Attendance Monitoring Visualisation

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Structure

- This slidedeck, explaining my project and its complexities (~10 minutes)
- A short demonstration of the project in action (~5 minutes)
- Any questions you would like to ask (~5 minutes)

Motivations

- Attendance and attainment in higher education have a proven positive link
- University Attendance is on the rise: **18,510 Students at Sussex in 2020-21, and likely more now**
- Number of staff monitoring student attendance have stayed the same: **~1 per school**
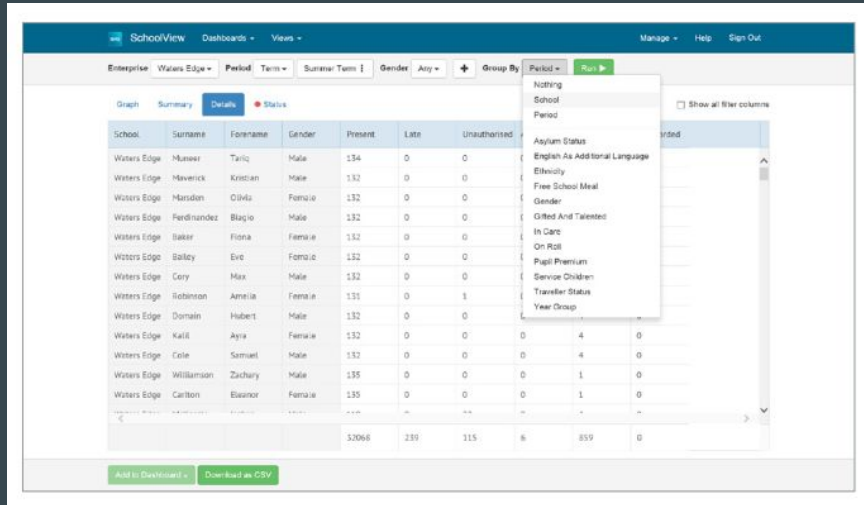
So there is need for an application that eases this divide

Therefore...

Aim: Create a Web Application, for Attendance Monitoring Staff, that presents useful visualisations, gives alerts, and allows filtering based on data

Similar Systems

SIMS SchoolView

Panasonic AVS

Filterable tables
Configurable views

Tabular view

Experimentation with Charts

Line - good for comparative data as well as showing trends
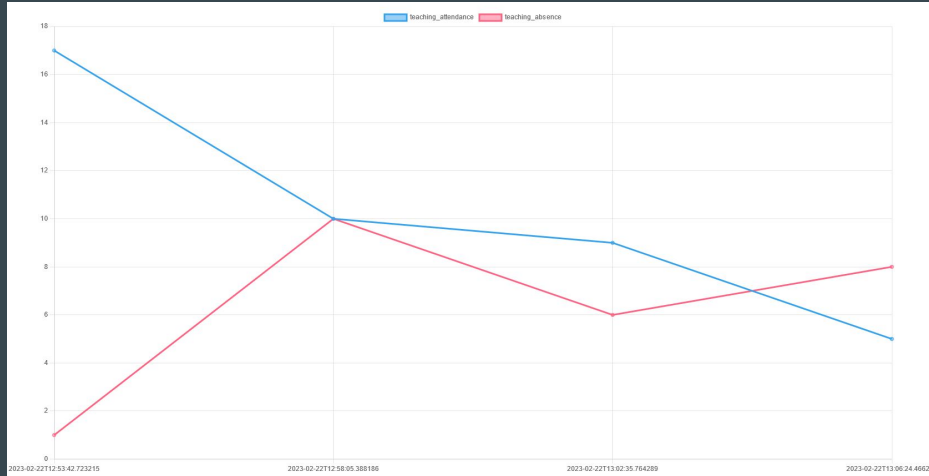
Polar Area - good for percentage data
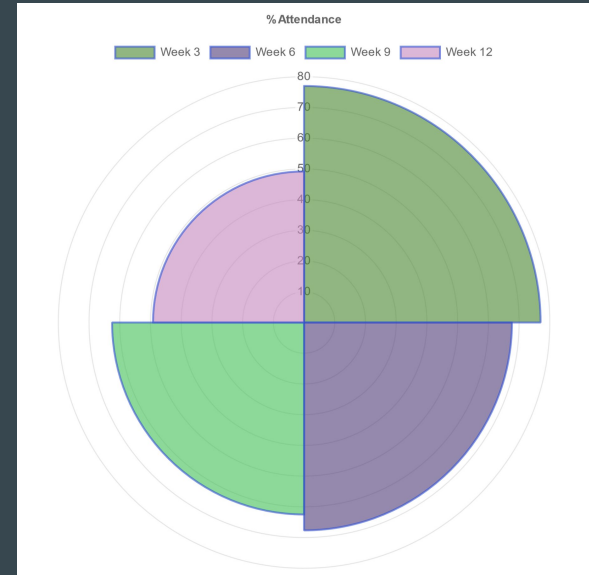
System Structure

