internStudio

DATA ANALYTICS INTERNSHIP

TASK GUIDE

Turn data into insights.
Find patterns. Make better decisions.

SIX ANALYTICS PROJECTS — CHOOSE ANY TWO

01 **E-Commerce Customer & Sales Intelligence**
02 **Customer Churn & Retention Analysis**
03 **Ride-Hailing Operations Analytics**
04 **Marketing Campaign Performance**
05 **Supply Chain & Inventory Analytics**
06 **Product & User Behavior Analytics**

INTERNSHIP
Data Analytics

REQUIRED TASKS
Complete any 2 projects

FOCUS
Data Cleaning · SQL · Python · Visualization · Business Insights

IMPORTANT INSTRUCTIONS

Your Internship Tasks

Select and complete **any 2 projects** from the task list. The objective is not simply to create charts — it is to analyse a dataset, identify meaningful patterns, answer business questions and communicate actionable insights.

Collect	Clean	Explore	Analyze	Visualize	Insight	Present

BEFORE YOU SUBMIT

- [ ] **Complete any 2 projects** from the list
- [ ] **Understand the dataset** before analysing it
- [ ] **Clean and prepare** the data properly
- [ ] Perform meaningful **exploratory analysis**
- [ ] Create **appropriate visualizations**
- [ ] Submit details via the **submission form**
- [ ] Identify important **trends and patterns**
- [ ] Clearly **explain your findings**
- [ ] Provide **actionable conclusions** where applicable
- [ ] Upload your **code / notebook to GitHub**
- [ ] Add a **README** explaining the project
- [ ] Share your work on **LinkedIn** as required

Submit your completed work here

Once both projects are analysed, documented and pushed to GitHub, submit your project details through the official submission form.

https://forms.gle/vxL5JE8cvRXXfDBv8

> **A note on quality.** No machine-learning models are required — this is an analytics internship. What is assessed is how you clean, query, analyse, visualise and explain data, and whether your conclusions would actually help someone make a decision.

Recommended tools for all six projects: Python · Pandas · SQL · Power BI or Tableau.

01 E-Commerce Customer & Sales Intelligence ADVANCED

Analyse an e-commerce dataset to understand customer behaviour, product performance, revenue trends and the factors affecting sales.

BUSINESS QUESTIONS

- Which products and categories generate the most revenue?
- Which customers contribute the most value?
- What are the major purchasing patterns?
- Which products are frequently purchased together?
- Which periods generate the highest and lowest sales?
- Are there segments with very different purchasing behaviour?
- Which products have high volume but low revenue contribution?

CORE REQUIREMENTS

- Data cleaning and preprocessing
- Customer segmentation
- Product / category analysis
- Revenue and order analysis
- Time-series analysis
- Customer retention / repeat-purchase analysis
- SQL queries for key business questions
- Interactive dashboard
- Clear business recommendations

Expected output: An analytical report or dashboard explaining what is happening in the business and what actions could improve performance.

02 Customer Churn & Retention Analysis ADVANCED

Analyse customer behaviour to understand why customers leave a subscription service, and identify the characteristics associated with churn.

BUSINESS QUESTIONS

- What percentage of customers are churning?
- Which customer groups have the highest churn?
- How does tenure relate to churn?
- Does usage frequency affect retention?
- Which plans or services have higher churn?
- What behavioural patterns appear before customers leave?
- Which segments should receive retention attention?

CORE REQUIREMENTS

- Data cleaning
- Churn analysis
- Customer segmentation
- Cohort or retention analysis
- Feature comparison
- Correlation analysis
- SQL-based analysis
- Visual dashboard
- Key churn indicators
- Actionable retention recommendations

Expected output: A business-focused churn report identifying the important patterns and recommending how retention could be improved.

03 Ride-Hailing Operations Analytics ADVANCED

Analyse ride-hailing data to understand demand, revenue, trip patterns and operational performance.

BUSINESS QUESTIONS

- When is demand highest?
- Which locations generate the most trips?
- How does demand change by day and time?
- What factors influence trip duration or fare?
- Which routes or areas have unusual demand patterns?
- How does driver availability relate to demand?
- What operational improvements could be made?

CORE REQUIREMENTS

- Data cleaning
- Time-based analysis
- Geographic / location analysis
- Demand analysis
- Operational recommendations
- Revenue / fare analysis
- Peak-hour analysis
- SQL queries
- Interactive dashboard

Expected output: A ride-hailing analytics dashboard with a clear explanation of demand patterns and operational insights.

