

# PROJECT DOCUMENTATION REPORT

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AI tools usage Indian students' dataset

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## **Introduction**

This project focuses on analyzing the records of Indian students across various streams (departments) in different Indian states. The dataset was gotten from Kaggle, cleaned and analyzed using Excel. The purpose of this documentation is to provide an overview of the dataset, the methods employed to clean and analyze the dataset and insights found.

## **Project Objectives**

List the aims and goals of your project.

- Clean and prepare the dataset for analysis
- Perform exploratory analysis to identify preferred tools on different parameters
- Spot patterns on Use cases, trust in tools and impact on grades
- Identify which tools to increase access and allowance

## **Dataset Description**

The dataset contains records of 3614 students across various Stream (departments) and States in India

- Key Columns:
- Use Cases
- Trust in AI tools
- Impact on grades
- Awareness level
- Daily usage hours
- Internet Access
- Year of Study
- Device used

## **Tools and Methods Used**

Microsoft Excel for cleaning, exploratory analysis and visualization

## **Data Processing and Analysis**

1. Removed duplicates from the dataset
2. Replaced missing values
3. Checked consistency among columns like **Use Cases**
4. Ignored the column for States as >50% of values were missing
5. Filtered the column **Use Cases** to Top 5 due to many variables, reducing ambiguity.
6. Generated the following visual summaries:
  - Trust in AI tools based on a Likert Scale
  - Impact of AI tools on grades

- Most used and preferred tools by students
- Level of awareness on usage of tools based on a Likert Scale.

## **Results and Findings**

- ChatGPT was the most used AI tool
- Year 2 students spent the most hours using AI tools daily
- Use of AI had an overall negative impact on grades of students
- 69.8% of students have a high level of awareness on AI tools usage
- Assignments and coding recorded the most use cases with 534 students

## **Challenges and Limitations**

- The column that contained the names of different states had a lot of missing values, making it unfit for use and analysis.
- Too many variables for the Column **Use Cases**
- Too many states despite the missing values. I recommend working with regions or zones

## **Conclusion and Recommendations**

- States should be limited to geo-political zones to serve as slicers for better visualization
- Educational awareness to increase willingness to pay for tools
- Sensitization on smart AI usage to improve impact on grades and trust in AI tools
- ChatGPT PRO should be made available at a subsidized rate to increase awareness and willingness to pay for services

## **References**

Data source: Kaggle (<https://kaggle.com>)

Microsoft Excel 2016

Data dictionary

## **Appendix**

### Data Dictionary

VARIABLE	DESCRIPTION
Student_Name	Unique name for each student
Stream	Different departments of the students
Year_of_study	The different years of study labelled 1-4

AI_tools_used	Range of tools used by the students
Daily_usage_hours	Number of hours spent per day using AI tools
Use_Cases	Purposes for using AI tools
Trust_in_AI_Tools	Level of trust in AI tools using a Likert scale
Impact_on_Grades	Impact of tools usage on grades based on a Likert scale
Do_Professors_Allow_Use	Professors granting access to use AI tools
Preferred_AI_Tool	Most preferred AI tool
Awareness_Level	Level of awareness on using AI tools
Willing_to_Pay_for_Access	Willing to pay for access of AI tools
State	States of each student
Device_Used	Device used to access tools
Internet_Access	Quality of access to the internet

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