Project Coversheet

Full Name	Khalid Takar
Project Title (Example – Week1, Week2, Week3, Week 4)	Week 1

Instructions:

Students must download this cover sheet, use it as the first page of their project, and then save the entire document as a PDF before submission.

Project Guidelines and Rules

1. Formatting and Submission

- Format: Use a readable font (e.g., Arial/Times New Roman), size 12, 1.5 line spacing.
- Title: Include Week and Title (Example - Week 1: Travel Ease Case Study.)
- File Format: Submit as PDF or Word file
- Page Limit: 4–5 pages, including the title and references.

2. Answer Requirements

- Word Count: Each answer should be within 100–150 words; Maximum 800–1,200 words.
- Clarity: Write concise, structured answers with key points.
- Tone: Use formal, professional language.

3. Content Rules

- Answer all questions thoroughly, referencing case study concepts.

- Use examples where possible (e.g., risk assessment techniques).
- Break complex answers into bullet points or lists.

4. Plagiarism Policy

- Submit original work; no copy-pasting.
- Cite external material in a consistent format (e.g., APA, MLA).

5. Evaluation Criteria

- Understanding: Clear grasp of business analysis principles.
- Application: Effective use of concepts like cost-benefit analysis and Agile/Waterfall.
- Clarity: Logical, well-structured responses.
- Creativity: Innovative problem-solving and examples.
- Completeness: Answer all questions within the word limit.

6. Deadlines and Late Submissions

- Deadline: Submit on time; trainees who fail to submit the project will miss the "Certificate of Excellence"

7. Additional Resources

- Refer to lecture notes and recommended readings.
- Contact the instructor or peers for clarifications before the deadline.

Week 1 Project: Customer Sign-Up Behaviour and Data Quality Audit

Student Name: Khalid Takar

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1. Introduction

This project analyses customer sign-up data for Rapid Scale, a SaaS company offering tiered subscription plans. The aim of the analysis is to review data quality and identify patterns in user acquisition, plan selection, demographics, and marketing engagement. The findings from this analysis are intended to support the Marketing and Onboarding teams by highlighting effective acquisition channels, common customer behaviours, and areas where data collection can be improved. The dataset includes customer demographics, sign-up details, acquisition sources, and subscription plans, with an optional support tickets dataset used for additional insights.

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2. Data Cleaning Summary

The dataset initially contained several data quality issues, including missing values, inconsistent text formatting, and incorrect data types. Rows with missing customer IDs were removed as these records could not be reliably analysed. The sign-up date column was converted to a datetime format to enable time-based analysis. Text-based fields such as plan selection, gender, source, and region were standardised to ensure consistency. Missing values in key fields such as region, age, and email were handled using appropriate methods, including default labels and median imputation for age. These steps ensured the dataset was accurate, consistent, and suitable for analysis.

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3. Key Findings and Trends

Customer sign-ups were relatively consistent over time, indicating stable user acquisition rather than reliance on short-term campaigns. The Premium subscription plan was the most commonly selected, suggesting a strong demand for higher-value offerings. YouTube emerged as the most effective acquisition source, outperforming other channels such as Google and referrals. The average customer age was mid-thirties, with most users falling between their late twenties and early forties, indicating a mature and professionally active user base.

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4. Business Question Answers

1. Which acquisition source brought in the most users?

YouTube generated the highest number of customer sign-ups, making it the most effective acquisition channel. This suggests that video-based marketing content plays an important role in attracting new users.

2. Which region shows signs of missing or incomplete data?

The region column showed the highest level of missing data, with approximately ten percent of records lacking region information. This indicates weaknesses in data capture during the sign-up process.

3. Are older users more or less likely to opt in to marketing?

There was no strong relationship between age and marketing opt-in behaviour. Users across different age groups showed similar opt-in patterns, suggesting age does not significantly influence marketing preferences.

4. Which plan is most commonly selected, and by which age group?

The Premium plan was the most commonly selected subscription option, particularly among users aged 30 to 40. This age group appears more willing to invest in higher-tier plans.

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5. Recommendations

Marketing efforts should prioritise YouTube and other high-performing digital channels to maximise user acquisition. The sign-up process should be improved by enforcing mandatory fields and using dropdown selections to reduce missing or inconsistent data. Additional onboarding support should be provided to Premium users to improve their experience and reduce support requests.

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6. Data Issues or Risks

A key data quality issue identified was missing and inconsistent information in important fields such as region, age, and plan selection. This could lead to inaccurate reporting and weaker business insights. Implementing stronger validation rules and standardised input options during data collection would help improve data accuracy and reliability in future reporting.