Thesis Title

Thesis Subtitle

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Dissertation for MSc Data Science

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Abstract

My abstract goes here...

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Acknowledgements

I would like to thank ...

Chapter 1

Introduction

1.1 Background information

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- text 3
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- more text

1.2 Literature review

One important development was made by Abrams, Gillies, and Lambert (2005).

Chapter 2

Methods

2.1 Important main method

Initial modelling was performed using linear regression as defined in equation (2.1).

$$y_i = \beta_0 + \beta_1 x_i + \varepsilon_i,\ \varepsilon_i \overset{iid}{\sim} N(0, \sigma^2) \tag{2.1}$$

2.2 Additional method

- text 6
- text 7

Chapter 3

Results

3.1 Main results

And here is an example table of regression coefficients in Table 3.1.

```
mod <- lm(mpg ~ wt, data = mtcars)
coefcis <- cbind(coef(mod), confint.default(mod))
colnames(coefcis) <-
  c("Estimate", "95% CI lower limit", "95% CI upper limit")
knitr::kable(coefcis,
             digits = 2,
             booktabs = TRUE,
             caption = "Parameter estimates from regression of mpg on weight.") %>%
  kable_styling(latex_options = c("HOLD_position"))
```

Table 3.1: Parameter estimates from regression of mpg on weight.

	Estimate	95% CI lower limit	95% CI upper limit
(Intercept)	37.29	33.61	40.97
wt	-5.34	-6.44	-4.25

Example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text.

An example of a figure is shown in Figure 3.1.

```
plot(pressure, pch = 19, type = "b")
```

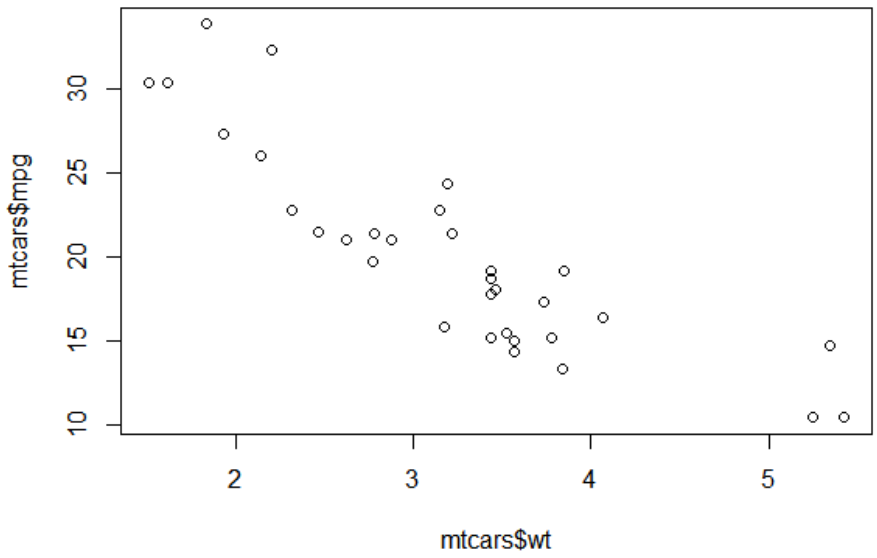

Figure 3.2: Another example figure.

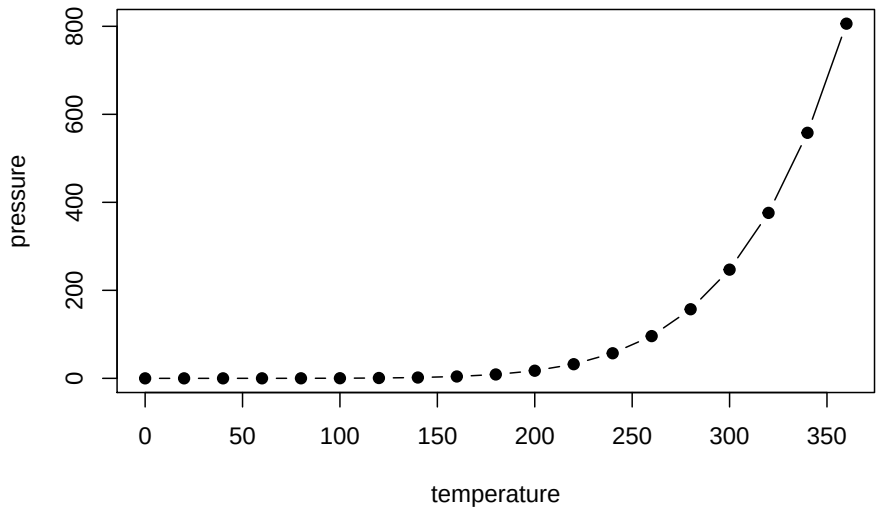

Figure 3.1: An example figure.

And we can include image files directly, such as Figure 3.2.

```
knitr::include_graphics("img/mtcars-scatter.png")
```

To figure code chunks add the chunk option `fig.pos="H"` to use the LaTeX float package to try and

position the figure where the code appears.

Also, this is how to reference a section, e.g. the Introduction was chapter 1 and the Literature Review was section 1.2.

Chapter 4

Discussion

4.1 What I found

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- text 3
- more text
- more text

4.2 What it means

- text 6
- text 7

Chapter 5

References

Abrams, K. R., C. L. Gillies, and P. C. Lambert. 2005. "Meta-Analysis of Heterogeneously Reported Trials Assessing Change from Baseline." *Statistics in Medicine* 24: 3823–44.

Appendix of R code

```
model <- lm(y ~ x1 + x2, data = df)
summary(model)
```