

## PART B – EXPLANATION & DOCUMENTATION

### 1. Design Document (Short)

#### Wireframe / Sketch Explanation:

The homepage layout is divided into sections: Navigation Bar, Hero Section, Trending Sidebar, and News Grids. This structure matches modern news platforms for proper content hierarchy and readability.

#### Layout Decisions:

- Hero section for top stories.
- Trending sidebar for short updates.
- 3-column grid layout for optimal scanning.
- Mobile responsive structure.

#### Data-Fetching Strategy:

Used static/local JSON-based article data for predictable, fast rendering without API issues.

### 2. Code Explanation

#### Components Used:

Navbar, HeroSection, NewsCard, TrendingSidebar, CategorySection, Footer, ArticlePage.

#### Data Model (example):

```
{ id, title, description, category, date, image }
```

#### Challenges:

Responsive issues, image errors, long title overflow, routing issues, Vercel deployment errors.

#### Improvements:

Add API, pagination, user login, dark mode, animations.

## PART C – TESTING & EDGE CASES

1. Missing image → show placeholder
2. No articles → show 'No news available'
3. Long titles → use line-clamp
4. Errors → loading state, error state, fallback UI

## PART D – AI USE + REFLECTION

AI helped with component boilerplate, layout ideas, styling, routing logic.

Mistakes fixed: outdated imports, wrong Tailwind classes.

Custom modifications: redesigned layout, trending section, fallback image, improved typography, routing fixes.