

A Course Based Project Report on

# **Designing Impactful Business Infographics with LaTeX**

Submitted to the  
**Department of CSE- (CyS, DS) and AI&DS**

in partial fulfilment of the requirements for the completion of course

IT WORKSHOP LABORATORY (22ES2ME102)

**BACHELOR OF TECHNOLOGY**

**IN**

**CSE-Data Science**

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## Department of CSE-(CyS, DS) and AI&DS



## CERTIFICATE

This is to certify that the project report entitled “**Creating Effective Business Infographics with LaTeX**” is a bonafide work done under our supervision and is being submitted by **Ms. Sloka (24071A6751)**, **Ms. Bandhavi (24071A6753)**, **Ms. Srija (24071A6764)**, **Ms. Lohitha (24071A6766)** in partial fulfilment for the award of the degree of **Bachelor of Technology** in **CSE-Data Science**, of the VNRVJIET, Hyderabad during the academic year 2023-2024.

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## DECLARATION

We declare that the course based project work entitled “**Creating Effective Business Infographics with LaTeX**” submitted in the Department of **CSE-(CyS, DS) and AI&DS**, Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering and Technology, Hyderabad, in partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in CSE-Data Science** is a Bonafide record of our own work carried out under the supervision of **Ms. N. Vasundhara, Assistant Professor, Department of CSE-(CyS, DS) and AI&DS, VNRVJIT**. Also, we declare that the matter embodied in this thesis has not been submitted by us in full or in any part thereof for the award of any degree/diploma of any other institution or university previously.

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# TABLE OF CONTENTS

<b><u>Chapters</u></b>	<b><u>Page No</u></b>
ABSTRACT.....	1
LIST OF FIGURES.....	vi

<b><u>Chapters</u></b>	<b><u>Page No</u></b>
CHAPTER 1: Introduction.....	2
CHAPTER 2: Discussions.....	3
CHAPTER 3: Methodology.....	4
CHAPTER 4: Applications.....	7
CHAPTER 5: Advantages & Disadvantages.....	11
CHAPTER 6: Conclusion.....	14
CHAPTER 6: References.....	15

# LIST OF FIGURES

## **Chapters**

## **Page No**

Figure-3.1: Business Infographics Design Template.....6

# ABSTRACT

This document provides a comprehensive guide to creating a visually appealing and effective business infographic design template using LaTeX and the tikz package. The template is designed to present information in a structured, diamond-shaped layout that enhances readability and engagement. It includes four distinct sections, each delineated with different colors to facilitate clear differentiation of information. This approach ensures that complex data is communicated succinctly and attractively. The guide covers the step-by-step process of generating the infographic, emphasizing the customization of elements to meet specific business needs. The resulting template serves as a versatile tool for presentations, reports, and marketing materials, making it an invaluable asset for professionals seeking to enhance their communication strategies.

## CHAPTER-1

# INTRODUCTION

In today's fast-paced business environment, effective communication is essential. Visual aids—especially infographics—are invaluable tools for conveying complex information in a clear, engaging manner. This document presents a business infographic design template created using **LaTeX** and the **TikZ** package, aimed at professionals who need to display data in a concise and visually appealing format.

Infographics blend text, images, and design elements to deliver information quickly and effectively. They are particularly useful in business settings, where decisions must often be made swiftly, and clarity is crucial. The infographic template introduced here features a **diamond-shaped layout** divided into four distinct sections. Each section is strategically positioned to highlight key data points or messages, allowing viewers to easily grasp the content.

The primary objectives of this template are to provide a structured and aesthetically pleasing format for presenting information, improve the readability of complex data, and offer flexible customization for various business contexts. The diamond layout not only gives the infographic a unique visual structure but also guides the viewer's attention across the content in a logical flow. The use of different colors for each section helps in distinguishing between ideas and prevents information overload.

This guide begins with a discussion of the rationale behind the design choices, illustrating how each component contributes to the infographic's overall effectiveness. It then offers a detailed walkthrough of the LaTeX code used to build the template, with explanations of key TikZ commands and customization options. Finally, it provides practical tips for adapting the template to different types of data and audience needs.

By the end of this document, readers will have a thorough understanding of how to create and personalize their own business infographic using LaTeX. With this knowledge, they will be able to produce professional-quality visual aids that significantly enhance their communication and presentation efforts.

