

# Are You Game?

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# Introduction



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# Theme: Context

- The video game industry has steadily been growing (pandemic)
- Increased opportunity to monetize professional and casual gaming through online streaming services
- Corporate economic impacts (e.g. Microsoft recently acquiring video game publisher Activision for ~\$70B)
- All these components lead to more data and growth within the industry

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# Theme: Project Goal

- We focused on the 5 following metrics and sources:
  - Stock Information (Yahoo)
  - Viewership (TwitchTracker)
  - Playerbase (SteamCharts)
  - Search Relevance (Google Trends)
- Our goal was primarily to gather data and set up the working prototype dashboard, so it can be scaled out for any potential project
- This mentality steered our coding methodology

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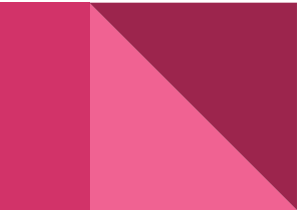
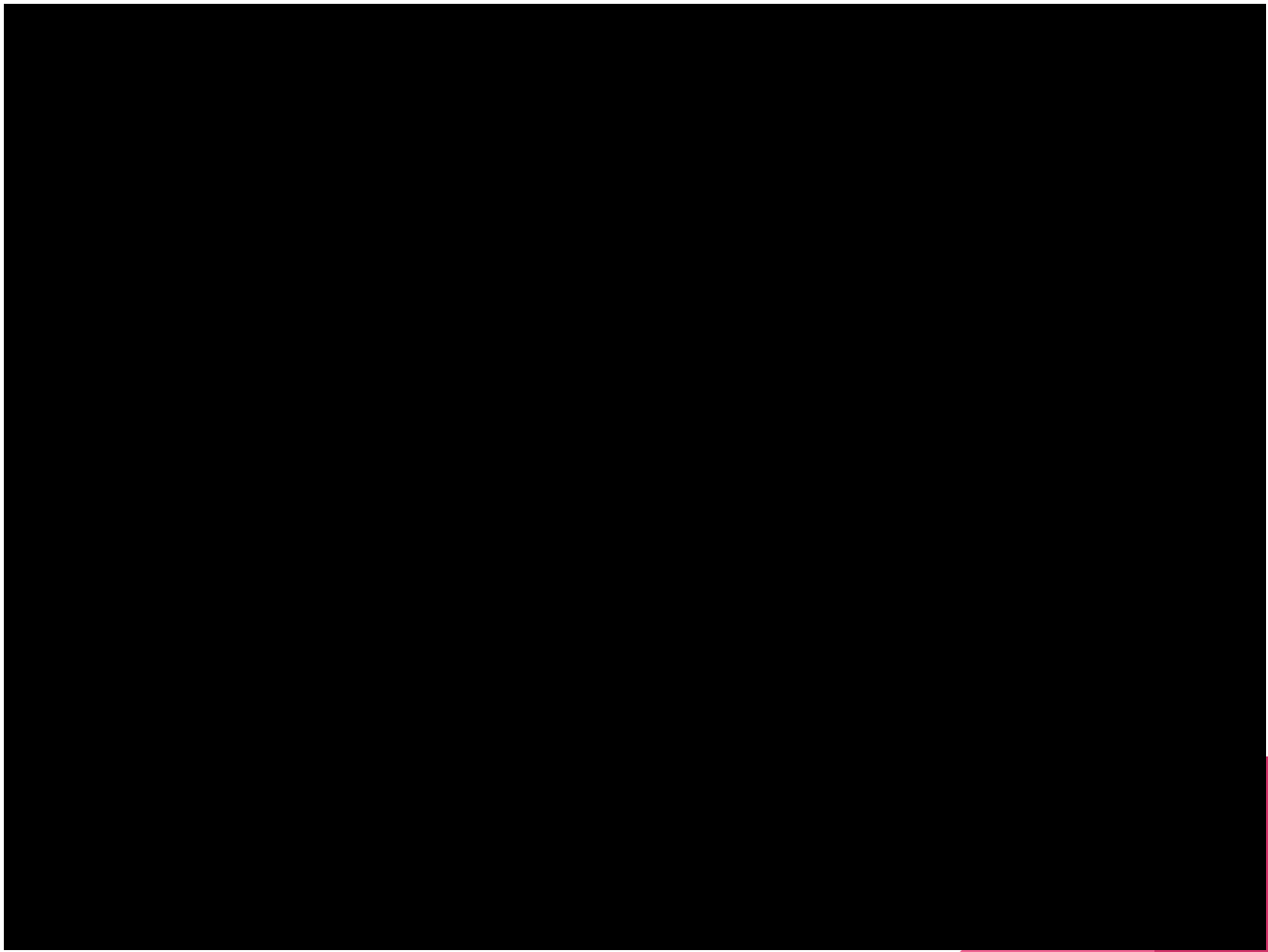
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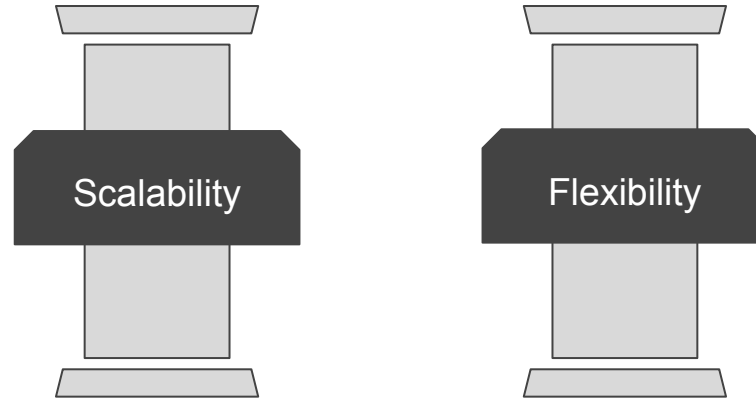
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**Quick demonstration only.**

