



# V.A.S.T

## VELOCITY OF AIR and SURFACE TEMPERATURE

Crusading Towards a more Renewable Future

# MEET THE CYBER CRUSADERS!



Jordan  
Oberstein



Dani  
DiTomasso



Eric  
Carson



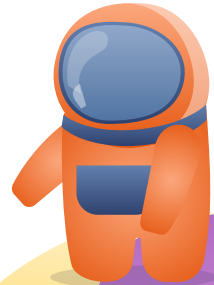
YOUSIF MOFLEH



Daniel  
DORTICOS-ROSSI

## Project summary

- Display Surface Temperature and Wind Speed in the state of New York in an easy to understand fashion.
- The user can draw their own conclusions as to where the best location to place renewable energy sources would be.



# USERS



## EDUCATOR

- Formal K-16 educator, or with an informal organization.
- Has limited experience using NASA Earth Science data, but would like to download and utilize data for their environment.

# Stakeholders

## Students

- Most likely will access data through the educators instruction.
- ★ • Expectation of capability to download data visualizations or download data in specific file formats; can link different types of data or even overlay data sets.



# Stakeholders



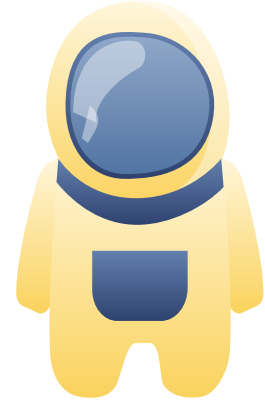
## Data Interested CIVILIANS

- Our website still serves as an easily accessible hub for useful organized data.

# Stakeholders

## NASA

- Access to a more concise set of data for New York surface temperature and wind velocity
- Can be used for educator or informational programs



# Stakeholders



## Data Analysts

- Experienced Data Analysts can analyze results of data to advise inexperienced users on energy decision making.
- Can similarly be used by engineers to determine scale of energy systems when designing power plants.



