

Web Programming – Milestone 3

InterConn – Mahesh, Maheedhar, Rohila (Group 2)

Features Implemented:

1. Implemented pagination for messages with a page length of 10. Used Ajax to fetch and prepend messages to message display area.
2. Users can embed pretty-formatted code, images from a local file and images from the web in message post.
3. Users can view information about usage, edge cases, implementation and useful hints on our site using the Help page provided on our site.
4. Administrator is the one who created the workspace in our site. Administrator can edit channel membership, delete messages and invite users (Tow Mater is the admin in the carz workspace).
5. Administrator can also archive and unarchive a channel.
6. User metrics are calculated based on the number of channels a user created, membership in channels, messages sent in all channels (including threads) and reactions to messages in both main messages and threads. This metric is displayed at the bottom of user profile page.
7. User can search other users in the workspace using the search option on our site home page. The suggestions for search are result of an Ajax request to the database based on the input of user. User can navigate to other user's profile page by clicking on their username.

Tasks which took more attention:

- ➔ **Images from web:** Once the user inputs an url for an image, this input is then validated for the extensions (jpg, JPG, jpeg, JPEG, png, PNG) and then `$http_response_header` is retrieved to know the status header by making a HTTP call to the web url user input using the PHP method `file_get_contents`. If the status is not 404 then it is assumed that there exist an image with the web url input. It is important to be noted that the web url alone without any appended text has to be posted in order for that to be resulted as a image.
- ➔ **Pagination:** Loading all the messages in a channel at a time is not useful all the times as a user might not even look at the messages that are at the beginning of chat. This method may work quite well in cases where the total messages are few in number. Instead of the above approach, pagination can be used to show the messages only on the request of user. Generally, two types of pagination can be seen being used these days. One of them being the traditional mechanism with messages being divided into different pages with a fixed count in each and user can select any one of them. This method would be more apt with shopping sites, blogging websites, but not with a messaging area. So we decided to load the next set of messages when a user scrolls to

the top. This way user has to do nothing but scroll to view the older messages. Each set has a fixed count of 10 messages at a time.