**Graphs will be reviewed in  
more detail later.**



# Coding Approach: Pillars of Design



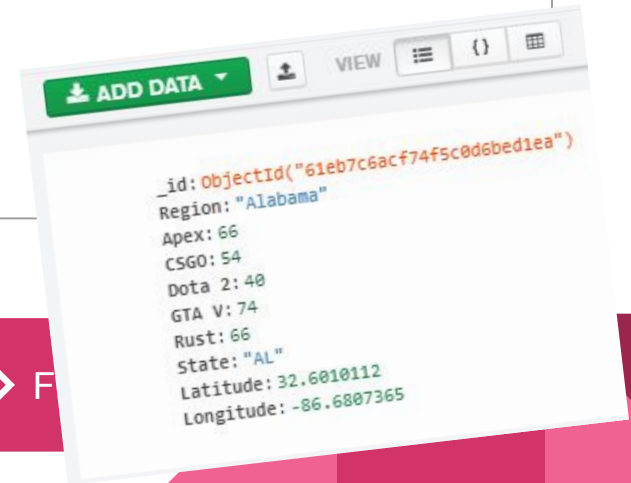
# Data Munging: Python Coding (ETL + Flask)

## ETL

- Varied data generation
- Pandas cleaning
- Database: mongoDB

## Flask

- **Seed data** vs. new data
- Load on route



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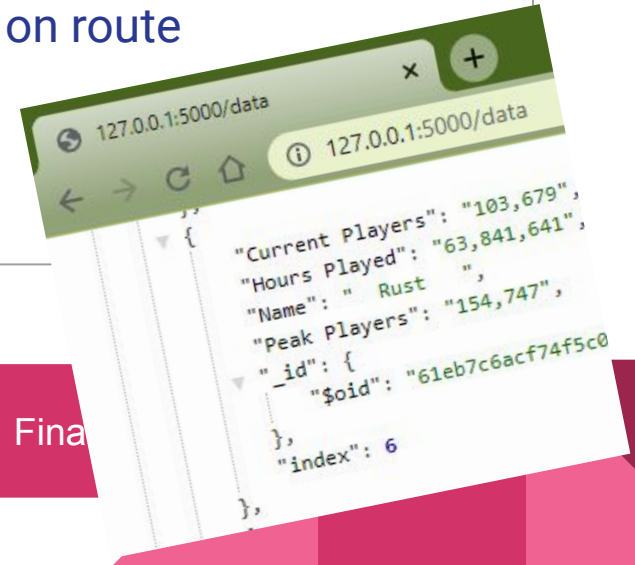
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# Final Visual: HTML Coding

