University of
Hertfordshire UH

7COM1079-0901-2025
Team Research and Development Project

Final Report

Is there a correlation between the reported happiness and economic performance, and does this correlation differ between more productive economies and less productive ones?

Group ID: Group A 14
Dataset Number: DS282

Prepared by:

Name	Student ID	Email
Gideon Ganah	24088169	gg24abh@herts.ac.uk
Kevin Kogo	24061635	kk24acz@herts.ac.uk
Daniel Terna Tule	24076755	dt24aav@herts.ac.uk
Edosa Izevbizua	23097619	ei24aas@herts.ac.uk
Kelvin Amaadi Baani-Anoff	24083020	kb24aby@herts.ac.uk

University of Hertfordshire
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Contents

1 Introduction

1.1 Problem statement and research motivation

Economic growth has been considered an indicator of societal progress for a very long time; our research question aims to question the assumption that higher economic performance automatically leads to an increased sense of well-being or happiness. There exists emerging literature on subjective well-being called the Easterlin Paradox, which suggests that there is no link between the level of economic development of a society and the overall happiness of its members (Stevenson and Wolfers, 2008). The motivation behind this research is to clearly understand if economic development is linked to happiness and if this link is universal across countries with highly productive economies and those with lower productivity.

1.2 The data set

Our study utilizes the 2015 World Happiness Report, which is sourced from the Gallup World Poll, The dataset comprises of 12 columns which define global wellbeing. The primary dependent variable is the Happiness Score (ratio data). Potential independent variables include economy (GDP per Capita), Family, Health, Freedom, trust and Generosity (all ratio type data) . Country and region provide geographical context (nominal data), Dystopia residual (ratio) represents a hypothetical worst-case baseline used to compare countries fairly.

1.3 Research question

Is there a correlation between the reported happiness and economic performance, and is this correlation stronger in more productive economies. The aim is to determine if stronger economic performance is linked to higher happiness and whether this pattern holds true in both top-performing and low-performing economies

1.4 Null hypothesis and alternative hypothesis (H0/H1)

The null hypothesis is that there is no correlation between the level of happiness and the economic performance of a country, suggesting that an increase in a country or an individual's income would not correlate with an increase in happiness. The alternative hypothesis is that there is a correlation between the level of happiness and the economic performance of a country, and this correlation is stronger in high-performing economies, suggesting that an increase in income leads to an increase in happiness.

2 Background Research

2.1 Research papers relevant to the topic

This study relies on data available in World Happiness Report 2015. As identified and highlighted in a previous study by Helliwell et al. in 2015, GDP per capita remains one of the six most influential factors determining variations in levels of happiness globally. Their analysis established that these factors collectively explain three-quarters of the variation in national scores, providing a strong baseline for the link between wealth and well-being.

However, this association is controversial. Clark, Frijters, and Shields (2008) examine the Easterlin paradox. They argue that richer individuals are happier, but aggregate happiness does not increase with economic growth. This occurs because individuals compare themselves with others. They also discuss diminishing marginal utility. This indicates that income is most important for ensuring basic needs are taken care of in poorer countries.

Conversely, Stevenson & Wolfers (2008) disagree with this paradox using data from the Gallup World Poll. They observed that there's no limit to the effect of income and a strong linear log relationship between countries with more income and those with more well-being. This correlates with our project idea of ascertaining whether this linear association also exists among countries classified as the richest and poorest countries in 2015.

2.2 Why the research question is of interest

Given that the topic investigates the possibility that the income-happiness relationship is universal, this research question is intriguing. Our preliminary analysis of the 2015 data reveals a "research gap": the correlation is weaker for the Bottom 60 countries (0.49) compared to the Top 60 (0.61), despite standard economic theory (Clark et al., 2008) suggesting a steeper correlation in developing nations due to basic needs. This runs counter to the straightforward "survival" theory, indicating that in 2015, non-economic factors like political unrest or conflict might be interfering with the anticipated GDP benefits in the poorest areas, necessitating more research into these "noise" factors.

3 Visualization

3.1 Primary plot for the RQ (output of R script)

This section presents the figures generated from the R analysis. All figures are referenced automatically using their labels.
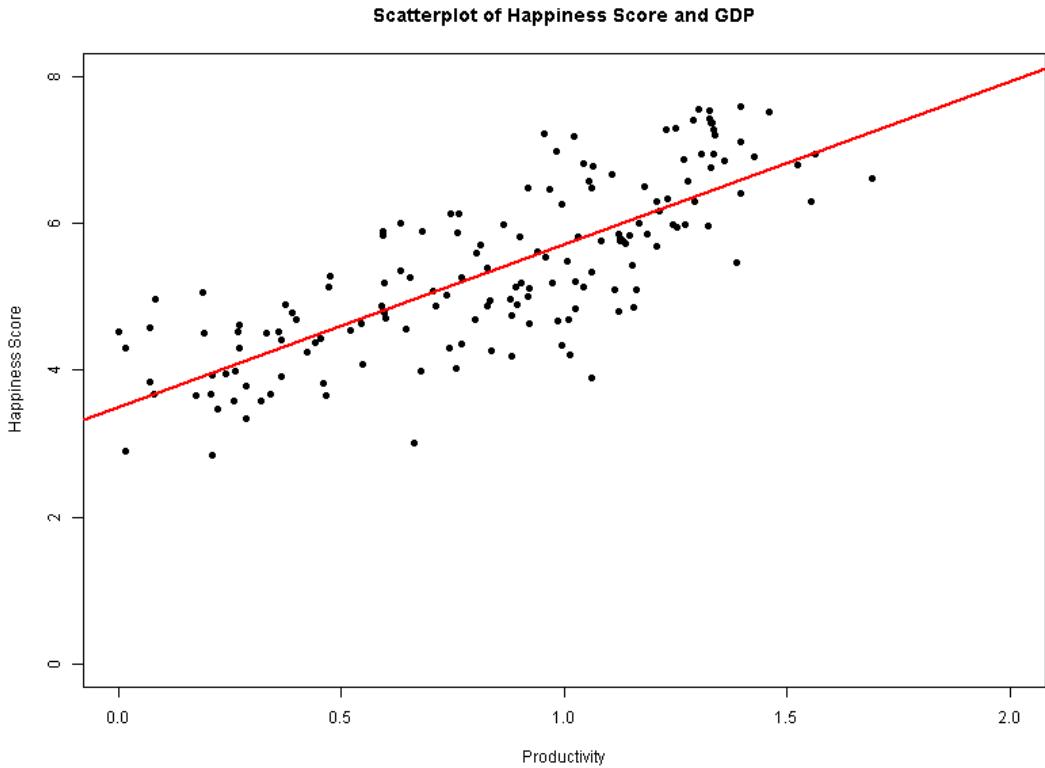
Figure 1: Scatterplot showing the correlation between productivity and happiness.
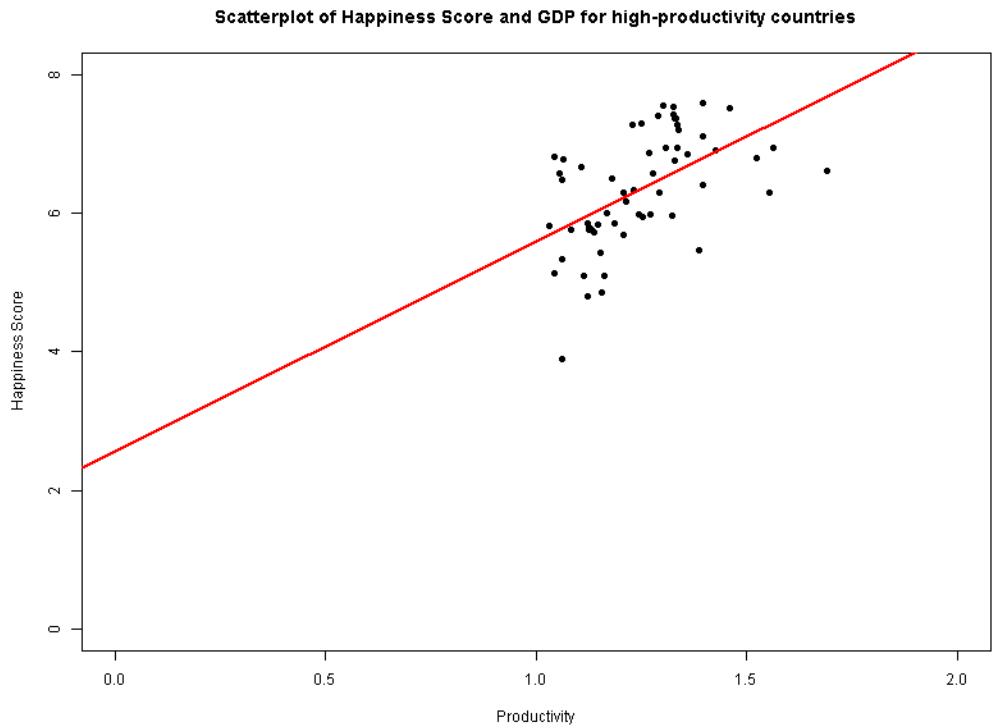
Figure 2: Scatterplot showing the correlation between productivity and happiness among high-productivity nations.
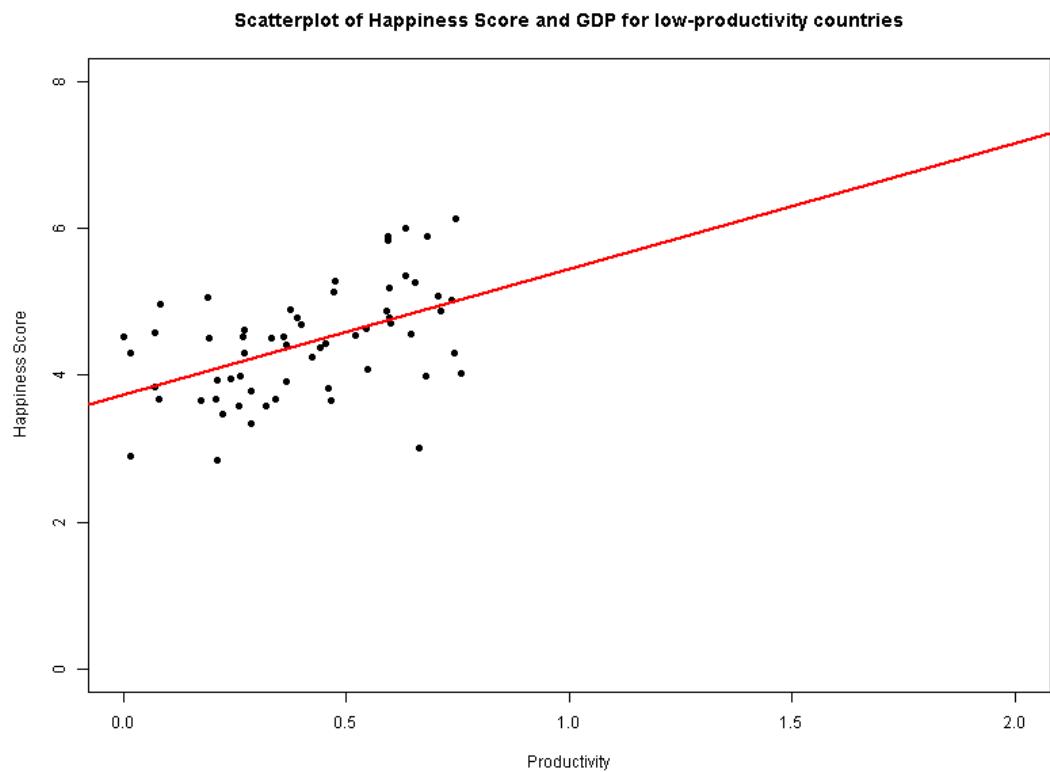

