

Exploratory Data Analysis of Master of Data Analytics Course at Western University

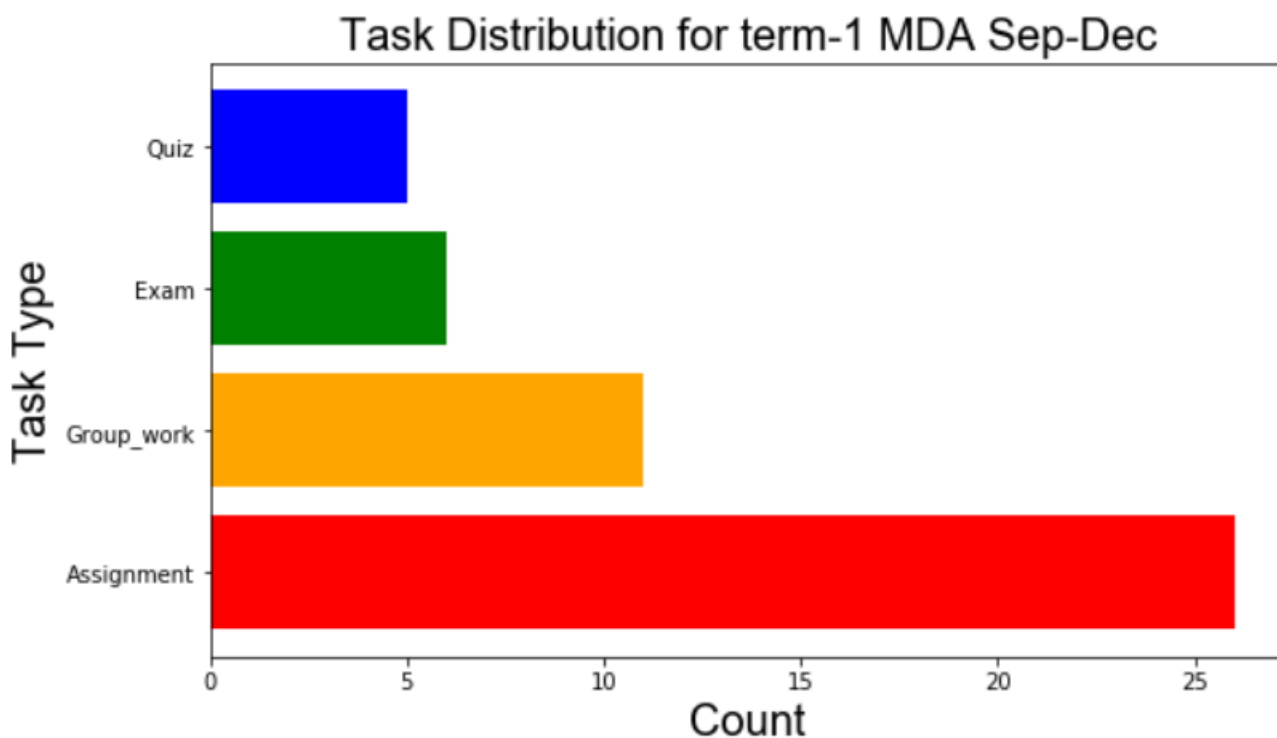
Course: MDA (Master's Data Analytics)

Number of Terms: 3 Terms (2 Terms, 1 Co-op term)