## HTML

- **Jinja** templating to skip hard coding
- Separate routes to allow for rendering only what you need

## JS

- **Dynamic** generation of DOM elements
- Use of **restyle()** and data reference

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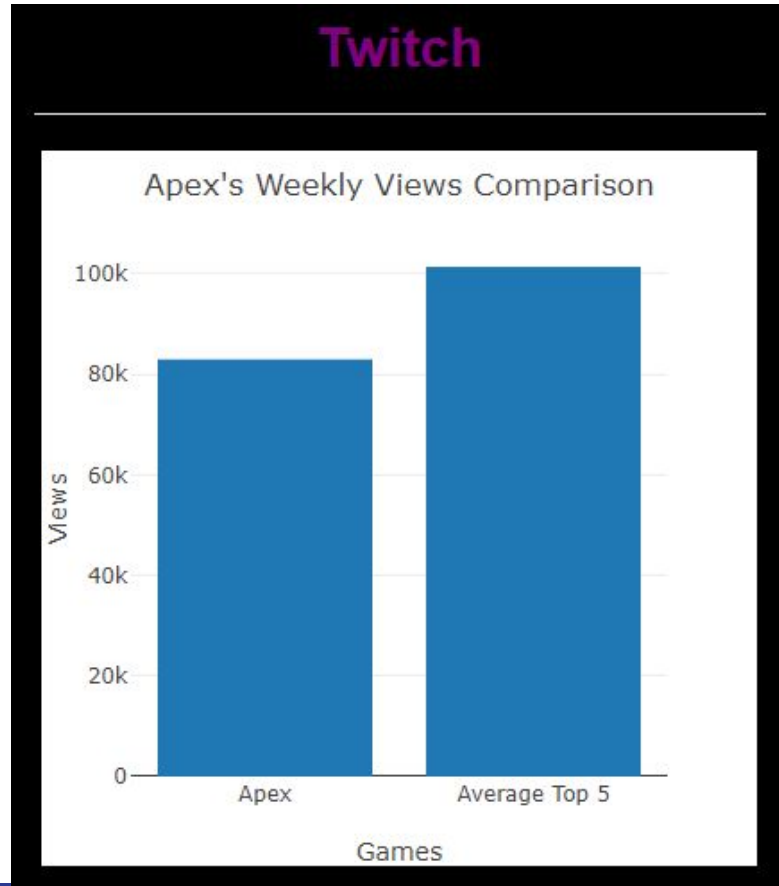
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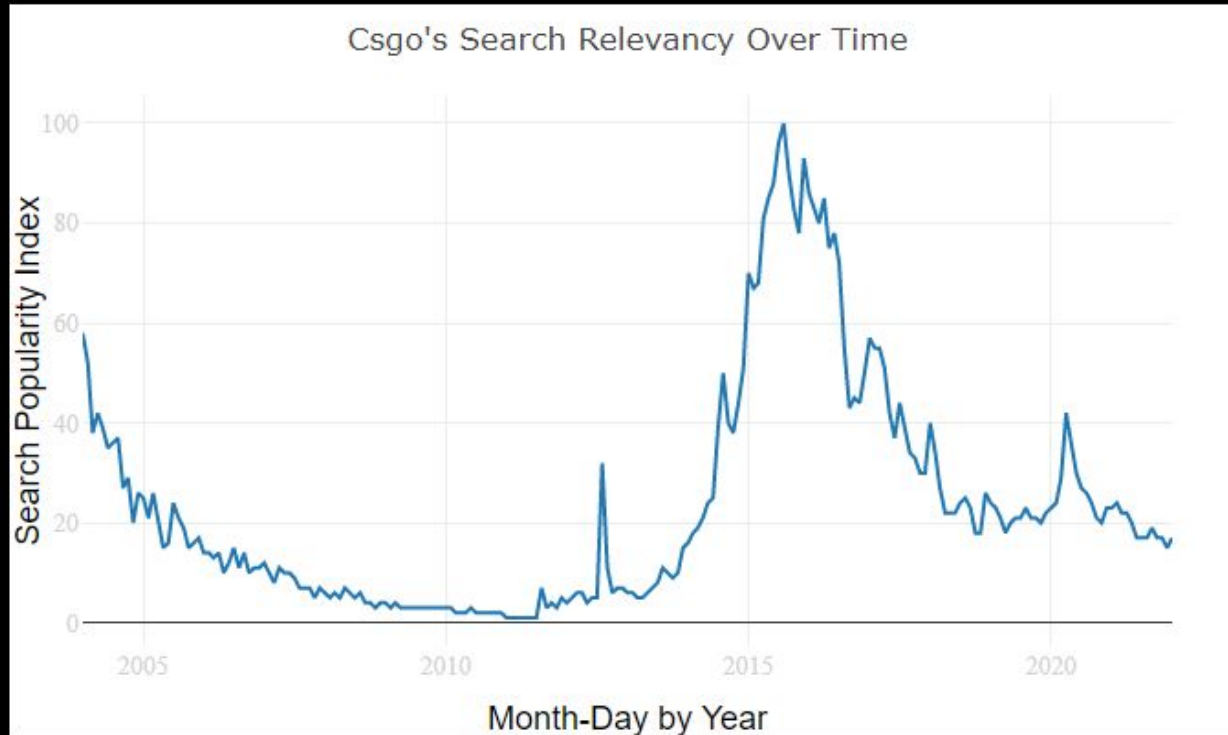
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# Final Visual: Sample of Graphs



