

Abstract

Inspired by VL2 bilingual story apps, this project provides a worldwide audience an application for sharing multi-lingual signed and written language stories. The technical structure of this full-stack app includes a social media platform or iOS mobile app for the user; a server connecting the user with the database collection of stories; and the database. The MEAN stack version used to develop this website is cutting edge.

Nature of the Problem

VL2 storybook apps have four barriers to sharing stories in many signed languages

- Story apps only in American Sign Language and written English
- Payment required for story apps and also for coding app to create stories
- Coding skill required to create stories
- No means to comment or build community around these stories

Technical Solution for a Social Need

Website as a new single-page application

- Loads as a single HTML page: all components use Java script
- Built with MEAN stack
 - Meant for web applications
 - Includes all layers of an application: front end or user interface, middle or business logic, and back-end or database layers
- Dynamically updates page with user interaction
- Increases navigation speed to related pages

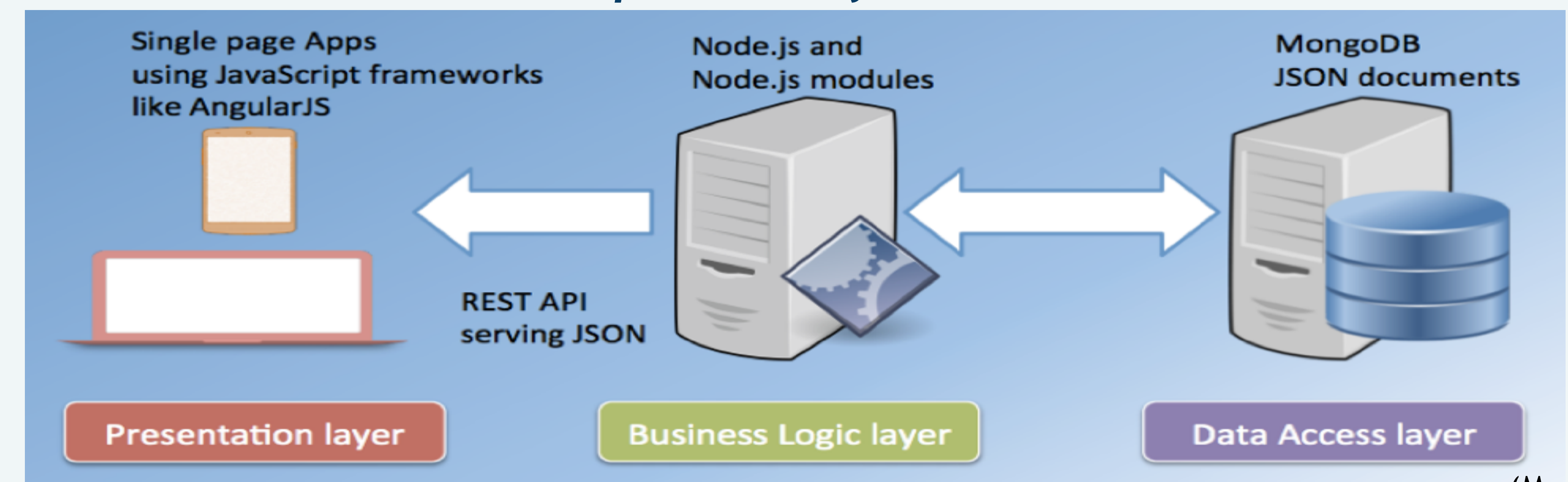
Resolution of Limitations

- No cost to see uploaded stories
- Stories in any signed language and written form of any spoken language
- Stories may be created with a personal camera and general knowledge
- Users may comment on their own or others' stories

Increased Functionality for Registered Users

- User authentication: Users are able to register with the database and log in their accounts with saved passwords
- Create, Read, Update, Delete: registered users upload videos and share with other people.
- Comment function: registered users comment on each video.

Web Architecture: Components of MEAN Stack



(Muppala, 2016)

MongoDB: a cross-platform document-oriented database which shuns the relational database's table-based structure to adapt JSON-like documents

Express.js: a Node.js web application server framework

Angular.js: an open-source web application framework to address many of the challenges encountered in developing single-page applications

Node.js: an open-source, cross-platform runtime environment to develop server-side web applications

Grunt and Gulp: Task runners

Ionic: software framework to build mobile apps with HTML, CSS and JavaScript

Cordova: open-source mobile app development framework

Bootstrap: software framework for client side development

Bower: file manager



<http://itserver2.gallaudet.edu:3000/>

Partial Mobile Implementation

- A mobile app running on iOS
- Currently a static application
- Next step: connecting to the same backend as the website