Figure 3: Scatterplot showing the correlation between productivity and happiness among low-productivity nations.
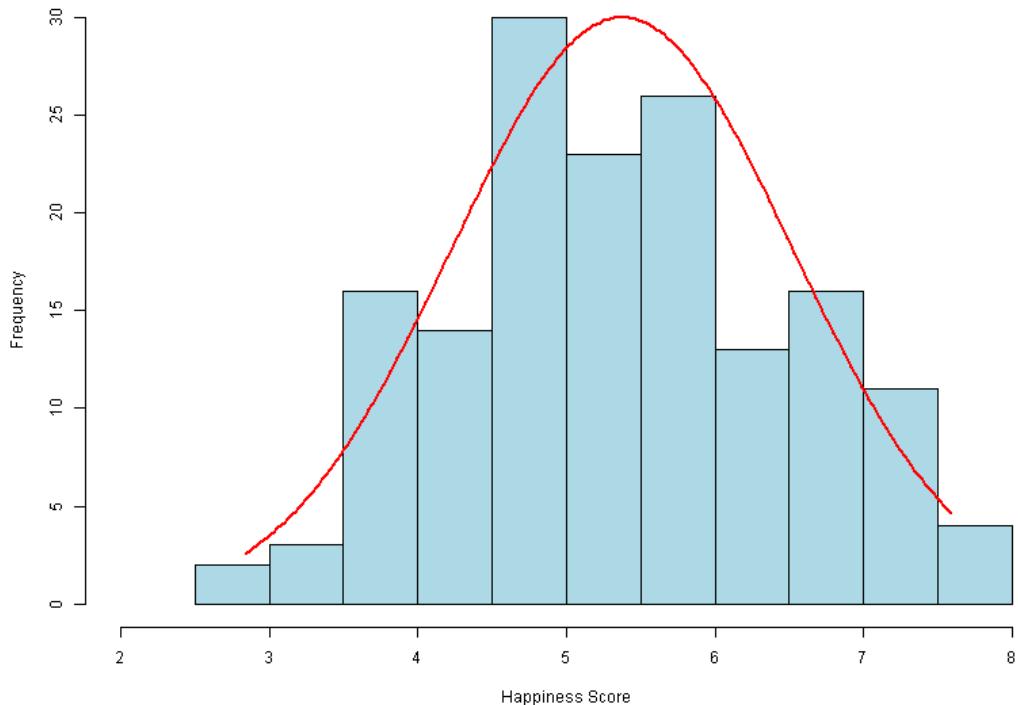
Figure 4: Histogram of happiness scores for the full dataset.
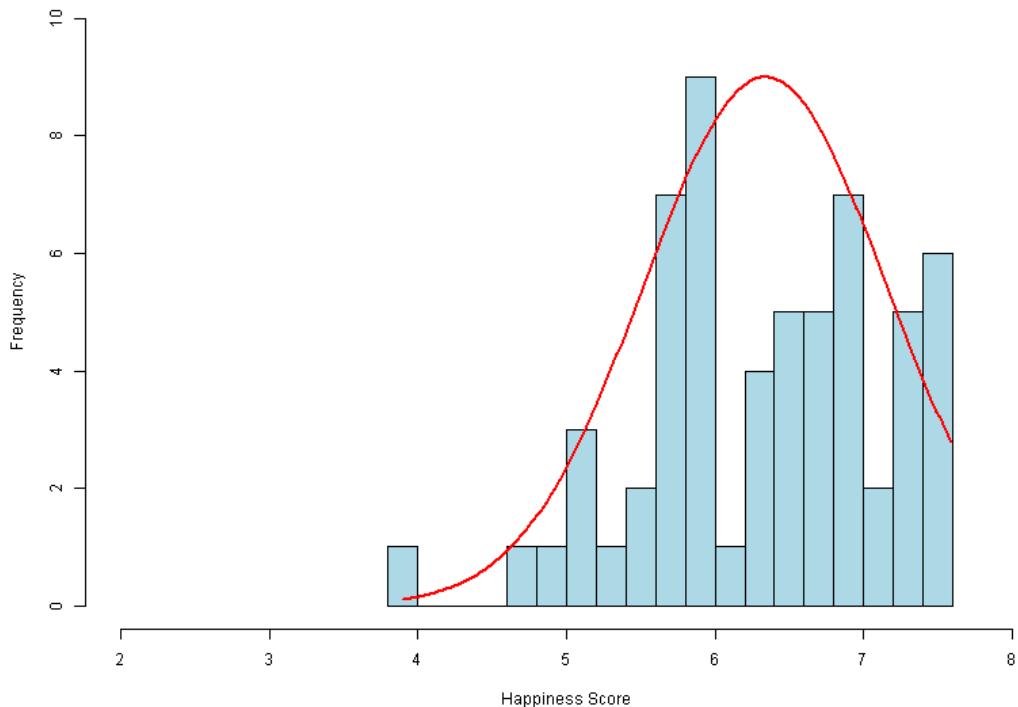
Figure 5: Histogram of happiness scores for high-productivity nations.
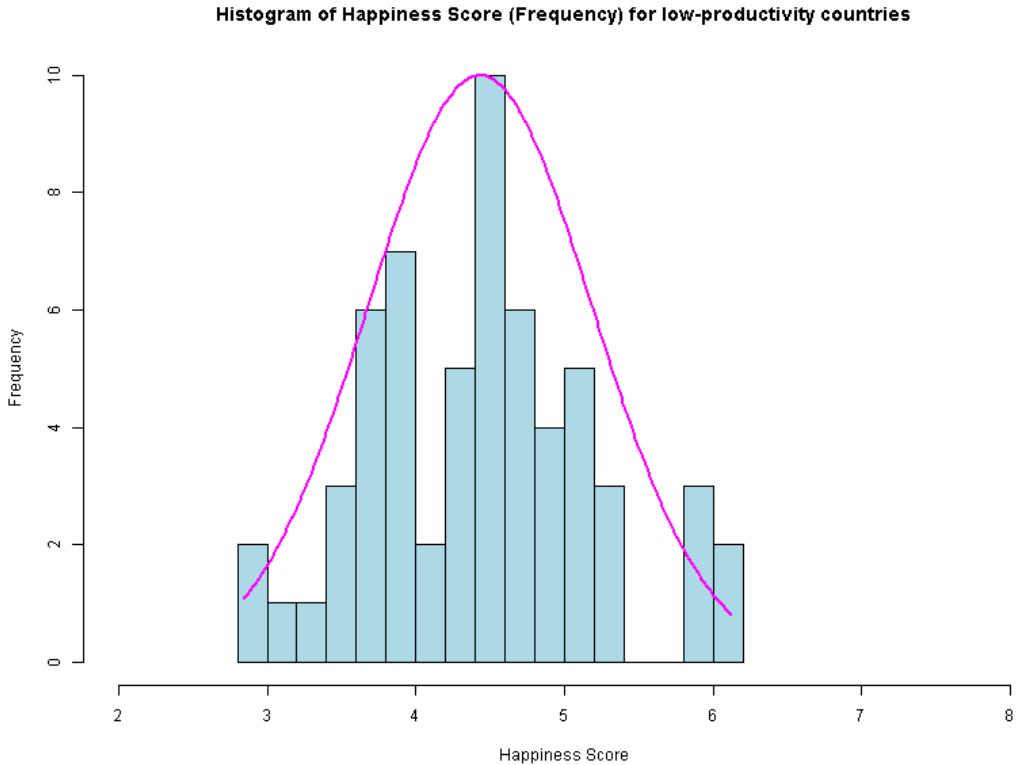
Figure 6: Histogram of happiness scores for low-productivity nations.

