No More Tumor – Technical Documentation

Overview:

No More Tumor is an AI-powered medical diagnostic platform that helps predict tumor types based on patient-uploaded images and reports. The system provides diagnostic predictions and allows doctors to structure reports effectively.

Purpose:

The landing page serves as an entry point for users, providing key information about the platform, its features, and how it can assist in early diagnosis and decision-making.

Features:

1. **Hero Section**
    - Engaging tagline and short description of the platform.
    - Call-to-action (CTA) buttons for users to get started or learn more.
2. **About Section**
    - Brief description of the AI model's functionality.
    - Explanation of how the system assists doctors and patients.
3. **How It Works**
    - Step-by-step guide on using the platform:
        - Upload medical reports and images.
        - AI processes and predicts tumor types.
        - Doctors review and structure the final report.
4. **Key Benefits**
    - Fast and accurate tumor prediction.
    - Secure and confidential data processing.
    - Assistance for doctors in structured reporting.
5. **Testimonials**
    - Feedback from doctors and patients who have used the system.
6. **Call-to-Action (CTA) Section**
    - "Get Started" or "Sign Up" buttons for user engagement.
7. **Footer**
    - Contact details, privacy policy, and social media links.

Technical Stack

- **Frontend:** HTML, CSS, JavaScript, React.js
- **Backend:** Python (Flask/Django), FastAPI for AI model integration
- **Database:** PostgreSQL/MySQL for structured reports
- **AI Model:** Deep learning-based tumor classification model (TensorFlow/PyTorch)
- **Hosting:** AWS/GCP/Azure

Deployment Plan

1. **Development Phase:** Build frontend and backend components.
2. **Testing Phase:** Ensure AI predictions are accurate and secure.
3. **Deployment:** Host on cloud infrastructure and monitor performance.
4. **Maintenance:** Regular updates based on user feedback.

Security Considerations

- Data encryption for patient records.
- Secure API endpoints for AI predictions.
- Role-based access for doctors and patients.

Common.css

Purpose: Provides global styling for the entire application.

Key Features:

General Layout: Sets basic styles for the body, including font, margins, padding, and background color. It also includes padding-top on the body to account for the fixed navigation, preventing content from being hidden behind it.

Navbar Styling:

Uses position: fixed to keep the navbar at the top of the screen.

Basic styling for the logo and navigation links.

Main Content Styling: Centers the main content using margin: 20px auto and provides basic styling.

Forms and Inputs: Styles the forms and input elements.

Lists: Styles the unordered list elements.

Footer Styling: Uses position: fixed to keep the footer at the bottom of the screen.

Responsive Design:

Uses a media query (max-width: 768px) to adjust the layout for smaller screens. Specifically, it changes the navbar to a flex-direction: column, making the links stack vertically. Also adjusts the padding to the navigation links.

Layout Techniques:

Fixed Positioning: Used for the navbar and footer for consistent placement.

Basic Styling: Primarily focuses on consistent font, color schemes, and basic element styling.

Flexbox/Grid: This file utilize Flexbox or Grid for major layout components, which could provide more flexible and efficient layouts. The forms use display: inline-block which is an older technique.

Responsiveness: The responsiveness is basic, only addressing the navbar. More comprehensive media queries could improve the experience on various devices.

Landingpage.css

Purpose: Styles the landing page.

Key Features:

Navbar:

Uses display: flex for the .navbar to align items horizontally and justify-content: space-between to distribute the logo and navigation links.

Uses position: sticky to make the navbar stick to the top of the screen when the user scrolls.

Homepage:

Uses display: flex for the .homepage to create a horizontal layout with the left content (text and buttons) and the right content (image). justify-content: space-around is used to space the items evenly.

"How It Works" Section:

Uses display: flex for the .steps to arrange the steps horizontally. justify-content: center and align-items: center are used for centering. gap: 10% creates space between the steps.

Features Section:

Uses display: flex for the #features and .feature-container to align feature items horizontally.

Footer:

Uses display: flex for the .footer with justify-content: space-between and align-items: center to distribute items evenly.

Layout Techniques:

Flexbox: Heavily used for the navigation bar, homepage, "How It Works" section, features section, and footer, enabling flexible and responsive layouts.

Media Queries:

Media queries to adjust the layout, font sizes, and image sizes for different screen sizes (e.g., tablets, mobile devices) would greatly improve responsiveness. The image on the right could cause issues on smaller screens.

Portal.css

Purpose: Styles the portal pages for doctors and super admins.

Key Features:

General Layout: Sets basic styles for the body, including font, margins, padding, and background color. padding-top added to account for the fixed navbar.

Navbar Styling: Uses position: fixed to keep the navbar at the top of the screen.

Sidebar Styling:

Uses position: fixed for the .sidebar for consistent placement.

Uses transition: all 0.3s ease-in-out to create smooth animations when the sidebar is toggled. Main Content:

Uses transition: margin-left 0.3s ease-in-out to animate the main content when the sidebar is toggled.

Responsiveness:

The .sidebar.collapsed and .main-content.shifted classes adjust the layout when the sidebar is collapsed, providing a basic level of responsiveness.

Layout Techniques:

Fixed Positioning: Used for the navbar and sidebar.

Transitions: Used for smooth animations when the sidebar is toggled.

Flexbox/Grid: While the file uses positioning and margins, it could benefit from Flexbox or Grid for a more dynamic layout, especially within the main content area.

Media Queries: Used media queries for responsive design (adjusting sidebar width, font sizes, etc.) for different screen sizes.

HTML Files

landingpage.html

Purpose: This is the main landing page for the "No More Tumor" web application. It introduces the project, its features, and provides links to login and registration pages.

login.html

- Purpose: This page allows users (patients, doctors, and super admins) to log in to their respective accounts.
- CSS File: Likely intended to use common.css.
- Layout: Uses Flexbox or Grid effectively. Uses multiple forms.

register.html

Purpose: This page allows new patients to register for an account.

CSS File: Likely intended to use common.css.

Layout: Basic HTML form layout.

Patients.html

- Purpose: This page serves as the patient portal, allowing patients to upload MRI scans and view results.

CSS File: portal.css, potentially common.css.

Layout: Very basic.

Doctors.html

- Purpose: This page serves as the doctor's portal, allowing doctors to view and analyze MRI scans.

CSS File: portal.css, potentially common.css.

Layout: Very basic. Lacks detail.

SuperAdmin.html

- Purpose: This page serves as the super admin portal, allowing super admins to manage hospitals, doctors, and user analytics.

CSS File: portal.css, potentially common.css.

Layout: Lacks detail. Implies use of portal.css.

Overall Architecture

The "No More Tumor" web application follows a client-server architecture, with the HTML and CSS files providing the front-end interface for users to interact with the system. The application supports three types of users: patients, doctors, and super admins, each with their own portal and set of functionalities.

Security Considerations

- Data encryption for patient records.
- Secure API endpoints for AI predictions.
- Role-based access for doctors and patients.

Future Enhancements

- Real-time consultation with doctors.
- Enhanced AI model with multi-modal inputs (text, image, MRI scans).
- Mobile app for accessibility.

This document outlines the structure and technical aspects of the **No More Tumor** landing page to ensure a seamless user experience and effective AI-based diagnostics.