

# Project Summary: Service Data Insights

## Purpose of the Project

Is project ka simple goal hai company ke transactional data (Usage aur Payments) ko analyze karna aur ye dekhna ki business kahan stand kar raha hai. Maine 4 tables (Users, Services, Usage, Payments) ko connect karke insights nikale hain.

## Key Areas Analyzed (What I checked?)

- **Financial Health:** Total kitna revenue generate hua aur business har mahine grow kar raha hai ya nahi.
- **User Behavior:** Kaunse shehar se sabse zyada log jude hain aur unka service use karne ka trend kya hai.
- **Operational Risks:** Failed payments ki wajah se hone wala nuksan aur aise users jinhone service li par payment puri nahi ki.
- **Service Popularity:** Kaunsi categories (Banking, Education, etc.) sabse zyada profitable hain.

## Strategic Observations (Key Findings)

- **Revenue Growth:** Maine **Window Functions (LAG)** ka use karke Month-over-Month growth check ki taaki pichle mahine se compare kiya ja sake.
- **High-Value Markets:** Top 5 cities ko identify kiya jo 50% se zyada revenue generate kar rahi hain.
- **Payment Gaps:** Ek "Credit Risk Analysis" kiya jisme aise users ki list nikali jinka total usage bill unke successful payments se zyada hai.
- **Inactive Users:** Aise users ko filter kiya jinhone sirf register kiya par kabhi koi service use nahi ki (Potential Churn).

## Recommended Actions (Business Suggestions)

1. **Payment Recovery:** Finance team ko un users se contact karna chahiye jinka balance pending hai.
2. **Infrastructure Fix:** Failed transactions ko analyze karke system ko improve karna hoga taaki revenue leakage ruke.
3. **Targeted Marketing:** Top cities aur popular categories par focus karke revenue ko aur badhaya ja sakta hai.
4. **User Re-engagement:** Inactive users ko special offers bhej kar wapas platform par laya jaye.

## Tools Used

- **Database:** PostgreSQL (pgAdmin 4)
- **Skills:** Joins, Subqueries, CTEs, Window Functions, aur Data Formatting.