3.2 Additional visualisations (optional)

The scatterplots illustrate whether higher productivity aligns with higher happiness through the slope of the trend line. The shape and clustering of the datapoints for the various countries shows how strongly any alignment shown by the trend line is. The histograms support interpretation by revealing differences in distribution between high- and low-productivity countries. For example, clustering of high scores among wealthier nations and wider dispersion among lower-productivity countries. Given that the curve for the entire dataset is regular and normal-like, the Pearson and Spearman tests will likely produce similar result

3.3 Useful information for data understanding

Key observations include a positive linear trend in all scatterplots, with a noticeably steeper slope in high-productivity countries, suggesting a stronger correlation between productivity and happiness. The histograms show that high-productivity nations cluster toward higher happiness, while low-productivity countries exhibit more variability, indicating that additional factors may influence their scores.

4 Analysis

4.1 Statistical test used and output

Our research sought to ascertain whether there exists a correlation between the reported happiness and the economic performance of countries.We found that the entire happiness score has a nearly normal distribution but not a perfectly normal one, so we used spearman test for the

general correlation between happiness score and GDP. The spearman test is a non parametric statistical test that measures the correlation between two variables.

4.2 Decision on the null hypothesis

We have rejected the null hypothesis which states that there is no correlation between the happiness score and the economic productivity of a country. Our p-value from the spearman test on the whole dataset was 2.2e-16 .This p-value is way below the threshold of 0.05 and hence from this we concluded that the positive correlation between happiness and economic productivity is not by chance and hence rejected the null hypothesis

5 Evaluation – Group's Experience at 7COM1079

5.1 What went well

The group established a professional working relationship early; we aimed to avoid random dataset allocation. We learnt that historically led to lower marks. Online tools like (WhatsApp, Google Meet, Microsoft Teams) were adopted to coordinate tasks when in-person meetings were not feasible. Early role sharing and dataset selection aided workflow. Two tutorial demo presentation sessions (RQ refinement and Testing methods) produced actionable feedback that improved our work. These practices align with good team formation and role allocation, supporting faster progress and clearer deliverables (Tuckman, 1965).

5.2 Points for improvement

Scheduling more face-to-face meetings to build stronger rapport, better match tasks to individual strengths would have helped. Online meetings sustained progress, closer interpersonal familiarity would likely have allowed more flexible role swapping and peer coaching. Intra-group conflict and unclear role allocation can reduce performance (Jehn, 1995). Role sharing was choice based, with more rapport it could have been to individuals' strengths to maximize output or challenged individuals with parts they were uncomfortable with so they can improve.

5.3 Group's time management

Time constraints and competing coursework limited the frequency of meetings, so we relied on short online sessions and asynchronous messages on WhatsApp. For future projects, a shared calendar with fixed weekly check-ins and short agendas could help mitigate this and reduce waiting time and accelerate decision points (Salas et al., 2015).

5.4 Project's overall judgement

Overall, the project was successful. Dr Imy Khan (Tutor) recounted working with friends professionally and its adverse effects. Hence, we not being prior friends but meeting and working professionally helped. The group selected a dataset through considered discussion, iteratively refined our research question using tutor feedback, and produced reproducible analysis workflows.

5.5 Comment on GitHub log output

Project development and version control history, as seen in the Git log, highlights several key collaborative milestones. The foundational project template and structure were established in the initialization of the repo file commit (cb70625). Commits were done with almost no conflicts. (Full Git log in Appendix B).

6 Conclusions

6.1 Results explained

We initially considered the whole dataset, we found a correlation coefficient of 0.7957028 and a p-value of 2.2e-16 using the Spearman test. We then stratified the dataset into two groups , the first group contained the top 60 countries ranked by economic performance and the other group contained the bottom 60. We found a correlation coefficient of 0.6090581 and a p-value of 4.629e-07 for the top 60 countries and for the bottom 60 we found a positive correlation of 0.49197 and a p-value of 8.107e-05.

6.2 Interpretation of the results

Our results show a strong correlation between happiness and economic performance, the p-value's shows us that the result is statistically significant, this tells us that economic performance of a country contributes significantly to the populations overall sense of happiness. After stratifying the data into two groups,the top 60 countries based on GDP have a slightly higher correlation than the bottom 60, which informs us that with increased economic productivity the correlation with happiness is stronger .

6.3 Reasons / implications for future work and limitations

Although the findings provide meaningful insights into the relationship between happiness and productivity across countries, the limitation is that the data may not capture the complexity of these constructs fully because happiness can also be influenced by other factors like culture. Future work could prob into specific components of happiness like, health, freedom of choice and social support.

7   Reference List

Helliwell, J. F., Huang, H.,& Wang, S. (2015). The Geography of World Happiness. In J. F. Helliwell, R. Layard, & J. Sachs (Eds.), World Happiness Report 2015 (pp. 12-41). New York: Sustainable Development Solutions Network.

Clark, A. E., Frijters, P., & Shields, M. A. (2008). Relative income, happiness, and utility: An explanation for the Easterlin paradox and other puzzles. Journal of Economic Literature, 46(1), 95-144.

Stevenson, B., & Wolfers, J. (2008). Economic growth and subjective well-being: Reassessing the Easterlin paradox. Brookings Papers on Economic Activity, 2008(1), 1-87.