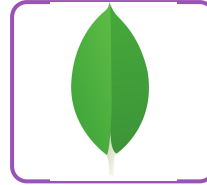
# TECHNOLOGIES

HTML



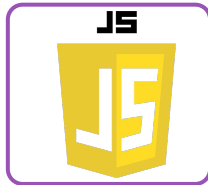
CSS

NODE/EXPRESS



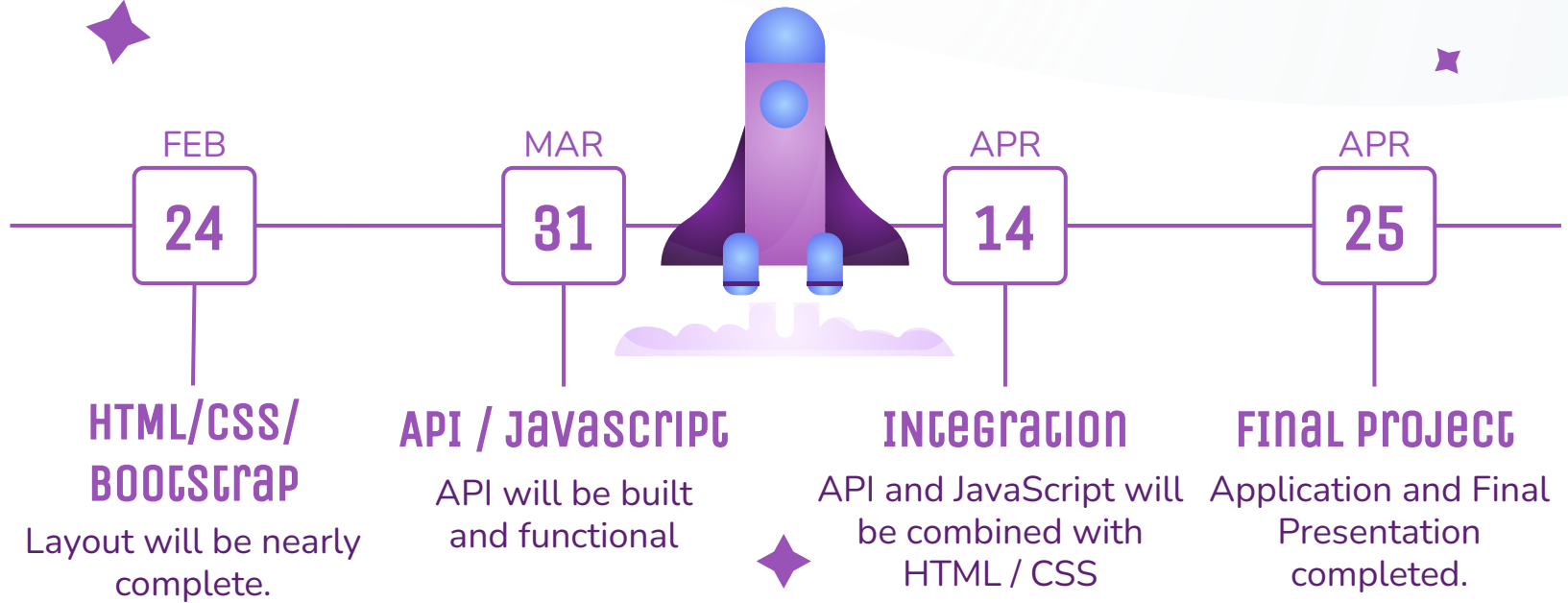
MONGODB

JAVASCRIPT



BOOTSTRAP

# PROJECT TIMELINE



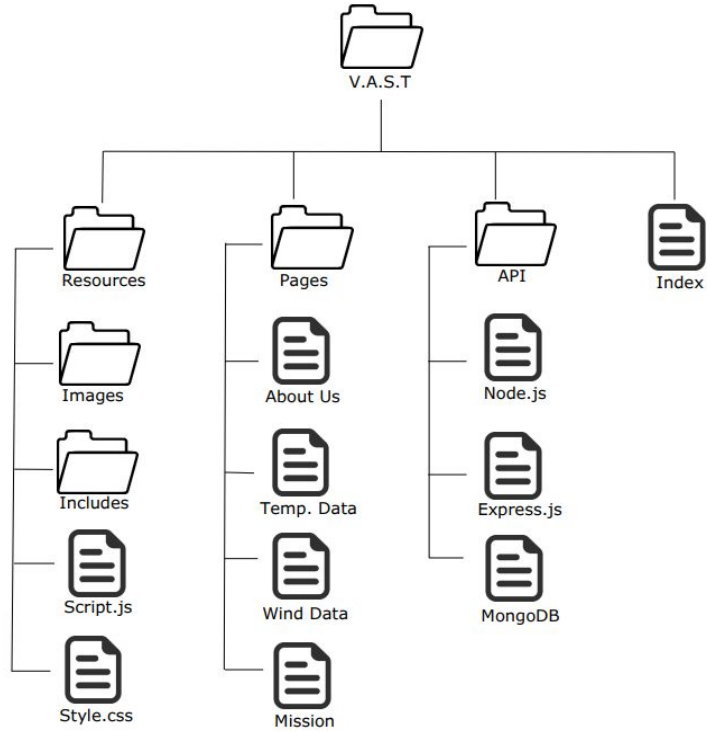
# FUNCTIONAL VS NONFUNCTIONAL REQUIREMENTS

category	OBJECTIVE	VISUALIZATION
FUNCTIONAL	Display Surface Temperature and Wind Speed in the state of New York	Data Displays New York data over specific time period
NONFUNCTIONAL	Pull data from NASA website for filtration and organization	Use API to organize filtered data to allow easy access of provided data