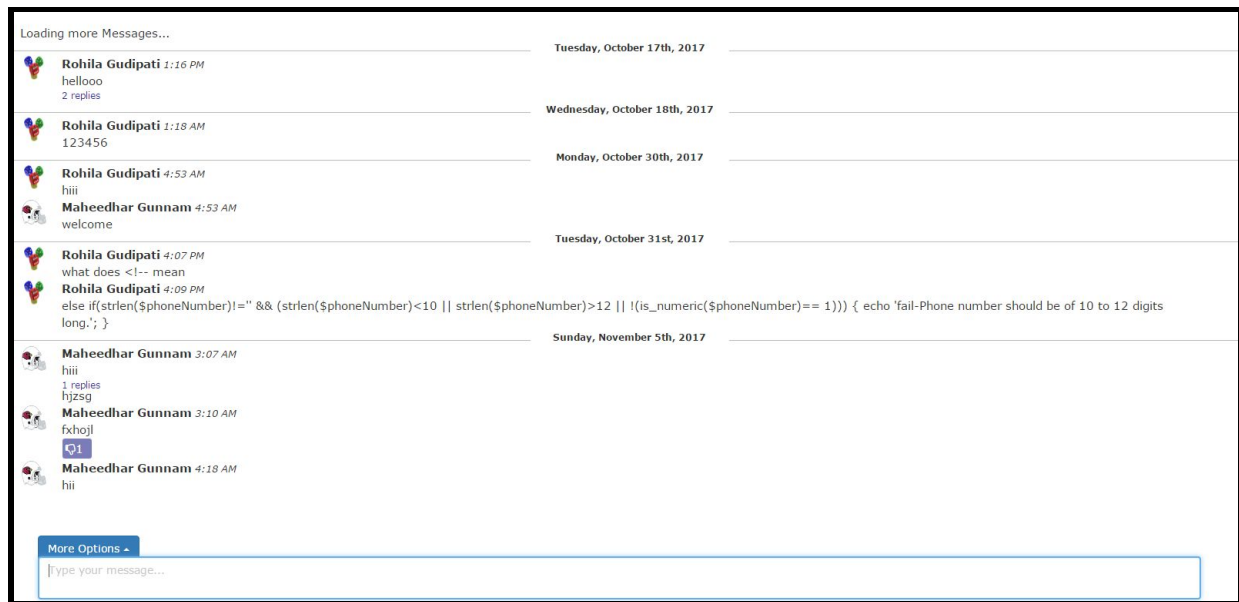


Fig 1. Showing the latest 10 messages distributed over several days

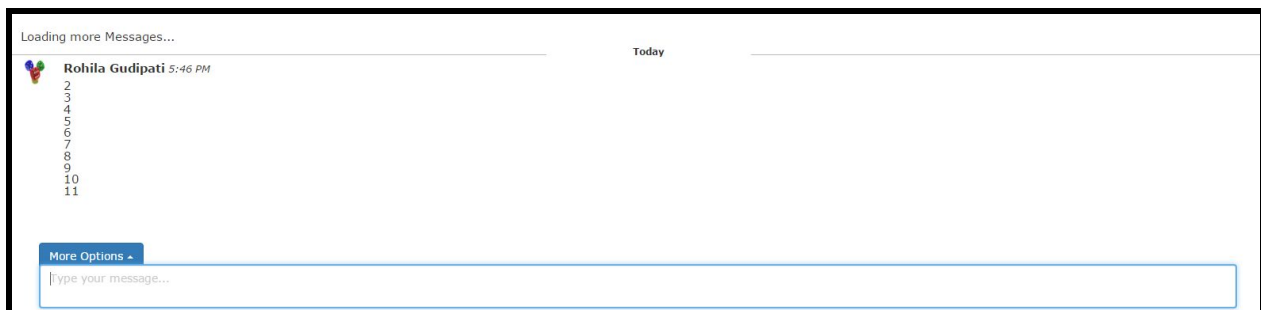


Fig 2. Showing 10 messages with the same timestamp

You can see from the above images that the same set of 10 messages are being seen differently because of the timestamp. It might look a little weird for the first time, but as our design of message area groups messages by their posted time, and we also considered ten messages as a set and not ten groups of posts according to the timestamp.

