



DATA-MINING ASSINGMENT-2

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Data Mining

1) Which dataset you've selected?

I have selected Student Performance in Exam to perform EDA (Exploratory data Analysis) on it.

2) What analysis you've done in the starter code?

I have imported the required libraries

```
import numpy as np
```

```
import pandas as pd
```

```
import seaborn as sns
```

```
import matplotlib.pyplot as plt
```

After importing I've loaded the dataset into a variable called df. Then I have examined does the dataset contains Null values. After that I looked the summary of the dataset and examined the data type of each column in my Dataset.

Then I performed my Preprocessing Part. First, I examined the number of rows and columns. To manage noisy data in the data set I have dropped the rows that have any Null Values now time to start EDA (Exploratory Data Analysis). The Analysis done by me contains:

- 1) Analysis of Gender of the students.
- 2) How to improve the students' performance in each test?
- 3) Analysis of what are the major factors influencing the test scores.
- 4) Analysis on student performance based on their religion.
- 5) Analysis Effectiveness of test preparation course.
- 6) Analysis of passed students in each subject.
- 7) Analysis of status of courses whether courses are completed before examination or not.
- 8) Analysis of how parents' education affects students' score
- 9) individual score of three subject by gender.

3) What information you got?

The information I have derived from my Analysis is given further below:

- 1) There are more female students than male students.
- 2) Group c has the highest number of students according to ethnicity.
- 3) 677 students are pass in math's and 323 are fail.
- 4) 700 students are pass in reading and 254 fail.
- 5) 719 are pass in writing.
- 6) Students who passed all the subjects are 719.
- 7) We obtain the following grades based on percentages.

F	281
B	261
C	228
A	198
D	32
- 8) Most of the students who are pass in writing are also pass in reading.
- 9) If the parental education is above masters then student is performing good
- 10) The individual score of three subject by gender is not much scattered.