Zewail University DashBoard

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[a] 1)Title of your client(s) who will use the dashboard:

- University Administration: To monitor and manage various aspects of the university's operations.
- Academic Departments: To track student enrollment, academic performance, and resource utilization.
- Students: To access relevant academic information.

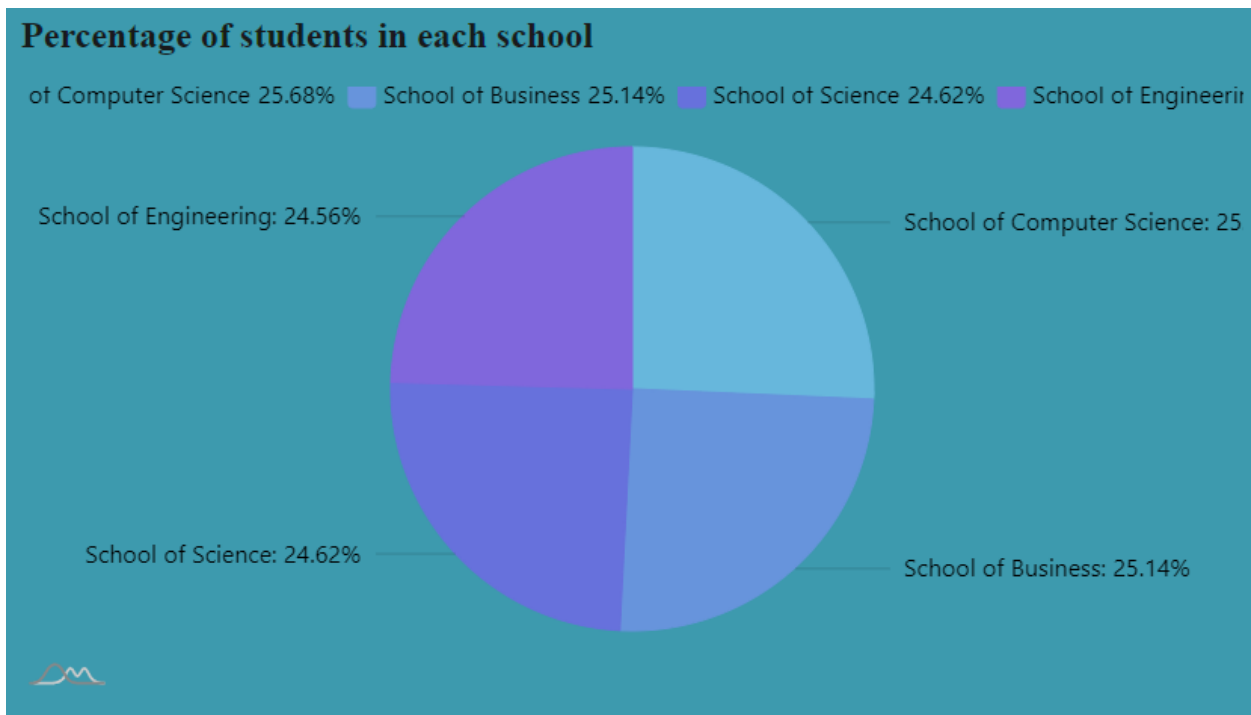## 2)All available information that will be provided by your client:

- Student GPA's.
- Student Names.
- Student ID's
- Student Birth Date.
- Schools
- Programs

3)Required questions that your dashboard should answer:

