

**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!**

# An Introduction to Dash





## 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

2nd Innings

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

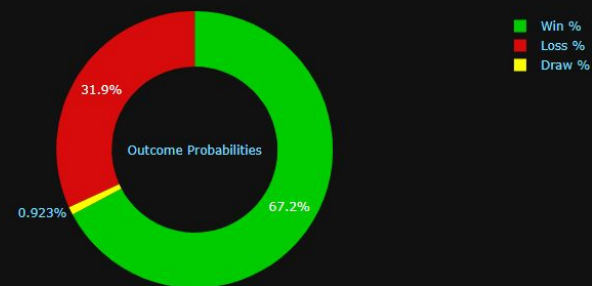
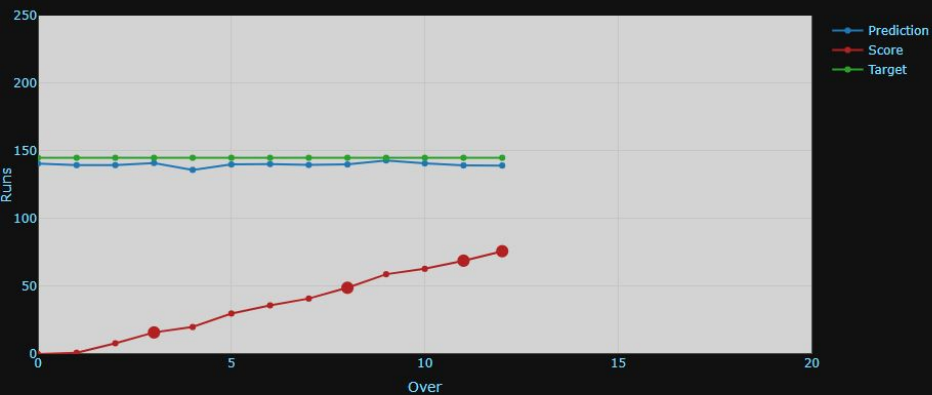
Essex Innings

76 for 4, over 12, target 145

Run Rate: 6.33 Required Run Rate: 8.62

PLAY  
RESET

Prediction Per Over



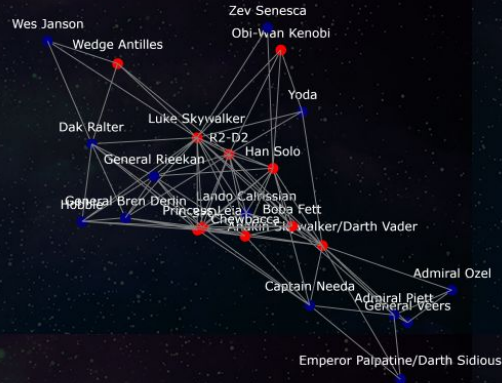
Each node is a character and each edge is an interaction.

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)