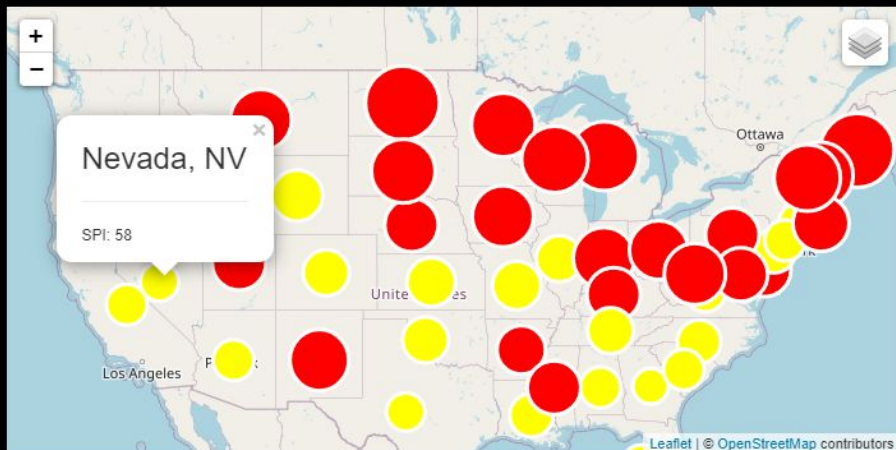
# Final Visual: Sample of Graphs

## Google Trends



# Final Visual: Sample of Graphs

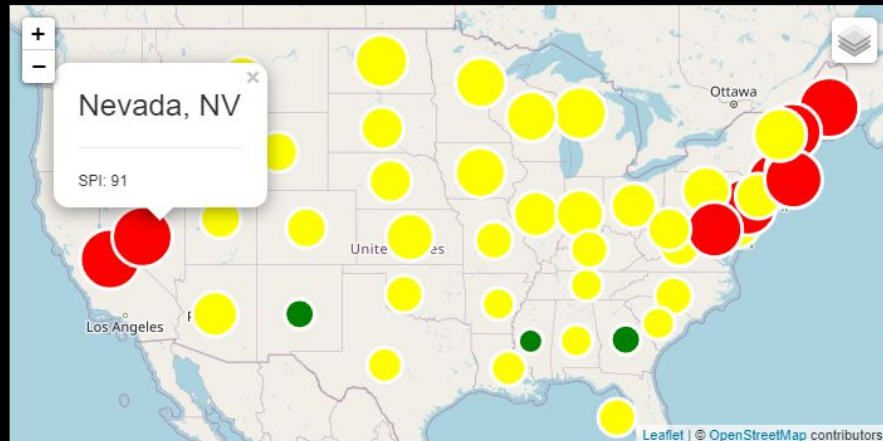
## Google GeoMaps



"Search Popularity Index" (SPI) measures the frequency of our specified search term in the top "trending Google searches".

Rust

## Google GeoMaps

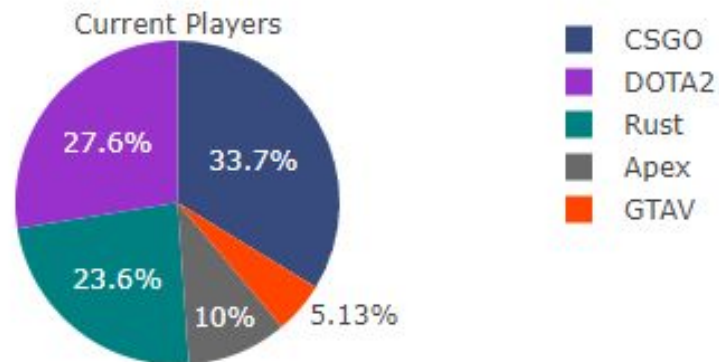
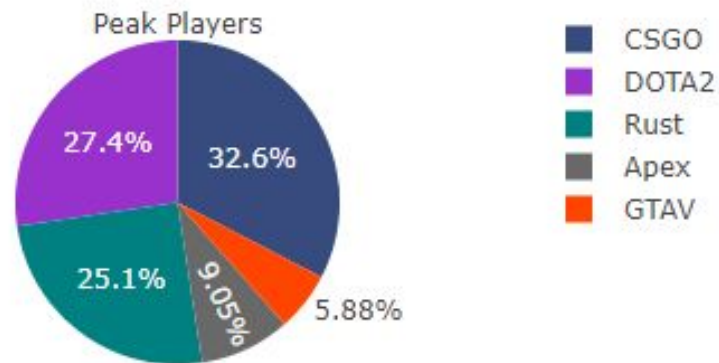
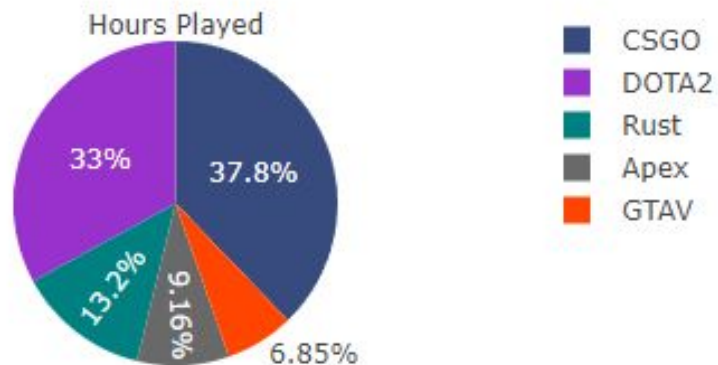