- How many students are in each school?
- How many students are in each program?
- Percentage of students in each school?
- Percentage of students in each program?
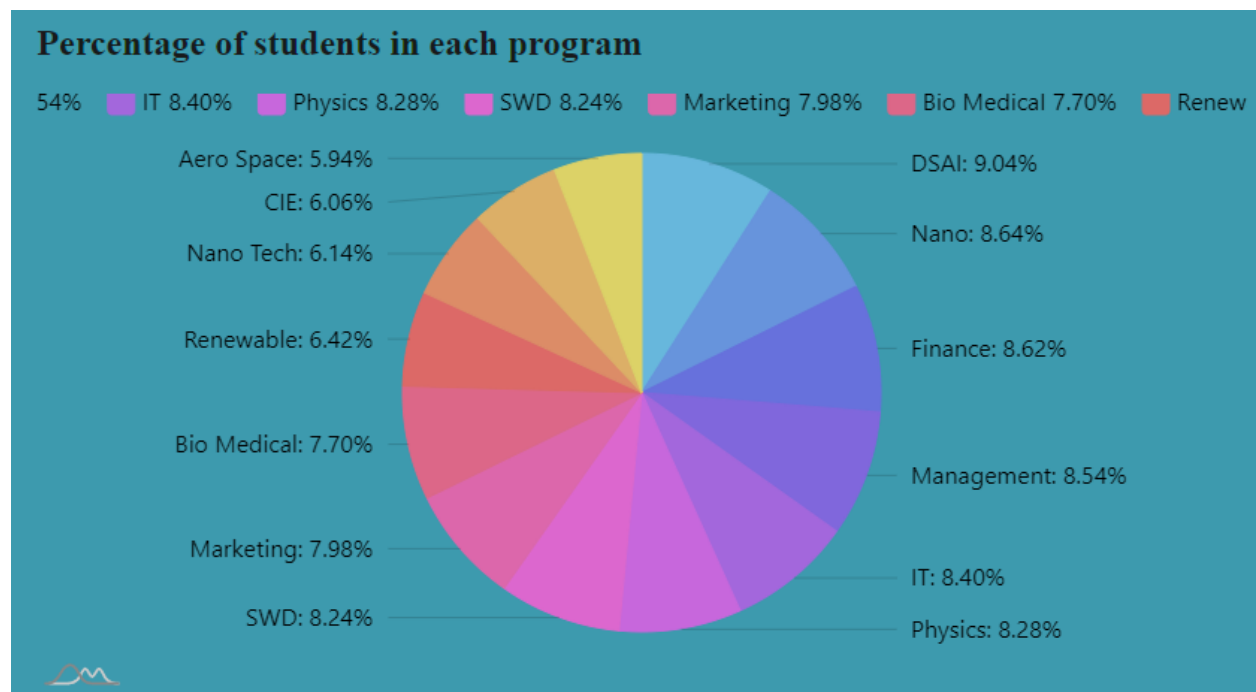- Average GPAs of students in each program?

[b] 1)First Chart:

- **Chart type:** Pie Chart
- **Title:** Percentage of students in each school
- **Colors:** Blue Gradient
- **Questions:** What percentage of students in each school?
- **How this chart will show up:** always shows up
- **Why you selected this chart type to visualize this information:**Because pie chart are effective in showing percentages and when you have a small number of categories

Percentage of students in each school

of Computer Science 25.68% School of Business 25.14% School of Science 24.62% School of Engineerir

School of Engineering: 24.56%

School of Computer Science: 25

School of Science: 24.62%

School of Business: 25.14%

2)Second Chart:

