University of Southampton
Electronics and Computer Science

A group design project report submitted for the award of
Master of Engineering

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# Synote Payment System and QA Process

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Electronics and Computer Science
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# ABSTRACT

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# Declaration

# Acknowledgements

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# Chapter 1

# Introduction

## 1.1 Location of files

Chapters go in `chapters` folder. Figures in `images` folder. No content must be written elsewhere. All content must lie in chapters files'. We may need to create files for sections, if chapters get too big.

## 1.2 Writing Content

You must not write live on Overleaf! I cannot emphasize it enough! Download the project as a git repo from the options on overleaf. Then write what you need to write, compile locally, then once everything compiles nice and well, put it on overleaf.

## 1.3 Formatting

End each paragraph with a double backslash always.

### 1.3.1 Labeling

Make sure you label 'every component' with a label like above. Chapters will have labels as `chap:name`, sections as `sec:name` and so on.

#### 1.3.1.1 Naming labels

Use all small alphabets in labels, separated by dash (-).

This way we can refer any Chapter, Section, Table, Figure, sub components etc.

### 1.3.2 Referring Components

You should do bold-face for reference as follows -
**Section 1.3.1.1** is about how to name labels and **Chapter 1** is the introduction.

### 1.3.3 Figures

You should place the figures in the `figures` folder. They should be transparent background in most cases, named all lower cases with dashes. You must label them as `fig:name`

Figure 1.1: Normal figure

All figures must have captions as well. Sub figures may be left caption less, as long as the entire figure has caption.

You can use minipage to insert subfigures as done in **Figure 1.4**. This is the recommended way. Otherwise you can use **Figure 1.3**

The subfigure package has caused me problems before, I suggest against it. Similarly, you can use **Figure 1.6** to have side by side caption or text. You can refer to subfigures as well like **Figure 1.5a** I suggest against it. Use two minipages - one side normal figure, other side text for the figure.

Figure 1.2: Left side image

Figure 1.3: Right side image

Figure 1.4: Subfigures using minipage

(a) Left side image

(b) Right Side Image

Figure 1.5: Side by side figures using subfigures

Figure 1.6: Side label with possibly a large amount of text. This is how you would write it

## 1.4 Adding Tables

Tables must be labeled with usual labeling convention. Also the use of `multicol` package allows for centering text in table fields and merging of fields as shown in the example below.
Referring to a table example: As show in **Table 1.1**.

| Table Title Example | | | |
|---|---|---|---|
| id | Column Heading | Column Heading | Column Heading |
| 1 | Field 1,1 | Field 1,2 | Field 1,3 |
| 2 | Field 2,1 | Field 2,2 | Field 2,3 |
| 3 | Field 3,1 | Field 3,2 | Field 3,3 |

Table 1.1: My Table Example

When a larger table is needed that would fit better on a landscape page, the `rotating` package can be used and a `sidewaystable` defined as shown in the example on the next page: **Table 1.2**.

| Sideways Table Title Example | | | |
|---|---|---|---|
| id | Column Heading | Column Heading | Column Heading |
| 1 | Field 1,1 | Field 1,2 | Field 1,3 |
| 2 | Field 2,1 | Field 2,2 | Field 2,3 |
| 3 | Field 3,1 | Field 3,2 | Field 3,3 |

Table 1.2: My Sideways Table Example

## 1.5 Code Listing

You can add code snippets as seen in **Listing 1.5** or **Listing 1.5** full width or mini page listing.

```
Name.prototype = {
  methodName: function(params){
    var doubleQuoteString = "
        some text";
    var singleQuoteString = '
        some more text';
    // this is a comment
    document.createElement('h3')
        ;
    $('#system').append("This
        looks great");
    return false;
  }
}
```

Listing 1.1: My Javascript Example

Table 1.3: Right side image

```
Name.prototype = {
  methodName: function(params){
    var doubleQuoteString = "some text";
    var singleQuoteString = 'some more text';
    // this is a comment
    if(this.confirmed != null && typeof(this.confirmed) ==
        Boolean && this.confirmed == true){
      document.createElement('h3');
      $('#system').append("This looks great");
      return false;
    } else {
      throw new Error;
    }
  }
}
```

Listing 1.2: JS Code Snippet

## 1.6 References

References are written in `references.bib` file. I will demo you personally about how to write references. Each reference has a key and you can refer it like this [1].

## 1.7 Directory Trees

Directory trees are nice and simple using the package `dirtree` as shown below in **Figure 1.7**.

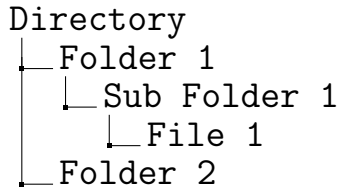


Figure 1.7: Directory Tree Example

# Chapter 2

# Literature Review

# Bibliography

[1] R. Belk, "You are what you can access: Sharing and collaborative consumption online," *Journal of Business Research*, vol. 67, no. 8, pp. 1595 – 1600, 2014.

# Appendix A

# Gantt Chart

TEST

# Appendix B

# Team Member Contribution