Debut Film

A New Hope

Empire Strikes Back

Return of the Jedi

The Phantom Menace

Attack of the Clones

Revenge of the Sith

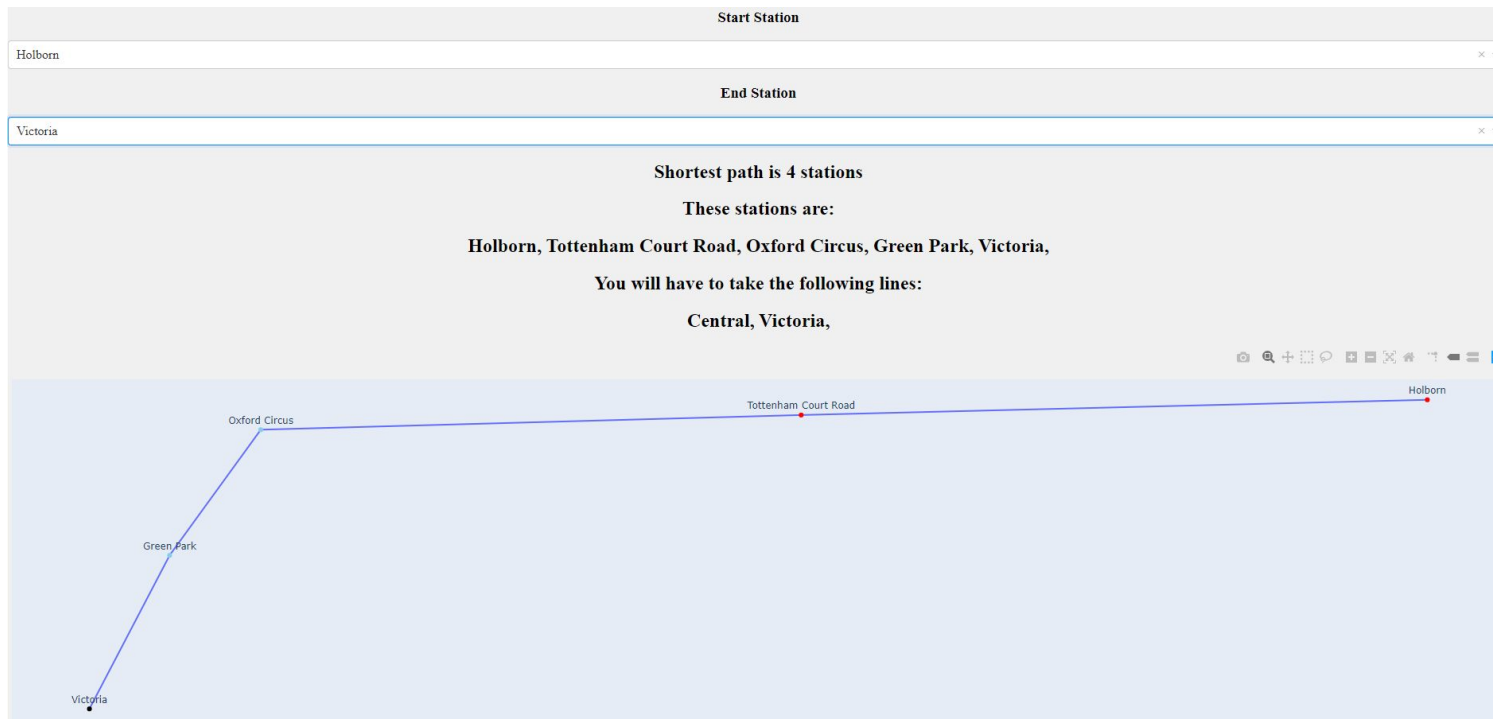
The Force Awakens

Rogue One

The Last Jedi

Solo

The Rise of Skywalker



# How does Dash work?





# **<div> “HTML”**

- **Hyper Text Markup Language**
- **How your browser displays content**



Home



Explore



Notifications



Messages



Bookmarks



Lists



Profile



More

Tweet



**Donald J. Trump** ✓

51.2K Tweets



Follow

**Donald J. Trump** ✓

@realDonaldTrump

45th President of the United States of America 🇺🇸

📍 Washington, DC 🔗 [Instagram.com/realDonaldTrump](https://www.instagram.com/realDonaldTrump) 📅 Joined March 2009

46 Following 79.4M Followers

👤 Followed by Admond Lee, Lacey Evans ~ WWE Superstar, and 63 others you follow

Tweets

Tweets & replies

Media

Likes



Donald J. Trump Retweeted



**Rep. Paul Gosar, DDS** ✓ @RepGosar · 2h

Honored to join President @realDonaldTrump on board Air Force One today! 🇺🇸



**Donald J. Trump** ✓ @realDonaldTrump · 3h

Heading to Arizona!

647

1K

4.9K



Donald J. Trump Retweeted



**Congresswoman Debbie Lesko** ✓ @RepDLesko · 2h

Excited to join @realDonaldTrump today on Air Force One for his visit to a



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# **<div> “HTML”**

- **Hyper Text Markup Language**
- **How your browser displays content**
- **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](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>)