My thesis title

My thesis subtitle

Full Name

A thesis presented for the degree of
Management Science and Technology

Management Science and Technology
Athens University of Economics and Business
Greece
DD/MM/YYYY

My thesis title

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Abstract

Your abstract is simply a short, stand-alone summary of the thesis that others can use as an overview. It is recommended that you first finish writing your thesis and then write this part. Keep in mind to inform the reader about the problem you recognised, the purpose of your thesis, the process you are following and your conclusions.

Contents

Chapter 1

FIRST CHAPTER

1.1 LATEX

1.1.1 Basics

- To run your code and produce the pdf file or update it run the following command:

```
1    $ pdflatex thesis
```

- To create sections you add `\section{Section's name}`.

- To add subsections you add `\subsection{Subsection's name}`.

- For line break you use `\\`.

- To center text you can either use `\centering` or wrap your text around `\begin{center}` and `\end{center}` (example in abstract).

- To reference another part of the document, like a chapter, a figure, a table, you need to set a label for that part and then use `\ref{part's label}`. It will look like this: 1.1.2.

1.1.2 Citations

In order to create citations you first need to include your sources in bibliography.bib file. The first attribute of each source is set by you and is basically an identification for the corresponding source. To cite you use that attribute.

- In case you want to mention the name of the author (for example in the beginning of a paragraph), you can use `\textcite{textciteExample}` and it will look like this B. Author (2020).

- In case you want to make the complete citation you can use `\autocite{autociteExample}` and it would look like this (A. Author, 2020).

- To refer to specific pages you can add the pages inside brackets. `\autocite[1]{example}` for single page or `\autocite[1-2]{example}` for multiple pages. They should look like this, (A. Author, 2020, p. 1) and (B. Author, 2020, pp. 1–2).

- Whenever you add a new source in your bibliography.bib file and add a citation, you need to run the following sequence on your cmd:

```
1    $ pdflatex thesis
2    $ biber thesis
3    $ pdflatex thesis
```

- You can include multiple authors separating them by and. For example 'John Doe and Jane Doe'.

1.1.3   Bulleted Lists

You can create bulleted lists by including your text inside `\begin{itemize}` and `\end{itemize}`. Start each bulltet point with `\item`.

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1.2 Figures

You can reference figures inside text using \ref and the figure label inside curly brackets like this \ref{image_label} and the result looks like this 1.2.1.
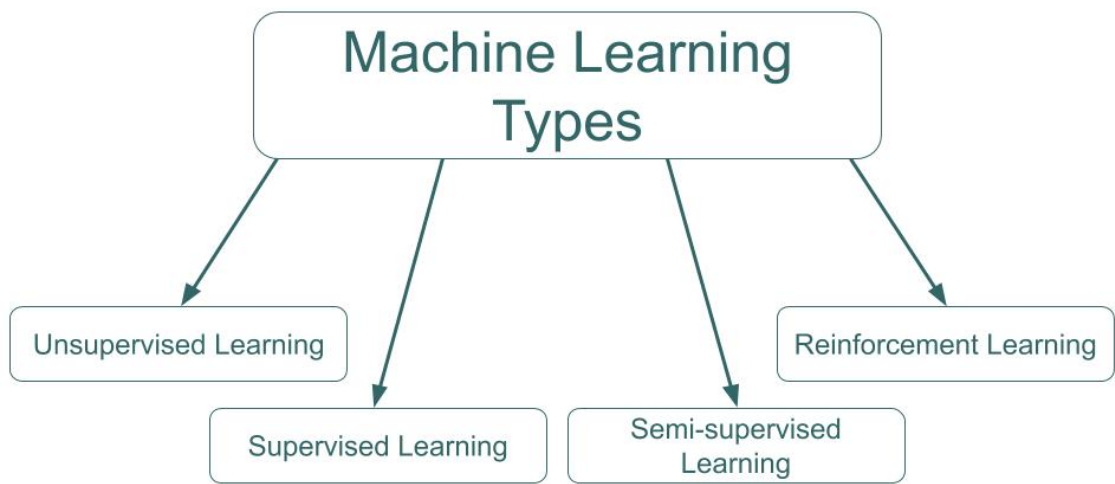
A single figure look as follows:

Figure 1.2.1: My caption.

