Churn Analysis – Q&A

Q1. What was the objective of this project?

Ans- The main objective was to analyze telecom customer data to identify patterns that cause **customer churn** and to build a **predictive ML model** that helps forecast which customers are at risk of leaving.

Q2. What dataset was used?

Ans- A telecom dataset with **7,043 customer records**, including information such as demographics, services subscribed, contract type, payment method, tenure, and churn status.

Q3. What tools and technologies were used?

- **SQL** → For data cleaning and exploration
- **Python (Pandas, Scikit-learn, Matplotlib, Seaborn)** → For analysis and building the ML model
- **Power BI / Excel** → For visualization dashboards

Q4. What were the major findings from the analysis?

- Customers on **month-to-month contracts** were more likely to churn.
- **Electronic check** payment users had the highest churn rate.
- Customers with **tenure < 12 months** were most vulnerable.

Q5. Which machine learning model was used?

👉 I used **Random Forest Classifier**, which achieved an **82% accuracy** in predicting churn.

Q6. What recommendations were provided?

- Offer **loyalty discounts** to new customers in their first year.
- Encourage **long-term contracts** (annual/2-year) over monthly contracts.
- Incentivize customers to switch from **electronic check** to **auto-pay options**.
- Provide **proactive support** to customers showing early signs of dissatisfaction.

Q7. What is the business impact of this project?

👉 By identifying at-risk customers early, the telecom company can implement retention strategies, potentially reducing churn by **15–20% annually** and increasing **customer lifetime value**.