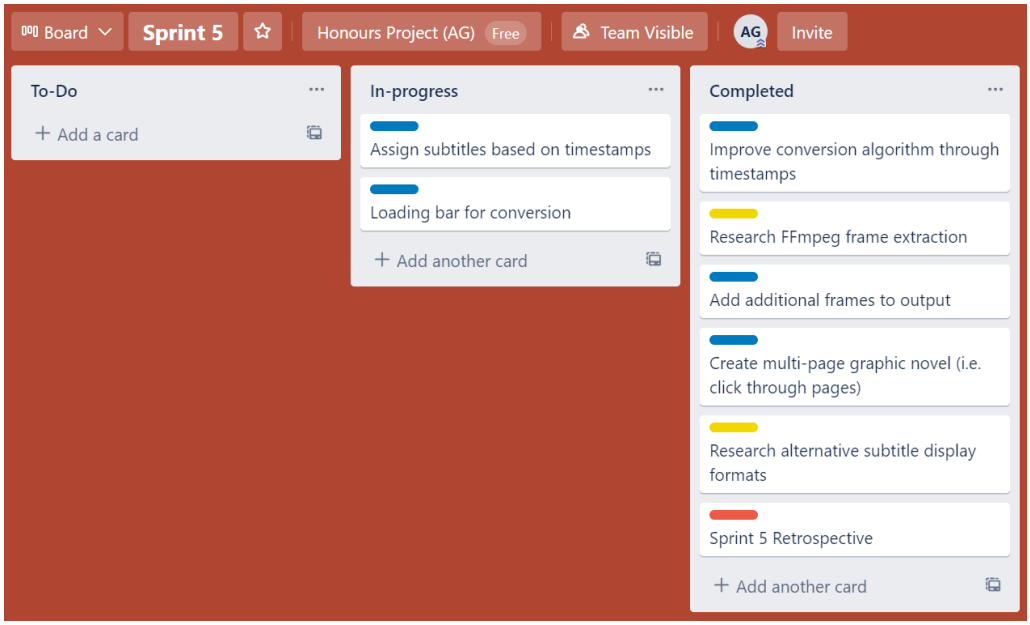
Sprint 5 Retrospective

Start Date: 8th of March 2021

End Date: 14th of March 2021

Duration: 7 days

Goals: The main goal of this sprint was to finalise the combined keyframe and timestamp extraction algorithm. There was also a focus on performance, comic layout and research into download formats.



Decisions:

Node module: 'react-component-export-image'

The comic is displayed in a Material UI grid component, this function does not automatically support download so the 'react-component-export-image' node module was used as it allows for any React components to be exported as a JPEG, PNG, or PDF.

Outcomes:

The timestamp issue was troubleshooted further with my advisor and a solution was found in using the -force_key_frames command on FFmpeg. This command allowed for keyframes to be forced at a certain time interval. Through this method accurate timestamps could be identified and matched with subtitle timestamps.

Initially this command took around 10 minutes to convert a 30 second clip which was not ideal. By using the FFmpeg commands; '-preset' and 'ultrafast', the conversion time was reduced to just over 1 minute which is an acceptable rate for this application. Loading bar functionality was explored to offer a visual during this waiting period.

Now that more keyframes could be produced, a page structure was created for the comic display which contains 8 panels per page. The user can flick through the pages using arrow keys. The pages can now also be downloaded using the 'react-component-export-image' node module. This allows for React components to be downloaded as a JPEG, PNG, or PDF.