Total Courses: 10 to be taken in 2 terms

Tracks: Artificial Intelligence, Finance, Generalist

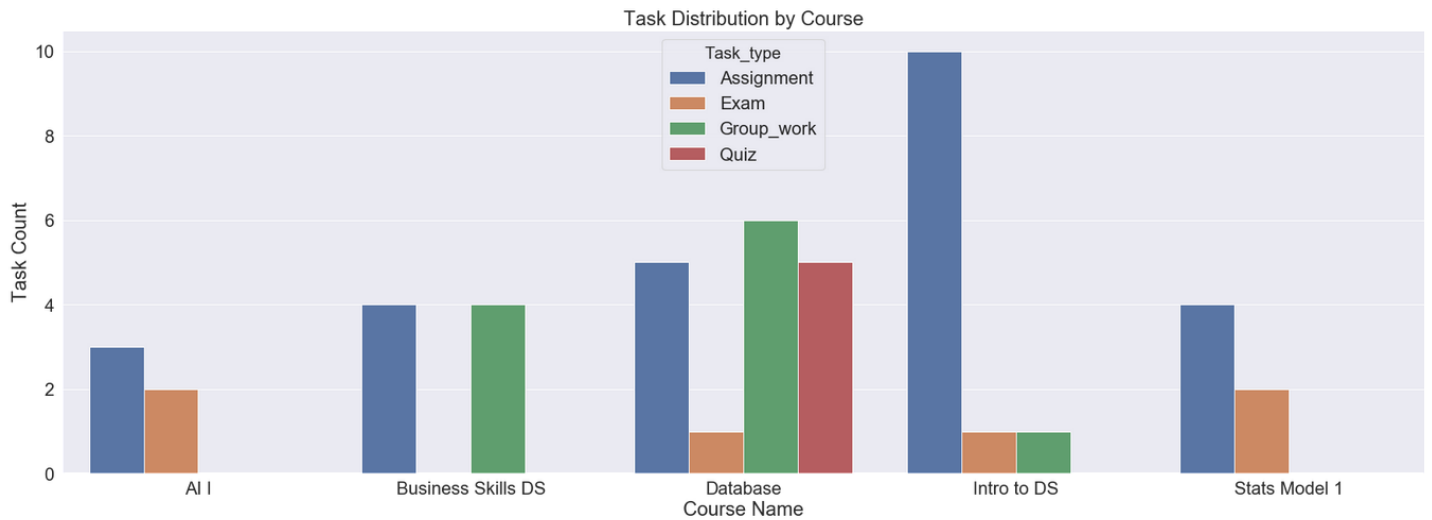
Exploratory data analysis presented below is done on data collected for term 1 of MDA (Sep 2019 – Dec 2019). Performance metrics presented below is only for one student and doesn't represent the overall performance of the students taking MDA.



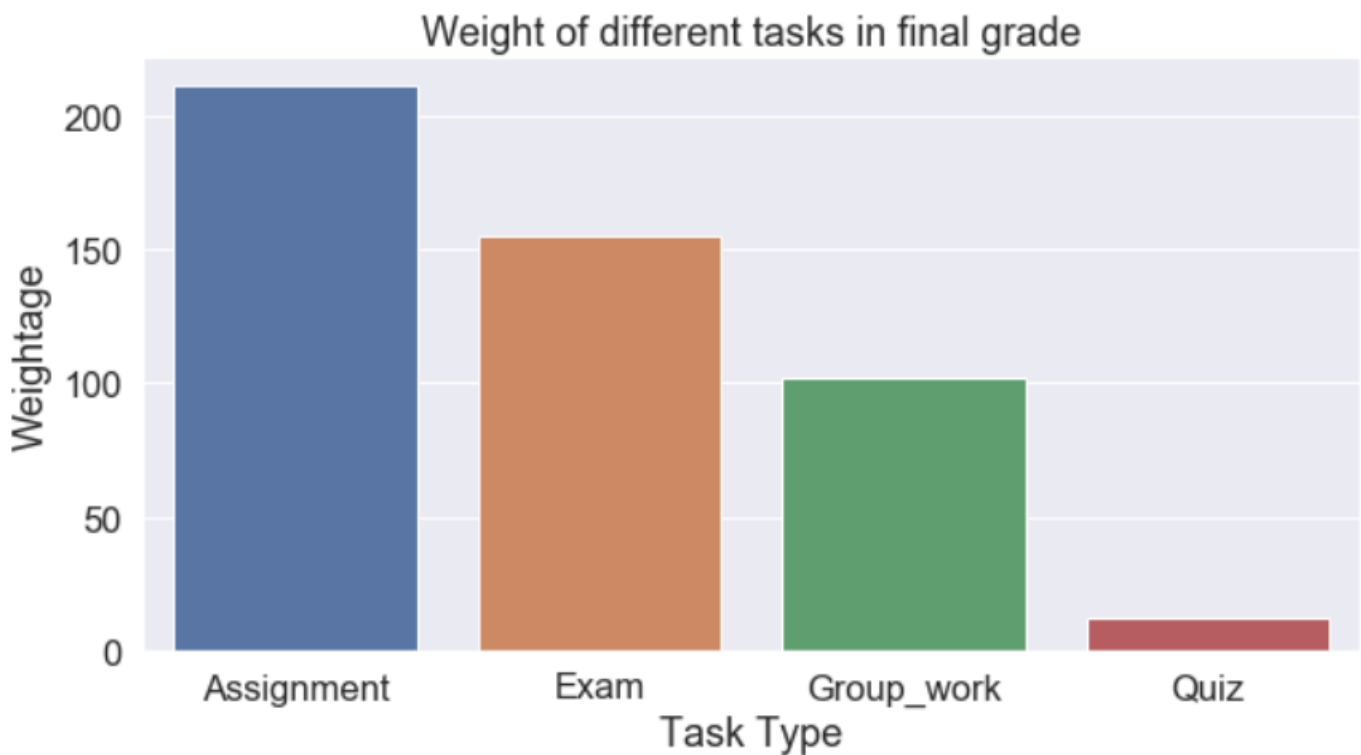
“Term 1 had more than 25 assignment across all the 5 courses taken. There were around 10-15 group tasks also for the term”

