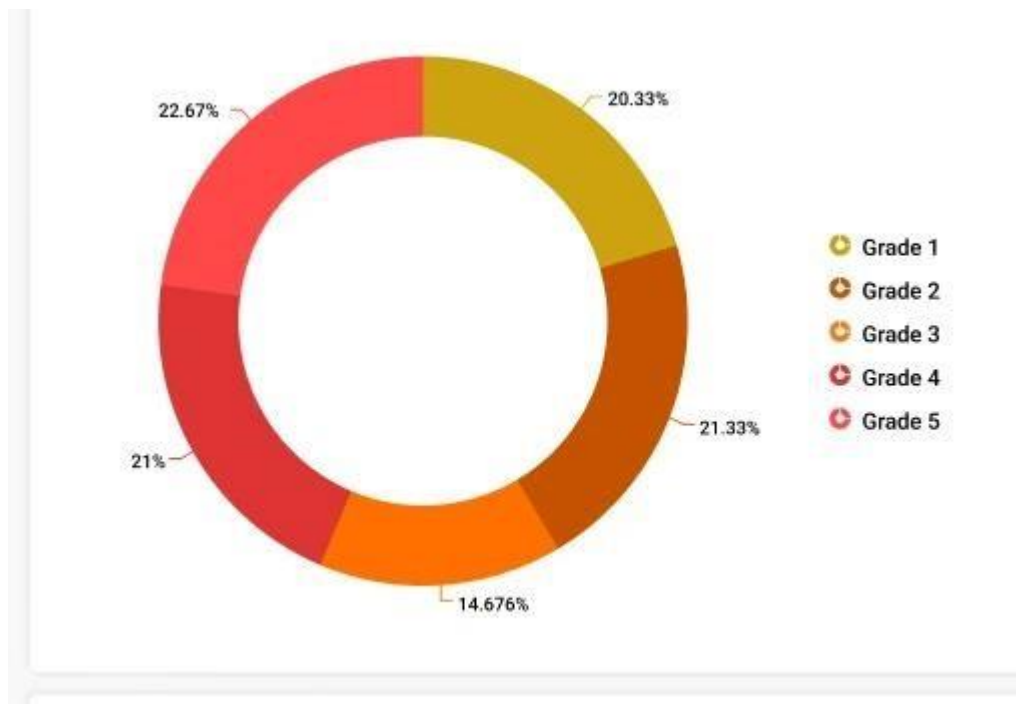**BHARATIYA VIDYA BHAVAN'S**
SARDAR PATEL INSTITUTE OF TECHNOLOGY
(Empowered Autonomous Institute Affiliated to University of Mumbai)

[Knowledge is Nectar]

Advance Data Visualization

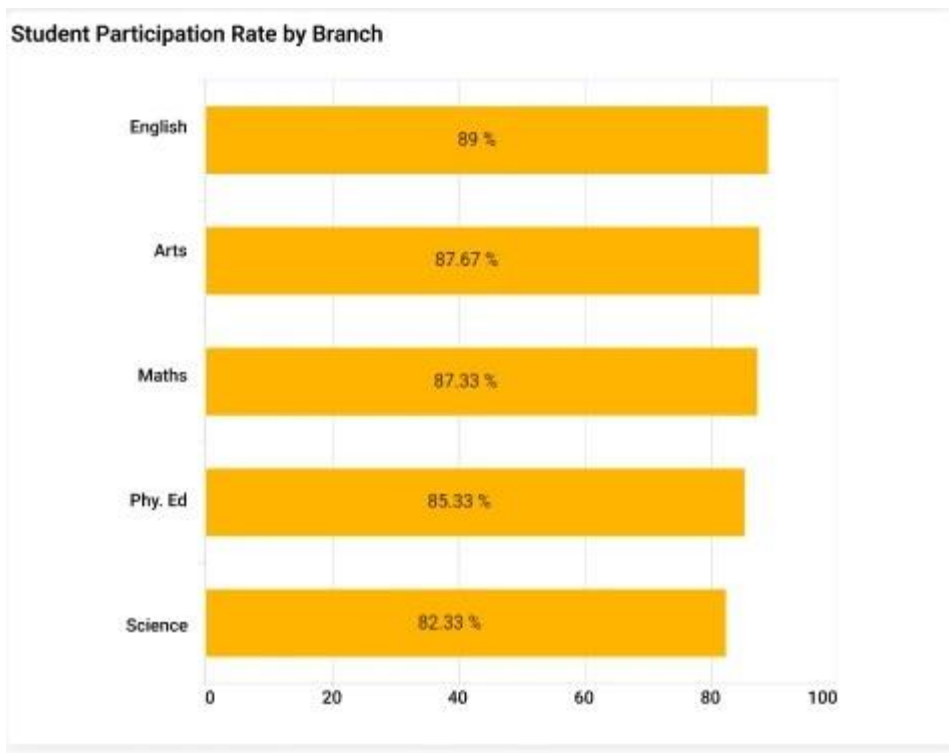|	
UID	2022701010
Name	Hawaiza Siddiqui
Batch	Batch K
Aim	Design Big Data Dashboard using Tableau on the dataset -Education Sector.

