Featurama

A social network that features your life.

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Overview

Currently, the Internet is a bit of a mess. No one knows what is real? What is fake? Up, down, left, right, etc. If we want to know what friends are up to, we go to Facebook or Instagram or Twitter. If we want to watch something, we go to Netflix, or YouTube, or Hulu, or Amazon. If we want to sell ourselves to a company, we go to LinkedIn, or Monster, or Indeed, or Handshake. What if, instead of crawling all over the Internet to get what we wanted, we had the Internet come to us? What if we had our own domain that was fed with our specific interests, wants, and desires?

Welcome, Featurama. Featurama is a website that features an individual user's specific interest. A user creates a profile that asks for what the user is interested in. Based on the user's feedback, a website is created for the user that the user can populate it with what they want. It will marry the idea of social networking of Facebook with the pinned boards of Pinterest, but instead of boards, users can create lists that they share and like to create social commentary with other like users.

System & Platform Requirements

Featurama is a web application, which means that it can be accessed from any modern device that can utilize the Internet. Therefore, the device being used would have to be connected to the Internet, whether that's in the form of cellular data, Wi-Fi, or with a wired connection, and must be connected to Featurama's web address through a supported web browser at all times during usage (see "Software Requirements" for supported web browsers). Devices that are officially supported - assuming they are set up to access the Internet - are desktop computers, laptop computers, tablets, and modern cell phones (i.e. smartphones).

Software Requirements

Currently, the only software requirements to use Featurama are regarding web browsers. Supported browsers are Internet Explorer 11, Mozilla Firefox, and Google Chrome. For the best performance, it is highly recommended to use the latest version of any of these web browsers.

Functional Requirements

- **Store and Retrieve User Data**: During registration, prompt the user for their information such as email, name, username, password, etc. and store that information into a database. Once that data is needed - like for user login, authentication, or displaying information - the system will retrieve the stored information to perform the desired task.
- **Store, Retrieve, and Display User Posts**: Users will have the ability to create posts by entering text into a form and submitting that data into the database. Once that post needs to be used, it will be retrieved by the system to be displayed. Comments, which are a subset of posts, will also

be available to users; comments can be “left” on posts and will be associated with them within the database. If the comments of a particular post is requested, the system can retrieve and display them.

- **Store and Retrieve Topics**: Each user post will be assigned a topic by the user. A post’s topic will determine at which time it will need to be retrieved and displayed; in short, when a user opens a certain topic, the posts that match that topic will be retrieved and displayed (in chunks so the browser / system is not overloaded).

- **Internet Connection**: The supported device of choice will need an Internet connection to connect to, use, and interact with the web application. Without an Internet connection, the device will not be able to reach or use the application at all.

Non-Functional Requirements

- **User Interface**: Featurama’s user interface is composed of tabs which will control which data is displayed to the user. This design is intuitive, clean, modern and quick, which will allow the user to swiftly and efficiently navigate the system and enjoy its features more easily.

- **Responsive Design**: In addition to the coherent user interface, the entire interface of the system is responsive. Responsiveness is the key to how so many devices will be able to cleanly and easily utilize the software because it will dynamically change based on the screen size.

- **Modularity**: The system is modular in its design. This not only helps the end-user better compartmentalize different components of the system for easier use, but, from a development standpoint, this helps make the creation process much easier. Modular design helps the developers maintain, reuse, and expand the product to ensure the best possible experience for users.

Implementation

Featurama will be implemented using the Node.js framework. By using Node.js we can keep the project modular and responsive because Node.js is asynchronous by default which performs faster than other frameworks because it is single-threaded and non-blocking.

- **Frontend:** Will be developed with a combination of languages and libraries. React.js will be the main library used for the application in addition to HTML. We’ll also be using Material UI as a component library for React. Material UI allows us to quickly add CSS styles and components like buttons, tabs, dialog boxes, menus, etc.

- **Backend:** The backend will be developed using NodeJS with the ExpressJS framework. NodeJS is a cross-platform, open-source, JavaScript runtime that allows us to use JavaScript for server-side programming. Running on top of NodeJS, we will use the ExpressJS web application framework to quickly set up server operations such as POST and CRUD, and API routes.

- **Database:** We will use MondoDB to build a database for this project. MongoDB is an open source database management system that uses a document-oriented database model which supports various forms of data. It is one of numerous nonrelational database technologies under the NoSQL banner for use in big data applications and other processing jobs involving data that doesn't fit well in a rigid relational model. Instead of using tables and rows as in relational databases, the MongoDB architecture is made up of collections and documents. MongoDB doesn't require predefined schemas and it stores any type of data. This gives users the flexibility to create any number of fields in a document, making it easier to scale MongoDB databases compared to relational databases. One of the advantages of using documents is that these objects map to native data types in a number of programming languages. Also, having embedded documents reduces the need for database joins, which can reduce costs.

- **Security:** MongoDB Enterprise Server brings added security features, an in-memory storage engine, administration and authentication features, and monitoring capabilities through Ops Manager. MongoDB offers various methods to verify a client's identity. MongoDB offers network encryption and can pass through disk encryption to help you protect your database and communications. TLS and SSL are both standard technologies that are used for encrypting network traffic.

