:

- Gathering data from databases/APIs
- Learning how to access those data
- Python, flask, js, and possibly css
- Testing for bugs
- Uploading this to a droplet

### Job Assignments for each member:

Nicole Zhou (PM):

- Python/Flask/JS
- Databases/APIs (if time allows)

Hui Wang:

- HTML/CSS/FEF
- Databases/APIs (if time allows)

Julia Lee:

- Databases/APIs (main worker)

Nicholas Tarsis:

- Databases/APIs (main worker)

### Which APIs/databases we are using:

Weather API: <https://api.weather.gov>

<https://www.kaggle.com/datasets/johnybhiduri/us-crime-data>

<https://www.kaggle.com/code/maheshdadhich/strength-of-visualization-python-visuals-tutorial/notebook>

<https://data.cityofnewyork.us/Transportation/Overhead-Electronic-Signs-Map-/m6ap-zcwi>

<https://data.cityofnewyork.us/Health/View-of-NYC-Health-Hospitals-patient-care-location/4bew-e6kg>

<https://data.cityofnewyork.us/Transportation/Real-Time-Traffic-Speed-Data/gkm5-nuag>

<https://data.cityofnewyork.us/Environment/Local-Law-84-2021-Monthly-Data-for-Calendar-Year-2/in83-58q5>

<https://www.kaggle.com/datasets/new-york-city/nyc-buildings?select=BK.csv>

<https://www.kaggle.com/code/hoshi7/nyc-jobs-interactive-maps-and-creative-wordclouds>

<https://www.kaggle.com/code/deepshah16/environmental-indicators-natural-disasters>

### Which front-end frameworks we will use:

Bootstrap