The importance of effective data visualization cannot be overstated in the business world, where insights must be both accurate and accessible. This template helps bridge the gap between raw data and meaningful interpretation, offering a functional yet visually compelling tool for reports, presentations, and marketing materials. It empowers professionals to convey their messages with clarity, precision, and impact.



## CHAPTER-2

# DISCUSSIONS

The LaTeX code provided uses the tikz package to create a clean and structured business infographic. It defines a custom diamond style to format each section consistently, specifying dimensions, alignment, and a thick border. The use of geometric shapes and TikZ's precise positioning makes it ideal for creating professional-quality visual layouts directly within a LaTeX document.

The infographic features four diamond-shaped nodes arranged symmetrically around a central title. Each node is color-coded—orange, purple, green, and blue—to distinguish its content. The text width parameter ensures the text wraps neatly within each shape, making the information easy to read while maintaining visual balance.

At the center, a bold multi-line title “BUSINESS INFOGRAPHIC DESIGN TEMPLATE” serves as the infographic's anchor. Colored lines connect the central title to each diamond, reinforcing the visual connection and guiding the viewer's attention across the diagram. This layout helps deliver information in a structured and visually engaging way.

Overall, the code offers a customizable template that can be used in reports, presentations, and other business materials. By modifying colors, text, or positioning, users can easily adapt it for various content types while retaining a clear and professional appearance.

## CHAPTER-3

# METHODOLOGY

```
\documentclass{article

\usepackage{tikz}

\usetikzlibrary{shapes.geometric, positioning}

\begin{document}

\section*{Method}

\begin{tikzpicture}


% Define diamond style

\tikzstyle{diamond} = [draw, fill=gray!20, text width=3cm, text centered,
minimum height=4cm, minimum width=4cm, inner sep=0pt, shape=diamond, thick]


% Diamond nodes

\node [diamond, draw=orange] (step1) at (0,4)

{\Large \textbf{1}}\small Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam
nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad
minim ven.};


\node [diamond, draw=purple] (step2) at (4,0)

{\Large \textbf{2}}\small Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam
nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad
minim ven.};
```

```

\node [diamond, draw=green] (step3) at (0,-4)

{\Large \textbf{3}}\small Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam
nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad
minim ven.};

\node [diamond, draw=blue] (step4) at (-4,0)

{\Large \textbf{4}}\small Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam
nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad
minim ven.};

% Center title

\node at (0,0) {\LARGE \textbf{BUSINESS\ INFOGRAPHIC\ DESIGN\ TEMPLATE}};

% Connecting lines

\draw[thick, orange] (step1) -- (0,2);
\draw[thick, purple] (step2) -- (2,0);
\draw[thick, green] (step3) -- (0,-2);
\draw[thick, blue] (step4) -- (-2,0);

\end{tikzpicture}

\end{document}