All the tasks to be completed by the students are categorized into above represented 4 categories. These categories include the following type of tasks:

1. Quiz: Online MCQ's conducted as part of a course on periodic interval.
2. Exam: Midterm and Final exams. Exams can be both closed book, open book, open internet and varying syllabus depending on the corresponding course.
3. Group_work: Presentations, final projects or tasks that are completed in group.
4. Assignment: Individual tasks that are completed by students for different courses.



“Term 1 has above 5 courses represented on x-axis. AI I is only for students taking Artificial Intelligence track in MDA. Introduction to Data Science had the maximum number of assignments. Database as a course had good mix of all the task types. 4 out of 5 courses had exams.”



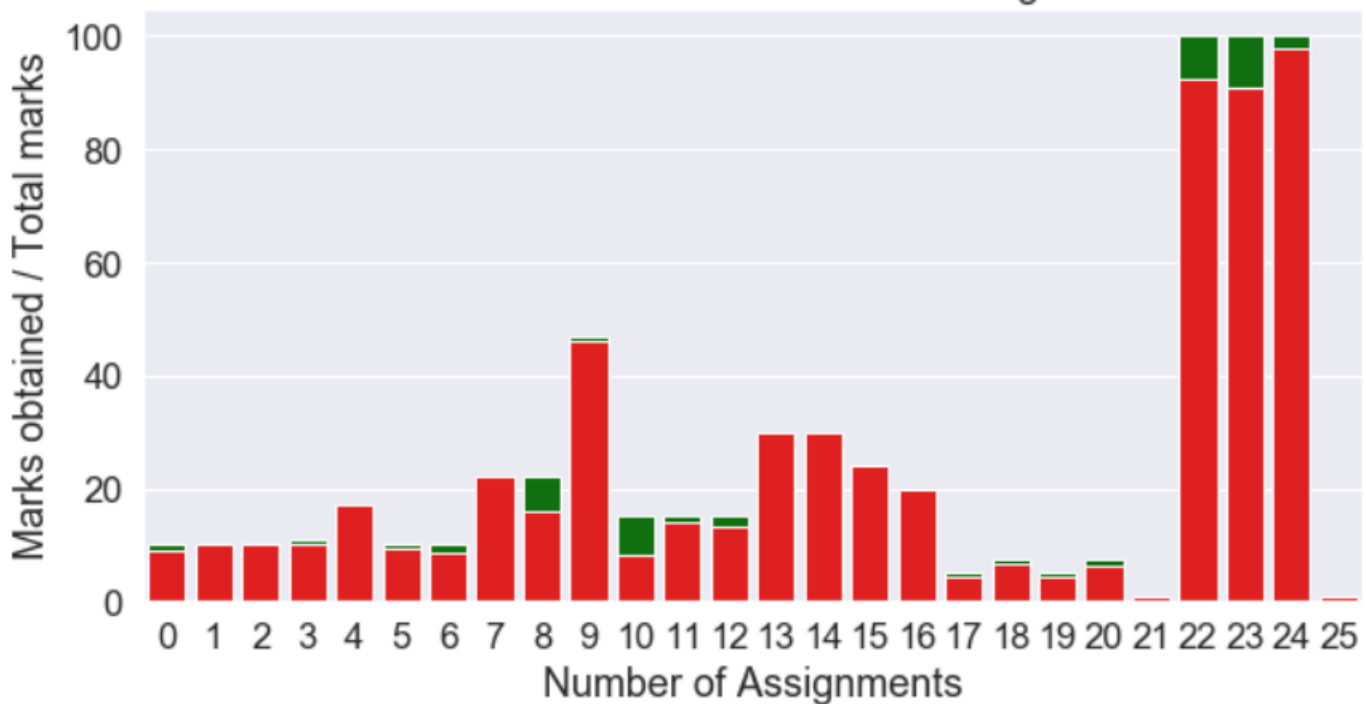
“Term 1 had maximum number of assignments across all 4 task types represented by first figure. Assignments overall also had the highest weightage in evaluation of final grade for term 1 followed by exams, group work and quiz. Interestingly, number of exams were less than the number of group work tasks represented in first figure but the weightage for exams is higher than the group work tasks”