You also have the ability to add two images in the same figure. Depending on which label you are using, you can reference the whole figure 1.2.2, or the images seperately 1.2.2a, 1.2.2b. The figure looks as follows:
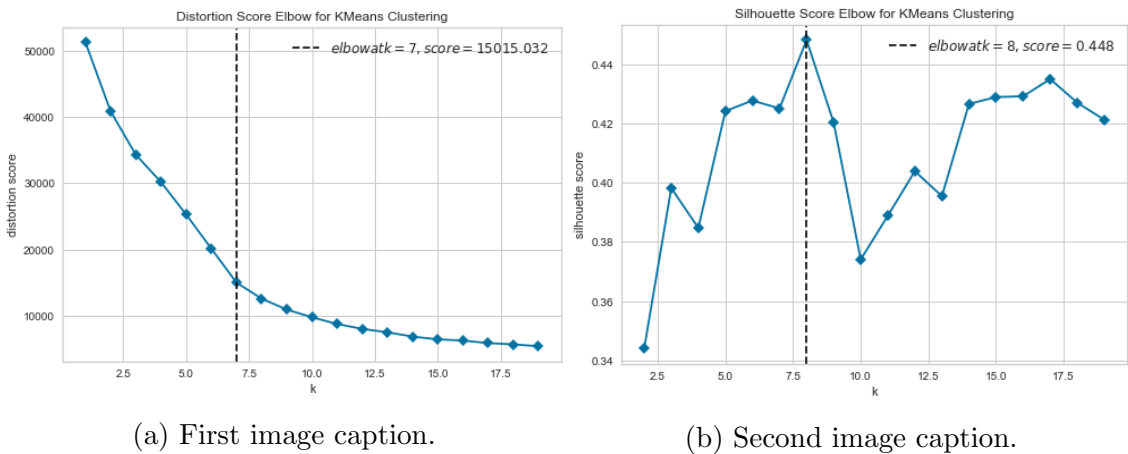

(a) First image caption.

(b) Second image caption.

Figure 1.2.2: General caption for both figures.

1.3   Mathematics and Algorithms

In case you want to write mathematical equations, you can do this either inline, or using the equation display.

To enter math mode inline you need to include text between \(and \), for example to print 2^3 you should write \(2^{3}\).

In case you would like to use equation display you need to wrap your equations around \begin{eqnarray*} and end{eqnarray*}. The equation would look like this:

$$d_{ij} = \sqrt{(c_i - x_j)^2}$$

There is a large amount of math symbols that you can use to write your equations, too many to mention here, but if you google latex math symbols you should be able to find many cheat sheets to help you complete your equations.

To write pseudocode you can wrap your text around \begin{algorithm} and \end{algorithm}. To write the expected input you can write \KwInput{input} and the expected output using \KwOutput{output}.

An example is illustrated below:

Algorithm 1.1: Kmeans

Input: $D = \{x_1, x_2, ..., x_n\}$
          K initial centroids

Output: K cluster sets

1 **while** *termination condition is not reached* **do**
2 | Assign each element to the cluster of the closest centroid.
3 | Recompute the new centroids.
4 **end**

Chapter 2

SECOND CHAPTER

2.1   First Section

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2.2   Second Section

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2.3   Third Section

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Chapter 3

THIRD CHAPTER

3.1   First Section

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3.2   Second Section

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3.3   Third Section

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Chapter 4

CONCLUSIONS

4.1   First Section

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Bibliography

Author, A. (2020). Article title. *Journal, 17*(4), 303–314. https://doi.org/10.1177/1356766711423322

Author, B. (2020). *Book title.*