

Good morning everyone my topic is cybersecurity attacks in india. Firstly, I have imported all the necessary libraries and connected to the MySQL database then I have imported my CSV file into the database and created a cursor to fetch all the queries. Afterward, using the head() and tail() function I have displayed the first 5 rows and the last 5 rows of the dataset.

Next, I have analyzed the dataset using some function:

- 1. info() function to print a summary of the dataset.**
- 2. shape function to display the number of rows and columns.**
- 3. describe() function to calculate basic statistics like mean, min, max, etc.**
- 4. isnull() function along with sum() to check for any missing values.**
- 5. nunique() function to identify unique values in the dataset.**

so let's get started with our Exploratory Data Analysis:-

- 1. Which grade level holds the highest percentage in the pie chart?**
Ans: Freshman holds the highest percentage among all the grade levels.
- 2. Which age group has the highest number of male students?**
Ans: Age group 18 has the highest number of male students.
- 3. What is the lowest frequency for the score 60 to 70?**
Ans: The lowest frequency for score 60 to 70 is approximately 45.
- 4. Which age group has the highest average score in the freshman category?**
Ans: In the freshman category, the 19 age group has the highest average math score.
- 5. Which age group has the lowest study hours per week?**
Ans: Age group below 16 has the lowest study hours per week.
- 6. What is the percentage of high parental involvement?**
Ans: 30.4 percent of students have high parental involvement.
- 7. Which gender has the highest participation in sports?**
Ans: Males have the highest participation in sports.
- 8. In the medium funding level, which gender has the highest count in terms of age?**
Ans: Males have the highest count in age for the medium funding level.
- 9. What is the participation rate for age group 18?**
Ans: For age group 18, the participation rate is between 80 to 81, which is approximately 80.5.
- 10. Which income group has the highest number of students with no scholarship?**
Ans: The income group 30,000 has the highest number of students with no scholarship.
- 11. Which age group has the highest count with no technology access?**
Ans: There are two age groups that have the highest count of students with no technology; they are age group 22 and 25.

12. What is the percentage of students who have jobs?

Ans: 24.2 percent of students have jobs.

13. What is the attendance rate for the senior grade level?

Ans: For the senior grade level, the attendance rate is above 250.

Conclusion:

the data highlights some interesting trends among students. Freshmen stand out as the largest group, and age group 18 shows strong participation, especially among male students. It's also clear that parental involvement and access to technology significantly impact students' experiences and success. These insights can help us better understand how to support and engage our students moving forward.