Total marks for each task type



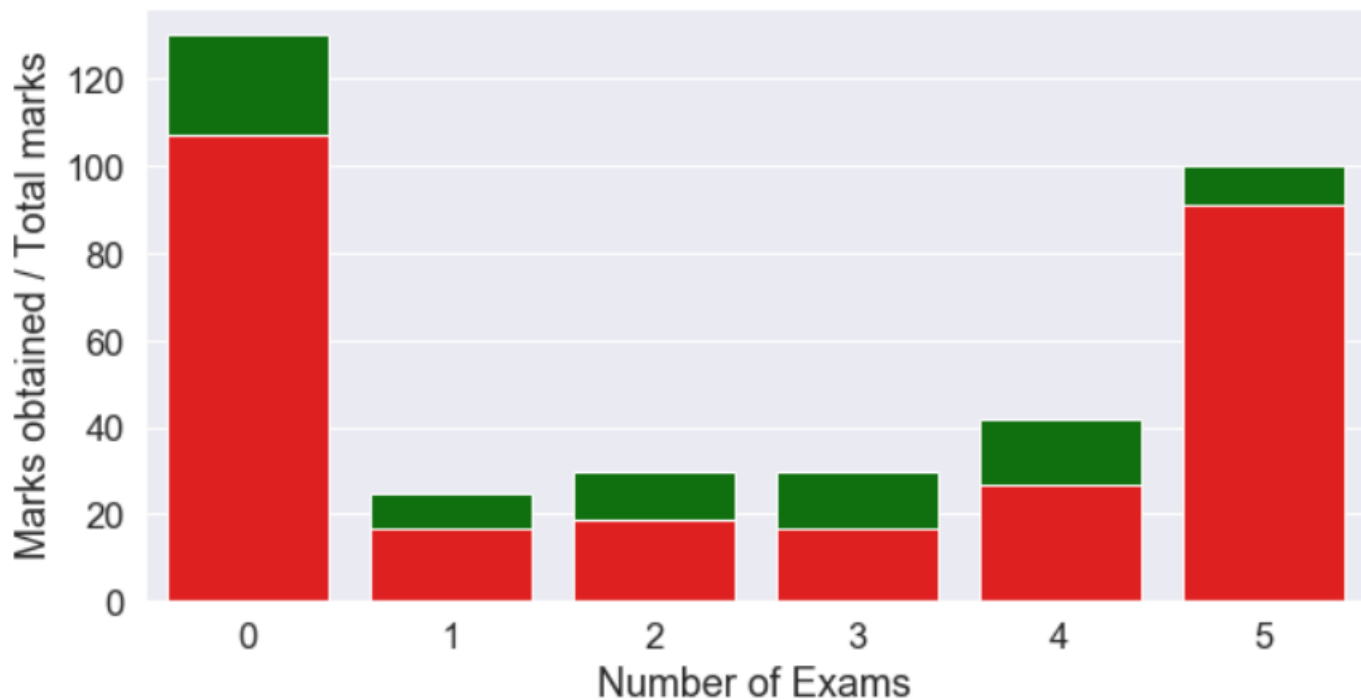
“Assignments together for term 1 had more than 600 marks allocated to them. Combining it with the fact that assignments had the highest weightage represented in third figure, assignments were the single most important task type having a significant impact on the overall grade evaluation”