Development Pipeline

Development goals shifted as the system was built from the ground up piece by piece...
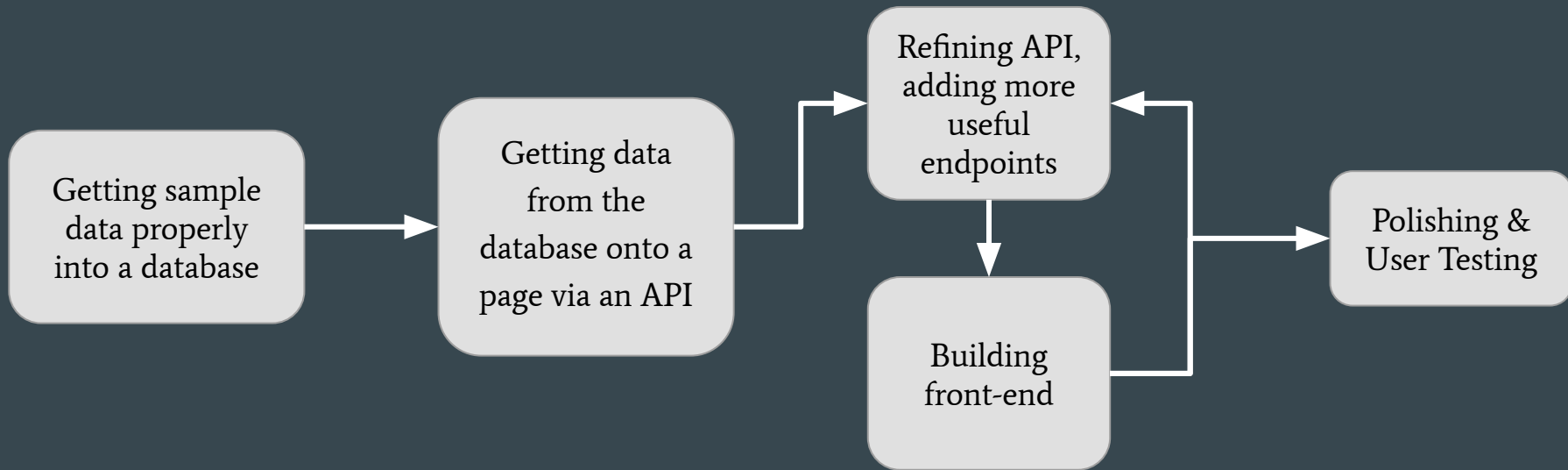
Final UI
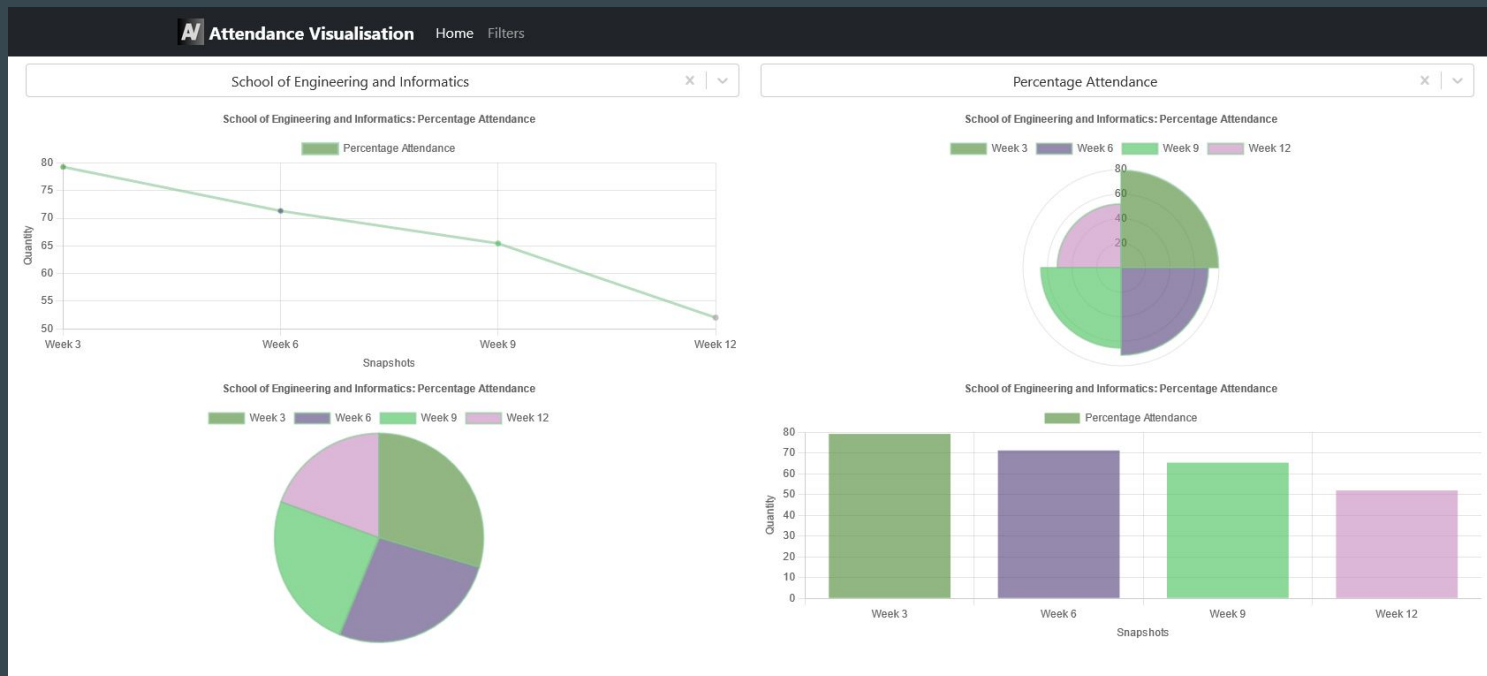
Charting and Filtering

Developments required included:

- Creating API endpoints for each table, aggregated data, and filterable endpoints
- Formatting API data to be compatible with Chart.JS
- Switching views for each table on the filtering page

Conclusions / Further work

Though some individual objectives were not fully achieved, the project's general aim was met and moves made to fulfil its motivations.

Some lessons learnt during development were that:

- Fake data could have been really useful for testing and expanding UI beyond the sample data
- How errors in the different systems manifest themselves
- Version control was essential

Potential Further Work

- Could be refined into a finished product, including administrative features
- User Interfaces redesigned from the ground up

Demonstration

http://localhost:3000/

Any Questions?