Data Team Webinar Series

Plotly Dashboard Creation

Session Plan...

1. Intro
2. Basic HTML
3. Building a basic app
4. Adding a Visualisation
5. The power of callbacks
6. Further examples

...and then we are done!

From the developers

"The Dash platform empowers Data Science teams to focus on the data and models, while producing and sharing enterprise-ready analytic apps that sit on top of Python and R models. What would typically require a team of back-end developers, front-end developers, and IT can all be done with Dash."

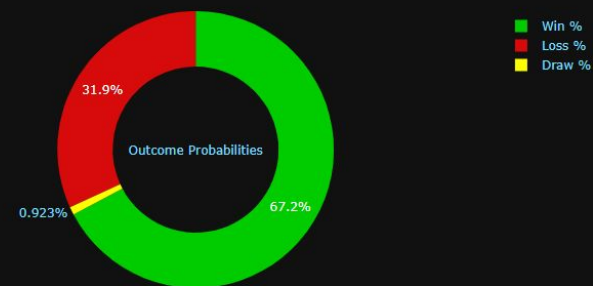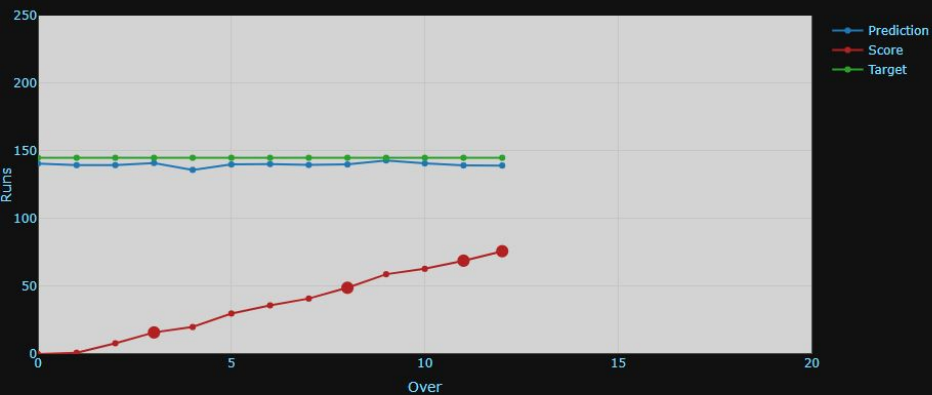(https://plot.ly/dash/)

Worcestershire vs Essex @ Edgbaston, Birmingham: 21/9/2019

Essex Innings

76 for 4, over 12, target 145
Run Rate: 6.33 Required Run Rate: 8.62

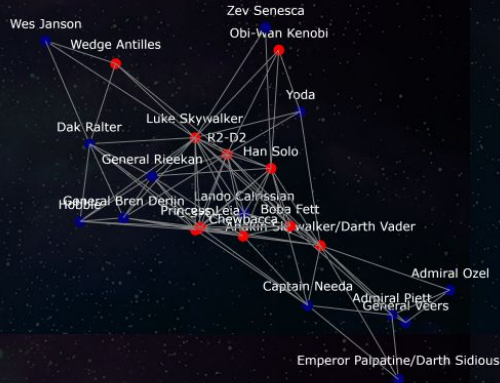◉ PLAY
◉ RESET

Prediction Per Over

- Prediction
- Score
- Target

Outcome Probabilities

- Win %
- Loss %
- Draw %

31.9%

0.923%

67.2%

Manhattan

Each node is a character and each edge is an interaction.

Hover over a node to see how many connections that character has.

Click on a node to see who they shared a scene with (appears underneath diagram).

× Episode 5: The Empire Strikes Back

Network of coappearances of characters in Star Wars
['Episode 5: The Empire Strikes Back'](3D visualization)

Wes Janson
Wedge Antilles
Zev Senesca
Obi-Wan Kenobi
Yoda
Dak Ralter
Luke Skywalker
R2-D2
General Rieekan
Han Solo
General Bren Derlin
Lando Calrissian
Princess Leia
Boba Fett
Chewbacca
Anakin Skywalker/Darth Vader
Admiral Ozel
Captain Needa
Admiral Piett
General Veers
Emperor Palpatine/Darth Sidious

Debut Film

A New Hope

Empire Strikes Back

Return of the Jedi

The Phantom Menace

Attack of the Clones

Revenge of the Sith

The Force Awakens

Rogue One

The Last Jedi

Solo

The Rise of Skywalker

Start Station

Holborn

End Station

Victoria

Shortest path is 4 stations

These stations are:

Holborn, Tottenham Court Road, Oxford Circus, Green Park, Victoria,

You will have to take the following lines:

Central, Victoria,

Holborn

Tottenham Court Road

Oxford Circus

Green Park

Victoria
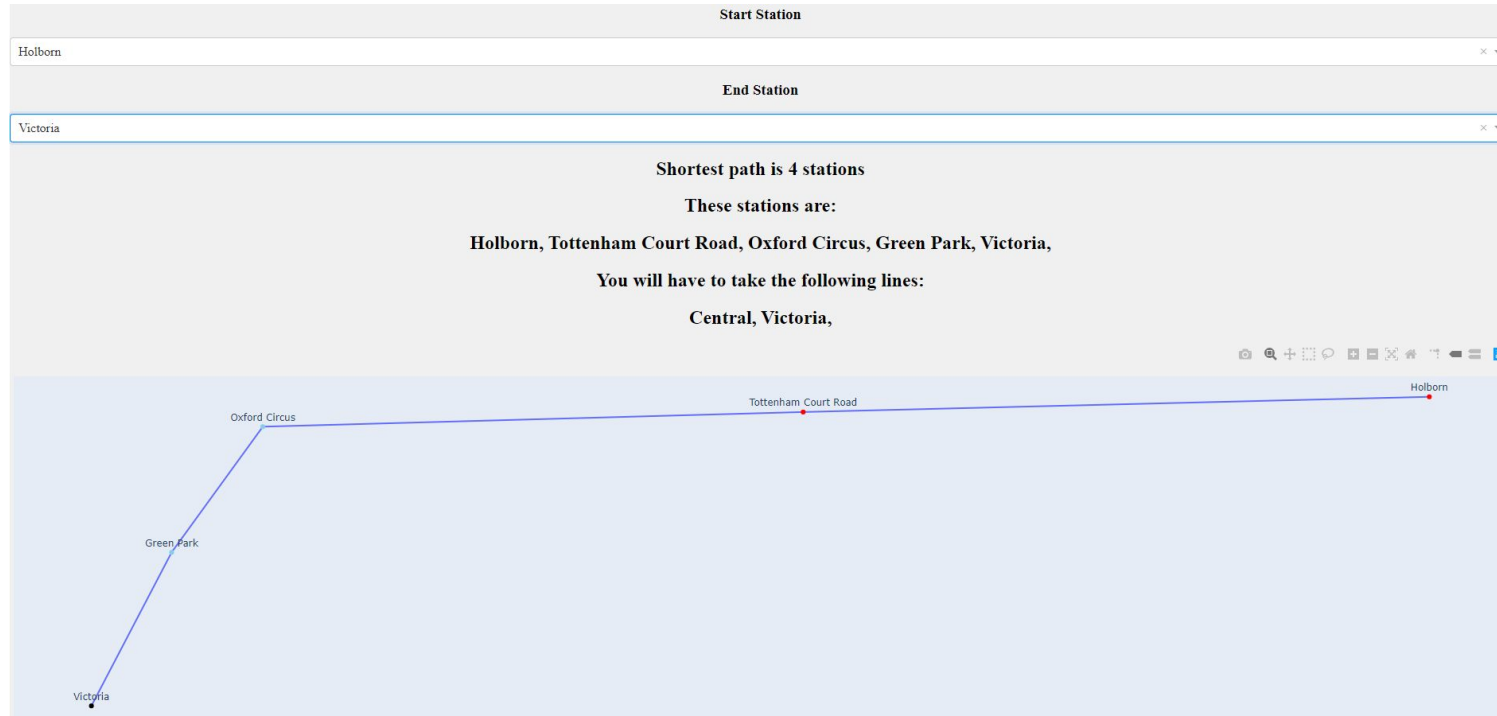
HTML

Tl;dr

- **Hyper Text Markup Language**
- **How your browser knows where to display the information**
- **Most common elements (tags)**
  - **\<div>**
  - **\<h1>**
  - **\<a>**
  - **\<p>**
  - **\<ul>**

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Building A Basic App

Code can be found at https://github.com/Alastair-Tyson/Plotly-Dash-Demo

Further Resources

- **Check out Dash documentation to find other elements you can add (https://dash.plotly.com/)**

- **HTML cheat sheet (https://www.w3schools.com/html/html_intro.asp)**

- **Blog post this lesson is based on (https://www.atyson-datascience.com/post/building-a-dash-app)**

- **How to deploy a dash app online using AWS (https://www.atyson-datascience.com/post/deploying-your-dash-app-to-aws)**

- **T20 Cricket Predictor (http://tysondashboard-dev.eu-west-2.elasticbeanstalk.com/)**

- **Star Wars Character Connections (http://star-wars-characters-dev.eu-west-2.elasticbeanstalk.com/)**

- **Underground Navigator (http://underground-dev.eu-west-2.elasticbeanstalk.com/)**

- **Github where you can check the code for above apps (https://github.com/Alastair-Tyson)**