## Artificial Intelligence and Machine Learning

Project Report

Semester-IV (Batch-2022)

**Case Study**: - Amazon Purchases Dataset

[Url:-](file:///C:\Users\spars\Desktop\AIML%20Project\-) https://drive.google.com/file/d/1\_6uKNdnZ2-0yA-Pzt7w2XAQj-WxwP8F4/view?usp=sharingA red and white sign

Description automatically generated with low confidence

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**Description about Case Study: -**

* Read dataset Amazon Purchases
* Display Top 10 rows
* Display the Last 10 rows
* Check the datatype of Each column
* Check null values in the Dataset
* How many rows and columns are in our dataset
* Highest and lowest purchase price in the dataset
* Average purchase price
* How many people have French 'fr' as their Language
* The job title contains engineer

**Library: -**

* Pandas

**Methods: -**

1. **read\_csv():** Description: Reads a CSV file and converts it into a data frame.

1. **tail():** Description: Displays the last few rows of the data frame.

1. **head():** Description: Displays the first few rows of the data frame.

1. **shape():** Description: Returns the shape (number of rows, number of columns) of the data frame.

1. **info():** Description: Provides basic information about the data frame, such as column types and missing values.

1. **isnull():** Description: Returns True/False for each value in the data frame, indicating whether the value is missing (NaN) or not.

1. **contains():** Description: Checks if a specified substring or value is present in a column of the data frame.

1. **max():** Description: Returns the maximum value in a column of the data frame.

1. **min():** Description: Returns the minimum value in a column of the data frame.

**10. mean():** Description: Calculates the mean (average) value of a column in the data frame.