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Thesis Title

by

Taro Aizu

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The thesis titled

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by

Taro Aizu

is reviewed and approved by:

Chief referee

Senior Associate Professor Date

Jiro Fukushima

Professor Date

Fuga Fuga

Associate Professor Date

Piyo Piyo

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List of Abbreviations

PC	Personal Computer
UoA	University of Aizu
WS	Work Station

List of Symbols

$\boldsymbol{a}$	Vector
$\boldsymbol{A}$	Matrix
$\mathbb{R}$	Set of real numbers

Acknowledgment

Abstract

Chapter 1

Introduction

Chapter 2

Body

2.1 Figure and Table

In this section, we give some practical examples of inserting figure and table.

If you insert some figures, you should use `figure` environment. For example, you put the following code (Listing 2.1) and you can see Figure 2.1.

Listing 2.1: Example of Figure 1

```
\begin{figure}[htbp]
  \centering
  \includegraphics[scale=0.45]{./Figure/computer_keyboard_hand_itai.png}
  \caption{Illustration of you writing the master thesis}
  \label{fig:itai}
\end{figure}
```

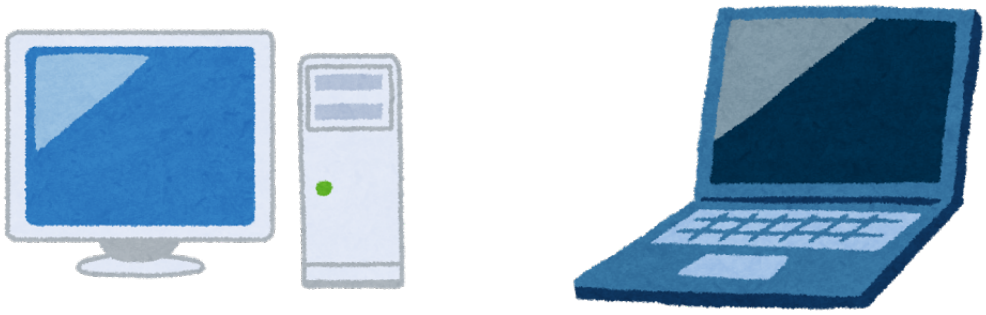
Figure 2.1: Illustration of you writing the master thesis

Next example is a little more complex than previous one. If you arrange some figures horizontally, you put the following code (Listing 2.2) and you can see Figure 2.2. Moreover, using `\ref{fig:desktop}` or `\subref{fig:desktop}`, you can get 2.2a or a.

Listing 2.2: Example of Figure 2

```
\begin{figure}[htbp]
```

```
    \begin{minipage}{0.48\hsize}
      \centering
      \includegraphics[scale=0.4]{./Figure/kaden_PC.png}
      \subcaption{Desktop PC}
      \label{fig:desktop}
    \end{minipage}
    \hfill
    \begin{minipage}{0.48\hsize}
      \centering
      \includegraphics[scale=0.4]{./Figure/kaden_laptop.png}
      \subcaption{Laptop PC}
      \label{fig:laptop}
    \end{minipage}
    \caption{Two types of PC}
    \label{fig:pc}
  \end{figure}
```



(a) Desktop PC

(b) Laptop PC

Figure 2.2: Two types of PC

If you insert some tables, you should use `table` environment. For example, you put the following code (Listing 2.3) and you can see Table 2.1.

Listing 2.3: Example of Table 1

```
\begin{table}
  \centering
  \caption{Example of table}
  \label{table:1}
  \begin{tabular}{c|cc|c}
    Name & Price & Number & Subtotal \\
    \hline
    Apple  & 130 & 3 & 390 \\
    Banana &  60 & 8 & 480 \\
    Orange & 100 & 5 & 500 \\
    \hline
    \multicolumn{3}{r|}{Total amount} & 1370
  \end{tabular}
\end{table}
```

2.2 Citation

In this section, we give some examples of citation. If you cite something from books or papers, you must append references in your paper. Using `.bib` file is convenient to

Table 2.1: Example of table

Name	Price	Number	Subtotal
Apple	130	3	390
Banana	60	8	480
Orange	100	5	500
		Total amount	1370

manage references because `.bib` file format of papers has already been made by web service such as google scholar and IEEE Xplore Digital Library.

For example, if you cite a book named "Citation example from a book", you put TEX command `\cite{book1}` and get the following [1]. Similarly, you cite 78 page of a paper named "Citation example from a paper", you put `\cite[p. 78]{paper1}` and get [2, p. 78].

2.3 Abbreviations and Symbols

In this section, we introduce an convenient package named `acro` for abbreviations and symbols. If you show lists of either abbreviations, symbols or both, you should use this package.

Listings 2.4 and 2.5 are example codes of an abbreviation and a symbol respectively. `short` field of abbreviations is the short form of a word, and `long` field is the long form. However, `short` field of symbols should be set a symbol, and `long` field should be written description of the symbol.

Listing 2.4: Example of a definition for an abbreviation

```
\DeclareAcronym{pc}{
  short = PC ,
  long  = Personal Computer ,
  class = abbrev
}
```

Listing 2.5: Example of a definition for a symbol

```
\DeclareAcronym{A}{
  short = $\bm{A}$ ,
  long  = Matrix ,
  sort  = A ,
  class = nomencl
}
```

We can define other words by similar codes, and should make up the definitions into a file (e.g., `./Chapter/Acronym.tex`). If you put `\ac{ws}` and `\acs{A}`, you get Work Station (WS) and $\boldsymbol{A}$ respectively. Another example of output is the following. In this example, we called `\ac{ws}` again, so we obtain a different output than before. On the other hand, `\acs{A}` outputs same result because `\acs{}` command always outputs the short format of abbreviations and symbols.

WS, Personal Computer (PC) and University of Aizu (UoA) are abbreviations whereas $\boldsymbol{A}$, $\boldsymbol{a}$ and $\mathbb{R}$ are part of the symbols.

Chapter 3

Conclusion

References

[1] Someone, *Citation example from a book*. Somewhere, 20XX.

[2] F. Hoge and P. Piyo, “Citation example from a paper,” in *Book*, 20XX, pp. 00–99.