```

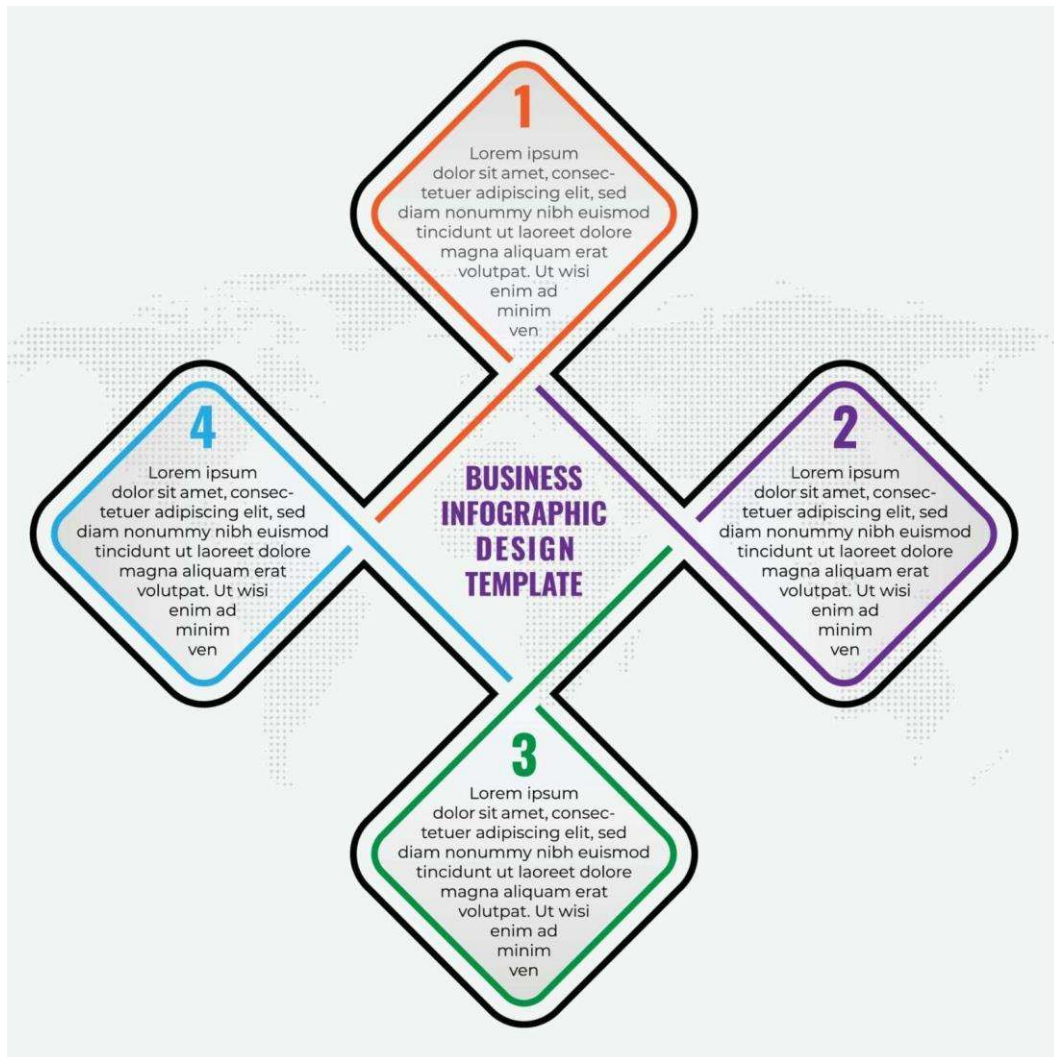


Figure 3.1: Business Infographics Design Template

## CHAPTER-4

# APPLICATIONS

### 1. Corporate Presentations

#### Use Cases:

- Executive summaries of business performance.
- Product lifecycle representation (from ideation to market launch).
- Strategy roadmaps or annual review highlights.

#### Example Scenarios:

- A technology firm uses the diamond infographic to show its software development stages: Ideation (orange), Planning (purple), Execution (green), and Review (blue).
- A consultancy presents KPI dashboards categorized by department.

### 2. Marketing and Advertising

#### Use Cases:

- Customer journey mapping: Awareness → Consideration → Decision → Retention.
- Launch campaigns: illustrate phases, goals, and deliverables.
- Brand storytelling through narrative visualization.

#### Example Scenarios:

- A marketing agency maps out a 4-stage ad campaign for a new beverage product using distinct colors to signify each phase.
- A fashion brand visualizes its seasonal marketing strategy across global regions.

### **3. Educational Workshops and Training**

#### **Use Cases:**

- Breakdown of syllabus or curriculum into logical phases.
- Visual aid in professional development workshops.
- Represent teaching goals: Introduction → Core Concepts → Practice → Assessment.

#### **Example Scenarios:**

- An ed-tech company uses the infographic for onboarding teachers with color-coded teaching objectives.
- A university course syllabus is visualized using the template as part of its orientation pack.

### **4. Project Management**

#### **Use Cases:**

- Visualize the stages of Agile, Waterfall, or hybrid workflows.
- Status tracking for deliverables (Planned → In Progress → Review → Completed).
- Stakeholder communication tools for progress updates.

#### **Example Scenarios:**

- A software development team uses it for sprint planning: Planning (orange), Development (purple), Testing (green), Release (blue).
- An architecture firm presents building project phases visually to clients.

### **5. Academic and Research Presentations**

**Use Cases:**

- Illustrate a research workflow or experimental design.
- Organize conference poster content.
- Summarize literature reviews by themes.