8 Appendices

Appendix A: R code used for analysis and visualisation

```r
# Load Dataset
df <- read.csv("2015_original_dataset.csv")

# # Ensure output directories exist
dir.create("assets/HistogramPlots", recursive = TRUE, showWarnings = FALSE)
dir.create("assets/ScatterPlots", recursive = TRUE, showWarnings = FALSE)

# Data Wrangling - Renaming Columns for clarity
colnames(df)[3] <- "HappRank"       # Happiness Rank
colnames(df)[4] <- "HappScore"      # Happiness Score
colnames(df)[5] <- "StdError"       # Standard Error
colnames(df)[6] <- "GDPperCapita"   # Economy (GDP Per Capita)
colnames(df)[8] <- "LifeExpectancy" # Health (Life Expectancy)
colnames(df)[10] <- "GovtTrust"     # Trust (Government Corruption)
colnames(df)[12] <- "Dystopia"      # Dystopia Residual


top60 <- head(df[order(df$GDPperCapita, decreasing = TRUE), ], 60)
bottom60 <- tail(df[order(df$GDPperCapita, decreasing = TRUE), ], 60)

h <- df$`HappScore`
h1 <- top60$`HappScore`
h2 <- bottom60$`HappScore`

png("assets/HistogramPlots/totalHistogram.png", width = 800, height = 600)

# Histogram using frequency (default)
h_hist <- hist(h,
      breaks = 15,
      col = "lightblue",
      main = "Histogram of Happiness Score (Frequency) for World Happiness
          Ranking dataset",
      xlab = "Happiness Score",
      ylab = "Frequency",
      ylim = c(0, 30.0),
      xlim = c(2.0, 8.0)
)

# Create x-values for the curve(top60)
x <- seq(min(h, na.rm = TRUE), max(h, na.rm = TRUE), length = 200)

# Normal density values
curve_y <- dnorm(x, mean = mean(h, na.rm = TRUE), sd = sd(h, na.rm = TRUE))

# Scale the curve to the histogram frequency scale
curve_y_scaled <- curve_y * max(h_hist$counts) / max(curve_y)

# Add the curve
lines(x, curve_y_scaled, col = "red", lwd = 2)

dev.off()

png("assets/ScatterPlots/totalScatter.png", width = 800, height = 600)

plot(df$GDPperCapita, df$HappScore,
      xlab = "Productivity",
      ylab = "Happiness Score",
      main = "Scatterplot of Happiness Score and GDP",
```

```
58        pch = 19,
59        xlim = c(0, 2),
60        ylim = c(0, 8)
61 )
62
63 abline(lm(HappScore ~ GDPperCapita, data = df), col = "red", lwd = 2)
64
65 dev.off()
66
67 png("assets/HistogramPlots/top60Histogram.png", width = 800, height = 600)
68
69 # Histogram using frequency (default)
70 h1_hist <- hist(h1,
71        breaks = 15,
72        col = "lightblue",
73        main = "Histogram of Happiness Score (Frequency) for high-productivity
              countries",
74        xlab = "Happiness Score",
75        ylab = "Frequency",
76        ylim = c(0, 10.0),
77        xlim = c(2.0, 8.0)
78 )
79
80 # Create x-values for the curve(top60)
81 x1 <- seq(min(h1, na.rm = TRUE), max(h1, na.rm = TRUE), length = 200)
82
83 # Normal density values
84 curve_y1 <- dnorm(x1, mean = mean(h1, na.rm = TRUE), sd = sd(h1, na.rm = TRUE))
85
86 # Scale the curve to the histogram frequency scale
87 curve_y1_scaled <- curve_y1 * max(h1_hist$counts) / max(curve_y1)
88
89 # Add the curve
90 lines(x1, curve_y1_scaled, col = "red", lwd = 2)
91
92 dev.off()
93
94 png("assets/ScatterPlots/top60Scatter.png", width = 800, height = 600)
95
96 plot(top60$GDPperCapita, top60$HappScore,
97        xlab = "Productivity",
98        ylab = "Happiness Score",
99        main = "Scatterplot of Happiness Score and GDP for high-productivity
              countries",
100       pch = 19,
101       xlim = c(0, 2),
102       ylim = c(0, 8)
103 )
104
105 abline(lm(HappScore ~ GDPperCapita, data = top60), col = "red", lwd = 2)
106
107 dev.off()
108
109 png("assets/HistogramPlots/bottom60Histogram.png", width = 800, height = 600)
110
111 h2_hist <- hist(h2,
112       breaks = 15,
113       col = "lightblue",
114       main = "Histogram of Happiness Score (Frequency) for low-productivity
              countries",
115       xlab = "Happiness Score",
116       ylab = "Frequency",
117       ylim = c(0, 10.0),
```

```
118        xlim = c(2.0, 8.0)
119 )
120
121 # Create x-values for the curve(bottom60)
122 x2 <- seq(min(h2, na.rm = TRUE), max(h2, na.rm = TRUE), length = 200)
123
124 # Normal density values
125 curve_y2 <- dnorm(x2, mean = mean(h2, na.rm = TRUE), sd = sd(h2, na.rm = TRUE))
126
127 # Scale the curve to the histogram frequency scale
128 curve_y2_scaled <- curve_y2 * max(h2_hist$counts) / max(curve_y2)
129
130 # Add the curve
131 lines(x2, curve_y2_scaled, col = "magenta", lwd = 2)
132
133 dev.off()
134
135 png("assets/ScatterPlots/bottom60Scatter.png", width = 800, height = 600)
136
137 plot(bottom60$GDPperCapita, bottom60$HappScore,
138      xlab = "Productivity",
139      ylab = "Happiness Score",
140      main = "Scatterplot of Happiness Score and GDP for low-productivity
             countries",
141      pch = 19,
142      xlim = c(0, 2),
143      ylim = c(0, 8)
144 )
145
146 abline(lm(HappScore ~ GDPperCapita, data = bottom60), col = "red", lwd = 2)
147
148 dev.off()
149
150 # Correlation Analysis
151 # Correlation for the entire dataset(in-terms of GDP)
152 cor_total <- cor.test(df$HappScore, df$GDPperCapita, method = "pearson")
153 # print("--- Correlation: Total Dataset (Pearson) ---")
154 # print(cor_total)
155
156 # Correlation for the top 60 countries
157 cor_top60 <- cor.test(top60$HappScore, top60$GDPperCapita, method = "spearman")
158 # print("--- Correlation: Top 60 Countries (Spearman) ---")
159 # print(cor_top60)
160
161 # Correlation for the bottom 60 countries(in-terms of GDP)
162 cor_bottom60 <- cor.test(bottom60$HappScore, bottom60$GDPperCapita, method = "
        spearman")
163 # print("--- Correlation: Bottom 60 Countries (Spearman) ---")
164 # print(cor_bottom60)
```

Listing 1: R code used for analysis and visualisation

Appendix B: GitHub log output

The following pages contain the complete GitHub commit history for the project, including
author names, timestamps, and commit messages.

```
commit 34e4145c4b2f1659096edaa870a9ea5d5d103cfd
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Mon Dec 8 10:32:06 2025 +0000
```

I did minor corrections to the report

 7COM1079_Final report_template.docx | Bin 169168 -> 172614 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)

commit 32e7d2354109b12f4f531451b4a2b2de0c0c92d2
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date: Mon Dec 8 09:11:11 2025 +0000

    Minor correction in 3

 7COM1079_Final report_template.docx | Bin 168824 -> 169168 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)

commit 49b7c1b1cc10d698e70c4a9d6f2a7df813f865d9
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date: Mon Dec 8 08:39:39 2025 +0000

    Minor correction in 3.3

 7COM1079_Final report_template.docx | Bin 170988 -> 168824 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)

commit d0eb6affa04e7c6f3f398eaf1fd519f2981d3112
Merge: 47a3c38 f7907ab
Author: Edosa Izevbizua <80903513+samuelizevbizua@users.noreply.github.com>
Date: Mon Dec 8 03:37:10 2025 +0000

    Merge pull request #7 from KimtaiKogoKevin/Samuel

    bg research

commit f7907ab2a298682bd7a642f2dc6de1073ba8e7cc
Author: Samuel Izevbizua <80903513+samuelizevbizua@users.noreply.github.com>
Date: Mon Dec 8 03:36:10 2025 +0000

    bg research

 7COM1079_Final report_template.docx | Bin 168501 -> 170988 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)

commit 47a3c38f5ddbe57c80d3aa2b8c90afd57ee5efe6
Author: Samuel Izevbizua <80903513+samuelizevbizua@users.noreply.github.com>
Date: Mon Dec 8 03:25:34 2025 +0000

    ignore all temporary files

 .gitignore | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)

commit 8acc4ca3b7ce31477e2defa64fe76198183111d7

Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date: Sun Dec 7 18:40:12 2025 +0000

    Corrected error in visualisations. Scatter plots not showing.

 7COM1079_Final report_template.docx | Bin 155275 -> 168501 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)

commit f42241f03a72b1d950826f0742b4deed2a3eee6e
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date: Sun Dec 7 18:30:59 2025 +0000

    I did some minor corrections in the report

 7COM1079_Final report_template.docx | Bin 155333 -> 155275 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)

commit ffaa50eb25e8fdc7ea1b16cef9e9e0d54a223e5c
Merge: 28fa99a a4ebaee
Author: Edosa Izevbizua <80903513+samuelizevbizua@users.noreply.github.com>
Date: Sun Dec 7 00:20:07 2025 +0000

    Merge pull request #6 from KimtaiKogoKevin/Samuel

    Samuel - Repo and code cleanup

commit a4ebaee1a5ad4431a9d2d3907f09e7e9e2050e56
Author: Samuel Izevbizua <80903513+samuelizevbizua@users.noreply.github.com>
Date: Sun Dec 7 00:18:37 2025 +0000

    cleanup: comment out correlation analysis print statements for clarity

 scripts/Combined.R | 12 ++++++------
 1 file changed, 6 insertions(+), 6 deletions(-)

commit 2ba534b09f0e9fb0e063ebcbec94f970cb236746
Author: Samuel Izevbizua <80903513+samuelizevbizua@users.noreply.github.com>
Date: Sun Dec 7 00:14:59 2025 +0000

    chore: cleanup repository and consolidate analysis scripts

    - Remove redundant draft scripts (ColRename.R, assign_region.R, etc.) in favor of the ma
    - Refactor 'scripts/Combined.R' to include directory creation checks and explicit correl
    - Update 'Readme.md' with clear project structure, research question, and execution inst
    - Update '.gitignore' to exclude local R environment files (.RData, .Rhistory).
    - Remove local environment files from the repository to ensure a clean state.

