**Assignment 9 Introduction to R**

For each exercise include the ‘R’ code you use.

Text

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**Exercise 1.8.1**

**Load the ChickWeight dataset which comes as part of the R installation using the command:**

> data(ChickWeight)

**This data set is called ChickWeight and consists of a single data frame containing the weights of 50 chicks over 21 days (12 time points). The chicks have been split into four groups with each group fed a different diet.**

***i) Make a plot of the weight progression of Chick 1 over the 21 days and save it as a PNG file. Hint: Start by subsetting the data frame such that you have the data for Chick 1. For this chick, plot how its weight increases over the 21 days using the* plot *function. Plot time on the x axis and the weight on the y axis.***

**Chart, scatter chart

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***ii) Compare the weight of Chick 1 on day 21 and when it was born. How many times heavier is it?***

4.88 times heavier

***iii) Which of the chicks has the largest weight at 21 days?  
Hint: Look at the documentation for* which.max**

**Chick 35**

***iv) Make histograms for the weights of the chicks on the four different diets after 21 days. Save them as PNG files.***

Chart, histogram

Description automatically generatedChart, histogram

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***v) Calculate the mean and standard deviations of the chicks on the four different diets after 21 days. On which diet do the chicks appear to be heavier at 21 days?***

Mean and SD can be found in the PNGs above. Chicks have a mean weight of 270 on Diet 3 which is the heaviest of the diets.