Product Documentation

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> Maintainable in Git. Exportable to HTML/PDF/PPTX. Styled with custom CSS and Marp directives.

Agenda

- What & Why (Marp in product documentation)
- Authoring workflow in VS Code
- Theming & directives (this deck)
- Math in docs (algorithmic complexity)
- Exporting & CI
- GitHub raw URL for this deck

Overview

Marp lets you keep documentation **as Markdown** and publish to **multiple formats** without PowerPoint.

- Version control friendly
- Reviewable via PRs
- Theme with CSS

(Tip: Add your own image at `images/bg-hero.jpg` .)

Custom Styling with Directives

Use per-slide directives for **background**, **text color**, **headers/footers**, and layout classes.

```
<!-- _backgroundColor: #0b1e33 -->
<!-- _color: #e6f1ff -->
<!-- _header: **Product Docs** -->
<!-- _footer: Page {page} / {total} -->
```

> Combine with the inline CSS (above) for a **lightweight custom theme**.

Code Blocks (Syntax Highlighting)

```python
# src/example.py
from time import perf_counter

def timed(fn, *args, **kwargs):
    t0 = perf_counter()
    out = fn(*args, **kwargs)
    dt = perf_counter() - t0
    return out, dt
```

```javascript
// src/example.js
export const greet = (name) => `Hello, ${name}!`;
```

```css
/* themes/tokens.css */
:root { --accent: #4cc9f0; }
code { outline: 2px dashed var(--accent); }
```

Math & Algorithmic Complexity

Inline math: $O(n \log n)$, $E=mc^2$.

Block math:

$$T(n) = \begin{cases} 2\,T(\frac{n}{2}) + n, & n > 1 \\ \Theta(1), & n = 1 \end{cases} = \Theta(n \log n)$$

> Use KaTeX (built into Marp) for performant math typesetting.

Build & Export

From terminal (requires Marp CLI):

```
# HTML (web)
marp slides.md -o dist/slides.html

# PDF (sharing)
marp slides.md --pdf --allow-local-files -o dist/slides.pdf

# PowerPoint
marp slides.md --pptx -o dist/slides.pptx
```

VS Code commands (Command Palette):

- **Marp: Toggle Preview**
- **Marp: Export Slide Deck…**
- **Marp: Start Watch**

Recommended Project Layout

```
presentation/
├─ slides.md
├─ images/
│  └─ bg-hero.jpg
├─ themes/
│  └─ custom.css   # (optional if you prefer external CSS)
└─ package.json
```

.gitignore

```
node_modules/
dist/
*.pdf
*.pptx
```

package.json (scripts)

```
{
  "scripts": {
```

Speaker Notes (optional)

Use HTML comments or `notes:` blocks depending on your workflow. Keep **one concept per slide** and prefer **progressive disclosure** through multiple slides instead of heavy bullet walls.

Publishing & Raw GitHub URL

To reference this Markdown directly from GitHub, use the **raw** URL format:

```
https://raw.githubusercontent.com/<YOUR-GITHUB-USER>/<YOUR-REPO>/main/slides.md
```

Example placeholder (replace with your actual values):

```
https://raw.githubusercontent.com/your-username/product-docs/main/slides.md
```

> After pushing `slides.md` to GitHub, open it on GitHub and click **Raw** to verify the URL works.

Wrap-up

- Email embedded: **22f2000757@ds.study.iitm.ac.in**
- Custom theme (inline CSS) + directives
- Page numbers via `paginate: true` (and footer with `{page}/{total}`)
- Background image slide (`images/bg-hero.jpg`)
- Math equations included

Next: add product-specific content, diagrams, and screenshots.