 .RData | Bin 34153 -> 0 bytes
 .gitignore | 6 +-
 Readme.md | 46 +++++++-----
 Scatter Plot.png | Bin 7256 -> 0 bytes

```
assets/HistogramPlots/bottom60Histogram.png | Bin 38001 -> 6284 bytes
assets/HistogramPlots/top60Histogram.png    | Bin 38342 -> 6141 bytes
assets/HistogramPlots/totalHistogram.png    | Bin 42133 -> 7218 bytes
assets/ScatterPlots/bottom60Scatter.png     | Bin 40775 -> 4537 bytes
assets/ScatterPlots/top60Scatter.png        | Bin 41745 -> 4762 bytes
assets/ScatterPlots/totalScatter.png        | Bin 51955 -> 5507 bytes
scripts/.RData                              | Bin 13958 -> 0 bytes
scripts/ColRename.R                         |    9 --
scripts/Combined.R                          |  123 +++++++++++++++--------------
scripts/HappinessScore_normalDist.R         |   23 ------
scripts/assign_region.R                     |   64 --------------
scripts/world happiness2.R                  |   15 ----
~WRL0824.tmp                                | Bin 38476 -> 0 bytes
17 files changed, 89 insertions(+), 197 deletions(-)
delete mode 100644 .RData
delete mode 100644 Scatter Plot.png
delete mode 100644 scripts/.RData
delete mode 100644 scripts/ColRename.R
delete mode 100644 scripts/HappinessScore_normalDist.R
delete mode 100644 scripts/assign_region.R
delete mode 100644 scripts/world happiness2.R
delete mode 100644 ~WRL0824.tmp


commit 28fa99affacfc0cf55c4ecdce5dff00c724389b3
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Sat Dec 6 23:27:50 2025 +0000

    I added the conclusion of our analysis to the report

 7COM1079_Final report_template.docx | Bin 152493 -> 155333 bytes
 scripts/.RData                      | Bin 0 -> 13958 bytes
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 scripts/.RData

commit 2fdf8ed9fc8d280897ce280eea2abcf76e42e060
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Sat Dec 6 19:10:28 2025 +0000

    Cleaning up report. Visualisations moved to after table of contents for clarity.

 7COM1079_Final report_template.docx | Bin 288341 -> 152493 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)


commit 6e9bb69a4c11cb8ec9f63bb453df24c73abf7bac
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Sat Dec 6 10:29:31 2025 +0000

    Description for visualisations, 3.2 and 3.3, polished.

 7COM1079_Final report_template.docx | Bin 287303 -> 288341 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
```

```
commit 9905ee62586ae851394ac33b2d7b282637adc6ac
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Fri Dec 5 19:28:34 2025 +0000

    Visualisation infor and description added to doc

 7COM1079_Final report_template.docx        | Bin 42249 -> 287303 bytes
 assets/HistogramPlots/bottom60Histogram.png | Bin 38043 -> 38001 bytes
 scripts/Combined.R                         |     2 +-
 3 files changed, 1 insertion(+), 1 deletion(-)


commit a2bac1084b4deaf015a9866ee9e8dcad6937e632
Author: Pirategh <kb24aby@herts.ac.uk>
Date:   Thu Dec 4 23:40:28 2025 +0000

     Kelvin I made edits to the word count: updated Chapter 5 in report template

 7COM1079_Final report_template.docx | Bin 39886 -> 42249 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)


commit b6677169a152234567ef78a1fba5beb5493db34e
Author: KimtaiKogoKevin <kevinkogo@gmail.com>
Date:   Thu Dec 4 19:11:46 2025 +0000

    Completed Introduction section of the documentation

 7COM1079_Final report_template.docx | Bin 39460 -> 39886 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)


commit 08b17e85bbc380202159dcb13d8bfd7210dbf489
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Thu Dec 4 16:52:00 2025 +0000

    Made all visualisations have uniform graduation.

 .RData | Bin 34171 -> 34153 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)


commit ca6c9fda360c6e9ff4f2f6d139546e0315d382a9
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Thu Dec 4 16:51:28 2025 +0000

    Made all visualisations have uniform graduation.

 assets/HistogramPlots/bottom60Histogram.png | Bin 38711 -> 38043 bytes
 assets/HistogramPlots/totalHistogram.png    | Bin 41251 -> 42133 bytes
 assets/ScatterPlots/bottom60Scatter.png     | Bin 41901 -> 40775 bytes
 assets/ScatterPlots/top60Scatter.png        | Bin 42953 -> 41745 bytes
 assets/ScatterPlots/totalScatter.png        | Bin 55333 -> 51955 bytes
 scripts/Combined.R                          |    22 +++++++++--------------
```

```
 6 files changed, 8 insertions(+), 14 deletions(-)

commit 590f40ffb84f4da3c5e839c8f3bff82d37034036
Author: KimtaiKogoKevin <kevinkogo@gmail.com>
Date:   Thu Dec 4 16:50:37 2025 +0000

    Added the introduction plus research question need to finish up on the null and alternat

 7COM1079_Final report_template.docx | Bin 38476 -> 39460 bytes
 ~WRL0824.tmp                        | Bin 0 -> 38476 bytes
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 ~WRL0824.tmp

commit 109d858e8eb74f7daf07c616623380128c9c11f0
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Thu Dec 4 16:05:47 2025 +0000

    Realised error while documenting visualisations. Decreasing is supposed to be true, this

 .RData                                      | Bin 33867 -> 34171 bytes
 assets/HistogramPlots/bottom60Histogram.png | Bin 38388 -> 38711 bytes
 assets/HistogramPlots/top60Histogram.png    | Bin 39579 -> 38342 bytes
 assets/ScatterPlots/bottom60Scatter.png     | Bin 42813 -> 41901 bytes
 assets/ScatterPlots/top60Scatter.png        | Bin 42019 -> 42953 bytes
 scripts/Combined.R                          |  95 ++++++++++------------------
 6 files changed, 32 insertions(+), 63 deletions(-)

commit e02aa4d2230d5941d9acf5a503f695d3758448f9
Merge: b468331 aff9bcc
Author: KimtaiKogoKevin <kevinkogo@gmail.com>
Date:   Wed Dec 3 23:09:45 2025 +0000

     Added the first paragraph of the introduction

commit b46833180a9567ce7929a02e00eaff93bce68e7e
Author: KimtaiKogoKevin <kevinkogo@gmail.com>
Date:   Wed Dec 3 22:42:12 2025 +0000

     Added the first paragraph of the introduction

 .RData                              | Bin 0 -> 33867 bytes
 7COM1079_Final report_template.docx | Bin 37910 -> 38476 bytes
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 .RData

commit aff9bcc0882a3f98fa3484b17f1e3b450dc749e1
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 22:38:00 2025 +0000

    Minor corrections to Report
```

```
 .RData | Bin 0 -> 33867 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 .RData

commit 937840f578c0d1a1ee7a6553b3daf2381949de25
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 22:32:00 2025 +0000

    I did some minor corrections to the report file

 7COM1079_Final report_template.docx | Bin 38640 -> 38800 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)

commit 8ed71024f57709320d00c04514ef34b439afc984
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 22:23:21 2025 +0000

    I have added the statistical analyses to the word document. that is the chapter 4

 7COM1079_Final report_template.docx | Bin 37910 -> 38640 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)

commit ba80604a3b8f627e9b5cf1e2caf37a56fb899fe6
Author: KimtaiKogoKevin <kevinkogo@gmail.com>
Date:   Wed Dec 3 21:28:20 2025 +0000

    Forgot to exclude DSStore added to gitignore

 .DS_Store                          | Bin 10244 -> 0 bytes
 .gitignore                         |   1 +
 assets/.DS_Store                   | Bin 8196 -> 0 bytes
 assets/HistogramPlots/.DS_Store    | Bin 6148 -> 0 bytes
 assets/ScatterPlots/.DS_Store      | Bin 6148 -> 0 bytes
 5 files changed, 1 insertion(+)
 delete mode 100644 .DS_Store
 delete mode 100644 assets/.DS_Store
 delete mode 100644 assets/HistogramPlots/.DS_Store
 delete mode 100644 assets/ScatterPlots/.DS_Store

commit 73ed0de48b04ca9223c28ca4cdaf6b1047da079f
Author: KimtaiKogoKevin <kevinkogo@gmail.com>
Date:   Wed Dec 3 21:27:16 2025 +0000

    Activcated the .gitignore to remove unnessary R files going foward that are not , such a

 .Rhistory                                     | 512 -----------------------
 .Rproj.user/5362696E/pcs/files-pane.pper      |   9 -
 .Rproj.user/5362696E/pcs/source-pane.pper     |   3 -
 .Rproj.user/5362696E/pcs/windowlayoutstate.pper | 14 -
 .Rproj.user/5362696E/pcs/workbench-pane.pper  |   5 -
 .Rproj.user/5362696E/rmd-outputs             |   5 -
```

```
.Rproj.user/5362696E/saved_source_markers      |   1 -
.Rproj.user/5362696E/sources/prop/0FC0FB6F      |   7 -
.Rproj.user/5362696E/sources/prop/7B4F1A7B      |   6 -
.Rproj.user/5362696E/sources/prop/F0D65BFC      |   4 -
.Rproj.user/5362696E/sources/prop/FF3DE595      |   4 -
.Rproj.user/5362696E/sources/prop/INDEX         |   6 -
.Rproj.user/shared/notebooks/patch-chunk-names  |   0
.Rproj.user/shared/notebooks/paths              |   4 -
.gitignore                                      |   5 +-
15 files changed, 2 insertions(+), 583 deletions(-)
delete mode 100644 .Rhistory
delete mode 100644 .Rproj.user/5362696E/pcs/files-pane.pper
delete mode 100644 .Rproj.user/5362696E/pcs/source-pane.pper
delete mode 100644 .Rproj.user/5362696E/pcs/windowlayoutstate.pper
delete mode 100644 .Rproj.user/5362696E/pcs/workbench-pane.pper
delete mode 100644 .Rproj.user/5362696E/rmd-outputs
delete mode 100644 .Rproj.user/5362696E/saved_source_markers
delete mode 100644 .Rproj.user/5362696E/sources/prop/0FC0FB6F
delete mode 100644 .Rproj.user/5362696E/sources/prop/7B4F1A7B
delete mode 100644 .Rproj.user/5362696E/sources/prop/F0D65BFC
delete mode 100644 .Rproj.user/5362696E/sources/prop/FF3DE595
delete mode 100644 .Rproj.user/5362696E/sources/prop/INDEX
delete mode 100644 .Rproj.user/shared/notebooks/patch-chunk-names
delete mode 100644 .Rproj.user/shared/notebooks/paths


commit 1db3bcd8c327852806ed829039e75a2b104e5d18
Author: KimtaiKogoKevin <kevinkogo@gmail.com>
Date:   Wed Dec 3 21:23:04 2025 +0000

    added the problem area and our mmotivation behind the study to the repo , the document

 7$OM1079_Final report_template_changed.docx | Bin 162 -> 0 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
 delete mode 100644 7$OM1079_Final report_template_changed.docx


commit 0dbec192491ab8648849075b36ab0fe75e3a98f6
Author: KimtaiKogoKevin <kevinkogo@gmail.com>
Date:   Wed Dec 3 21:08:22 2025 +0000

    MAde some changes to the Introduction and a clarification with group memebers that this

 7$OM1079_Final report_template_changed.docx | Bin 0 -> 162 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 7$OM1079_Final report_template_changed.docx


commit b003f81ff9aae7bb8fc63fb54aca7298f6afd66d
Merge: ad553e6 2a29ce5
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 18:04:11 2025 +0000

    I resolved the merge conflict and added the resolved file
```

