**Modules :**

**1. User Module**

The User Module serves as the primary interface for patients and users seeking to utilize the brain tumor detection system. In this module, users can register by providing their personal details and medical history, which are crucial for accurate predictions. Upon registration, users will need to verify their accounts through an email confirmation process before gaining access to the system. Once logged in, users can view their profiles, manage personal information, and access diagnostic results and reports. This module is designed to provide a seamless user experience, ensuring that individuals can easily navigate through the available features while prioritizing data privacy and security.

**2. Admin Module**

The Admin Module is essential for managing the overall functionality and security of the system. Administrators have the authority to oversee user registrations, activating accounts after verifying the provided information. This module allows admins to monitor user activities, manage access levels, and generate usage reports to track the system's performance. Additionally, the admin can update system configurations, manage training datasets, and ensure that the model remains efficient and up-to-date. By providing a comprehensive dashboard, this module enables administrators to maintain control over the system while ensuring a safe and effective environment for users.

**3. Training Module**

The Training Module is a crucial component of the project that focuses on the machine learning aspect of brain tumor detection. In this module, developers can upload and manage datasets for training the detection model. The module enables the configuration of various machine learning parameters, allowing for experimentation with different algorithms to improve prediction accuracy. Once the model is trained, it can be validated against test datasets to ensure its reliability and effectiveness in identifying brain tumors. This module is designed for data scientists and developers, providing them with the necessary tools and functionality to enhance the model's performance continuously.

**4. Detection Module**

The Detection Module is where the core functionality of the brain tumor detection system takes place. In this module, users can upload MRI images, which are processed by the trained machine learning model to identify potential tumors. The module provides a user-friendly interface for uploading images and viewing results, including visual markers indicating tumor locations on the scans. Predictions are generated in real-time, accompanied by confidence scores to help users understand the reliability of the results. This module aims to deliver accurate and timely diagnoses, ultimately aiding healthcare professionals in their decision-making processes.

**5. Sign-Out Module**

The Sign-Out Module ensures that users can securely log out of the system, protecting their sensitive information and maintaining privacy. This module is designed to provide a simple yet effective way for users to end their sessions securely. Upon clicking the sign-out button, users are logged out, and any session-related data is cleared to prevent unauthorized access. This feature enhances the overall security of the system, ensuring that personal medical information remains confidential and protected after each session.