concordance=TRUE

Coursework
Group 2 Report - CMM507

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Objective

You need to study carefully the .rnw File, and see how this file was generated. This lab should help you understand the followings:

- Gain more understanding of reproducible report using LaTeXand R
- You will learn how to insert chunks of code in your document and adapt its settings (options) to generate graphics using R code
- You will learn how to generate tables within your document directly from your excel sheets (interactive reporting)
- You will learn how to export BibTex items and cite different papers from within your documents
- This lab document should help you as a starting template for your coursework
- Please study carefully the source file and the data files associated with this lab documents (peers, meetings excel sheets)

1 Problem Statement

1.1 Overview

1.2 Motivation

1.3 Objectives

The main objectives of this project can be outlined as follows:

2 Research

Knitr package was used in this work[**knitr2013**], more details about clustering can be found at [**ELYAN2017220**]. A detailed description of class-decomposition can be found at [**Elyan2016**]. This method was applied to process Engineering Drawings [**8489087**].

3 Methods

3.1 Data Collection

3.2 Exploration - Pre-processing

In this project iris was used, the dataset is made of 150 rows and four features.

Notice how we generate graphics within the sweave document. Check the following code, we will create a function that either finds x^2 or x^3 subject to parameters passed in the function

```
# create a vector of doubles
myNumbers <- seq(from=-1,to=1,by=.1)

# function definition
toPower <- function (x,p=2) {
    if (p==2)
        return (x*x)
    else if (p==3)
        return (x*x*x)
    return (x*x)
}

# call function
squared <- toPower(myNumbers)
cubes <- toPower(myNumbers,3)
```

An easy way to check that our function is doing the right calculation is to plot the results. The code below will generate a figure similar to Figure **??**:

```
plot(myNumbers,cubes,type='b',xlab = 'x', ylab = 'x*x',frame=FALSE,col='blue')
```

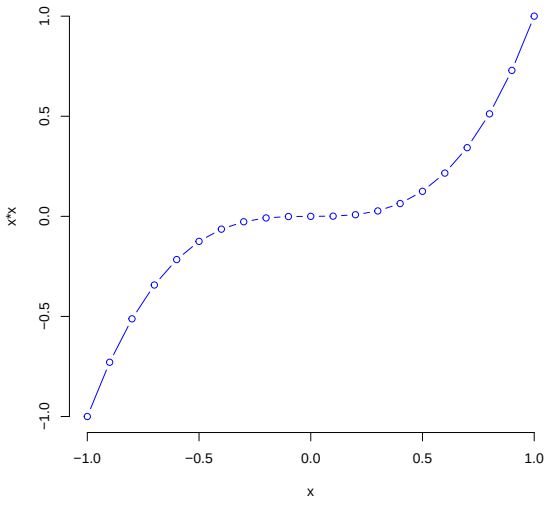

Figure 1: Simple Plot of $f(x) = x^3$ Function

3.3 Experiments

Now we can show how the function $f(x) = x^2$ looks like (Figure **??**)

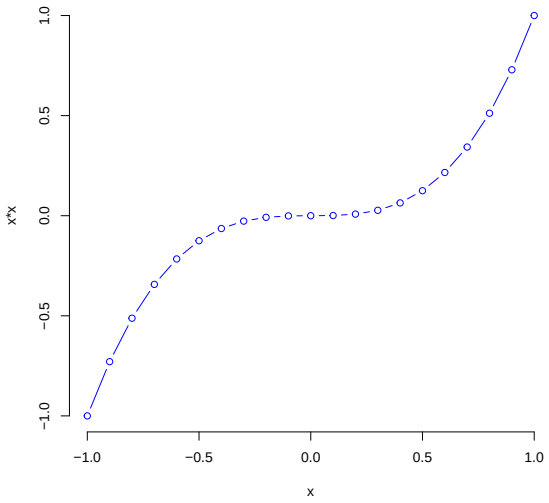

Figure 2: Simple Plot of $f(x) = x^3$ Function

4 Conclusion and Future Work

5 Project Management

5.1 Project Progress

Table 1: Record of Team Meetings

No	Date	Topic	John	Ali	Ann	Mon
1.00	2019-02-05	Team Formation Formation Formation Formation Formation	yes	yes	yes	yes
2.00	2019-02-06	Team Formation	yes	yes	yes	yes
3.00	2019-02-07	Team Formation	yes	yes	yes	yes
4.00	2019-02-08	Team Formation	yes	yes	yes	yes
5.00	2019-02-09	Team Formation	yes	yes	yes	yes
6.00	2019-02-10	Team Formation	yes	yes	yes	yes
7.00	2019-02-11	Team Formation	yes	yes	yes	yes
8.00	2019-02-12	Final Meeting	yes	yes	yes	yes

5.2 Peer-assessment

Same as we did with Table **??**, we can also generate the peer-assessment table providing that we record things in an excel sheet.

References

Table 2: Peer Assessment out of 100

Peer.Review	Alex	Georgios	Karen	Roshi	Stuart
Alex	100	100	100	100	100
Georgios	100	100	100	100	100
Karen	100	100	100	100	100
Roshi	100	100	100	100	100
Stuart	100	100	100	100	100