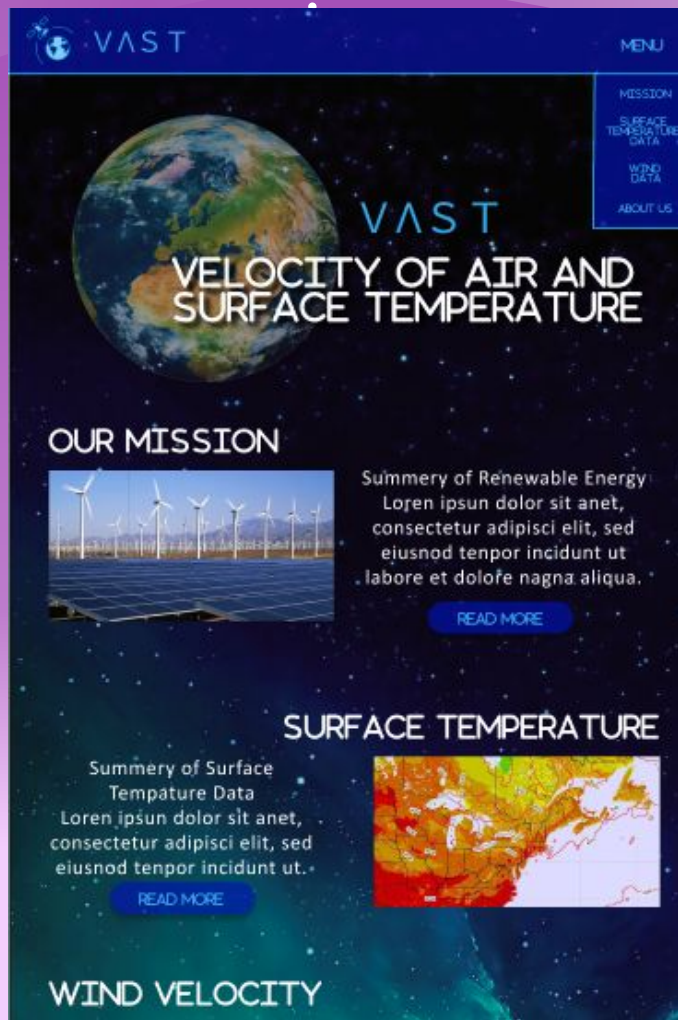
# FUNCTIONAL VS NONFUNCTIONAL REQUIREMENTS

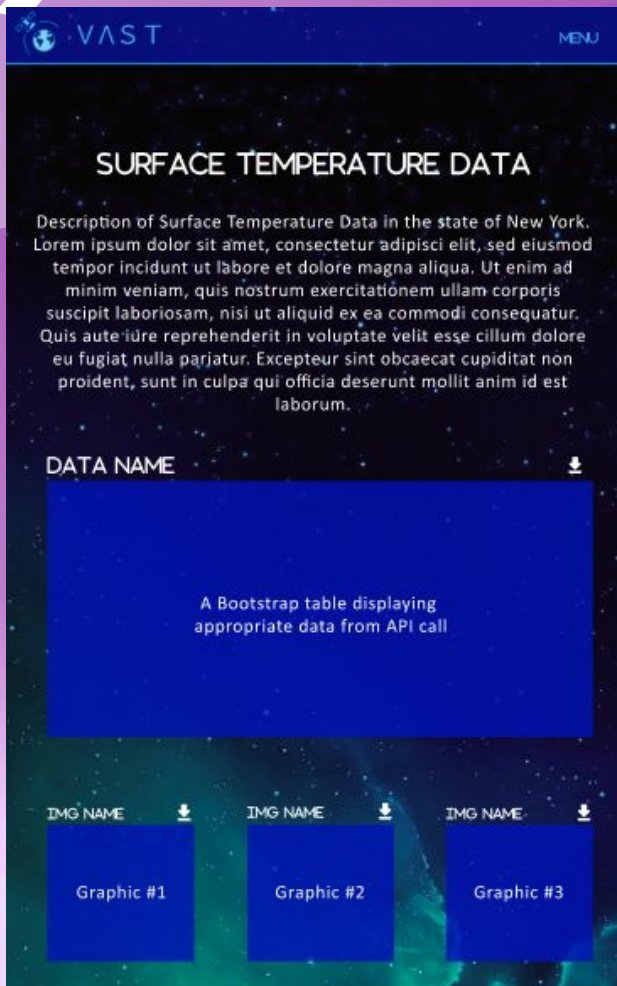
category	ANALYSIS	TESTING
FUNCTIONAL	Users can interpret conclusions from data displayed	Feedback from users with and without data experience including instructors
NONFUNCTIONAL	Data will be presented as a listing of data from the API without conclusive analysis	Vulnerability testing (Zap) Consistent API organization

# Sitemap



# WireFrame (Home Page)





# WireFrame (Data Page)

The background is a solid purple color with a subtle gradient. In the top left corner, there is a white, stylized shape that resembles a corner or a piece of a puzzle. Scattered across the background are numerous small, white, four-pointed stars of varying sizes. A large, dark purple, curved shape, resembling a mountain or a wave, spans the upper half of the image.

# THANK YOU!

Any Questions?