**Final Report for Challenges 4 & 5 (due 12 April 2019)**

1. Final report should be at most 5 pages long (including appendices and figures). We allow for extra pages containing only references, codes and contributions

2. Please include a section that describes what each team member worked on and contributed to the project.

3. The final report will be judged based off the clarity of the report.

4. UML model is compulsory for the reports. The UML model does not need to include libraries provided to you by the course.

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| No. | Content | Descriptions |
|  | Title | A cool title for your project |
|  | Authors | Affiliation, address, email |
|  | Abstract | The abstract should consist of 1 paragraph describing the motivation for your project |
| 1 | Introduction | Explain the problem and why it is important. Discuss your motivation for pursuing this problem. Give some background if necessary. |
| 2 | Related work | You should find existing paper (or webpages), group them into categories based on their approaches, and discuss their strengths and weaknesses, as well as how they are similar to and differ from your work. Give your opinion on which approaches were clever or good? You should aim to have at least 5 references in the related work. Google Scholar is very useful for citing paper. For webpages you need to search for yourself. |
| 3 | Method | Describe your algorithms. Make sure to include relevant mathematical notation, flow chart and UML. Give a short description of each on how it works by assuming that the readers have no prior knowledge (future undergraduate student who doing the same project). |
| 4 | Experiments/ Results/ Discussion | You should also give details about what parameters (speed, duration, etc.) you choose and how you chose them. Examples of where your algorithm failed and a discussion on why certain algorithm failed or succeeded. What are the different between theoretical and experiment outcome and how you adjust parameters to make it work. |
| 5 | Conclusion/ Future Work | Summarize your report and reiterate key points. What make you get good or bad results. What you would explore if you have more time and more partners. |
| 6 | Contributions | The contributions section is not included in the 5 page limits. This section should describe what each team member worked on and contributed to the project. |
| 7 | References | The references section is not included in the 5 pages limit. Use APA citation format |
| 8 | Codes | Attach your codes here |