Comparative Analysis and Process Design using PM Standards

Objective

To design and implement a website that consolidates globally recognized project management standards (PMBOK 7th Edition, PRINCE2 and ISO 21500/20502), enabling:

- **Navigation** of standard texts.
- **Comparisons** across standards by topics.
- **Evidence-based recommendations** for tailored project processes

Scope

In Scope

1. *Standards Repository & Navigation*
    - Upload and store full text of standards in the system.
    - Topic wise pdf opening.
2. *Comparison Engine*
    - Compare standards by topic (Risk, Stakeholder, Quality, etc.).
    - Side-by-side views of sections with deep linking to source text.
3. *Uniqueness Analysis*
    - Display unique points among the three standards.

    - Deep linking to the source text

4. *Insights Dashboard*

    - Display similarities, differences, unique points among the three standards.
    - Standards Coverage Map

5. *Process Generator*

    - Display similarities, differences, unique points among the three standards.
    - Provide summaries and tailored recommendations.

6. *Submission*

    - Working prototype with repository and all features.
    - Hybrid WBS and process documentation.
    - GitHub repository for app code and content.

Out of Scope

- Licensing/paid access to proprietary versions of standards.

Roles & Responsibilities

- *App Development:*
    - Developed the prototype web application.
    - *Implemented repository and navigation system.*
- *Data & Standards Processing:*
    - Collected PMBOK, PRINCE2, ISO texts.
    - Validated correct sections/pages.
- ***Documentation & Testing:***
    - Wrote project documentation and final report.
    - Verified app navigation and functionality.

.

Process & Approach

- **Planning:** Defined project scope and allocated tasks to group members estimated deadlines.
- **Execution:** Parallel workstreams – one focused on coding while other on standards data collection.
- **Verification:** Pages and navigation tested against original standards for accuracy.
- **Collaboration:** GitHub used for version control and accessibility.

Testing Summary

- Repository search tested with keywords like *Risk*, *Quality*, *Stakeholders*.
- Navigation verified against original PDF page numbers.
- Comparison results cross-checked to ensure correct alignment.
- Dashboard summaries validated with actual standard texts.

Deliverables

- **Web App on vercel**
- **GitHub Repository**: Containing code
- **Report Documentation**: Including WBS, scope, approach, testing and roles.

WBS

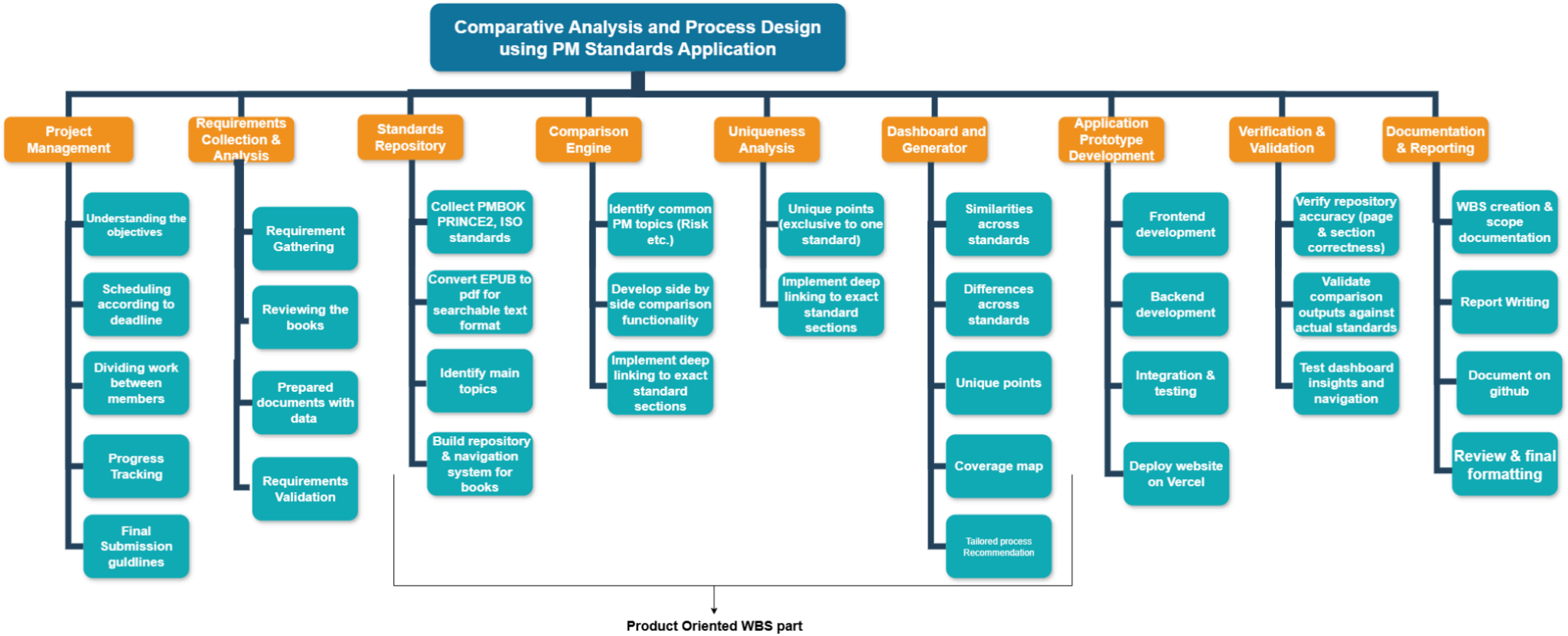
Made a hybrid WBS :

- **Product-oriented** (repository, search engine, dashboard)
- **Process-oriented** (requirements collection, testing, documentation, project management).

The WBS was designed to be manageable (each package assigned to members), independent (modules developed in parallel also in sequence), and measurable (clear deliverables like navigation, comparison and documentation). It also forms the basis for scheduling, cost estimation, testing, and progress control.

Thus the process design is both justified and aligned with PM standards.

WBS can be found on the next page


Comparative Analysis and Process Design using PM Standards Application
Project Management
Understanding the objectives
Scheduling according to deadline
Dividing work between members
Progress Tracking
Final Submission guldlines
Requirements Collection & Analysis
Requirement Gathering
Reviewing the books
Prepared documents with data
Requirements Validation
Standards Repository
Collect PMBOK PRINCE2, ISO standards
Convert EPUB to pdf for searchable text format
Identify main topics
Build repository & navigation system for books
Comparison Engine
Identify common PM topics (Risk etc.)
Develop side by side comparison functionality
Implement deep linking to exact standard sections
Uniqueness Analysis
Unique points (exclusive to one standard)
Implement deep linking to exact standard sections
Dashboard and Generator
Similarities across standards
Differences across standards
Unique points
Coverage map
Tailored process Recommendation
Application Prototype Development
Frontend development
Backend development
Integration & testing
Deploy website on Vercel
Verification & Validation
Verify repository accuracy (page & section correctness)
Validate comparison outputs against actual standards
Test dashboard insights and navigation
Documentation & Reporting
WBS creation & scope documentation
Report Writing
Document on github
Review & final formatting
Product Oriented WBS part

Report by Group 9:

Esha
Emaim
Saleha