**EXPLANATION OF VISUALS**

**STUDENTS’ DEMOGRAPHICS**

* **Total Number of Registered Students**: Obtained by counting the number of unique Matric Number in the Registration table
* **Total Number of Students with Biodata:** Counting the number of unique matric numbers in the Biodata table
* **Total Number of Graduated Students:** Counting the number of Matric Number with Last\_GPA and Last\_CGPA greater than 0, that is those who didn’t have a Fail in their last GPA and last CGPA
* **Number of Students by Gender:** Obtained from the Biodata table by counting the number of Males and Females
* **Number of Students by Marital Status:** Counting the Number of students in each category of the Marital status of the Biodata table
* **Number of Students by State of Origin:** Counting the Number of Unique Matric Numbers in the State of Origin column of the Biodata table
* **Number of students by Nationality:** Counting the number of Matric Numbers in each category of the Nationality column of the Biodata table.
* **Number of Students by Religion:** Counting the Number of Matric Number in each category of the Religion column in the Biodata table

**ENROLLMENT TREND**

* **Trend of Total Number of Students per Session:** obtained by counting the total number of distinct matric number in each session of the Registration table. This gives and explanation of how the number of students in the programme varies across the years which is influenced by admitted students, graduating students and students who dropped out.
* **Trend of Number of Admitted Students per Session:** Obtained by counting the number of distinct matric number in each Year of Admission column of the Biodata table.
* **Number of Admitted Students per Year by Gender:** A bar chart of Number of Distinct matric number in the Year of Admission column of the Biodata table divided into Gender

**STUDENT REGISTRATION**

* **Number of Students by Session and Level**: Obtained from the Registration table, shows the number of students that registered in a Session in each level. This can help identify the number of students that are still in the programme and the number that might have dropped out or deferred.

**ACADEMIC PERFORMANCE OVER TIME**

* **Average GPA and CGPA Over Sessions:** Obtained from the Academic Performance table by computing the Average GPA and CGPA of all students across all Sessions. This gives a quick overview of the changes in the average performance in the department. While it may not be representative of the entire data as averages are affected by outliers, it helps capture the variation in the performance across sessions.
* **Trend of Number of Students by Classification of the CGPA:** Computes from the Academic Performance table by calculating the number of students in each CGPA Classification across all the session. This gives the number of students in each class of CGPA across sessions. It shows how the number of each classification varies over the years
* **Number of Students by CGPA Classification:** A bar chart to show the Number of Students in each CGPA Classification across the sessions. Computed from the Academic Performance Table

**GRADE DISTRIBUTION**

* **Distribution of Grades by Course:** Obtained from the Result sheet. It shows the number of students that obtained a particular grade. With the present slicers, each session and each course can be investigated.

**COURSE PERFORMANCE**

* **Average, Minimum and Maximum Scores by Course**: Obtained from the Result sheet, the Average, Minimum and Maximum scores of each course is displayed. This gives an overview of the performance in each course and with the slicer, the performance of each session can be viewed.

**ACADEMIC PERFORMANCE OVER TIME**

* **Average GPA and CGPA by Session:** Obtained from Academic\_Performance table by taking the average of the GPA and CGPA and with the Semester slicer, the average of each semester can be obtained.
* **Trend of Number of Students by Classification of their CGPA**: This line plot was obtained from the Academic performance table and it shows how the number of students in each classification of CGPA varies over the years (Session)
* **Number of Students per Session by CGPA Classification**: This is a bar chart created from the academic performance table. It shows the number of students in each classification of CGPA in each session and with the present slicer, this visual can help visualize the number of students in each CGPA classification per Semester

**OVERALL PERFORMANCE**

* **Number of Graduating Students by Classification of CGPA:** This was obtained from the First\_Last\_Result to visualize the number of students graduating with each class of result. This was done by checking the last CGPA of those who are above a particular threshold. The adjoining the Pie chart chose the percentage distribution. The slicer can help visualize specific session of interest.

**COMPARATIVE ANALYSIS**

* **Number of Students by Session, CGPA Class and Level:** This was obtained from the Academic Performance and Registration tables. It shows the number of students in each Result class in each session and for different levels. This can help determine how many students maintained their class of result and variations that occur as students progress in their academic journey. With the slicer, the number can be obtained for each semester

**COMPARATIVE ANALYSIS 2**

* **Average of First CGPA across Session**: Obtained from the First\_and\_Last\_Result table, this line plot shows the trend of the average of the First CGPA obtained by each student across all the sessions in the dataset
* **Average of Last CGPA across Session:** Obtained from the First\_and\_Last\_Result table, this line plot shows the trend of the average of the Final CGPA of each student across all the sessions in the dataset.
* **Relationship between First and Final CGPA of each student:** This scatter plot was obtained from the First\_and\_Last\_Result table and it shows the relationship between the First and Final CGPA obtained by each student.

The three plots in this report shows that there is a relationship between First and Final CGPA. The line plots of the average First and Final CGPA have similar trend and the scatter plot shows a positive linear relationship between the First and Final CGPA. This implies that students have the tendency to maintain the academic class they started with in their final session.

**Hex Values of Bars’ Colors**

#105CFF

#0BE10B

#CAD626

#FF0DE3

#FF7F0E

#744EC2

#DE6A73

#E8D166