Weekly Report —- *Friday, 2 April 2021*

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• What I have done

1. Throughly reviewed functional requirements and non-functional requirements and define whether these requirements are followed the project descriptions.
2. Get familiar with the TextCNN and BiLSTM and found some online resource about that.

3. Get start with project proposal (Introduction part and literature review part).
4. Analysed online tools such as GloVe (https://nlp.stanford.edu/projects/glove/), word2vec(https://jalammar.github.io/illustrated-word2vec/) and Code Sensor (https://github.com/opendata-stuttgart/sensors-software).
5. Updated Meeting Summaries (Wiki Page).

During this week's meeting, our client has mentioned that this project is mainly focus on research so that we need spend much more time on researching and investigating. Also, there is one functional requirement that we came up with: Automatically generate a summary report of the results adapted to different browsers. Our client said that it may not be a core requirement, so we may consider to skip that one and find another useful requirement in this way.

• What I plan to do

1. Finish my tasks in proposal

- Introduce the research question.
- Why do you think this research question is important?
- What does previous research tell you about your question?

2. Seek helpful, related resources online and write reflections for literature review.

3. Find resources about knowledge transferring data from different models.

• The issues I've encountered

1. The benchmark marking system definitions

Details: My initial thoughts are like this:

When it comes to Benchmark marking process, will that be like we have a series of well-defined test cases embedded into our Benchmark system. In this way, we can measure the performance of users' systems by detecting their vulnerability.

e.g.

Test case 1 Pass

Test case 2 Pass
Test case 3 Fail
Test case 4 Pass
…
…
Test case n Pass
Total Mark: (n-1) marks / vulnerability possibility : 1/n

For instance, if we have 5 test cases in total and the user's system passed four of them so the final mark will be 4 and thus a higher score indicates a better performance.

2. By analysing the online tools, I encounter a problem: how to make sure these tools are available and accurate for large-scale project for getting the syntax (Parse) tree.
   Details: Improved conversion efficiency while ensuring the accuracy.