Integrated Typesetting Documentation Tool

Ankit Makwana
Harmik Sarvaliya
Bhumit Chhabra

Generate Lab Report

Current Situation

- Students required to make lab report
- It takes 30-45 min on average to make lab report
- 3 out of 4 practicals requires including images
- Cumbersome practice of making 3-5 lab reports each week

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Document Formatting Tools

- Google Docs, MS Word like WYSIWYG word processors
- Hard to insert multiple images (Position)
- Not easy to edit or view document file on mobile
- Requires App and Account to edit document
- Limited control over formatting (Manual Intervention)

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Alternative

- LaTeX , rMarkdown, troff, like typesetting systems
- Steep Learning Curve (LaTeX , troff)
- Complex Syntax (LaTeX , troff)
- Compatibility Issues (rMarkdown)
- Legacy Systems (LaTeX , troff)
- `./mdin.png`

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Proposed Solution

▶ Specialized utilization of typesetting system

▶ Predefined template for each lab practicals

▶ Text file as input (markdown)

▶ PDF file as output

▶ Visual editor for extra customization.

▶ Screenshot automation, Snippets, etc.

▶ AI integration (Extra) Using API

▶ Can be used with text editors (VS Code, Sublime Text, etc.)

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Input-Output

```
26  = Sample Markdown
25  == Sub-Headings
24  === Sub-Sub-heading
23
22  *Bold text*, _italic text_, and `inline code`.
21
20  - Unordered lists, and:
19      + One
18      + Two
17      + Three
16  - More
15
14  [Link to Quora](https://www.Quora.com)
13
12  #image("http://placebear.com/200/200/")
11
10  Code Highlights
 9
 8  ```javascript
 7  console.log('Hello');
 6  ```
 5
 4  | Syntax | Description |
 3  |--------|-------------|
 2  | Header | Title       |
 1  | Entry1 | Entry2      |
27
```

Input-Output

Sample Markdown

Sub-Headings

Sub-Sub-heading
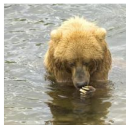
Bold text, *italic text*, and `inline code`.

- Unordered lists, and:

    1. One
    2. Two
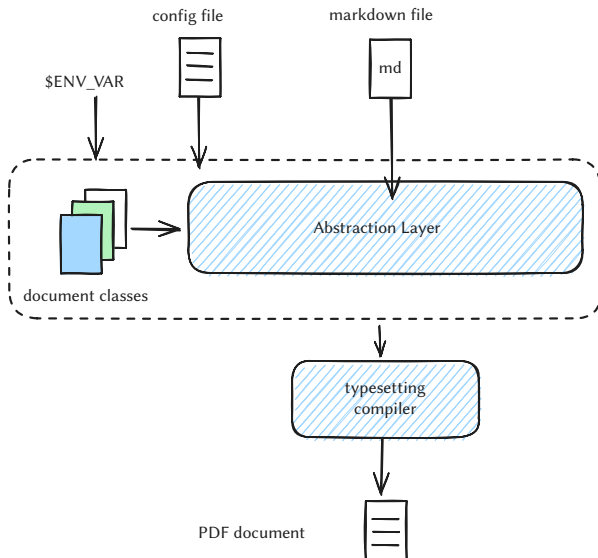   3. Three

- More

[Link to Quora](#)

Code Highlights

```
console.log('Hello');
```

Syntax	Description
Header	Title
Entry1	Entry2

Architecture

Scope & Limitations

- For college and university students.
- Can't write thesis/research paper.
- Automation for Screenshots only.

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References

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- https://www.overleaf.com/
- https://craftinginterpreters.com/
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- https://rmarkdown.rstudio.com/
- https://typst.app/
- https://excalidraw.com/