

# 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](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](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](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](#) 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*