04 Marketing Campaign Performance Analytics ADVANCED

Analyse digital marketing campaign data to determine which campaigns, channels and customer segments generate the best results.

BUSINESS QUESTIONS

- Which campaigns generate the highest conversions?
- Which channels provide the best return?
- What is the cost per acquisition?
- Which customer segments respond best?
- How does campaign performance change over time?
- Which campaigns should receive more or less budget?
- Where are the potential conversion bottlenecks?

CORE REQUIREMENTS

- Campaign data cleaning
- Conversion funnel analysis
- Channel comparison
- Customer segmentation
- Campaign recommendations
- Conversion rate analysis
- ROI / ROAS analysis where the data supports it
- SQL analysis
- Dashboard

Expected output: A marketing performance dashboard and report recommending how campaign effectiveness could be improved.

05 Supply Chain & Inventory Analytics ADVANCED

Analyse inventory and supply-chain data to identify stock problems, demand patterns and operational inefficiencies.

BUSINESS QUESTIONS

- Which products frequently experience stockouts?
- Which products are overstocked?
- How does demand vary over time?
- Which suppliers perform best?
- Which products have slow inventory movement?
- What factors appear to affect inventory efficiency?
- Where can inventory costs potentially be reduced?

CORE REQUIREMENTS

- Data cleaning
- Inventory analysis
- Demand analysis
- Stockout analysis
- Supplier performance analysis
- Product performance analysis
- Time-series analysis
- SQL queries
- Interactive dashboard
- Business recommendations

Expected output: A supply-chain dashboard highlighting inventory risks and opportunities for operational improvement.

06 Product & User Behavior Analytics ADVANCED

Analyse user activity data from a fictional digital product to understand how users interact with the platform and where they drop off.

BUSINESS QUESTIONS

- Which features are used most frequently?
- What does the typical user journey look like?
- Where do users drop out?
- Which user segments are most engaged?
- How does engagement change over time?
- Which behaviours are associated with retention?
- What product improvements could increase engagement?

CORE REQUIREMENTS

- User activity analysis
- Funnel analysis
- Engagement metrics
- User segmentation
- Product recommendations
- Retention analysis
- Cohort analysis
- SQL queries
- Data visualization

Expected output: A product analytics report explaining user behaviour, the important drop-off points and recommended improvements.

APPLIES TO EVERY PROJECT

Analysis Requirements

Whichever two projects you choose, your submission is expected to cover all six of these.

1 · Data Cleaning

Identify and handle missing values, duplicates, incorrect data types, invalid values and inconsistent data.

2 · Exploratory Analysis

Explore distributions, trends, relationships, outliers, segments and other important patterns.

3 · SQL

Use SQL to answer meaningful business questions wherever the project data supports it.

4 · Visualization

Every important chart should answer a question or communicate an insight — not exist for its own sake.

5 · Insights

State what happened, why it might be happening, who or what is affected, and what the business should consider doing.

6 · Documentation

Explain the dataset, objective, cleaning process, analysis approach, key findings and recommendations.

DELIVERABLES

Every selected project should contain:

- Jupyter Notebook / Python scripts
- README
- SQL queries where applicable
- Dataset / source information
- Dashboard or visualization output
- Key findings
- Business recommendations

Upload the project to **GitHub**.

If you use **Power BI or Tableau**, include the dashboard screenshots or the project file where possible, so your work can be reviewed without the tool.

PROJECT SELECTION

Choose ANY 2 projects from the six available tasks.

You are encouraged to pick projects that demonstrate different analytical skills — customer, business, product, marketing and operations analytics, and data visualization.

FINAL STEP

Ready to Submit?

Run through this checklist before you send your work in.

- [ ] Completed 2 projects
- [ ] Dataset properly cleaned
- [ ] Exploratory analysis completed
- [ ] SQL analysis completed where applicable
- [ ] Meaningful visualizations created
- [ ] Key insights documented
- [ ] Business recommendations included
- [ ] Notebook / code uploaded to GitHub
- [ ] README added
- [ ] Dashboard / report included
- [ ] Submission form completed
- [ ] LinkedIn post completed where required

Submission Form

Submit your project details, repository links, dashboards and key findings here.

https://forms.gle/vxL5JE8cvRXXfDBv8

TURN DATA INTO DECISIONS.

Your internship project is more than a collection of charts — it's an opportunity to demonstrate how you investigate problems, discover insights and communicate data-driven decisions.

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