Collaborative Project 2024/25

3DGD – GCA – Data Analysis – Final Lab Report

Team Name – Game Name – Comma-separated student name(s)

2025-05-01

Table of contents

1 Executive Summary (150 words)

Purpose of Testing:
Key Findings (Summary):
Recommendations (Summary):

2 Introduction (200 words)

Context & Background:
Scope of Testing:
Objectives:

3 Methodology (250 words)

Test Design & Approach:
Test Scenarios / Tasks:
Metrics Collected:

4 Participants (150 words)

Recruitment & Criteria:
Number & Demographics:
Consent & Ethics:

5 Materials & Tools (150 words)

Software / Hardware Specs:
Testing Environment:
Data-capture Tools:

6 Procedure (200 words)

Session Flow:
Facilitator & Observer Roles:
Instructions to Participants:
Session Duration:

7 Data Analysis (400 words)

7.1 Quantitative Analysis (numerical survey items)

1. **Select 3–4 key numeric variables.**
2. **Descriptive statistics** – *n, mean, median, SD, min, max.*
3. **Distribution plots** – *maximum 3 plots per variable* (e.g., histogram, box-and-whisker, QQ). Comment on modality, skewness, outliers.
4. **Normality check** – QQ-plot plus Shapiro-Wilk (n *50*); report statistic & p. State conclusion ($=$ *0.05*).
5. **Relationship analysis** – choose the two most related numeric variables and justify.
    - Scatter-plot with fitted regression line (counts as one of the three plots for each variable).
    - Report Pearson's r (Spearman's if non-normal).
    - Linear regression (y = + x): , SE, t, p, 95 % CI, R^2.

- *R hint:* After running `model <- lm(y ~ x, data = df)`, open `summary(model)` and report:
    - **Coefficients** table — *Estimate* ( ), *Std. Error*, *t value*, *Pr(>|t|)* for both the intercept and slope.
    - Bottom-line **Multiple R-squared** (and *Adjusted R-squared* if n is small).

7.2 Qualitative Analysis (if applicable)

Summarise open-text answers as themes.

7.3 Key Observations

Highlight surprising patterns or anomalies.

8 Results (400 words)

8.1 Findings by Category

- **Descriptive statistics table** – one row per variable.
- Up-to-three illustrative plots per variable with concise captions.

8.2 Critical Issues

Note non-normal variables, serious outliers or assumption breaches.

8.3 Positive Outcomes & Relationships

Present regression results and practical significance.

All detailed numeric output belongs in the appendix.

9 Discussion (250 words)

Interpret how the results answer your objectives and compare with expectations.

10 Recommendations (200 words)

Prioritised improvements and a brief action roadmap.

11 Conclusion (150 words)

Concise restatement of the most important takeaway and next steps.

12 References (excluded from word count)

List any literature, standards or tools cited.

13 Appendices (optional, excluded from word count)

A. Links to Raw Data / Scripts
B. Links to Screenshots / Videos
C. Links to Questionnaires & Scripts