# Babble - Project Requirements

## Functionality

* Web-based responsive chat
* One room
* Content open to everyone
* User can type a new message and submit to room
* New messages appear at the bottom
* User can delete its own messages
* User is defined by email address
* Avatars should be displayed automatically for email address
* First load should display a modal popup to collect email address
* User can discard and continue as anonymous
* Non-persistent (no db - all messages erased after server restart)
* Client-side persistence:
  + Typed text in new message textarea
  + Email address / preference to be anonymous
* Chat-room stats:
  + Number of connected users
  + Number of messages

## Implementation

* Server in NodeJS
* Real-time updates with long polling: <http://book.mixu.net/node/ch3.html>
* Automatic avatars with Gravatar: <https://en.gravatar.com/site/implement/profiles/json/>
* Client-side persistence with LocalStorage: <https://developer.mozilla.org/en-US/docs/Web/API/Web_Storage_API/Using_the_Web_Storage_API>
* No JS libraries (e.g. jQuery, Angular, etc.)
* No CSS frameworks (e.g. Bootstrap, etc.)
* No IDs should be used for CSS styling
* Exactly **one** JS global variable allowed: Babble
* **All** class names should adhere to the SUIT CSS naming convention: <https://github.com/suitcss/suit/blob/master/doc/naming-conventions.md>

## Desktop Design

* PNG: <https://drive.google.com/open?id=0B42daK8eCfktZzJvdXNBQWVsSVE>
* PSD: TBD
* Fluid: takes full width and height regardless of screen size
* Only scroll is in the messages area (vertical)
* New message text area is stick to bottom
* New message text area enlarges (grows from bottom to top) as needed to accommodate the text inside until a max of 300px and then an inner scrollbar appears
* Message width shrink-wraps to text width with a max width of 600px
* Focused/hovered message has a gray background and the delete button appears
* Chat-room name is aligned left
* Chat-room stats are aligned right
* Anonymous user design - TBD
* User register modal design - TBD

## Mobile Design

* TBD

## HTML5 Semantics/Usability/Accessibility

* Page/tab title should be “Vegans - Babble”
* URL should be http://username.github.io/babble/#/vegans
* New message should be a textarea element
* Submit image should be a button element with an aria-label attribute
* textarea and submit button should be inside an HTML form with relevant action which will be submitted upon button click/enter
* Logo is an img
* Header text is an h1
* Logo and h1 is in a header element
* Left area (green) is an empty nav element
* Right area is inside a main element
* Message list is an ordered list
* User images should have an empty alt
* User names should be a cite element
* Message time should be a time element with correct datetime attribute (UNIX time)
* Each message should be focusable with the tab key
* Delete button for each message should be focusable with the tab key
* Delete icon should be a button element with an aria-label attribute
* Chat-room stats should be inside a definition list (with the terms hidden): <http://devdocs.io/html/element/dl>
* Hidden content should be hidden in an accessible way:
  + <http://a11yproject.com/posts/how-to-hide-content/>
  + <http://webaim.org/techniques/css/invisiblecontent/>

## Standards and Validation

* HTML5 doctype + UTF8 charset (<https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/HTML5/Introduction_to_HTML5>)
* Valid HTML5 (zero errors: <https://validator.w3.org/>)
* Accessible (zero errors: <http://wave.webaim.org/>)
* Logical heading structure (zero outline orphans: <https://validator.w3.org/> (show outline))
* No JS errors (DevTools console) (**without** global onerror handler)
* Should pass all unit tests - TBD
* 80/100 or higher Google PageSpeed score (<https://developers.google.com/speed/pagespeed/insights/>)
* Mobile optimized
  + Viewport meta tag present with width=device-width (<https://developer.mozilla.org/en/docs/Mozilla/Mobile/Viewport_meta_tag>)
  + Initial scale 100% (no automatic zoom out)
  + **Don’t** disable pinch zoom
  + No horizontal scroll on **any** screen size

## Submission

* Github username in [Contacts List](https://drive.google.com/open?id=1WSc8rWsxalJ8pHUeT9YPR8kirLvhye4a8zCqDlXgkOQ) should be present and valid (attention: case **sensitive**)
* **Exact** repository name: babble
* Folder structure
  + /babble
    - /client
      * /styles
        + main.css
      * /scripts
        + main.js
      * /test
        + main.js
      * index.html
    - /server
      * /test
        + main.js
      * main.js
* *NOTE: a code similarity checker will be used*