

Title

Name

20K-1234

Degree Name



Department of ABC

National University of Computer and Emerging Sciences

Karachi, Pakistan

2020

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September 30, 2020

Candidate Name: Name

Signature: _____

Examination Committee:

External Examiner 1: Dr. PQR

Signature: _____

University of UVW, XYZ

External Examiner 2: Dr. DEF

Signature: _____

University of GHI, STU

Internal Examiner: Dr. MNO

Signature: _____

Supervisor:

Supervisor: Dr. JKL

Signature: _____

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Dedicated to My parents and Family.

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Abstract

Start writing from here. (not more than 500 words).

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Acknowledgements

I would like to express my sincere gratitude to my supervisor Dr. JKL for suggesting the topic, his guidance and continuous support. This work would not have been successful without his previous research, full encouragement and valuable advice.

Above all, I would like to thank my parents and my family for their love, support and patience throughout the duration of my thesis work.

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List of Symbols, Nomenclature or Abbreviations

NU National University, 1

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Chapter 1

Introduction

1.1 A Section

1.1.1 A Subsection

I am a student of NU. It is also known as FAST.

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Chapter 2

Literature Review

2.1 Example Citation

Start writing from here. Here is a citation [1].

2.2 Example Tables

2.2.1 A Table With Border

Exam results are given in Table 2.1.

Table 2.1. Example table

Name	Exam1	Exam2	Exam3	Grade
Ahmed	19	28	33	C
Daud	49	35	60	B
Zain	76	38	59	A

2.2.2 A Table Without Border

Table 2.2 is an example table without borders. Some symbols with label can be refereed later on.

Table 2.2. Variable-sized Symbols

Σ	<code>\sum</code>	\bigcap	<code>\bigcap</code>	\bigodot	<code>\bigodot</code>
\prod	<code>\prod</code>	\bigcup	<code>\bigcup</code>	\bigotimes	<code>\bigotimes</code>
\coprod	<code>\coprod</code>	\bigsqcup	<code>\bigsqcup</code>	\bigoplus	<code>\bigoplus</code>
\int	<code>\int</code>	\bigvee	<code>\bigvee</code>	\biguplus	<code>\biguplus</code>
\oint	<code>\oint</code>	\bigwedge	<code>\bigwedge</code>		

2.3 Example List

2.3.1 Example Dotted List

Some special characters in TeX:

- Accents
- Braces
- Dollar signs

2.3.2 Example Numbered List

Some special characters in TeX:

1. Accents
2. Braces
3. Dollar signs

2.4 Math Example

2.4.1 Inline Math Mode

Mathematical material to be typeset inline must be surrounded by a single dollar sign. For example: $a^2 + b^2 = c^2$.

2.4.2 Displayed Math

This is a displayed math example without numbering.

$$\lim_{x \rightarrow a} f(x)$$

$$\left| \sum_{i=1}^n a_i b_i \right| \leq \left(\sum_{i=1}^n a_i^2 \right)^{1/2} \left(\sum_{i=1}^n b_i^2 \right)^{1/2}$$

This is a math equation with numbering.

$$(a+b)^3 = (a+b)^2(a+b) \tag{2.1}$$

This is multiline equation example.

$$(a+b)^3 = (a+b)^2(a+b) \tag{2.2}$$

$$= (a^2 + 2ab + b^2)(a+b) \tag{2.3}$$

$$= (a^3 + 2a^2b + ab^2) + (a^2b + 2ab^2 + b^3) \tag{2.4}$$

$$= a^3 + 3a^2b + 3ab^2 + b^3 \tag{2.5}$$

This is a matrix

$$\begin{array}{cccc} a+b & uv & x-y & 5 \\ a+b+c & u+v & x+y & 10 \end{array}$$

This is a case

$$f(x) = \begin{cases} -x^2, & \text{if } x < 0; \\ \alpha + x, & \text{if } 0 \leq x \leq 1; \\ x^2, & \text{otherwise.} \end{cases}$$

2.5 Graphics Example

2.5.1 Stars

The ideal graphics format for inclusion in a \LaTeX document is "encapsulated postscript" or eps. Here is an example figure.