19

```
commit ad553e635848629af68db9deded981c173ed3c24
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 17:52:10 2025 +0000

    I have done the statistical tests which are updated in the combined R script in the asse

 scripts/Combined.R                       |  18 +++++++++++++++++-
 ~$OM1079_Final report_template.docx      | Bin 162 -> 0 bytes
 2 files changed, 17 insertions(+), 1 deletion(-)
 delete mode 100644 ~$OM1079_Final report_template.docx


commit 2a29ce5c6fe6e77c7a1978c669f91d6e654a32c8
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Wed Dec 3 16:13:50 2025 +0000

    Corrected some minor labeling errors in our code and generated accurate visualisations.

 .DS_Store                                        | Bin 10244 -> 10244 bytes
 .Rhistory                                        | 202 ++++++++++++------------
 .Rproj.user/5362696E/pcs/windowlayoutstate.pper  |  10 +-
 assets/.DS_Store                                 | Bin 8196 -> 8196 bytes
 assets/HistogramPlots/bottom60Histogram.png      | Bin 39277 -> 38388 bytes
 assets/HistogramPlots/top60Histogram.png         | Bin 40269 -> 39579 bytes
 assets/HistogramPlots/totalHistogram.png         | Bin 41249 -> 41251 bytes
 assets/ScatterPlots/top60Scatter.png             | Bin 41901 -> 42019 bytes
 assets/ScatterPlots/totalScatter.png             | Bin 57063 -> 55333 bytes
 scripts/Combined.R                               |  79 +--------
 10 files changed, 112 insertions(+), 179 deletions(-)


commit 0e886039bf1a0b78a9a439f1ca55ea5aeecff087
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Wed Dec 3 15:48:31 2025 +0000

    I noticed the update, but the x-axis is still going out of bounds, so I've corrected tha

 .DS_Store                                            | Bin 10244 -> 10244 bytes
 .Rhistory                                            | 601 +++++++++++++++++------
 .Rproj.user/5362696E/pcs/windowlayoutstate.pper      |   2 +-
 assets/.DS_Store                                     | Bin 10244 -> 8196 bytes
 assets/HistogramPlots/.DS_Store                      | Bin 6148 -> 6148 bytes
 ...istribution of the entire dataset HappScore.png   | Bin 10739 -> 0 bytes
 6 files changed, 442 insertions(+), 161 deletions(-)
 delete mode 100644 assets/HistogramPlots/Distribution of the entire dataset HappScore.png


commit 03e2a983b92ab0ccd18c457cee13951a2b903a23
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Wed Dec 3 15:32:43 2025 +0000

    Visualisations updated as per Monday's feedback.
```

```
 .DS_Store                                          | Bin 10244 -> 10244 bytes
 .Rproj.user/5362696E/pcs/source-pane.pper          |    2 +-
 .Rproj.user/5362696E/pcs/windowlayoutstate.pper    |   12 +-
 assets/.DS_Store                                    | Bin 10244 -> 10244 bytes
 assets/HistogramPlots/.DS_Store                     | Bin 0 -> 6148 bytes
 .../Distribution_of_GDP_per_capita.png              | Bin 19941 -> 0 bytes
 .../Distribution_of_HapinessScore.png               | Bin 19693 -> 0 bytes
 assets/HistogramPlots/bottom60Histogram.png         | Bin 39836 -> 39277 bytes
 assets/HistogramPlots/top60Histogram.png            | Bin 40515 -> 40269 bytes
 assets/HistogramPlots/totalHistogram.png            | Bin 0 -> 41249 bytes
 assets/ScatterPlots/.DS_Store                       | Bin 0 -> 6148 bytes
 assets/ScatterPlots/bottom60Scatter.png             | Bin 35472 -> 42813 bytes
 assets/ScatterPlots/top60Scatter.png                | Bin 38019 -> 41901 bytes
 assets/ScatterPlots/totalScatter.png                | Bin 0 -> 57063 bytes
 scripts/Combined.R                                  | 138 +++++++++++++++++---
 15 files changed, 131 insertions(+), 21 deletions(-)
 create mode 100644 assets/HistogramPlots/.DS_Store
 delete mode 100644 assets/HistogramPlots/Distribution_of_GDP_per_capita.png
 delete mode 100644 assets/HistogramPlots/Distribution_of_HapinessScore.png
 create mode 100644 assets/HistogramPlots/totalHistogram.png
 create mode 100644 assets/ScatterPlots/.DS_Store
 create mode 100644 assets/ScatterPlots/totalScatter.png

commit fae0f0592f87ff34bf6577968f8cab36875fd3a4
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 15:20:02 2025 +0000

    I editted the combined R script to add the code for generating the histogram for the ent

 ...istribution of the entire dataset HappScore.png | Bin 0 -> 10739 bytes
 scripts/Combined.R                                  |   24 +++++++++++++++++-
 2 files changed, 23 insertions(+), 1 deletion(-)
 create mode 100644 assets/HistogramPlots/Distribution of the entire dataset HappScore.png

commit 6085a92fef27ebde7a11c2da24b8db9247f79a6a
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 14:49:48 2025 +0000

    I did some commenting of the renamed columns in the combined R file

 scripts/Combined.R                      |   11 ++++++++++
 ~$OM1079_Final report_template.docx | Bin 0 -> 162 bytes
 2 files changed, 11 insertions(+)
 create mode 100644 ~$OM1079_Final report_template.docx

commit 8a54df65ea11db0e14525e13f41e212ea83203d5
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 13:14:44 2025 +0000

    I did some spell-check in chapter 5
```

```
7COM1079_Final report_template.docx | Bin 37925 -> 37910 bytes
1 file changed, 0 insertions(+), 0 deletions(-)


commit 52f4fd7fc065df1a43283d52ad57c28fd1efdcda
Merge: 18b0507 0a58ae6
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 13:04:01 2025 +0000

    Merge branch 'main' of https://github.com/KimtaiKogoKevin/TeamResearchPractical_ds282
    "I am trying to pull the updated repo, I have to save my local changes first"

commit 18b05072023513b94b553deb96c01f4820b8d6f4
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Wed Dec 3 13:03:37 2025 +0000

    Saved local changes before pulling

 .gitignore                                  |    4 ++
 TeamResearchPractical_ds282.Rproj           |   13 +++++
 assets/.DS_Store                            | Bin 0 -> 10244 bytes
 assets/HistogramPlots/bottom60Histogram.png | Bin 0 -> 39836 bytes
 assets/HistogramPlots/top60Histogram.png    | Bin 0 -> 40515 bytes
 assets/ScatterPlots/bottom60Scatter.png     | Bin 0 -> 35472 bytes
 assets/ScatterPlots/top60Scatter.png        | Bin 0 -> 38019 bytes
 scripts/Combined.R                          |   87 ++++++++++++++++++++++++++
 8 files changed, 104 insertions(+)
 create mode 100644 .gitignore
 create mode 100644 TeamResearchPractical_ds282.Rproj
 create mode 100644 assets/.DS_Store
 create mode 100644 assets/HistogramPlots/bottom60Histogram.png
 create mode 100644 assets/HistogramPlots/top60Histogram.png
 create mode 100644 assets/ScatterPlots/bottom60Scatter.png
 create mode 100644 assets/ScatterPlots/top60Scatter.png
 create mode 100644 scripts/Combined.R

commit 0a58ae695c69569e8f93c489923b013367385855
Author: Pirategh <kb24aby@herts.ac.uk>
Date:   Tue Dec 2 18:47:36 2025 +0000

