

# tippe.ru Report (Ben Allen, Nick Pearson)

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tippe.ru is an anonymous secret sharing website. The site is built as a web app where users can post text and image content. The posts are location based, initially only being seen by people in the immediate area. If a post gets a lot of traction it is promoted to a wider area and seen by more people.

## A+ for HTML

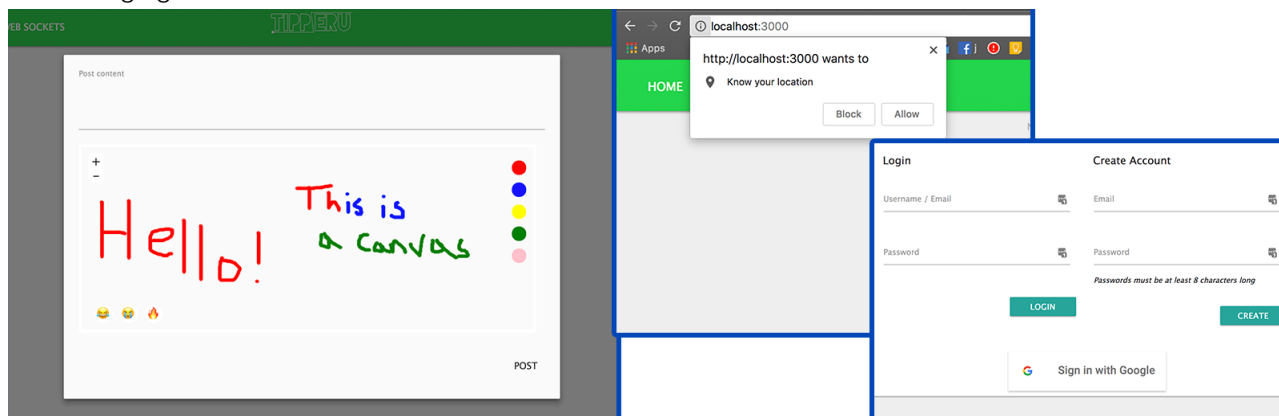
- We used the Pug (formally Jade) framework to ensure generation of valid HTML pages.
- Verification of our pages is done using a HTML validator automatically to ensure our client side dynamic page content also produced valid HTML.
- We've used an extensive range of HTML tags including recent additions from HTML5 such as **canvas**.

## A+ for CSS

- We integrated the Materialize CSS framework for basic styling. We used a separate stylesheet for more advance modification of the framework to fit the design we wanted.
- Our separate stylesheet allows to use custom CSS transitions and animations to create our loading screen and let's us achieve the responsive layout we are after. We are then able to remove unused classes from the Materialize CSS framework were necessary.

## A+ for JS

- We used AJAX requests extensively to create a single page application.
- We integrated the Google sign in API.
- We used javascript to handle button presses and changes of state on the page.
- We used the HTML5 geolocation API to determine the client's real world location.
- We used the HTML5 history API to track user through our single page app and process the browser back button in a meaningful way
- We used HTML5 canvas to allow the user to paint onto an image they want to upload. This uses an advance custom algorithm to allow dragging and dropping of stickers, custom drawing in multiple colours and enlarging of items.



