Welcome to the documentation of **HeapOverflow!**

To run the app, firstly download dependencies by command "npm run install:client" and "npm run install:server", then respectively run command "npm run npm run dev:client" and "npm run dev:server"

Points proposal

Feature	Max points	
Basic features (as stated in the previous chapter) with well written documentation	25	✗
The application does not work	-100	
No documentation	-100	
Users can edit their own comments/posts	4	✗
Utilization of a frontside framework, such as React, but you can also use Angular, Vue or some other	5	✗
Use some highlight library for the code snippets, for example https://highlightjs.org/	2	✗
Use of a pager when there is more than 10 posts available	2	✗
Login with Facebook, Google or Twitter accounts (use Passport.js)	2	
Admin account with rights to edit all the post and comments and delete content (if a post is removed, all its comments should be removed too)	3	✗
Test software for accessibility; can it be used only with keyboard / voice command? Can screen readers work with your application?	3	✗
Provide a search that can filter out only those messages that have the searched keyword	2	✗
Vote (up or down) posts and comments (only one vote per user)	3	✗✗
User profiles can have images which are show next to posts/comments	3	✗
User can click username and see user profile page where name, register date, (user picture) and user bio is listed	2	
Last edited timestamp is stored and shown with posts/comments	2	✗
Create (unit) tests and automate some testing for example with https://www.cypress.io/ (at least 10 cases have to be implemented)	5	✗

Index page (Not login)

HeapOverflow

Enter a post title...

Post Demo
This is a demo of post, and this this is the first chapter of the post. Chapters like this (not code block) are called segment.

post1
post1

post2
post

post3
post

post4
post

post5
post

post6
post

post7
post

post8
post

post9
post

◁ 1 ▷

Navbar
From any page, click "HeapOverflow" redirect to **index page**.
Click the button on the left to **login/signup page**.
Click button on the right go to the GitHub repository of the project.

Search bar
Enter a title in the input and click the button on the left to search for posts' title contains entered title.
Enter a title in the input and click the button on the right go to **create post page**.

Posts bar
All the posts (meet criteria, if searched) are listed.
Click a post go to the **post page**.

Pager
At the end of the page is a pager, if more than 10 posts are created (meet criteria), rest of the posts will be on the other pages.

Index Page (Logged in)

HeapOverflow   `qwerty` ⬇ ⬤

Enter a post title...   🔍 📄

Post Demo

This is a demo of post, and this this is the first chapter of the post. Chapters like this (not code block) are called segment.

post1

post1

post2

post

post3

post

post4

post

post5

post

post6

post

post7

post

post8

post

post9

post

◁ 1 ▷

Navbar

After login, there are some changes in navbar, click the button on the left go to logged in user's profile page.

Click the button in the middle, will remove the JWT and thus log out.

HeapOverflow   `asdfgh` ⬇ ⬤

Enter a post title...   🔍 📄

No matched result

◁ 1 ▷

If a title not exists in any post, it will render No Matched Result

Pager

Enter a post title...   🔍 ⎘

post21

post

◁ 3 ▷

Pager will automatically calculate how many posts are there and divide them into pages, if you are at first page and click previous page, or at last page and click next page it will prevent you do so.

Create Post

✕   post   Now:
                                                                                        2023/3/5 21:15

First chapter of your post
It can be a short description...

After entered a title (let's take "post" for example) and clicked create new post button, here is the redirected page where you can enter text for first chapter.
Note that first chapter is mandatory for a post.
After entered necessary info, click the green button floating on right-bottom of the page to create the new post.

Profile Page (viewing)

On the profile page, username, user id, user bio, avatar, and register time are shown.
To modify user profile, click the button on the card's footer.

Profile Page (Editing)

After clicking the edit button, user can set their username, bio, and select an image as avatar.
Once you selected an image, click the button on the right of the file input to upload avatar.
To update profile, click the left button of the card's footer.
Click the right button in footer cancel editing.
Note that the language of file input will change with user's system language, my computer's system language is Chinese, so it shows "Select file, no file selected" in Chinese.

Sign In/Sign Up Page

HeapOverflow

asdfgh   •••••••••   Sign In | Sign Up

After click sign in button, you will get to this page.
Enter your username on the left and password on the right then click "Sign In" button you will sign in to the app.
Enter a username not using by anyone and enter password and click "Sign Up" the page will change to Sign Up mode, see below.

HeapOverflow

zxcvbn   •••••••••   Sign Up

Shortly decribe yourself..   Shortly decribe yourself..

Repeat password

At this mode, you can enter your bio, and the repeat the password you have entered previously, then enter "Sign up" button, user's sign up will be save to database.

Note: the account for admin user (the one have unlimited access) will be automatically created when the app runs first time.
Username and password for admin user:
Username: admin
Password: getunlimitedaccess

Post Page

In this page, not login in user can only view; logged in user but not author / admin can view, send comment, vote; author of the post / admin can view, comment, vote, add, modify, and delete.

Click the close button on the left-top of the card will redirect to index page.
In floating bar, user can vote (only once), and edit or delete, after clicked edit button, user will be redirected to modify page.

In post page, content are showing / handling as "a chapter after a chapter" form, which mean every chapter are independent from each other, user can click "New Segment" to create a chapter of plain words (not in code block), click "New Snippet" user can create a code block, and language can be set.
Note, in "New Snippet", language is set to raw as default, to create a code block one need change the language to something else, otherwise you will still create a plain word chapter.

In the below of the page, comments are listed, one can click "Write Comment" to write a new comment.

Modify Page

✕   **Post%20Demo**   Now:
                                                                                  2023/3/5 22:3

This is a demo of post, and this this is the first chapter of the post.

🗑 Python

```python
if __name__ == '__main__':
    print('And chapter like this (in code blocks) are called snippet')
```

🗑

when you set language to raw, it would be a "segment", to any other language (like Python, the previous chapter) it would be a snippet.

🗑 Css

```css
@font-face {
    font-family: "JetBrainsMono-Medium";
    src: url("../public/JetBrainsMono-Medium.woff2");
}
```

After click the edit button, user will be redirected to this page.

In this page user can modify and delete each chapter, and change language for code block chapters.

Note: as mentioned earlier, first chapter of the post cannot be deleted.

After editing, user can click the floating green button on the right-bottom to save the modification.

End of the user guide, note that automated tests are in the root directory.

Accessibility test

User cannot use only with keyboards / voice. Reader of the browser can work for most circumstances.

In inputs field click "Tabs" can switch to next input.

Icons are used, Can also be used by people with color blindness

Response design applied, can used by almost every device.

(Continue next page)

Possible extra points

- Nice page design.
- Cool font face.
- Responsive design.
- Post can have multiple chapters, they can be plain words or code block.
- Nice icons are used.
- Smart pager can calculate lower / upper bound of page.
- Button link to GitHub repository of the project.
- User can update their profile and avatar.
- Every declined request have proper info shown on the page (delete other user's post: you have no permission to do so; vote before login: you must login first).