Employee Data Analysis using Excel

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PROJECT TITLE

Employee data science Analysis using Excel

AGENDA

1. Problem Statement
2. Project Overview
3. End Users
4. Our Solution and Proposition
5. Dataset Description
6. Modelling Approach
7. Results and Discussion
8. Conclusion

PROBLEM STATEMENT

Problem Statement

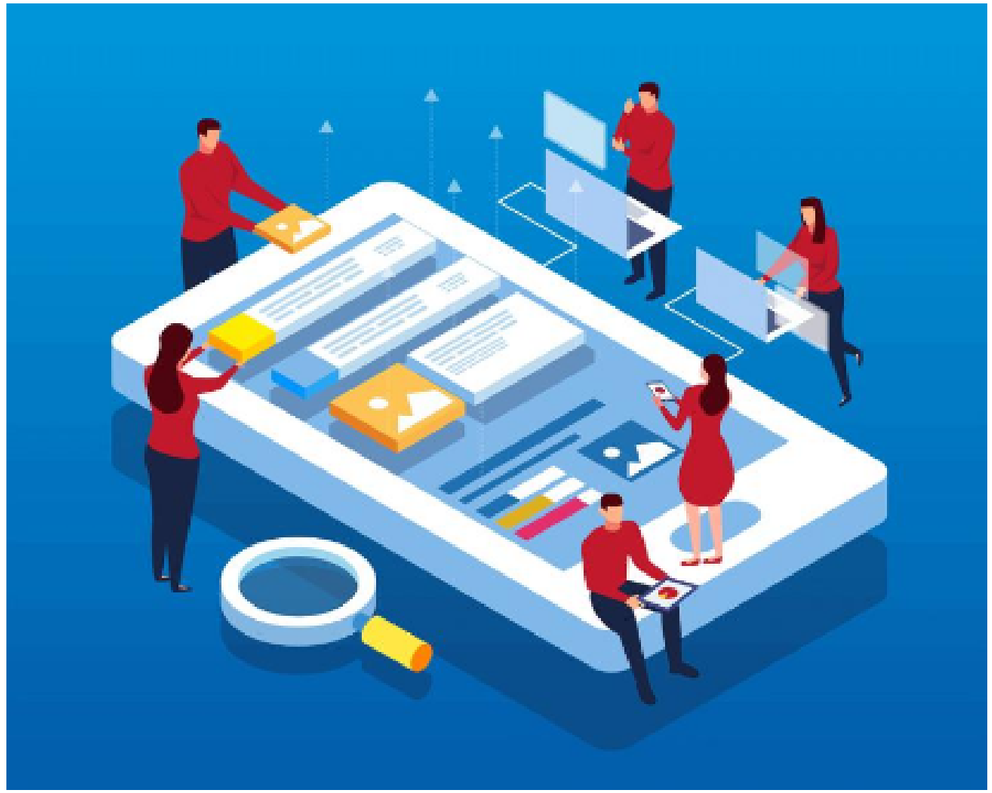
Objective: To predict customer churn for a subscription-based online service, aiming to identify customers who are likely to cancel their subscription within the next 3 months. This will help the company to take proactive measures, such as offering discounts or personalized services, to retain these customers.

Dataset: The dataset consists of customer information collected over the past two years, including:- Customer **Demographics**: Age, gender, location, income level, etc.
Subscription Details:Subscription start date, type of subscription, payment frequency, etc.
Customer Interaction:Login frequency, usage patterns, customer support tickets, etc.
Payment History:On-time payments, missed payments, payment method, etc.
Churn Indicator: Whether the customer has churned or not (binary target variable).

PROJECT OVERVIEW

1. **Problem Definition**: clearly define the problem or question you aim to answer.
2. **Data Collection**: Gather relevant data from various sources.
3. **Data Cleaning**: Process and clean the data to handle missing values, outliers, and inconsistencies.
4. **Exploratory Data Analysis** (**EDA**): Analysis the data to identify patterns, trends, and relationships.
5. **Modelling:** Apply statistical or machine learning models to make predictions or extract insights.
6. **Evaluation** :Assess the model' s performance using appropriate metrics.
7. **Deployment**: Implement the model in a real-world environment, if necessary.
8. **Reporting**: Summarize findings and present them to stakeholders in a clear and actionable format.

Who Are end users



OUR SOLUTION AND ITS VALUE PROPOSITION

A data science solution can be analyzed through its **objective**, **methodology**, and **data** involved. Its **value propositions** include improved efficiency, accuracy, cost savings, innovation, scalability, and enhanced user experience. Performance is measured using KPIs and benchmarks. Challenges like technical issues and limitations should be acknowledged, while potential improvements and future market applications are explored. The conclusion should summarize these points, highlighting the solution's impact.

Dataset Description

In data science analysis, a dataset description includes:

1. **Source**: Where the data originates from.
2. **Type**: Data types (e.g., numerical, categorical).
3. **Size**: Number of records and features.
4. **Structure**: Format (e.g., tabular, time series).
5. **Quality**: Completeness, accuracy, and any missing values.
6. **Features**: Key variables and their meanings.

THE "WOW" IN OUR SOLUTION

1. **Unexpected Trends**: Discovering patterns or correlations in the data that were not anticipated.
2. **Actionable Insights**: Results that provide clear, actionable recommendations that can significantly impact decision-making.
3. **Visualizations**: Compelling charts or graphs that make complex data easier to understand and communicate.
4. **Predictive Power**: Models that make accurate predictions or forecasts, revealing future trends.
5. **Efficiency Gains**: Identifying ways to optimize processes or reduce costs based on the data.

RESULTS

1.**Key Findings**: Main insights or patterns discovered in the data.

2.**Impact** :How these findings affect the business or research goals

3. **Visualizations**: Key charts or graphs that illustrate the findings.

4. **Recommendations**: Suggested actions based on the analysis.

5. **Model Performance**: Accuracy or effectiveness of predictive models used.The summary should focus on the most significant insights and their implications.

conclusion

A data science analysis conclusion typically includes:

1. **Summary of Findingsl**: Recap the main insights and patterns discovered.

2. **Implications**: Discuss the impact of these findings on the problem or objective at hand

3. **Recommendations**: Offer actionable steps or decisions based on the analysis.

4. **Limitations**: Acknowledge any limitations or assumptions made during the analysis.

5. **Future Work**: Suggest areas for further research or analysis to build on the current findings

conclusion provides a clear summary of what the data reveals and how it can be used to inform decisions or further investigations.