    Added Chapter 5: Evaluation section with group experience analysis

 7COM1079_Final report_template.docx | Bin 36098 -> 37925 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)


commit 7b0eb53d54165ae6009fb5c9d5919139719a0554
Merge: 354f3bb a4f859d
Author: Samuel Izevbizua <80903513+samuelizevbizua@users.noreply.github.com>
Date:   Tue Dec 2 01:32:44 2025 +0000

    Add .gitignore file to exclude R project files
```

```
commit 354f3bba47ea032666a26d2777e704ef787d2bad
Author: Samuel Izevbizua <80903513+samuelizevbizua@users.noreply.github.com>
Date:   Tue Dec 2 01:30:30 2025 +0000

      Add .gitignore file to exclude R project files

 .gitignore | 3 +++
 1 file changed, 3 insertions(+)
 create mode 100644 .gitignore

commit a4f859d0dda78c6fd68d99e83243dff3e56223cd
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Mon Dec 1 13:25:59 2025 +0000

    Update Rhistory file

 .Rhistory | 205 +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 1 file changed, 205 insertions(+)

commit 395872150635e6b03d86ea6747cfb615b7ea9f43
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Mon Dec 1 13:23:22 2025 +0000

    I've done the visulisations for the otop and bottom 60 categories.

 .DS_Store                                          | Bin 8196 -> 10244 bytes
 .Rhistory                                          |  22 ++++++
 .Rproj.user/5362696E/pcs/files-pane.pper           |   2 +-
 .Rproj.user/5362696E/pcs/source-pane.pper          |   2 +-
 .Rproj.user/5362696E/pcs/workbench-pane.pper       |   2 +-
 .Rproj.user/5362696E/sources/prop/INDEX            |   2 +
 .../sources/session-65c5a2dc/0B0E832B-contents     |  11 ---
 .../sources/session-65c5a2dc/1E6C17EB-contents     |   0
 .../5362696E/sources/session-65c5a2dc/2C60E2C3     |  34 --------
 .../sources/session-65c5a2dc/2C60E2C3-contents     |   0
 .../sources/session-65c5a2dc/3CAFC681-contents     |   0
 .../sources/session-65c5a2dc/685056E9-contents     |   0
 .../5362696E/sources/session-65c5a2dc/72CF8A96     |  34 --------
 .../sources/session-65c5a2dc/72CF8A96-contents     |   0
 .../sources/session-65c5a2dc/98E2C98F-contents     |   9 ---
 .../sources/session-65c5a2dc/A6BB6601-contents     |   0
 .../sources/session-65c5a2dc/DF0D0F56-contents     |   0
 .../sources/session-65c5a2dc/EFD3C7A9-contents     |  64 --------------
 .../5362696E/sources/session-65c5a2dc/lock_file    |   0
 .Rproj.user/shared/notebooks/paths                 |   3 +-
 .gitignore                                         |   4 +
 TeamResearchPractical_ds282.Rproj                  |  13 +++
 assets/.DS_Store                                   | Bin 0 -> 10244 bytes
 assets/HistogramPlots/bottom60Histogram.png        | Bin 0 -> 39836 bytes
 assets/HistogramPlots/top60Histogram.png           | Bin 0 -> 40515 bytes
 assets/ScatterPlots/bottom60Scatter.png            | Bin 0 -> 35472 bytes
```

```
assets/ScatterPlots/top60Scatter.png                        | Bin 0 -> 38019 bytes
scripts/Combined.R                                          |  87 +++++++++++++++++++++
28 files changed, 133 insertions(+), 156 deletions(-)
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/0B0E832B-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/1E6C17EB-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/2C60E2C3
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/2C60E2C3-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/3CAFC681-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/685056E9-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/72CF8A96
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/72CF8A96-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/98E2C98F-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/A6BB6601-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/DF0D0F56-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/EFD3C7A9-contents
delete mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/lock_file
create mode 100644 .gitignore
create mode 100644 TeamResearchPractical_ds282.Rproj
create mode 100644 assets/.DS_Store
create mode 100644 assets/HistogramPlots/bottom60Histogram.png
create mode 100644 assets/HistogramPlots/top60Histogram.png
create mode 100644 assets/ScatterPlots/bottom60Scatter.png
create mode 100644 assets/ScatterPlots/top60Scatter.png
create mode 100644 scripts/Combined.R

commit 690b6d52d0a7ba87e26c361e81b07cc3d736a80a
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Fri Nov 28 18:28:30 2025 +0000

    I have added the report file  for working

 7COM1079_Final report_template.docx | Bin 0 -> 36098 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 7COM1079_Final report_template.docx

commit 417757e42daa8f6df717861b1879bb1c505f32a9
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Thu Nov 27 16:16:35 2025 +0000

    I have added The R Script for the Top 50 / Buttom 50 GDP Correlation analysis

 scripts/world happiness2.R | 15 ++++++++++++++
 1 file changed, 15 insertions(+)
 create mode 100644 scripts/world happiness2.R

commit f507665a547ca903d75e10264db3c5a3fe65a404
Author: Daniel Tule <139072642+lescrowe@users.noreply.github.com>
Date:   Thu Nov 27 15:48:18 2025 +0000

    I've renamed some columns with long names.
```

```
.DS_Store                                       | Bin 0 -> 8196 bytes
.Rhistory                                       |   4 ++
.Rproj.user/5362696E/pcs/files-pane.pper        |   9 +++
.Rproj.user/5362696E/pcs/source-pane.pper       |   3 +
.Rproj.user/5362696E/pcs/windowlayoutstate.pper |  14 +++++
.Rproj.user/5362696E/pcs/workbench-pane.pper    |   5 ++
.Rproj.user/5362696E/rmd-outputs               |   5 ++
.Rproj.user/5362696E/saved_source_markers      |   1 +
.Rproj.user/5362696E/sources/prop/0FC0FB6F      |   7 +++
.Rproj.user/5362696E/sources/prop/7B4F1A7B      |   6 ++
.Rproj.user/5362696E/sources/prop/F0D65BFC      |   4 ++
.Rproj.user/5362696E/sources/prop/FF3DE595      |   4 ++
.Rproj.user/5362696E/sources/prop/INDEX         |   4 ++
.../sources/session-65c5a2dc/0B0E832B-contents  |  11 ++++
.../sources/session-65c5a2dc/1E6C17EB-contents  |   0
.../5362696E/sources/session-65c5a2dc/2C60E2C3  |  34 ++++++++++
.../sources/session-65c5a2dc/2C60E2C3-contents  |   0
.../sources/session-65c5a2dc/3CAFC681-contents  |   0
.../sources/session-65c5a2dc/685056E9-contents  |   0
.../5362696E/sources/session-65c5a2dc/72CF8A96  |  34 ++++++++++
.../sources/session-65c5a2dc/72CF8A96-contents  |   0
.../sources/session-65c5a2dc/98E2C98F-contents  |   9 +++
.../sources/session-65c5a2dc/A6BB6601-contents  |   0
.../sources/session-65c5a2dc/DF0D0F56-contents  |   0
.../sources/session-65c5a2dc/EFD3C7A9-contents  |  64 +++++++++++++++++++
.../5362696E/sources/session-65c5a2dc/lock_file |   0
.Rproj.user/shared/notebooks/patch-chunk-names  |   0
.Rproj.user/shared/notebooks/paths             |   3 +