- **Chart type**: Pie Chart
- **Title**: Percentage of students in each program
- **Colors**: Blue, purple and yellow Gradient
- **Questions**: What percentage of students in each program?
- **How this chart will show up**: always shows up
- **Why you selected this chart type to visualize this information**:Because pie chart are effective in showing percentages and when you have a small number of categories
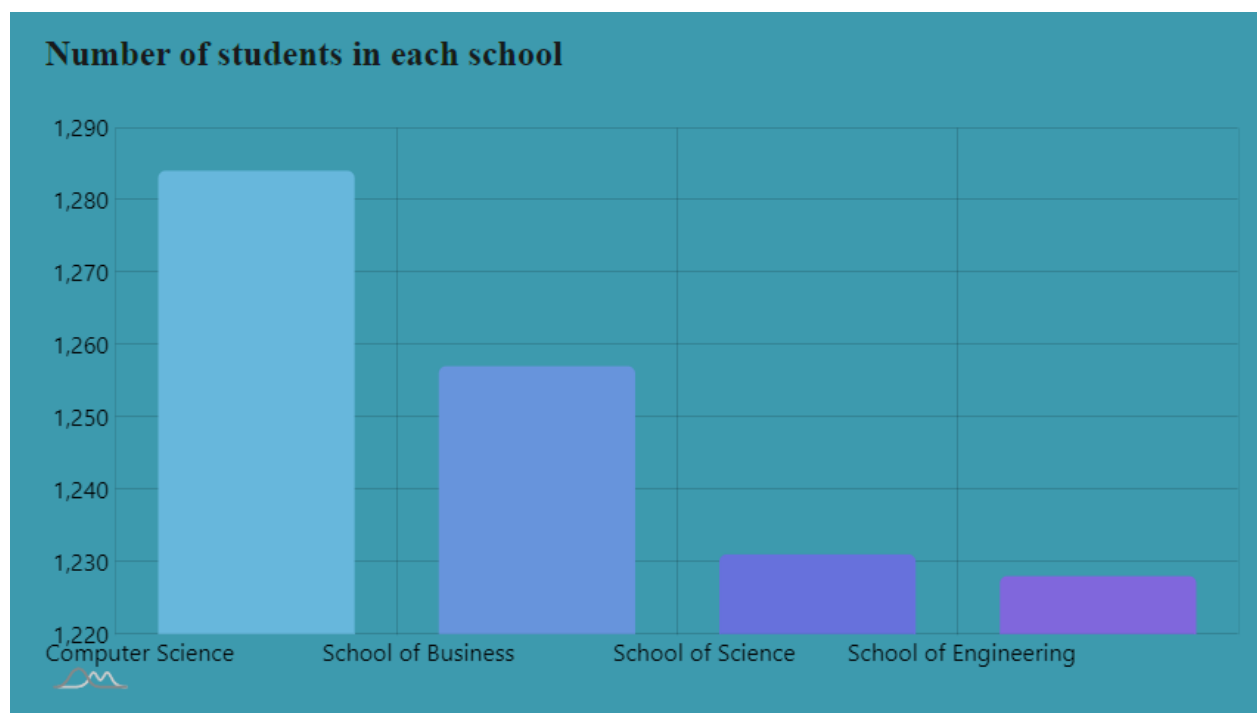
Percentage of students in each program

54% | IT 8.40% | Physics 8.28% | SWD 8.24% | Marketing 7.98% | Bio Medical 7.70% | Renew

- Aero Space: 5.94%
- CIE: 6.06%
- Nano Tech: 6.14%
- Renewable: 6.42%
- Bio Medical: 7.70%
- Marketing: 7.98%
- SWD: 8.24%
- DSAI: 9.04%
- Nano: 8.64%
- Finance: 8.62%
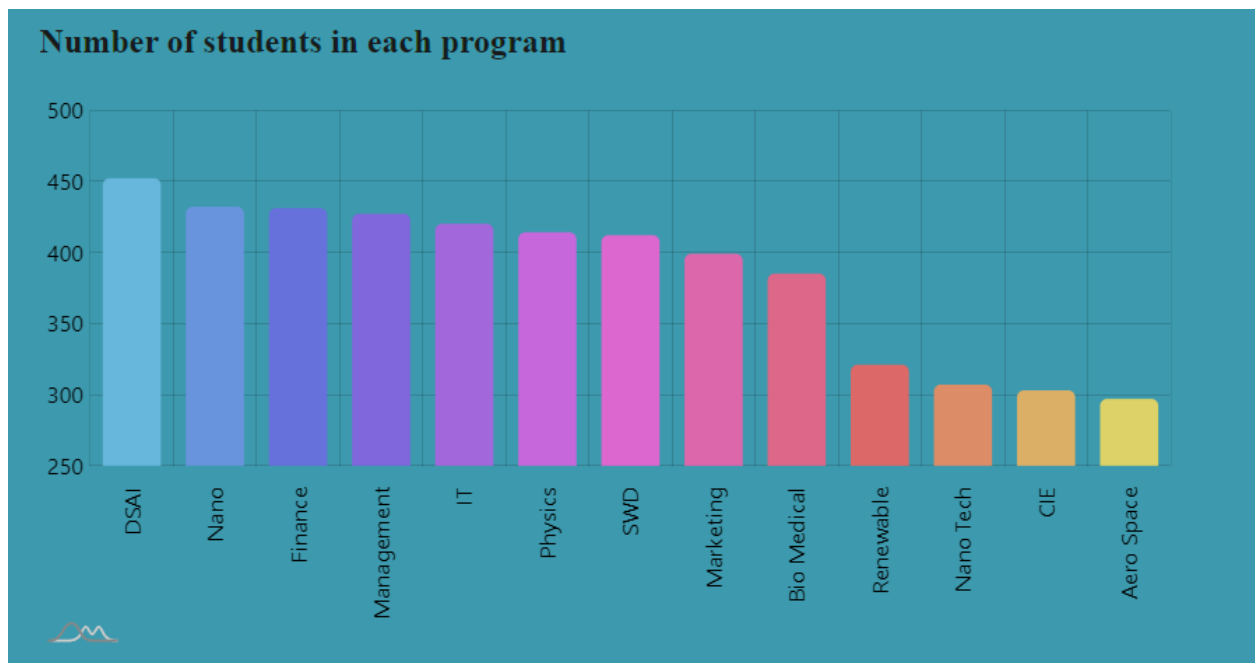- Management: 8.54%
- IT: 8.40%
- Physics: 8.28%