Marks obtained vs Total Marks for Assignments



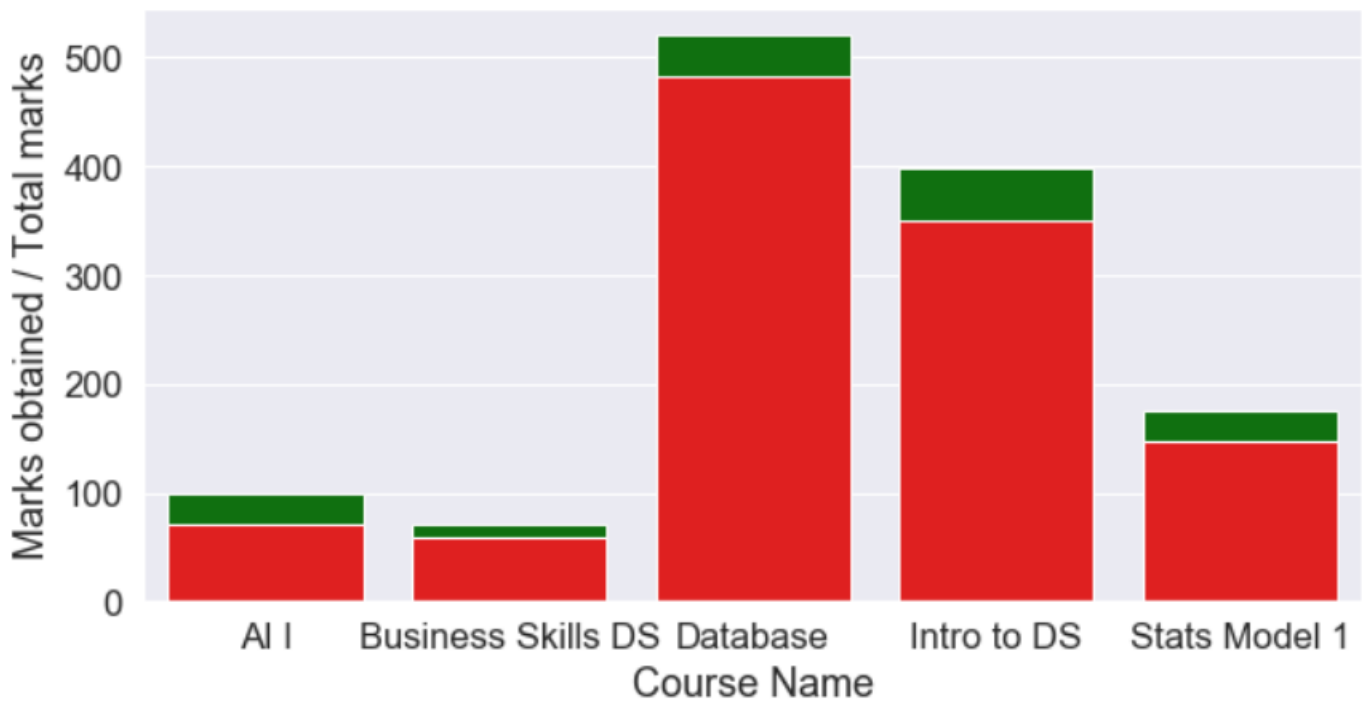
“Performance of student across 26 assignments were overall good. In the above graph green bars represent the full marks for the assignment and the red bars are the marks obtained by the student”