**Example Scenarios:**

- A PhD student uses the template to show research questions, methods, results, and conclusions.
- A data science paper uses the infographic to compare model performance categories.

**6. Reports and Publications****Use Cases:**

- Design section headers in business reports.
- Infographic insert for whitepapers or magazines.
- Policy briefs or stakeholder updates.

**Example Scenarios:**

- A nonprofit's annual impact report uses the template to show four programmatic pillars.
- A government policy brief summarizes four major legislative proposals.

**7. Conference Posters and Scientific Diagrams**

- **Usage:** Representing study designs, hypotheses, methodologies, or results.
- **Benefit:** Encourages structured, easily digestible content in academic settings.
- **Example:** A poster for a data science project showing problem, method, results, and conclusions.

## CHAPTER-5

# ADVANTAGES AND DISADVANTAGES

### ADVANTAGES

#### 1. Professional Aesthetic

- The diamond layout gives a modern and organized appearance.
- Enhances the brand image when used in client-facing materials.

#### 2. Customizability

- Easily change colors, positions, text, and shapes using TikZ.
- Adaptable to any domain—education, business, healthcare, etc.

#### 3. Scalability

- Can expand the design to include more nodes without disturbing layout.
- Suitable for both print and digital formats (PDF presentations, slides).

#### 4. Precision and Control

- TikZ offers exact control over spacing, alignment, and dimensions.
- Eliminates inconsistencies common in manual design tools.

#### 5. Automation and Reusability

- LaTeX allows the creation of macros and templates.
- Reduces effort for repeated tasks and document formatting.

#### 6. Integration with Scientific Reports

- Seamless embedding with LaTeX reports, theses, or research papers.
- No need to rely on external graphics software.

#### 7. Lightweight and Text-Based

- Unlike Photoshop/Illustrator files, LaTeX code is lightweight and portable.



- Ideal for collaborative editing using Git or Overleaf.

#### 8. Educational Value

- Enhances understanding of geometric and graphical concepts using TikZ.
- Good learning project for LaTeX beginners with visualization interests.

### **DISADVANTAGES**

#### 1. Steep Learning Curve

- Requires familiarity with LaTeX syntax and TikZ commands.
- Not user-friendly for non-technical users or beginners.

#### 2. Limited Interactivity

- Infographics are static—no hover effects, animations, or responsiveness like web-based tools (e.g., Canva, Figma).

#### 3. Manual Adjustment Required

- Placement of shapes and nodes must be adjusted manually.
- Tedious when adapting layout for more content or different orientations.

#### 4. Rendering Time

- Compiling LaTeX documents with complex TikZ figures can be slow, especially on large documents or limited hardware.

#### 5. Not WYSIWYG

- No visual editor; output must be compiled before it's visible.
- Trial-and-error required to get layout/design perfect.

#### 6. Software Dependency

- Requires LaTeX environment setup (e.g., TeX Live, MiKTeX).
- May not work smoothly on all systems or platforms without configuration.

#### 7. Color Printing Costs

- Using full-color diagrams in printed business reports increases cost.
- Might not look as good in grayscale/monochrome printouts.

#### 8. Limited Accessibility

- Difficult to make diagrams accessible to screen readers or visually impaired users.
- No built-in ARIA labels or alt-text features.

## CHAPTER-6

# CONCLUSION

In conclusion, the business infographic design template outlined in this document serves as a powerful and flexible tool to enhance the clarity and impact of business communications. By harnessing the capabilities of LaTeX and the TikZ package, this template offers a structured and visually engaging format that effectively communicates complex information. The diamond-shaped layout, with its distinct sections and color-coded design, ensures that key points are highlighted and easily digestible for the audience.

This guide has provided an overview of the design rationale, a step-by-step LaTeX implementation, and customization tips to tailor the template for specific business needs. Its versatility makes it suitable for a broad range of applications, from presentations and reports to marketing materials. By facilitating clearer communication and engaging the audience, this template supports data-driven decision-making, making it more accessible and efficient.

To summarize, this document equips professionals with the necessary knowledge and tools to create impactful business infographics using LaTeX. The combination of comprehensive instructions, customization options, and practical insights ensures that users can maximize the template's potential. Adopting this approach to data visualization will undoubtedly result in more effective and compelling business communications.

## **CHAPTER-7**

# **REFERENCES**

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