3)Third Chart:

- **Chart type:** Bar Chart
- **Title:** Number of students in each school
- **Colors:** Blue, purple Gradient
- **Questions:**How many students in each school?
- **How this chart will show up:** always shows up
- **Why you selected this chart type to visualize this information:**Because bar chart are effective in comparing values of different categories and the length of each bar represents the value, making it easy to see which category has the highest or lowest value
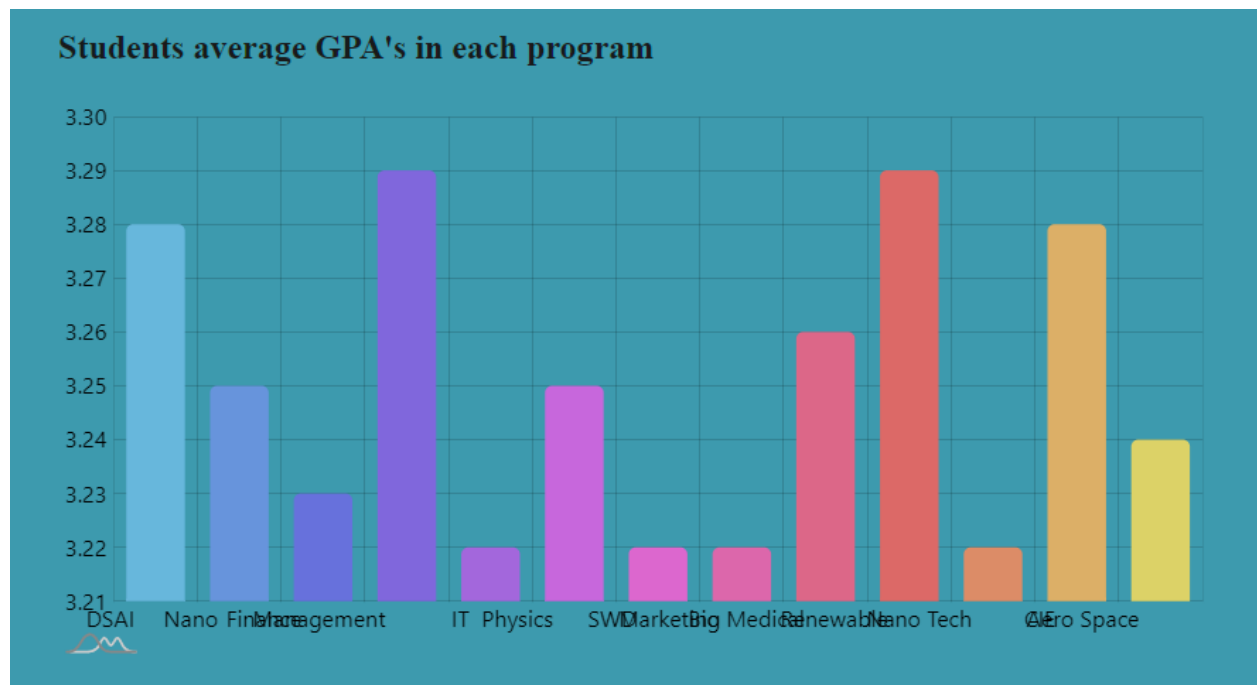
4)Fourth Chart:

- **Chart type:** Bar Chart
- **Title:** Number of students in each program
- **Colors:** Random colors Gradient
- **Questions:**How many students in each program?
- **How this chart will show up:** always shows up
- **Why you selected this chart type to visualize this information:**Because bar chart are effective in comparing values of different categories and the length of each bar represents the value, making it easy to see which category has the highest or lowest value
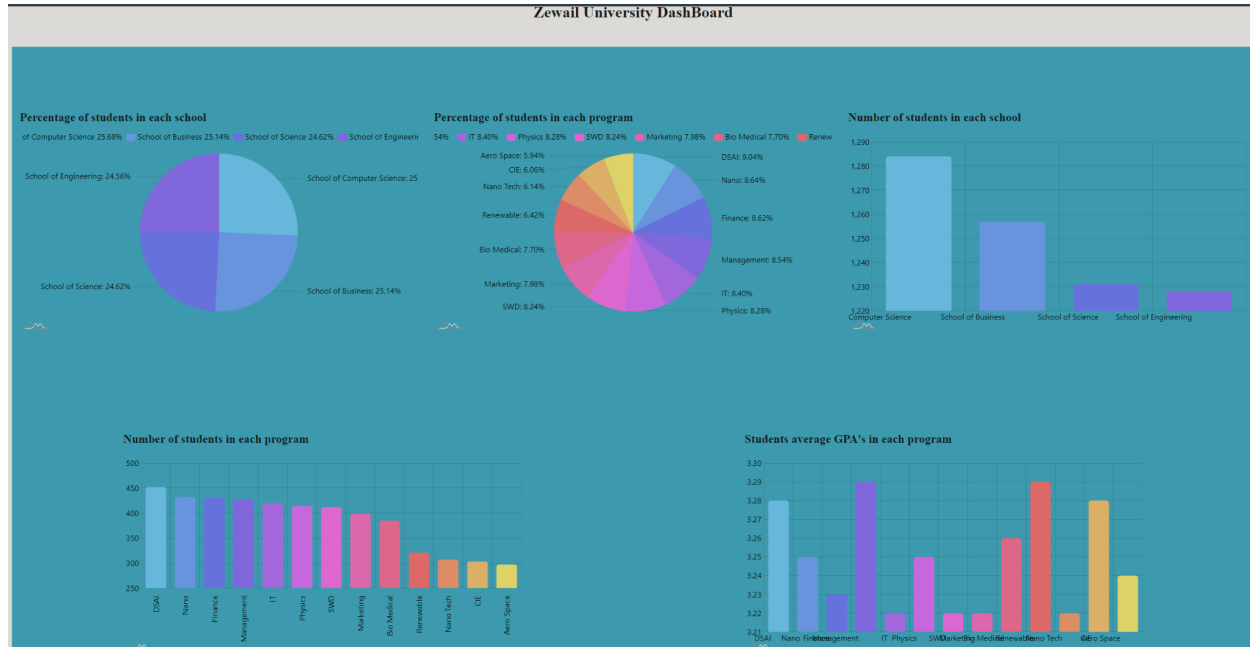
5)Fifth Chart:

- **Chart type:** Bar Chart
- **Title:** Students average GPA in each program
- **Colors:** Random colors Gradient
- **Questions:**what is the average student's GPA in each program?
- **How this chart will show up:** always shows up
- **Why you selected this chart type to visualize this information:**Because bar chart are effective in comparing values of different categories and the length of each bar represents the value, making it easy to see which category has the highest or lowest value

[c] Explain the following for the Dashboard Layout:

- **Why selecting these positions for each chart, title:**
    1) I placed the charts at top and the center of the layout to draw immediate attention to the user and make it suitable for displaying critical information.
    2) Titles are typically positioned at the top of the dashboard to provide context and identification. Placing them prominently helps users quickly understand the purpose of the dashboard.

