# Project Report

**For**

**WHATSAPP DATA ANALYSIS SYSTEM.**

By GROUP X

Table of Contents

[Project Report 1](#_Toc536785974)

[1 Purpose 3](#_Toc295154954)

[2 Intended Audience 3](#_Toc2055532867)

[3 Objective 3](#_Toc1982788781)

[4 Software used during the project 3](#_Toc786370066)

[5 Hardware used during the project 4](#_Toc1424344344)

[6 Skills learnt 4](#_Toc164716154)

[7 Challenges faced 4](#_Toc1258306341)

[7.1 Technical challenges 4](#_Toc304378806)

[8 Project Experiences 5](#_Toc145265055)

[8.1 Positive Experiences 5](#_Toc320432067)

[8.1.1 Discussions 5](#_Toc165655201)

[8.1.2 Good interface design 5](#_Toc458073963)

[8.1.3 Large amount of motivation 5](#_Toc2002212086)

[8.1.4 Transparency 5](#_Toc253820941)

[8.2 Negative Experiences 5](#_Toc1683721840)

[8.2.1 System integration 5](#_Toc1269753613)

[8.2.2 Data collection 6](#_Toc842470975)

[8.2.3 Time factor 6](#_Toc1506391691)

[9 Conclusion 6](#_Toc1179343066)

# Purpose

Group X as part of our second year recess project prepares this report document and we confirm that it is the original work done by group X members.

The main purpose of this report is to bring out the analysis, software used, Hardware used, skills learnt and challenges faced by Group 58 during analysis of WhatsApp data.

This report describes what we learnt from the development of this project during the second year recess term.

# Intended Audience

This document is for social media analysts that will put this project to use particularly for WhatsApp data. However, individuals not neccessarilly social media analysts may read the report.

# Objective

WhatsApp data contains information on specific dates, time, sender of messages for particular chats. WhatsApp chats cover alot of sentiments in different conversations.

The main objective of this report is to

* Clean and categorize data according to time, date, sender and messages.
* Determine the number of messages sent by each person.
* Determine the most posted word.
* Determine the number of messages in particular time of the day
* Determine the sentiments in particular chats.

# Software used during the project

The following table shows the software used and the purpose.

|  |  |
| --- | --- |
| **Software** | **Usage** |
| Ubuntu 16.04 LTS | Main Operating system |
| Microsoft word | Word processor |
| Microsoft Visio | Diagram drawings |
| Sniping tool for windows | Taking screenshots of images for documentation purpose |
| R studio | Integrated development environment for R programs |

# Hardware used during the project

The following hardware used during the project. The table below shows the hardware used and the purpose.

|  |  |
| --- | --- |
| **Hardware** | **Purpose** |
| Laptop | Used to access the system and also to develop the system |
| Mouse | Navigation on the GUI of the system |

# Skills learnt

Development of the WhatsApp data analysis enabled the group X members to acquire some skills in the process. During development, we learnt the following skills.

* Development of the system as a team
* Communication skills with supervisors
* Time management
* Source code management using GitHub
* Documentation of software including
  + Concept paper
  + Software requirements specification
  + Software design document
  + Analysis report
  + Project Report
* Data cleaning
* R programming
* Data analysis
* Writing R packages
* Data security and safety
* Diagram drawing with Microsoft Visio
* Using bootstrap CSS library
* Using JQuery JavaScript library
* R studio IDE usage

# Challenges faced

## Technical challenges

Now we know how much is important to be ready for all kinds of related technical problems. Once our meetings were cancelled, since we could not get things to work as expected. The main reason was that we were still not experienced enough will all the kinds of problems that could happen.

# Project Experiences

## Positive Experiences

### Discussions

Since the complete project was done in one place, we decided to use the discussion as the primary way of communication. Discussion was great since we did not have to spend lots of time and everyone involved in a communication could get the same amount of time and attention as it was required.

We also used e-mail as the primary way of exchanging the files since it uses push technology and notifies the user as soon as some change occurs. It is also much easier to use if all of the participants do not have constant Internet connection but have only limited access to the Internet as it was in our case.

### Good interface design

Since the interface between two major parts of the project was already defined at the first week of the project and the final version was concluded two weeks later, we knew exactly what we must do and we had no problems with final integration that was the most feared part of the project.

### Large amount of motivation

We managed to get the quite high team spirit and everyone involved into a project was doing his best. No one had to do things that he was not able to do and everyone had the same goal, to be finished on time with satisfying results. This kind of team spirit got some things moving and finished on time even if there was extremely little amount of time given.

### Transparency

A lot of motivation was raised since the complete project was well defined at the beginning and since everyone knew exactly what was expected from them and what should their output be. Without each team member knowing exact requirements team spirit could have been lost.

## Negative Experiences

### System integration

We faced challenges in attempts to integrate Shiny package in R code during the design of the system.

### Data collection

Data that we needed for this project was downloaded from our class group chat. We had a challenge of cleaning up the data but later worked around it. We also met a challenge of umbigious date formats which kept on poping up error.

### Time factor

We had a challenge of having limited time but it normal, time has never been a friend to human.

# Conclusion

Special thanks to the members of group X for their consistent efforts during this project from the data collection to this final stage of writing this report. Appreciation to the Recess supervisors for giving tutoring and guidance of this project.

We are grateful to have successfully amid the challenges we faced completed this project