

Please tick ✓

☐ FOUNDATION ☐ DIPLOMA ☒ DEGREE ☐ MASTER

# Coursework Progression for Group Work

Please complete all details required clearly. The progression form is meant for coursework based subjects. The form is to be used weekly during class consultation hours by students and lecturers to track the progress of work done and expectations for the following meeting.

## Course Details:

|   |   |
|---|---|
| <b>Subject Code:</b> (e.g. GCAS100)<br>XBDS 2034 N  | <b>Subject Name</b> (e.g. Fundamentals of Computing):<br>Data Science Toolbox |
| <b>Course Title</b> (e.g. Bachelor in Computing) :<br>Bachelor of Science in Computer Science |   |

**Week:** (Please ✓ and write the actual date)



| Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk12 |
|------|------|------|------|------|------|------|------|------|-------|-------|------|
|      |      |      |      | /    |      |      |      |      |       |       |      |

## Progress:

**Team Work Progress:** (Work progress shown in class OR outside class hours)

- We reviewed existing research on recommendation systems and data visualization techniques to understand the current state of the field and identify gaps in knowledge.
- We obtained the Free Music Archive dataset from GitHub, which contains over 106,000 tracks from more than 16,000 artists, to use as the basis for our analysis. (<https://github.com/mdeff/fma>)
- Hypothesis:** the integration of progressive visual analytics techniques with traditional recommendation algorithms in a hybrid approach would improve the accuracy and personalization of music recommendations based on individual listening habits
- Null Hypothesis :** There is no significant difference in the accuracy and personalization of music recommendations based on individual listening habits between the hybrid approach of combining visual analytics techniques with traditional recommendation algorithms and content-based or collaborative filtering methods used alone.

**Next Milestone/s:** (What is expected of each team member) – Can be filled by Team Leader.

| Task:   | Task:  | Task:  | Task:  | Task:   |
|---|--|--|--|---|
| Perform data cleaning and preprocessing on the dataset, including removing missing or irrelevant data, transforming the data into a format suitable for analysis, and selecting relevant features.                | Conduct EDA to understand the patterns and relationships in the data, such as visualizing the distribution of the data, exploring correlations between variables, and identifying outliers or anomalies. |  |  |   |
| <b>Student #1 Name:</b><br>Wan Mohammed Adam<br><b>Student No:</b><br>0132601<br><b>Signature:</b> <br><b>Date:</b> 01/03/2023 | <b>Student #2 Name:</b><br>Hew Yung Fung<br><b>Student No:</b><br>0132646<br><b>Signature:</b><br>HYF<br><b>Date:</b> 01/03/2023   | <b>Student #3 Name:</b><br><br><b>Student No:</b><br><br><b>Signature:</b><br><br><b>Date:</b> | <b>Student #4 Name:</b><br><br><b>Student No:</b><br><br><b>Signature:</b><br><br><b>Date:</b> | <b>Student #5 Name:</b><br><br><b>Student No:</b><br><br><b>Signature:</b><br><br><b>Date:</b>  8/3/23 |

**Lecturer/s Acknowledgement and Date:**