

# Introduction To L<sup>A</sup>T<sub>E</sub>X

## Hands on

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## Chapter 2

# Including Images

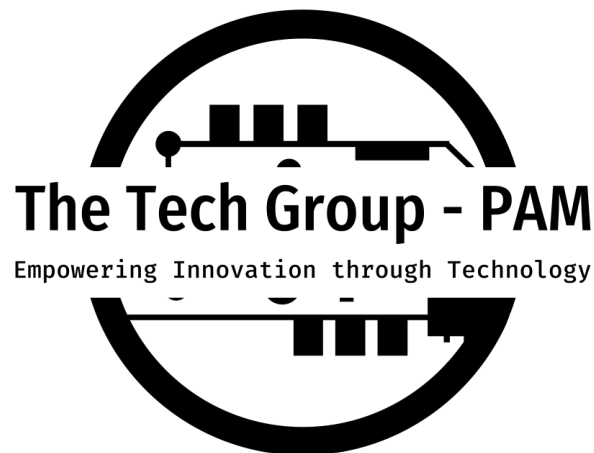


Figure 2.1: The Tech Group Logo

In Figure 2.1, we can see the logo of The Tech Group. The

```
\includegraphics
```

command from the 'graphicx' package is used to include the image. You can specify the path to your image file and adjust the width to fit your document layout. You can also add a caption and a label for referencing the figure in your text.

Make sure the image file

```
the-tech-group-pam-high-resolution-logo-black-on-transparent-background_01.png
```

is located in a folder named `images` relative to your LaTeX document.

## Chapter 3

# Typesetting Equations

In this section, we will explore how to typeset equations using LaTeX's math mode and the 'amsmath' package.

### Inline Equations

Inline equations are incorporated directly within the text. You can use single dollar signs (\$) to enclose the equation. For example, the quadratic formula  $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$  is typeset inline.

### Display Equations

Display equations are centered and set apart from the text. You can use double dollar signs '(\$\$)' or the '

' syntax to display equations. For instance, the equation for the area of a circle is shown below:

$$A = \pi r^2$$

### Numbered Equations

Numbered equations can be accomplished using the 'equation' environment. For instance, the Pythagorean theorem is expressed as:

$$a^2 + b^2 = c^2 \tag{3.1}$$

### Aligning Equations

The 'align' environment allows aligning multiple equations. Consider the system of equations:

$$2x + 3y = 8 \tag{3.2}$$

$$x - 4y = -5 \tag{3.3}$$

### 3.0.1 Mathematical Symbols

LaTeX provides a comprehensive set of mathematical symbols. For example, you can use Greek letters such as  $\alpha$ ,  $\beta$ , and  $\gamma$ , as well as operators like  $\sum$ ,  $\int$ , and  $\frac{a}{b}$ . The 'amsmath' package extends the range of available symbols and provides additional environments for advanced math typesetting.