*Please delete all the cursive text before submission. It is here just for your reference*.

*Further: data set – DS, research question – RQ*

*The mark (****x words****) after each subchapter states the word count limit. This indicates the expected amount of information which you can exceed by 10% without losing the mark.*

7COM1079-0901-2024 - Team Research and Development Project

Final report title: (*the topic of your research.)*

Group ID:

Dataset number:

Prepared by: *[Name and ID of submitting student first],*

*[Name and ID of other group members]*

***Please make sure*** *the document spelled correctly (including image labels, section headings, and table of contents). Please use correct punctuation.*

*Make sure your report is grammatically correct.*

University of Hertfordshire

Hatfield, 2024

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Harvard (author, date) format.

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*The list below outlines the chapter/subchapter numbers, names, word count limits, and explanations of what to write in each section.*

1. Introduction

* 1. Problem statement and research motivation **(100 words)**
* *What is the problem in the area we want to learn more about (motivation for study).*
* *Use at least one citation from related literature for top marks.*
  1. The data set **(75 words)**
  2. Research question **(50 words).** *Explain how you are going to answer your RQ.* **(50 words)**
  3. Null hypothesis and alternative hypothesis (H0/H1) **(100 words)**

1. Background research
   1. Research papers (at least 3 relevant to your topic / DS) **(200 words)**

* *Was the data set used for some research papers?* *Reference at least 3 relevant research papers to your topic / DS.*
  1. Why RQ is of interest (research gap and future directions according to the literature) **(100 word**s)

1. Visualisation
   1. Appropriate plot for the RQ *output of an R script (NOT a screenshot)* (**50 words)**

* *Explain the choice of the plot.*
* *Anything on the plot from R is not counted towards word count limit*
* *Make sure that the plot is from output of an R script (NOT a screenshot)*
* *Make sure that the plot has a caption or title, X and Y-axis labels, legend if appropriate and units.*
* *Make sure the title or caption and axis labels are informative.*
  1. Additional information relating to understanding the data (optional) (**50 words)**
* *Per plot: explain the purpose and insights.*
  1. Useful information for the data understanding (**50 words)**
* *Summarise key observations from the plot.*

1. Analysis
   1. Statistical test used to test the hypotheses and output (**75 words)**

* *Explain the choice of the test.*
* *Make sure the test is appropriate for the RQ and data.*
  1. The null hypothesis is rejected /not rejected based on the p-value (**100 words)** *(interpret the results)*

1. Evaluation – group’s experience at 7COM1079
   1. What went well **(75 words)**

Our team worked well: analyzing the relationship between types of jobs and term deposit subscriptions required the use of the diverse strengths in our group. Communication was freely flowing; so were ideas. This ensured a great productive environment. Using R to do extensive analysis guaranteed the accuracy and clarity of the findings. The team stayed focused on the shared objectives, and the final products showed the collective efforts taken. Supportive interaction and feedback on the project refined findings at every instance and bolstered teamwork.

* 1. Points for improvement **(75 words)**

Although the project felt like a success, we feel that we did not clearly communicate our research question; this had implications for both the research question itself and the forms of visualization that we completed. There were also times when it was hard to coordinate everyone's schedules, causing some delays to occur. We could do better in the future by clearly defining roles from the outset, checking in more frequently to keep everyone on the same page, and making sure that we understand what the objectives are before proceeding.

* 1. Group’s time management (**50 words)**

We had proper time management through maintaining a proper timeline and concentrating on the most important activities. Though there were minor delays due to some conflicts in scheduling, the team was much dedicated to the project. We met the deadlines by putting in extra effort when needed and hence kept the work going smoothly.

* 1. Project’s overall judgement (**50 words)**

It was a very successful project! We met our objective of extracting trends from term deposit subscriptions and presented the insights in a very clear, actionable manner. Though there were minor challenges, the outcome showed the value of teamwork and determination and gave valuable insights for future strategies.

* 1. Note any changes to group since submission of Assignment 1. Add new or amended GitHub Ids for new members **(75 words, write only if applies to your group arrangements)**
  2. Comment on the GitHub log output **(50 words)**

*Please comment on the GitHub log output, and refer to it as being placed into**Appendix B.*

*From your Git log, select the three most significant commits during this project and include the following for each:*

1. ***Commit Message:***Loaded the dataset in R  
   This commit includes all data preprocessing and cleaning tasks performed on the dataset before creating visualizations.
2. ***Commit Message: Created the table for the chi square test, this commit docunments the statistical testing performed on the dataset***
3. ***Commit Message:Plotted a stacked bar chat visualisation created to address the research question***

1. Conclusions
   1. Results explained (**75 words)**
   2. Interpretation of the results (**75 words)**

* *Interpretation of what the results mean in terms of your RQ and the effect this may have on your population and the wider context of your topic.*
  1. Reasons and/or implications for future work, limitations of your study (**50 words)**

1. Reference list ***(not included in the work count)***

Harvard (author, date) format.

1. Appendices
2. R code used for analysis and visualisation ***(not included in the word count)***

Analysis.R code with the appropriate statistics to test the hypotheses.

* ***No word count****, but ensure the code is without redundant lines, well-commented and produces the correct output.*
* *Make sure it runs (look in Rscript.log for output from a statistical test)*
* *It should compute appropriate statistics to test the hypotheses*

1. GitHub log output.