What I have learnt in Latex so far...

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Contents

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1 Bold, italic and underline

1.1 Bold

This text is bold

1.2 Italic

This text is italic

1.3 Underline

1.3.1 Using underline

This text is underlined using underline

1.3.2 Using uline

This pararaph is underlined using uline. I am using this because underline function usually doesnot work well with multilined text.

2 Adding images to a latex report

2.1 Adding an image

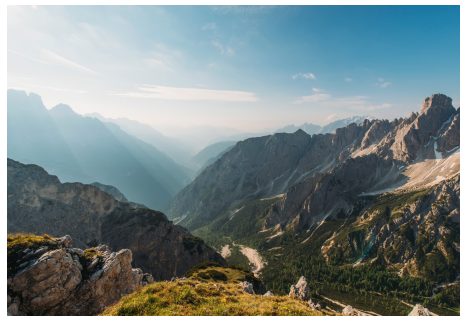**This is how you add images to a latex report**

Figure 1: Motivation Wallpaper

2.2 Referencing and Captions

The wallpaper you see in Figure 1 on page number 2 is my *scenery* of all time. It reminds of the **grandeur** of nature and how small we are.

From the next page I'll talk about **something** else ;).

3 Lists and their types in Latex

Okay so now lets talk about lists. In LaTeXthere are 2 kinds of lists.

1. Ordered Lists.

2. Unordered Lists.

3.1 Unordered Lists

So now lets talk about **Unordered Lists**. Here is a list of my new year resolutios.

- I'll try to be more punctual

- I'll study more

3.2 Ordered Lists

Following is the list of my favorite Pakistani Players

1. Babar Azam

2. Shaheen Afridi

3. Haider Ali

4. Amad Butt

Form next page I am going to talk about mathematical equations.

4 Various kind of mathematical equations in Latex

On this page we are gonna talk about Adding math in a report. Mathematical Equations can be added by two methods.

4.1 Modes of displaying an equation in LaTeX

1. In line

2. On display

Firstly, We will talk about **In-line** method of writing mathematical equations

Einstein discovered the relation between light and mass $(E = mc^2)$ in 1905
This formula can also be written as

$$m = E/c^2$$

In natural units $c = 1$, Hence we can also write

$$E = mc^2$$
$$E = m(1)$$
$$E = m$$

4.2 Integrals

integrals can be written like this;

$$\int_0^1 \frac{1}{e^x} = \frac{e-1}{e}$$

4.3 Trignometic functions

You can also write trig functions like this

$$\sin(\alpha + \beta) = \sin \alpha \cos \beta + \cos \alpha \sin \beta$$

Now lets talk about the sum of a series:

4.4   Sequence and Series

$$a_1 + a_2 + a_3 + \cdots + a_n = 2a + (n-1)d$$

Where

a= first term
n= number of terms
d= arithematic difference between two consecutive terms

The sum of an infinite Geometric series where $r < 1$ is given by:

$$S = \frac{a}{1-r} \tag{1}$$

4.5   Summation

You can also write summations like this:

$$\sum_{n=1}^{\infty} n = \frac{n(n+1)}{2}$$

4.6   Writing expressions which contain square root

In LaTeX you can write a square root like this pythgorean theorem

$$H^2 = \sqrt{B^2 + P^2}$$

5 Paragraphs, abstracts, tables and formatting etc

5.1 Abstracts

Abstract

Abstract is a paragraph in the beginning of the page to provide some key information to the reader

Form now on we'll talk about formatting latex. Let us first talk about Abstract

5.2 Tables of various types

Creating **Tables** in LaTeX

Following are the tables of me and my uni friends in different styles:

Serial No.	Name	Roll No.
01	Bilal Ahmed Khan	0183
02	Wamiq Akram	1857
03	Zulnoor Siddiqui	1090

Table 1: Friends in uni

Now with borders:

Serial No.	Name	Roll No.
01	Bilal Ahmed Khan	0183
02	Wamiq Akram	1857
03	Zulnoor Siddiqui	1090

Table 2: Friends in uni

Now with double lines

Serial No.	Name	Roll No.
01	Bilal Ahmed Khan	0183
02	Wamiq Akram	1857
03	Zulnoor Siddiqui	1090

Table 3: Friends in uni

With gap between each row:

Serial No.	Name	Roll No.
01	Bilal Ahmed Khan	0183
02	Wamiq Akram	1857
03	Zulnoor Siddiqui	1090

Table 4: Friends in uni

Copy Paste from manual

Col1	Col2	Col2	Col3
1	6	87837	787
2	7	78	5415
3	545	778	7507
4	545	18744	7560
5	88	788	6344

Table 5: Table to test captions and labels