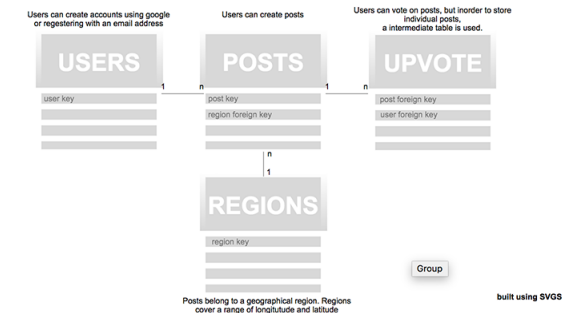
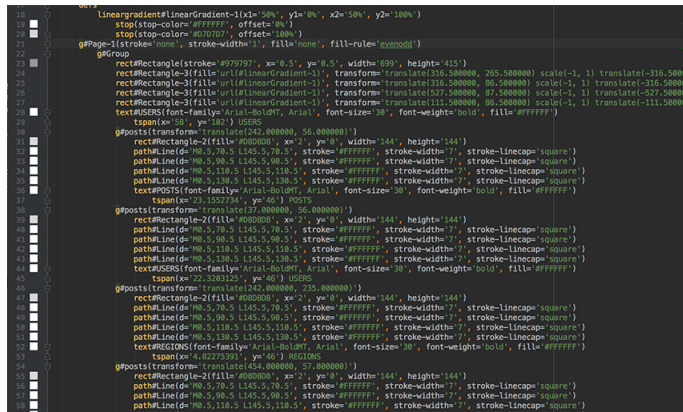
## A for PNG

- We created a background graphic for our posts. Using multiple layers, transparency, complex gradients and the creation of custom shapes using the pen tool we were able to create compelling graphics.

- Blending mode was also utilised to achieve the overlay effect of drawings attached to each post.
- The website icon and logo is also a PNG, using our custom font.
- Png's were also made to demonstrate our findings as seen in this report.

## A for SVG

- We created custom SVG assets for our icons and loading graphics.
- We created complex SVG assets seen on the project info page for describing our project.
- SVG graphics used use paths, gradients, borders, grouping and transparency to achieve the effect we were after.



