

HackVyuha 2025 - 1.0 Aerowire

Problem Statement 6

DocuMorph AI – The Intelligent Document Transformation Engine

Background:

In the professional and academic world, the presentation of documents plays a pivotal role in perception, readability, and compliance with institutional or organizational standards. Yet, users often spend excessive time manually formatting documents—adjusting fonts, aligning content, positioning logos, numbering figures, and ensuring consistency with templates. This not only leads to inefficiencies but also increases the likelihood of human error, especially for those unfamiliar with formatting tools or style guides.

The Challenge:

Design and develop DocuMorph AI – an AI-powered, web-based platform that automatically transforms unformatted documents into professionally styled, structured, and template-compliant documents. Users will be able to:

1. Upload unformatted content (e.g., research reports, project documents, business proposals) in DOCX or plain text formats.
2. Define or select a formatting template, which includes:
 - Page-wise content layout rules (e.g., title page, table of contents, chapter start)
 - Font styles and sizes for headings, subheadings, body text
 - Margin and spacing specifications
 - Positioning of company/university logos, headers, and footers
 - Captioning rules for figures and tables (e.g., "Figure 1: Architecture Diagram" placed below or above the figure)
 - Section numbering and bullet styles
1. Apply a saved template to the uploaded document and receive a fully formatted output document—instantly.
2. Create and save multiple formatting templates for future use or team-wide consistency.
3. Preview document formatting before export and make minor on-screen adjustments if needed.

Bonus Features (Optional but Valued):

- Optical character recognition (OCR) to convert and format scanned or image-based documents.
- Multi-language support for global usability.
- Smart detection of logical document sections (e.g., Introduction, Abstract, References) using NLP.

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- Integration with Google Docs or MS Word for direct export.
- Version control for formatted documents.

Why It Matters:

Professionals, researchers, students, and content creators across the globe—especially in Tier 2/3 institutions—face repetitive formatting tasks that drain productivity and hinder creativity. DocuMorph AI aims to democratize document formatting, eliminating manual effort, ensuring brand/template consistency, and allowing users to focus on substance over structure.

This system is not merely a formatting tool—it is a document transformation engine, powered by AI, that understands and applies formatting semantics intelligently and intuitively.