- **Points that may be criticized in your design layout:**
    1) Including too many charts can lead to a cluttered appearance, making it challenging for the user to focus on essential information.
    2) Insufficient empty space can make the dashboard feel overwhelming.
    3) Bad colors can distract the user from the main content.
    4) If critical information is not well visible, users may miss important insights and information.

Complete layout:

Source code: Submitted.

Suggested future work:

- ● **User feedback and testing.**
- ● **Responsive design.**
- ● **Real time updates.**
- ● **Additional types of charts.**
- ● **Enhance interactivity.**
- ● **Customization options.**

Provided data:

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1    Student ID,First Name,Last Name,Birth Date,School,Program,GPA
2    549009,Rony,Hatem,2001-05-31,School of Science,Nano,3.36
3    137114,Yasser,Moataz,2003-12-21,School of Science,Nano,3.64
4    616485,Nouran,Yahia,2004-05-09,School of Engineering,CIE,2.93
5    600461,Abdulrahman,Abdulaziz,2000-01-27,School of Business,Management,3.73
6    862794,Layla,Moataz,2004-07-27,School of Business,Finance,2.55
7    269947,Yahia,Karim,2002-09-11,School of Business,Management,2.99
8    283244,Ahmed,Moahmed,2004-12-21,School of Computer Science,SWD,3.51
9    317245,Layla,Youssef,2004-09-02,School of Business,Management,3.6
10   979324,Abdullah,Hendy,2000-07-15,School of Science,Physics,3.37
11   691022,Yasser,Tarek,2005-11-20,School of Science,Physics,3.61
12   374236,Rahma,Mostafa,1999-04-03,School of Computer Science,DSAI,3.31
13   290847,Ziad,Mostafa,1999-07-14,School of Science,Nano,3.11
14   687170,Hana,Abdulaziz,2005-11-23,School of Business,Marketing,2.81
15   510622,Nada,Yahia,2003-01-31,School of Computer Science,DSAI,3.67
16   854445,Mark,Moataz,2003-09-27,School of Science,Bio Medical,3.97
17   756117,Abdullah,Karim,2004-03-29,School of Science,Physics,3.05
18   157962,Mark,Yasser,2005-02-07,School of Engineering,CIE,2.94
19   961204,Ziad,Hatem,1999-03-10,School of Engineering,Nano Tech,2.53
20   519730,Haneen,Samir,2001-08-30,School of Business,Finance,3.57
21   359482,Aya,Abdulrahman,2004-11-30,School of Computer Science,DSAI,3.65
22   470384,Ziad,Abdelrahim,1999-05-29,School of Computer Science,DSAI,3.98
23   113276,Karim,Abdulrahman,2000-01-17,School of Science,Bio Medical,2.77
24   925357,Rony,Abdulrahman,1999-04-11,School of Engineering,Renewable,2.82
25   427147,Karim,Samir,2003-10-17,School of Engineering,Aero Space,3.94
26   698981,Omar,Ahmed,1999-07-17,School of Science,Physics,2.74
27   545879,Omar,Abdulaziz,2004-01-06,School of Computer Science,IT,3.41
28   584075,Mark,Hani,2004-07-23,School of Computer Science,IT,3.53
29   110464,Seif,Moahmed,2005-02-06,School of Science,Bio Medical,3.04
30   627718,Ahmed,Karim,2003-06-21,School of Business,Finance,3.21
31   795639,Fatma,Hatem,2002-01-24,School of Computer Science,DSAI,3.55
32   103193,Yasser,Hani,2004-02-26,School of Science,Bio Medical,3.92
33   930122,Seif,Moataz,2003-03-15,School of Business,Management,3.81
34   155510,Fatma,Hendy,1999-08-10,School of Science,Nano,3.13
35   423753,Mahmoud,Abdulaziz,2004-10-19,School of Business,Marketing,3.36
36   499194,Fatma,Abdelrahim,2000-01-16,School of Business,Management,3.47
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