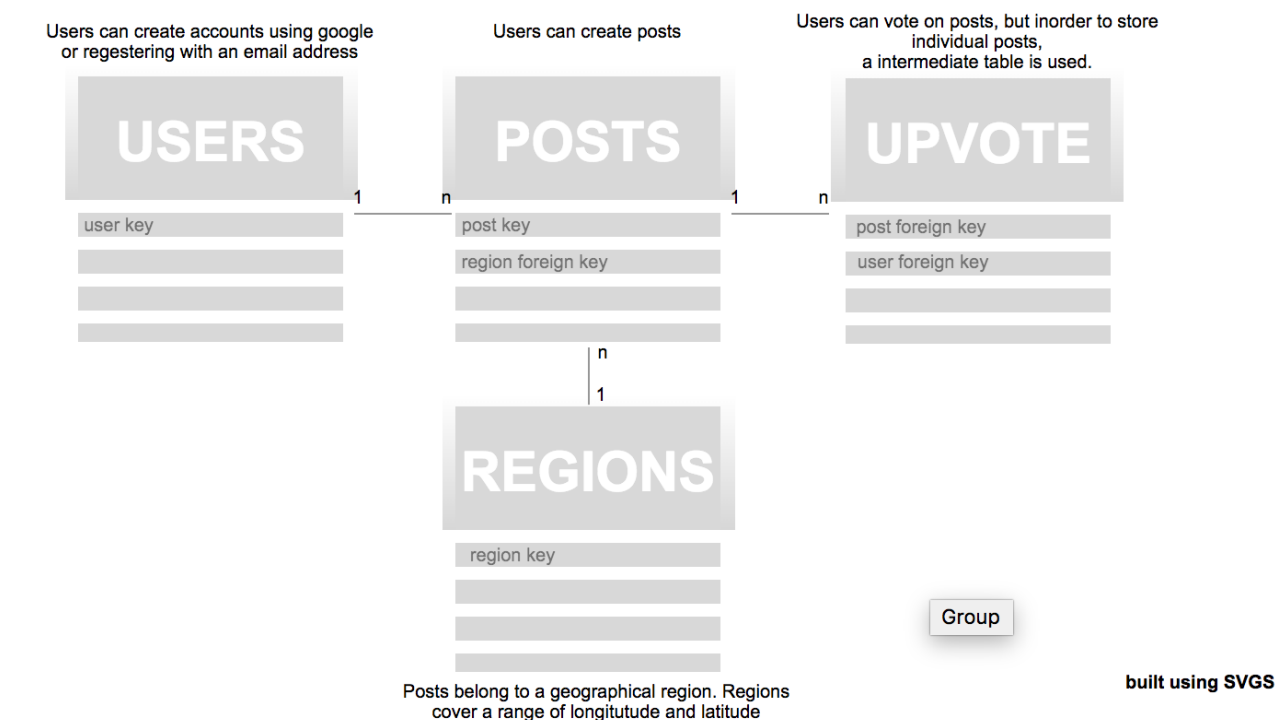
## A+ for Server

- We implemented a RESTful API to handle our login system, posts and location systems.
- We implemented unit tests for our server code and used a linter to identify errors and style issues with our server side code.
- We hosted our server using Google App Engine and used continuous integration with TravisCI to manage this and run our automated tests.
- We use redirections to ensure privileged parts of the site cannot be accessed without prior approval.
- We make use of cookies to store tokens that allow for automatic logging in.
- We use sessions to allow for smooth access across throughout the site without the need of logging in.
- We support UTF-8 on our API.
- We work with cache control to avoid data being cached accidentally.

## A+ for Database

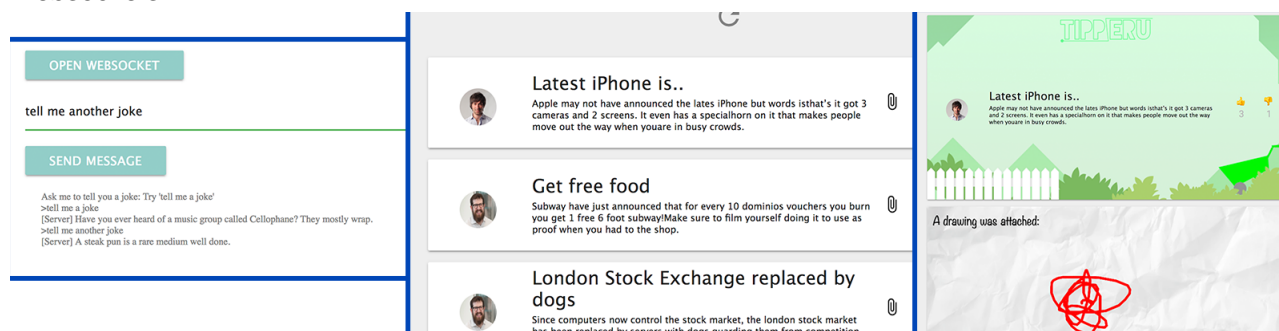
- We use SQLite
- We have implemented SQL queries for finding and inserting data.
- We implement advanced SQL queries to cross query multiple tables to avoid the need for multiple requests.

- We implemented complex SQL using transactions for the Upvoting system.



## A+ for Dynamic Pages

- We used the Jade framework to insert a small amount of data server side.
- We implemented our 'feed' of posts using client side javascript. We used templates on the client side to add content to the page dynamically.
- Websockets



## A+ for Depth

- We tested this website on multiple browsers to ensure support cross-browser support. By using BrowserStack we were able to ensure functionality and consistent styling across Windows Edge, Firefox, Chrome, Opera and Safari/
- The website uses the latest attributes in CSS3 to provide a responsive website. This means it works on mobile devices with minimal issues.
- Our site uses a constant theme to ensure the user finds the website easy-to-use. Buttons, Icons, Text, Containers and Colours were thoughtfully chosen to render a user-friendly website with a creative touch added to demonstrate our experience with GIMP.
- Our node server is carefully built to handle complex SQL queries and our API responses only respond with the required information to reduce bandwidth overhead.

- Our Continuous Integration setup allows us to consistently iterate on our website while ensuring reliability is maintained. During a git commit, tests are automatically initiated on a Travis server which tests the individual modules of our site, namely authentication and utilities. Additionally, tests are run to ensure valid CSS and HTML. Upon completion, it is deployed to our host website, tippe.ru.