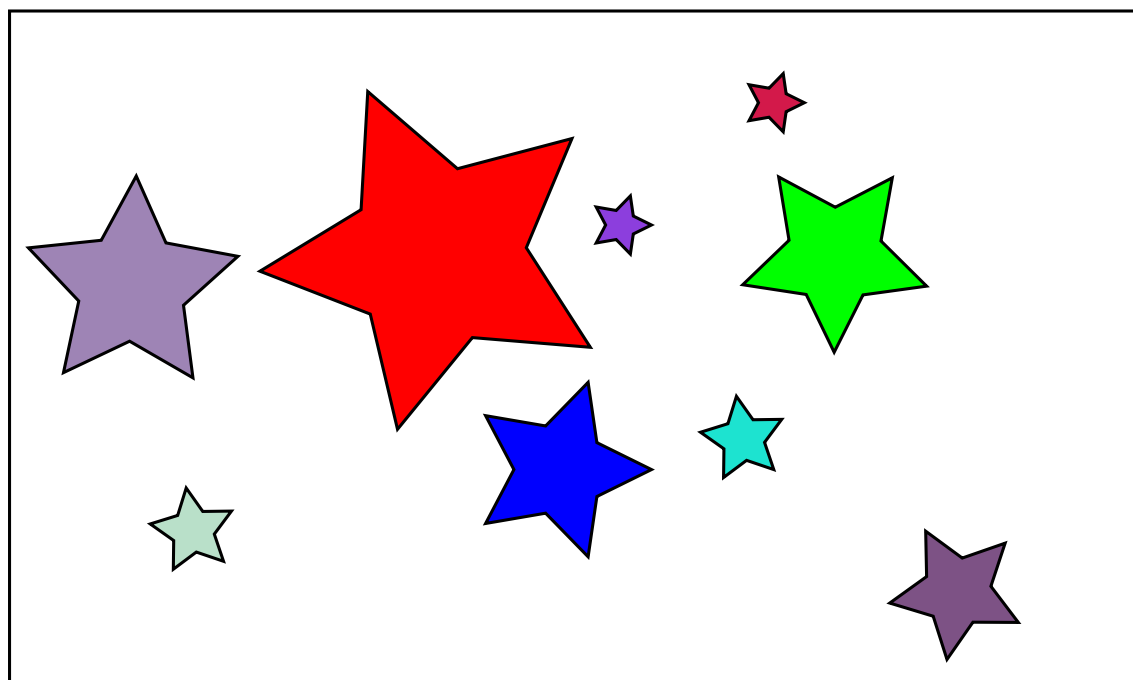


Figure 2.1. Stars

Chapter 3

Methodology

3.1 A Section

Start writing from here [2].

3.1.1 A Subsection

some text with footnote¹. more A dollar \$ sign. text² and more.

A sentence with superscript.^{superscript}. A sentence with subscript._{subscript}

3.1.2 Printing Verbatim

THIS TEXT WILL BE DIRECTLY PRINTED AS IF TYPED ON A TYPEWRITER, WITH ALL LINE BREAKS AND SPACES, without any LaTeX command being executed.

```
public class BasicsDemo{  
    public static void main(String[] args){  
        int sum = 0;  
        for (int current = 1; current <= 10; current++){  
            sum += current;  
        }  
    }  
}
```

¹A first

²second

```

        }

        System.out.println("Sum = " + sum);
    }
}

public class BasicsDemo{
    public static void main(String[] args){
        int sum = 0;
        for (int current = 1; current <= 10; current++){
            sum += current;
        }
        System.out.println("Sum = " + sum);
    }
}

```

3.2 A Section

3.2.1 Pretty-printing Program Code

3.2.1.1 Example Java Code

The following is an code example:

```

1 public class BasicsDemo{
2     public static void main(String[] args){
3         int sum = 0;
4         for (int current = 1; current <= 10; current++){
5             sum += current;
6         }
7         System.out.println("Sum = " + sum);
8     }
9 }

```

Chapter 4

Conclusions

4.1 A Section

Start writing from here.

4.1.1 A Subsection

This is a paragraph.

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Chapter 5

Recommendations for Future Work

5.1 A Section

Start writing from here.

5.1.1 A Subsection

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Bibliography

- [1] D. Knuth, “Two notes on notation,” *Amer. Math. Monthly*, vol. 99, pp. 403–422, 1992. (cited on page 3.)
- [2] R. Graham, D. Knuth, and O. Patashnik, *Concrete mathematics*. Reading, MA: Addison-Wesley, 1989. (cited on page 7.)

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Appendix A

Mathematical Equations

A.1 Cubic Equation

Start writing here.

$$(a + b)^3 = (a + b)^2(a + b) \tag{A.1}$$

A.2 Sample Equation

$$(a + b)^3 = (a + b)^2(a + b) \tag{A.2}$$

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Appendix B

More Mathematical Equations

B.1 A Basic Equation

Start writing here.

$$(a + b)^3 = (a + b)^2(a + b) \tag{B.1}$$

B.2 Another Sample Equation

$$(a + b)^3 = (a + b)^2(a + b) \tag{B.2}$$

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