### **Tech Stack**

**Mindstack** is a web-based learning application designed to make studying more effective and engaging. It provides students with interactive tools such as a Flashcard Builder, Custom Quiz Creation, Progress Tracking, a Student Dashboard, and a News Feed. Selecting the right technologies ensures a smooth, secure, and scalable system that enhances the overall learning experience.

#### **Frontend Technologies**



**HTML:** Defines the structure of web pages.



**CSS/SCSS:** Styles and enhances the visual layout of the application.



Typescript/Javascript: Provides interactivity and dynamic behavior.



**Angular:** A modern framework for building responsive and modular web applications.



Bootstrap: Used for responsive design and pre-styled UI components.

## **Backend Technologies**



**PHP:** a server-side scripting language used in web-based applications to dynamically generate and manage content, interact with databases, and handle server logic.



**MySQL:** Serves as the primary relational database for storing user data, flashcards, quizzes, and progress tracking.

## **Development Tools and Environment**



Visual Studio Code: The main code editor for writing and debugging the project.



**XAMPP**: Initially used for local MySQL database setup during early development.



**GitHub:** Used for version control and team collaboration during development.

# **Deployment and Hosting**



**Hostinger:** A web hosting platform that supports PHP and MySQL-based web applications. Provides stable and cost-effective hosting for PHP-based web applications.