Objectives:

- Learn the fundamentals of Tableau and its application in data visualization.

- Create various chart types (basic and advanced) to represent different aspects of women empowerment data.

- Understand the significance of each chart type in conveying insights.

- Develop a comprehensive dashboard that integrates multiple visualizations for effective storytelling.

This donut chart displays the distribution of students across different grades. Each colored segment represents a grade level, and the size of the segment corresponds to the proportion of students in that grade.
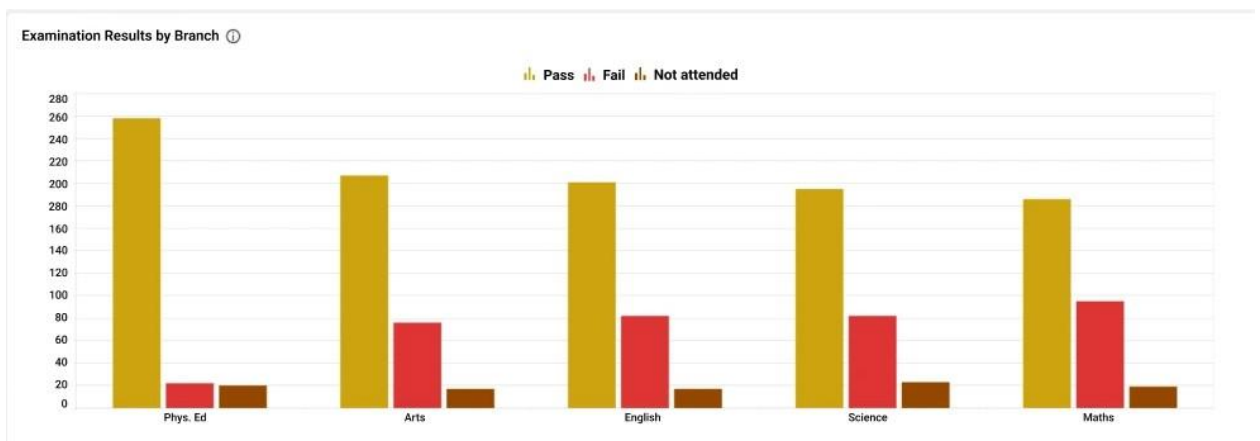
Insights:

• **Grade 1 and Grade 5** have the highest proportion of students, each accounting for approximately 22.67% of the total student population.

• **Grade 2 and Grade 4** have a similar proportion of students, with around 21.33% each.

• **Grade 3** has the lowest proportion of students, with only 14.67%.

Student Participation Rate by Branch

Branch	Rate
English	89 %
Arts	87.67 %
Maths	87.33 %
Phy. Ed	85.33 %
Science	82.33 %

This chart presents the student participation rate for different academic branches (English, Arts, Maths, Physical Education, and Science). Each bar represents a branch, and its length corresponds to the participation rate.

