Data 3406 Group Processes

Reflections on group work for the literate programming in the notebooks (aspects that were effective, problems encountered, how you tackled them and how effective that was).~ *200 words*:

Whilst working on the notebooks for assignment 2, our group encountered several issues, which we strategised to overcome. Firstly, Colab no longer supported the ability for group members to simultaneously work on a single notebook at the same time without running into issues. The first problem-solving method was to hold group meetings and have one group member share their screen whilst the rest of the group observed, commented and contributed to the discussion. This method, however, was not as effective as time was wasted on watching one group member type their code. Therefore, our group mainly divided the analysis into sections and took a different approach to solve the problem. The successful method was to have everyone work on certain sections locally and then add them to the notebook later down the track. In contrast, the checklist was extremely useful for comparing our product notebook with it, ensuring all requirements were met and nothing was missing. Finally, another issue we ran into was duplicate and missing code. Due to working locally, there were few occurrences where duplicate code and missing data appeared, especially when columns had been dropped. We solved this issue by performing code reviews of the combined notebook, which enabled different perspectives to identify duplicate and missing code that rose from the combination process and that may not have been recognised without a new pair of eyes.

Reflections on group work other aspects – the presentation video, report and group processes ~ *200 words*:

In regards to other aspects of the assignment, our group held weekly zoom meetings to discuss what needed to be done and assign tasks to every group member. This ensured that every group member placed an equal amount of effort towards the project. Firstly, in regards to the presentation video, we divided the deliverable into separate components which consisted of a script, Google Slides and video recording. For the script to flow smoothly, one group member predominantly wrote the transcript for purpose and raw data sections. While editing and reviewing the transcript, we noted the feedback from Assignment 1 and implemented this into Assignment 2. For the slides, each group member chose a slide to present. For coherency, we also decided that each group member would create and format their own talking slide. For the video recording, we discussed and decided on time limits for each slide. Once the time limit was established, each group member worked efficiently to record their own talking slide. The dedication of each group member to record their script by a group deadline enabled sufficient time for one member to combine and edit the videos.

Reflection on the effectiveness of your planning and use of Issues as a tool to support group work. ~ *100 words*:

Throughout assignment 2, issues on GitHub were used extensively to track progress, ensure that all required tasks were listed and assigned to a group member. During our weekly group meetings, the group collaborated and planned ahead for what needed to be completed that week. By establishing issues of weekly tasks and assigning group members, every group member was aware of the assignment direction and what tasks to offer greater support to. Overall, it enabled the group to prioritise tasks and maintain time efficiency. Once a task was completed, we marked them as resolved and they would automatically be removed from our active issues. Hence, the list of issues was always up to date, which was useful for both monitoring our tasks and organising group members.

Key conclusions about the impact of the human-in-the-loop aspects of your group for the creation of the quality of the product notebook and main results reported in the presentation. ~ *100 words*:

In the process of data wrangling, the group applied human-in-the-loop aspects to make reasonable judgment on how to join the datasets. Similar thinking was also applied when dealing and justifying keeping outliers seen in the boxplots. Furthermore, we ensured to follow the immutability of raw data principle by creating new columns or subsetting the data. When producing intuitive visualisations it was pivotal that we avoid overloading the audience and bring their attention to the important take-aways. For example, the colour feature of plots match the team colour name to maintain consistency and strengthen the audience's retainment of plot meaning. Likewise, considering the Gestalt laws, our bar plots allow for simple interpretation and comparison of heights. Considering mental models, we carefully worded our findings to avoid confusion of results and noted any assumptions that we had. As well as, staying honest and humble about any conclusions we made.