scripts/ColRename.R                             |   9 +++
29 files changed, 230 insertions(+)
create mode 100644 .DS_Store
create mode 100644 .Rhistory
create mode 100644 .Rproj.user/5362696E/pcs/files-pane.pper
create mode 100644 .Rproj.user/5362696E/pcs/source-pane.pper
create mode 100644 .Rproj.user/5362696E/pcs/windowlayoutstate.pper
create mode 100644 .Rproj.user/5362696E/pcs/workbench-pane.pper
create mode 100644 .Rproj.user/5362696E/rmd-outputs
create mode 100644 .Rproj.user/5362696E/saved_source_markers
create mode 100644 .Rproj.user/5362696E/sources/prop/0FC0FB6F
create mode 100644 .Rproj.user/5362696E/sources/prop/7B4F1A7B
create mode 100644 .Rproj.user/5362696E/sources/prop/F0D65BFC
create mode 100644 .Rproj.user/5362696E/sources/prop/FF3DE595
create mode 100644 .Rproj.user/5362696E/sources/prop/INDEX
create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/0B0E832B-contents
create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/1E6C17EB-contents
create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/2C60E2C3
create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/2C60E2C3-contents
create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/3CAFC681-contents
create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/685056E9-contents
create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/72CF8A96
create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/72CF8A96-contents
```

```
 create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/98E2C98F-contents
 create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/A6BB6601-contents
 create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/DF0D0F56-contents
 create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/EFD3C7A9-contents
 create mode 100644 .Rproj.user/5362696E/sources/session-65c5a2dc/lock_file
 create mode 100644 .Rproj.user/shared/notebooks/patch-chunk-names
 create mode 100644 .Rproj.user/shared/notebooks/paths
 create mode 100644 scripts/ColRename.R

commit ffd715865c84bc07b4b2bda200d66fd7f7e887dd
Author: KimtaiKogoKevin <kk24acz@herts.ac.uk>
Date:   Thu Nov 27 13:37:07 2025 +0000

    change to working with git file  regarding not pushing to main because the tutors will

 .../Group A14 Demo Presentation Slides.pptx        | Bin 0 -> 135819 bytes
 Working_with_git_branches.md                       | 107 ++++++++++++----------
 2 files changed, 54 insertions(+), 53 deletions(-)
 create mode 100644 PresentationSlides/Group A14 Demo Presentation Slides.pptx

commit 4839220088420c5daf18760009d9dd3a4f95fd2d
Merge: bbdb68a 169e809
Author: KK_Kimutai <kk24acz@herts.ac.uk>
Date:   Thu Nov 27 11:30:09 2025 +0000

    Merge pull request #4 from KimtaiKogoKevin/GideonGanah

    I added the scatter plot

commit 169e809cf62a7bfe56ff461a856f53786a03f6b5
Author: Gideon Ganah <gg24abh@herts.ac.uk>
Date:   Thu Nov 27 09:58:01 2025 +0000

    I added the scatter plot

 Scatter Plot.png | Bin 0 -> 7256 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 Scatter Plot.png

commit bbdb68a9b745b565093f6b220d2b3d788df06624
Merge: d7a9b91 e28ae00
Author: KK_Kimutai <kk24acz@herts.ac.uk>
Date:   Thu Nov 27 00:55:42 2025 +0000

    Merge pull request #3 from KimtaiKogoKevin/KogoKevin

    Created scripts directory where I have saved two scripts , one for di...

commit e28ae00b3519515cc7639264e2aab09bc25f3a9c
Author: KimtaiKogoKevin <kk24acz@herts.ac.uk>
Date:   Thu Nov 27 00:54:01 2025 +0000
```

```
    Created scripts directory where I have saved two scripts , one for dividing the dataset

 scripts/HappinessScore_normalDist.R        | 23 +++++++++++++++++++++++
 assign_region.R => scripts/assign_region.R |  0
 2 files changed, 23 insertions(+)
 create mode 100644 scripts/HappinessScore_normalDist.R
 rename assign_region.R => scripts/assign_region.R (100%)

commit d7a9b914d3e94e459320ff87faf9d972357bd904
Merge: 2836f16 3250c62
Author: KK_Kimutai <kk24acz@herts.ac.uk>
Date:   Tue Nov 25 19:50:45 2025 +0000

    Merge pull request #2 from KimtaiKogoKevin/KogoKevin

    a function to map the data into different regions

commit 3250c62f43f3ec64c4e3da90fc96ab7ef022ce2b
Author: KimtaiKogoKevin <kk24acz@herts.ac.uk>
Date:   Tue Nov 25 19:49:00 2025 +0000

    a function to mmap the data into different regions

 assign_region.R | 64 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 1 file changed, 64 insertions(+)
 create mode 100644 assign_region.R

commit 2836f16c895d79776bd30b9312b283cee91a377f
Merge: bb87bce b2c99c6
Author: KK_Kimutai <kk24acz@herts.ac.uk>
Date:   Fri Nov 14 01:47:27 2025 +0000

    Merge pull request #1 from KimtaiKogoKevin/KogoKevin

    Merging to main branch  the two plots that show distribution of independent and dependen

commit b2c99c6bce64bf548dc704a58ac6b781fed2cdc5
Author: KimtaiKogoKevin <kk24acz@herts.ac.uk>
Date:   Fri Nov 14 01:41:56 2025 +0000

    Distribution of chosen variables for research question with correction

 assets/HistogramPlots/Distribution_of_GDP_perCapita.png | Bin 19693 -> 0 bytes
 .../HistogramPlots/Distribution_of_GDP_per_capita.png   | Bin 0 -> 19941 bytes
 2 files changed, 0 insertions(+), 0 deletions(-)
 delete mode 100644 assets/HistogramPlots/Distribution_of_GDP_perCapita.png
 create mode 100644 assets/HistogramPlots/Distribution_of_GDP_per_capita.png

commit 84fec0218ed8d4fcd34b0a8c7da2f01b34fa6c64
Author: KimtaiKogoKevin <kk24acz@herts.ac.uk>
```

```
Date:   Fri Nov 14 01:32:37 2025 +0000

    Distribution of chosen variables for research question

 assets/HistogramPlots/Distribution_of_GDP_perCapita.png | Bin 0 -> 19693 bytes
 assets/HistogramPlots/Distribution_of_HapinessScore.png | Bin 0 -> 19693 bytes
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 assets/HistogramPlots/Distribution_of_GDP_perCapita.png
 create mode 100644 assets/HistogramPlots/Distribution_of_HapinessScore.png

commit bb87bcedbde90310bbf6fbd6570d4c2a237635b8
Author: KimtaiKogoKevin <kk24acz@herts.ac.uk>
Date:   Thu Nov 13 20:37:20 2025 +0000

    change to readme.md

 Readme.md | 4 +---
 1 file changed, 1 insertion(+), 3 deletions(-)

commit 129c601ff6425c444b1da99e057b08d78a988f35
Author: KimtaiKogoKevin <kk24acz@herts.ac.uk>
Date:   Thu Nov 13 20:25:14 2025 +0000

    Instructions for team memebers to work on their own branches , DO NOT WORK ON MAIN BRANC

 Working_with_git_branches.md | 103 ++++++++++++++++++++++++++++++++++++++++++
 1 file changed, 103 insertions(+)
 create mode 100644 Working_with_git_branches.md

commit cb7062559b984ec110bf520f846fcd6abfa7fcf5
Author: KimtaiKogoKevin <kk24acz@herts.ac.uk>
Date:   Thu Nov 13 20:13:18 2025 +0000

    Initialization of repo with Readme file

 2015_original_dataset.csv | 159 +++++++++++++++++++++++++++++++++++++++++++
 Readme.md                 |  75 +++++++++++++++++++++
 2 files changed, 234 insertions(+)
 create mode 100644 2015_original_dataset.csv
 create mode 100644 Readme.md
```