Football Match Visualization

A Project for Information Visualization

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Target task and target user

Target task

- A visualisation of football games
- Positioning of different events:
  passes, attempts, tackles, etc.
- Visualize based on individual teams or even specific players

Target user

- Coaches that can extract meaningful information from certain games in order to make targeted improvements
- Scouts that are looking for specific profiles/playing styles
- Fans

Data processing

Pre-processing step

- Kaggle dataset
- Language: Python
- Choose sides for the team based on the team ID
  - Higher team ID is shown on the right side
- Remove meaningless columns

Processing steps

- Tools: Streamlit & Pandas
- Show events on a football pitch drawn using matplotlib
- Events can be shown
  - Based on match
  - Based on player
  - Based on team
- Events from a particular time window are shown
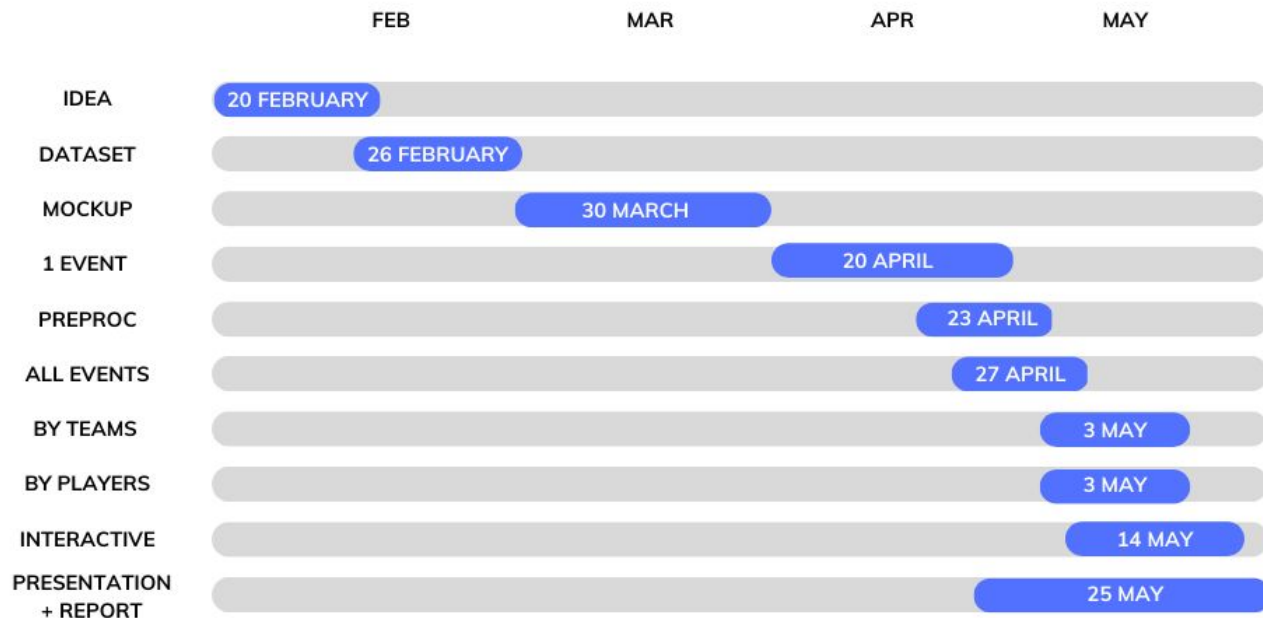
Data processing

To do

- Add interactivity when clicking on events on the map
- Add the possibility to show more types of events simultaneously
- Add the possibility to show multiple players simultaneously
- Add player rank visual

Evaluation

- Field study
  - Observe people in real-world settings
  - Small interviews
- Are dataset types correctly presented in our visualisation?
- Does the visualisation meet users goals ?
- Implementation of design guidelines
  - Overview first, details on demand
- Algorithm evaluation:
  - measure computation time

Planning

GANTT **CHART**

	FEB	MAR	APR	MAY
IDEA	20 FEBRUARY			
DATASET	26 FEBRUARY			
MOCKUP		30 MARCH		
1 EVENT			20 APRIL	
PREPROC			23 APRIL	
ALL EVENTS			27 APRIL	
BY TEAMS				3 MAY
BY PLAYERS				3 MAY
INTERACTIVE				14 MAY
PRESENTATION + REPORT				25 MAY

Demonstration