Marks obtained vs Total Marks for Exams



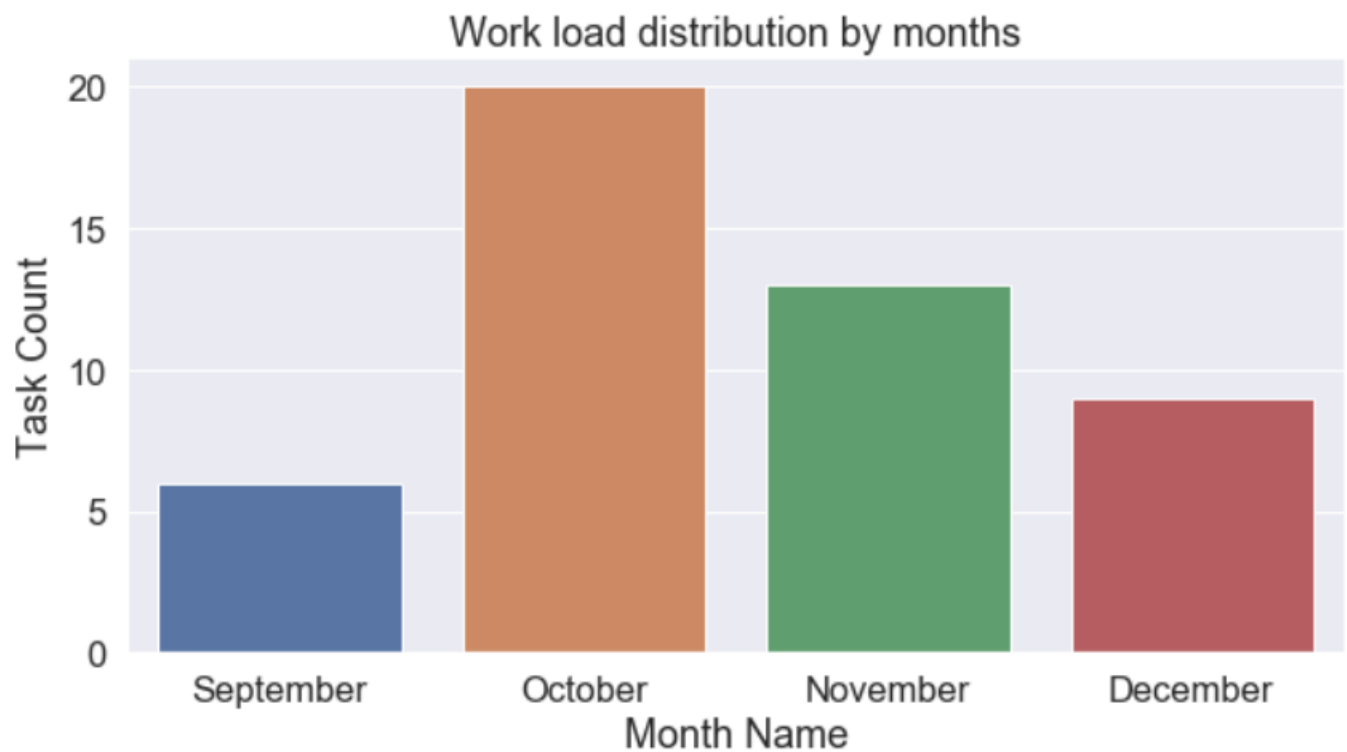
“There were total 6 exams in term 1. Overall the student was able to score more than 50% in all the exams. Not good considering the fact that MDA requires 60% in all subjects and 70% overall to pass the term. Best of Luck :D”