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CSGO

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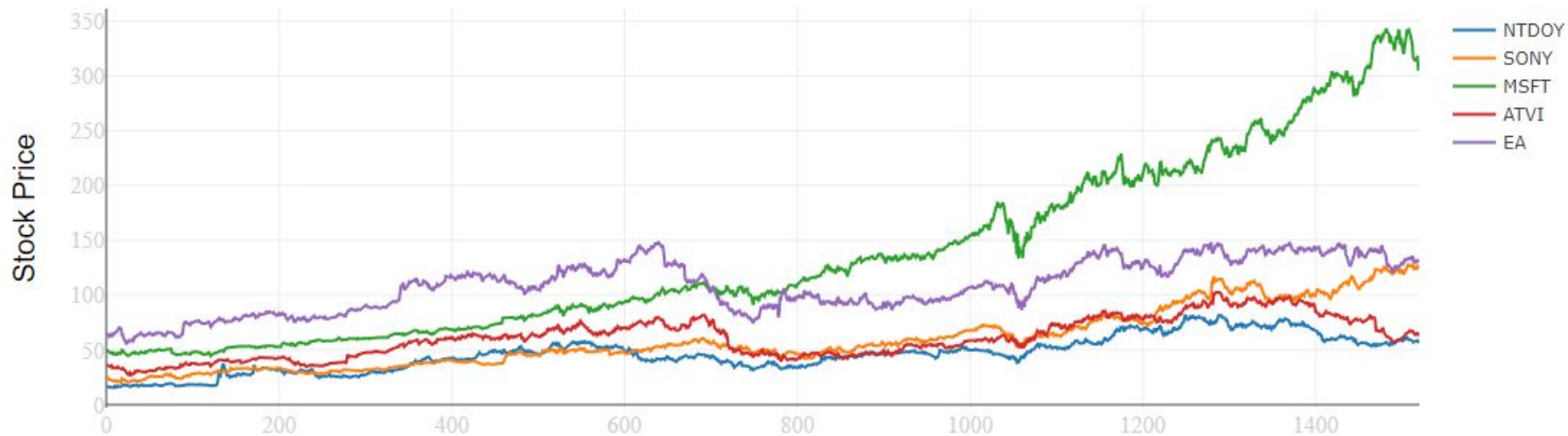
## Steam



# Final Visual: Sample of Graphs

## Gaming Stock Data

Gaming Stock Data Over the Past 5 Years





# Conclusion

- Tentative Patterns
  - Video games play a significant, public-facing role (Google, Yahoo)
  - Top games tend to stay top, suggesting resiliency (Steam, Twitch)
- Limitations of Data
  - Number of top gaming companies are private, so no stocks to track
  - Scraped only Steam-inclusive games
  - Scraped only video game data
  - Scraped only quantitative data

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- Project Obstacles
  - Many moving parts in many different coding languages
  - Parts of the project were linear, which made it difficult to progress when we encountered a roadblock
- Takeaways
  - Learned a lot about fullstack process
  - Video game industry is significant (not just a trend)





**Thank you!**

# Resources

- **Diff types of data visualizations (Python)**  
<https://www.python-graph-gallery.com/>
- **TwitchTracker**  
<https://twitchtracker.com/statistics/games>
- **Cloud Gaming Software**  
<https://www.nvidia.com/en-us/geforce-now/>
- **A source for Twitch gaming stats:**  
<https://sullygnome.com/>
- <https://newzoo.com/insights/rankings/top-10-countries-by-game-revenues/>
- <https://www.similarweb.com/website/twitch.tv/>
- **Twitch Dashboard (and API)**  
<https://twitchtracker.com/>
- <https://dappradar.com/rankings/category/games>
- **Yahoo Stock Data**  
<https://finance.yahoo.com/>