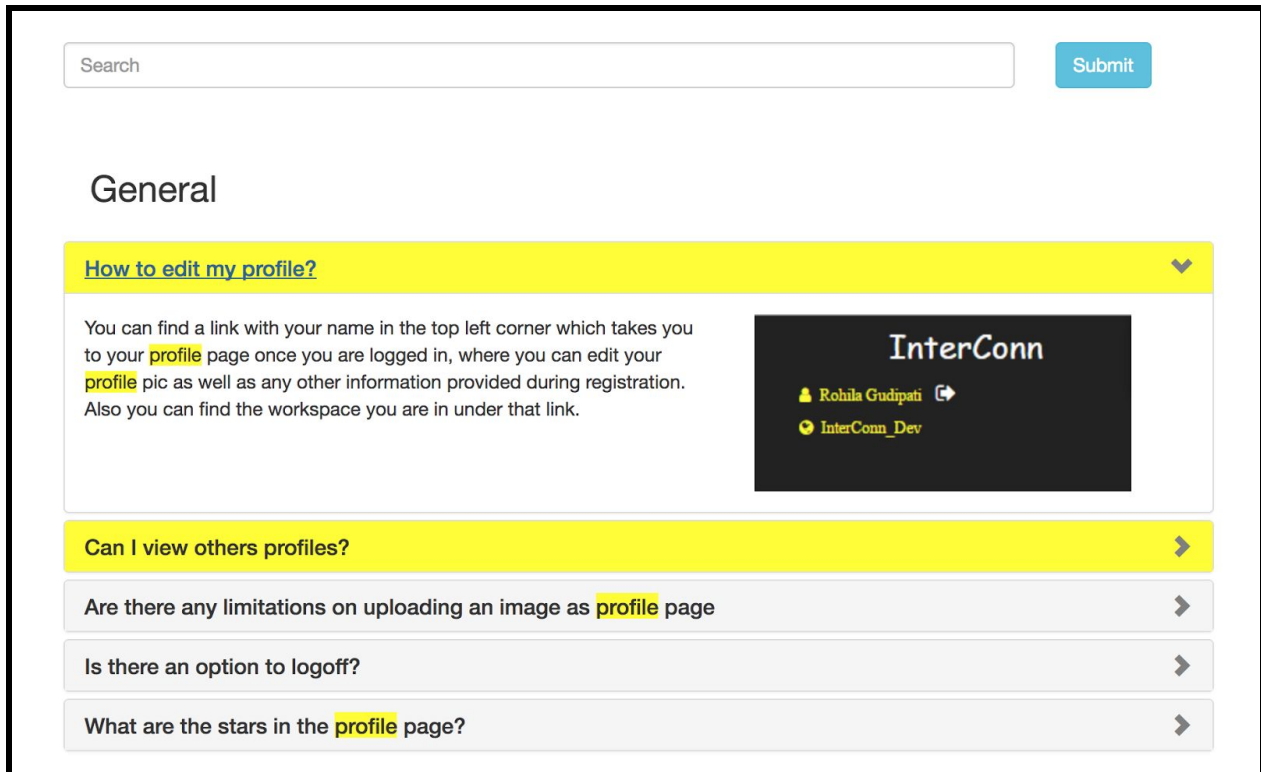
➔ **Metrics Design:** Each user is given a rating based on the number of channels created and the number of channels the user is a part of. Also the number of posts of a user and the reactions are also considered in the evaluation of rating of a person. For now we considered the count of reactions and the number of posts is of higher importance than the number of channels he is a member of as he may be inactive in all of them.

User metric value = Reaction Count + Posts count + Channels Created * 0.5 + Channels Part Of * 0.5

As every person's metric is represented on a scale of 0-5, we calculated the raw metric value for all users and the one with the maximum value is given 5 star rating and every other person's metric is evaluated relative to the highest rated person.

Things to know for the user to effectively use the site:

A help page is designed to help the users to know about the common questions in the website, little things that are not easily understood, so that a user can effectively use the site. Bootstrap collapse was used in the help page. This makes it difficult for the user to expand each of them to look at what's in it. So a search feature is implemented on the help page so that he can extensively search the text inside the collapsible element as well.



The screenshot displays a web interface for a help page. At the top, there is a search bar with the placeholder text "Search" and a blue "Submit" button. Below the search bar, the section is titled "General". The first collapsible item, titled "How to edit my profile?", is expanded, showing text instructions and a screenshot of the "InterConn" user interface. The text instructions state: "You can find a link with your name in the top left corner which takes you to your profile page once you are logged in, where you can edit your profile pic as well as any other information provided during registration. Also you can find the workspace you are in under that link." The screenshot shows the "InterConn" header, a user profile for "Rohila Gudipati", and a workspace named "InterConn_Dev". Below this, there are four more collapsible items: "Can I view others profiles?", "Are there any limitations on uploading an image as profile page", "Is there an option to logoff?", and "What are the stars in the profile page?".

Fig 3. Help page

Third party libraries used:

- **Highlight.js:** We have used this plugin to highlight code snippets uploaded by user. Depending upon the type of code (eg: PHP, javascript) color of code snippet changes. For this script to be used there is a need that the particular code segment to be posted has to be wrapped around the following tags `<pre><code class="javascript">`
`</code></pre>`.
- **Select2:** We have used the select2 plugin for inviting multiple people into a channel at one time. This plugin is an enhancement of select input field, which allows us to select multiple items at once. It has a feature to search among the given suggestions. All the selected options are displayed in form of tags in the select field and there is also an option to remove the selected items. By giving the data consisting of ids and names of members, it constructs the suggestion box by itself.

References

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