

Anchal Rani Barnawal

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PROFESSIONAL SUMMARY

Detail-oriented System Engineer with 3+ years of experience in database development, automation, and data analysis. Proficient in PL/SQL, MySQL, Advance Excel and Power BI, with expertise in database design, query optimization, and data management. Skilled in transforming business requirements into efficient database solutions, ensuring data accuracy, reliability, and performance while collaborating across teams.

EDUCATION

Bachelor of Technology (Applied Electronics Instrumentation Engineering) Asansol Engineering College	2017 - 2021 Grade: 85.2%
Intermediate (Class XII) Burnpur Girls School	2016 - 2017 Grade: 65.8%
Matriculation (Class X) St Mary Goretti Girls H.S. School	2014 - 2015 Grade: 85.7%

EXPERIENCE

System Engineer September 2024 - Present
Tata Consultancy Services *Kolkata*

- Engineered and optimized 20+ database tables, 15+ views, and 8+ materialized views with strategic indexing, improving query performance by 30% and ensuring scalability for future business needs.
- Built and maintained PL/SQL procedures and triggers in Oracle PL/SQL Developer, achieving 90% system uptime and enhancing application reliability across business-critical workflows.
- Automated daily data lake ingestion of millions of records via PL/SQL procedures and shell scripting, delivering 100% job success rate, reducing manual effort by 95%, and accelerating data availability for real-time analytics.

Assistant System Engineer August 2021 - September 2024
Tata Consultancy Services *Kolkata*

- Designed and maintained 15+ database tables aligned with evolving business requirements, ensuring optimal structure and performance.
- Developed automated error reporting systems, reducing issue detection time by 40% and enabling faster resolution across key applications.
- Implemented robust error handling and logging frameworks, improving system traceability and accelerating incident root cause analysis by 30%.
- Conducted comprehensive unit testing for 100% validation of database operations, significantly enhancing system accuracy and deployment reliability.
- Resolved 50+ production incidents by identifying root causes and implementing permanent solutions, boosting system stability and reducing recurring issues by 90%.

PROJECTS

Bank CRM Analysis ([Github](#)) ([Demo](#)) April 2025

- Built a CRM report in Power BI to analyze customer behavior and churn trends.
 - Used SQL to gather and clean data from demographics and transactions.
 - Identified key churn factors like low product use, short tenure, and location.
 - Shared insights through accessible dashboards for improved decision-making.
 - Recommended retention strategies such as rewards, improved service, and cross-selling.
- Tools: Power BI, MySql, Microsoft Word, Microsoft PowerPoint

Chinook Music Store: Customer Insights & Sales Analysis ([Github](#)) ([Demo](#)) February 2025

- Cleaned and preprocessed customer and sales data, handled missing values, and optimized structure.
 - Analyzed demographics, sales trends, and revenue using SQL on the Chinook database.
 - Segmented frequent vs. occasional buyers to refine marketing strategies.
 - Suggested data-driven actions like targeted promos, bundles, and subscription models.
- Tools: MySql, Microsoft Excel, Microsoft Word, Microsoft PowerPoint

Zomato Restaurants Analysis ([Github](#)) ([Demo](#)) December 2024

- Analyzed Zomato restaurant data for customer preferences and market trends.
 - Built an interactive Excel dashboard showing performance, demographics, and location metrics.
 - Suggested ideal locations for new restaurants to guide expansion.
 - Identified patterns in customer demand and pricing to improve efficiency.
 - Used Pivot Tables and slicers for dynamic data exploration in Excel.
- Tools: Microsoft Excel, Microsoft Word, Microsoft PowerPoint

CERTIFICATIONS

Professional Certificate Course In Data Science Newton School November 2024
Pursuing advanced Data Science certification with expertise in analysis, machine learning, visualization, SQL, Power BI, and data-driven decision-making.

SKILLS

Computer Language: SQL

Soft Skill: Communication Skills, Critical Thinking, Decision-making, Teamwork

Databases & Data Tools: Excel, MySQL, Spreadsheet

Cloud & DevOps: UNIX

Domain & Business Skills: Analytics, ServiceNow

Frameworks & Libraries: Microsoft Office