Insights:

- **English** has the highest participation rate, with approximately 89% of students participating.

- **Arts** and **Maths** have very similar participation rates, both slightly below 88%.

- **Physical Education** has a participation rate of around 85%, while **Science** has the lowest participation rate at about 82%.
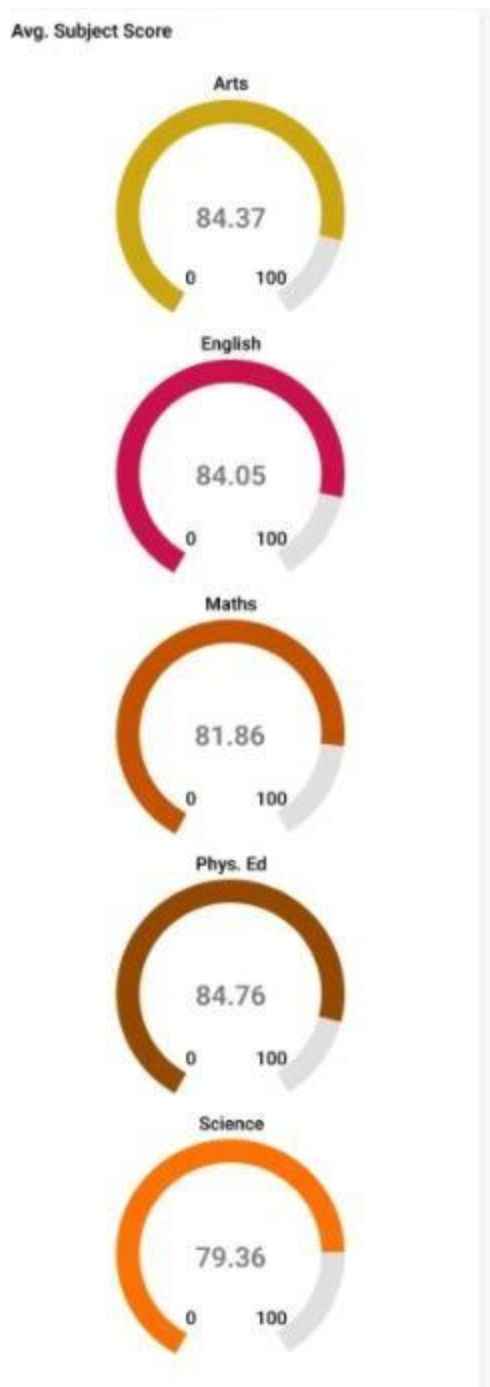

Examination Results by Branch ⓘ

This chart presents the examination results for different academic branches (Physics,

Arts, English, Science, and Maths) categorized into three outcomes: Pass, Fail, and Not Attended. Each cluster of bars represents a branch, and the height of each bar within the cluster indicates the number of students in that category.

Insights:

- **English** has the highest number of students passing the exam, followed by **Physics** and **Arts**.

- **Maths** and **Science** have a lower number of students passing the exam compared to the other branches.

- **Not Attended** rates are relatively low for all branches.

- **Physics** and **Maths** have a higher number of students failing the exam compared to other branches.

Avg. Subject Score

Arts

84.37

0   100

English

84.05

0   100

Maths

81.86

0   100

Phys. Ed

84.76

0   100

Science

79.36

0   100

This visualization uses circular gauges to represent the average scores for different subjects: Arts, English, Maths, Physical Education, and Science. Each gauge has a scale from 0 to 100, and the colored segment indicates the average score for the respective subject.

Insights:

• **Arts, English, and Physical Education** have similar average scores, all above 84 out of 100.

• **Maths** has a slightly lower average score of 81.86.

• **Science** has the lowest average score, around 79.36.

CONCLUSION:

In conclusion, this experiment on women empowerment data visualization has provided a comprehensive understanding of Tableau and its powerful capabilities in transforming data into compelling visual stories.