

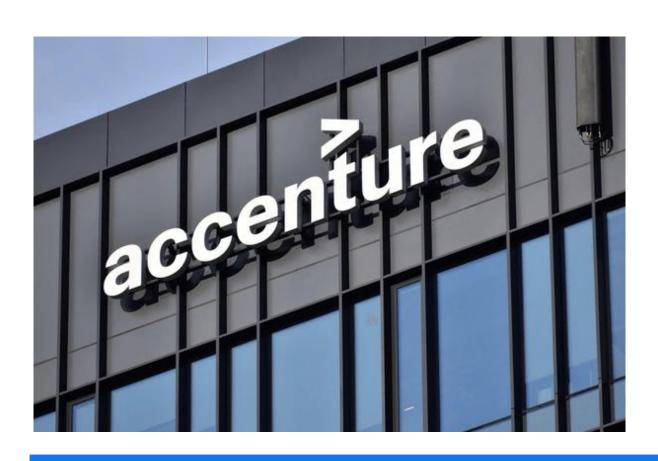
## Customer Churn Analysis & Segmentation

AN END-TO-END DATA SCIENCE PROJECT (ACCENTURE-BASED USE CASE)

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## **Project Context**



- Client Industry: Telecommunications (Accenture Use Case)
- Consulting Partner: Accenture
- Approach: Industry-standard datadriven framework used by Accenture teams



# Excel File Structure

- Raw Data Original dataset provided by client
- **K** Feature Engineering New variables like tenure group, encoded churn
- Churn Analysis Labeled dataset with churn status
- Segmentation Cluster– based customer profiles

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# Python Workflow

- Load & Explore Data using Pandas & Matplotlib
- Data Preprocessing & Feature Engineering
- Churn Prediction Model
- Customer Segmentation
- Output Export to Excel for Power BI visualization



#### Power BI Dashboard Highlights

- **III** KPI Cards:
- Average Risk
- Total Average Spend
- Total Churned
- Visuals:
- Pie Chart: Cluster Proportion
- Column Chart: Spend by Tenure Group
- Scatter Plot: Risk Score vs Spend
- O Slicers: Filter by Segment, Churn Status, and Tenure

### Insights From Accenture Lens



- Customers with high risk and low tenure are likely to churn
- i High spenders in low-risk groups are most profitable
- **©** Churn is more prevalent in **Segment 1** (New & High Risk)
- II Strategic visual storytelling via Power BI enabled dynamic decision—making



#### Business Recommendations

- Use risk score monitoring as a churn early warning system
- Ø Design targeted offers for different customer segments
- Embed Power BI dashboard for business stakeholder review (as Accenture would do)



#### Conclusion

- Built end-to-end solution reflecting real Accenture consulting approach
- Integrated Excel + Python
   + Power BI in one pipeline
- Delivered predictive and strategic segmentation models
- Dashboard-ready for client-facing presentations

## THANK YOU

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#### Thank You

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• THIS CASE STUDY

REFLECTS AN ACCENTURE
STYLE DELIVERY FOR

ENTERPRISE USE