Project Timeline

February 6th	Initial Project Presentation
	Functional Requirements
	Non-Functional Requirement
	System Design
	Timeline
February 20th	Project Presentation
	Use Case Diagrams

UML Diagrams

Data Flow

Entity Relational Diagram

April 7th Preliminary Demonstration

Unit Testing with Normal, Edge, and Error Cases

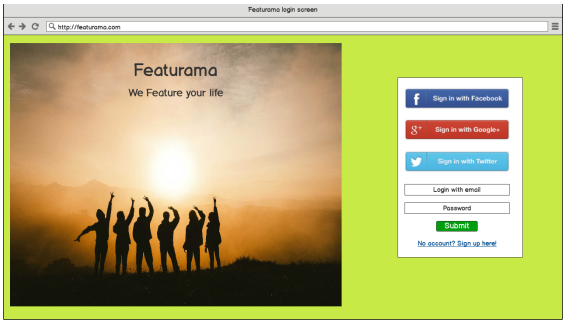
Implementation of a Training Plan

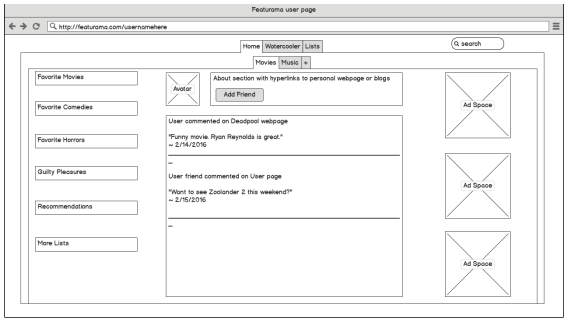
April 24th Final Demonstration

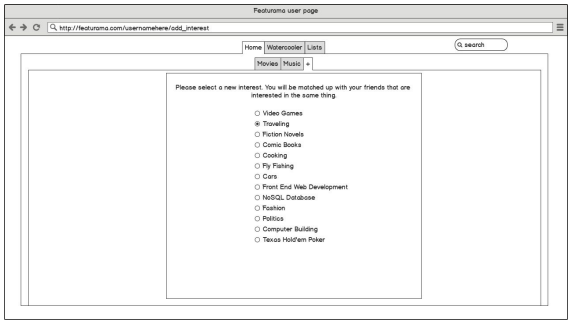
Project Poster

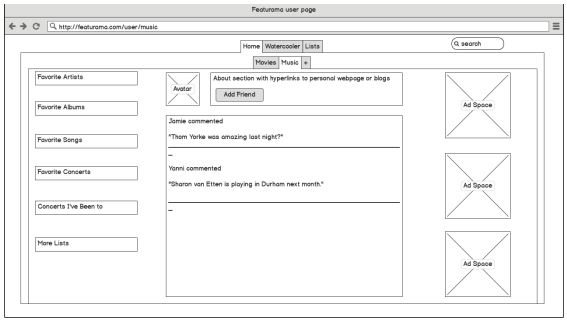
April 29th Final Report Due

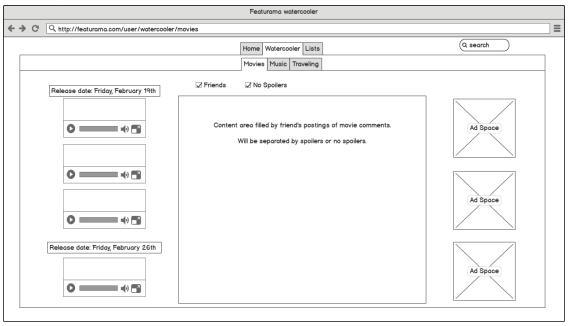
Wireframes










Featurama watercooler
http://featurama.com/user/watercooler/movies
search
Home
Watercooler
Lists
Movies
Music
Traveling
Release date: Friday, February 19th
Friends
No Spoilers
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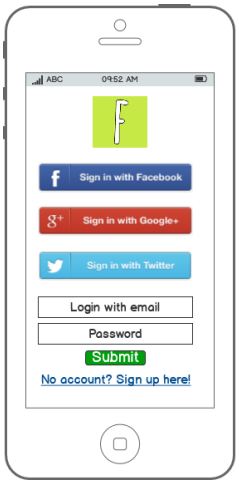
Will be separated by spoilers or no spoilers.
Ad Space
Ad Space
Ad Space
Release date: Friday, February 26th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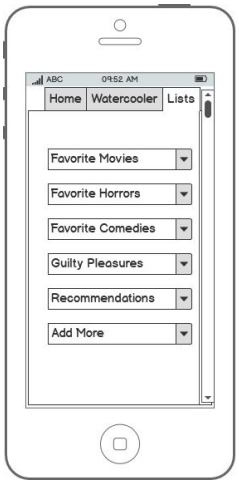
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Home
Watercooler
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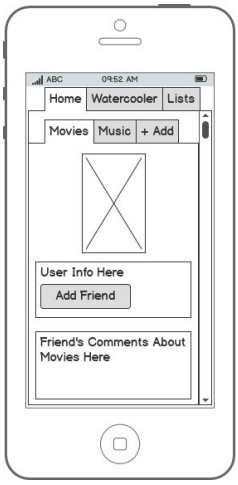
Favorite Horrors
Favorite Comedies
Guilty Pleasures
Recommendations
Add More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Friends
No Spoilers
General Watercooler Board showing comments by date.
If friends button is selected, this screen only shows friend's comments. Otherwise, it shows everyones.
If No Spoilers button is selected, no spoiler comments will be displayed.