Marks obtained vs Total Marks for the 5 courses



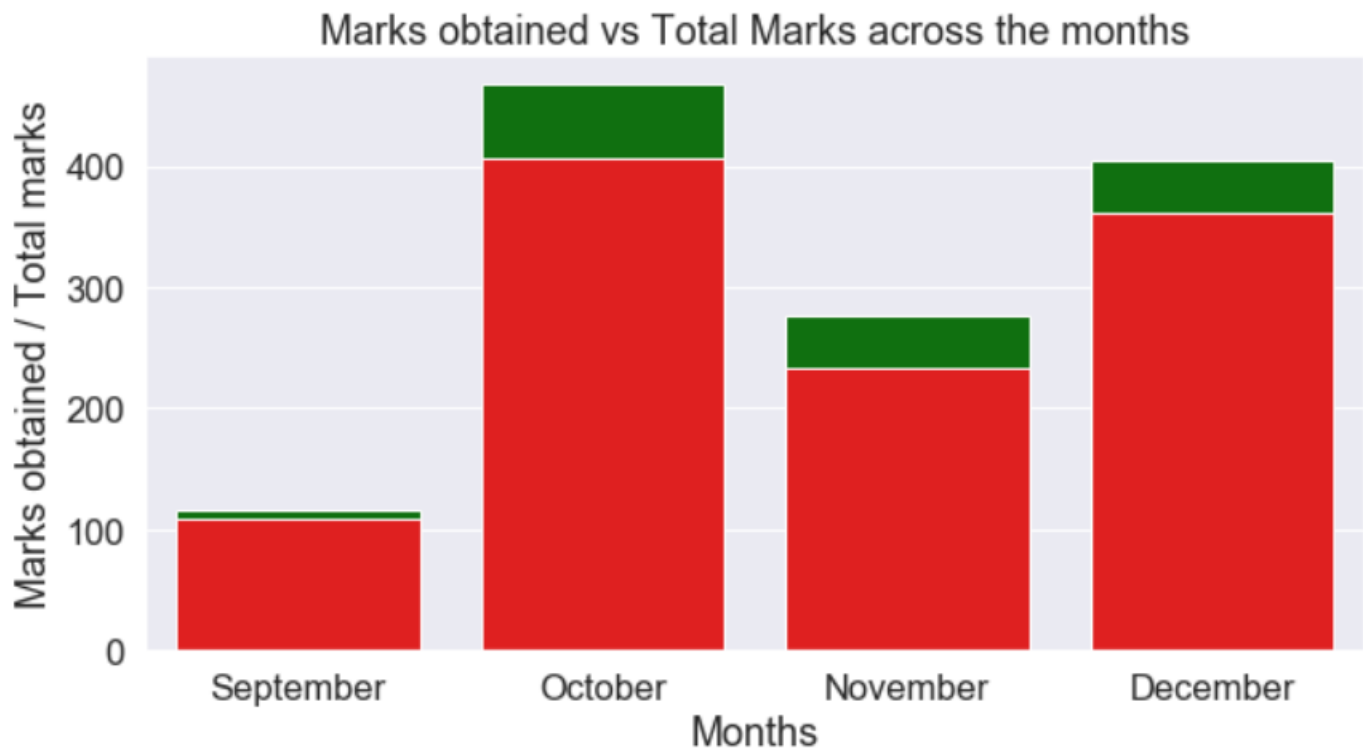
“Performance of student was overall descent in all the 5 courses. Database performance should overall drive the overall grade for the term 1”

“10 courses in 2 terms doesn’t seem to be a very easy course from the outlook compared to other master’s courses. Let’s look at the workload distribution for the MDA course in term 1”



“All the students start their term 1 for MDA in fall i.e. September. Workload for September seems to be fine as the students are getting accustomed to the new school and other things. However, there is a steep rise in the workload – more than doubled immediately in October. Must be a challenge for students to cope up with this steep rise within one month. The workload further gradually declined from October and was at minimal in December when the term 1 ends”

“Let’s visualize how the student performed across varying workload across the term 1 represented by figure above. Fact to be considered is grad schools are never easy and there are more factors impacting the performance that are not visualized here”



“Its evident that the student had an excellent September in terms of performance with limited workload. However, the performance took a hit in October with steep increase in workload within one month. Performance remained similar for the last two months of November and December”

“Thank you for reading through the analysis. This analysis is just done for trying out the some of the skills learnt in MDA and in no way are intended to force any opinion about the course or university”