

SW Engineering CSC890

Project Title: Code Talkers

Team Number: 04

Names of Students:

Snehal Patil (Team Lead)

Manali Seth (Github Master)

Milestone: 04

Date: 12/03/2022

History Table

Date	Revision
11/20/2022	Created as the first version
12/03/2022	Created as the revised version

1. Product Summary

Name of the Product: Code Talkers

Major Functions:

- 1) Browsing
Users can browse through different features from the navigation bar.
- 2) Login
Users can login the portal and will be able to use the displayed features.
- 3) Registration
One can register themselves to have more privileges than unregistered users.
- 4) Code to Text
Users can enter their respective questions/code in an input box displayed as prompt on the interface and get the explanation for their code
- 5) Text to Code
Users can enter their question and choose the programming language from the dropdown in which they want to generate the code into.
- 6) Code to Code
Users can translate code from one programming language to another.
- 7) Feedback
Add Feedback - Students can add their experience of using the tool by giving feedback.
View Feedback - Professors can view feedback given by the students.
- 8) About Us
Users can browse individual profiles of the Code Talkers creators by clicking About page.

Unique feature:

- We have provided a feature of feedback to the users so that they can give their opinion about the response generated for their query. They can also provide rating for the particular response
- Professors can view feedback from the students and get to know how much it is beneficial for them for their academics.

URL: <http://13.57.40.53:3000/>

2. QA Testing

I. Unit Test

Github URL:

https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/tree/master/applications/client/src/containers/__tests__

Coverage Description:

- Functional coverage

- 1) User has to enter their question in the input text box, if not already.
- 2) User has to rate the response generated, if not already.
- 3) User has to complete all the input fields in order to submit the form.

- Statement coverage

We have written test cases trying to cover all the statements at least once from the source code.

File	% Stmts	% Branch	% Funcs	% Lines
All files	50.34	15.68	50	50.34
src	17.64	0	0	17.64
App.jsx	50	100	0	50
index.js	0	100	100	0
reportWebVitals.js	0	0	0	0
src/components	22.22	42.1	25	22.22
CardDisplay.js	100	100	100	100
Navbar.js	5	0	0	5
StarRating.js	60	100	33.33	60
src/containers/about	100	100	100	100
About.js	100	100	100	100
AboutManali.js	100	100	100	100
AboutSnehal.js	100	100	100	100
src/containers/account	25	0	27.27	25
Login.js	5.26	0	0	5.26
Logout.js	8.33	0	0	8.33
Register.js	58.82	0	100	58.82
src/containers/codeToCode	61.66	0	53.84	61.66
CodeToCode.js	61.66	0	53.84	61.66
src/containers/codeToText	63.46	0	63.63	63.46
CodeToText.js	63.46	0	63.63	63.46
src/containers/errorPage	100	100	100	100
ErrorPage.js	100	100	100	100
src/containers/feedback	50	0	60	50
Feedback.js	50	0	60	50
src/containers/home	100	100	100	100
Home.js	100	100	100	100
src/containers/textToCode	65.45	0	66.66	65.45
TextToCode.js	65.45	0	66.66	65.45

II.Integration Test

Github issues: <https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/issues>

All P1 features were tested.

Test Case Id	Test Case description	Dates Tested	Test scenario	Prerequisites	Test Data	Test Results
1.	Able to login to the portal	11/16/2022	<ul style="list-style-type: none">- Open Application using the application URL.- Click on Login from the navigation bar or click on the sign in link from the registration page.- Enter details and click login.	User should be registered	Email, Password	PASS
2.	Able to register to the portal	11/16/2022	<ul style="list-style-type: none">- Open Application using the application URL.- Click on Register from the navigation bar or click on the sign up link from the login page.- Enter user details and click register to get valid credentials	NA	First Name, Last Name, Email, Password, User Role	PASS
3.	Able to access Code to Text feature	11/17/2022	<ul style="list-style-type: none">- Open Application using the application URL.- On the Home page, we can see the “Get Started” button to access the Code to Text feature.- Click on the button	User should be logged in, if not, user is redirected to login page (lazy registration)	Email, password	PASS
4.	Able to access Text to Code feature	11/17/2022	<ul style="list-style-type: none">- Open Application using the application URL.- On the Home page, we can see the “Get	User should be logged in, if not user is redirected to login page (lazy	Email, password	PASS

			Started” button to access the Text to Code feature. - Click on the button	registration)		
5.	Able to access Code to Code feature	11/17/2022	- Open Application using the application URL. - On the Home page, we can see the “Get Started” button to access the Code to Code feature. - Click on the button	User should be logged in, if not user is redirected to login page (lazy registration)	Email, password	PASS
6.	Generate code to text	11/18/2022	- Open Application using the application URL. - Click on the get started button to access the respective page. - Enter the code you want to understand. - Click the Get Explanation button and wait for a few seconds. You get the response.	User should be logged in, if not user is redirected to login page (lazy registration)	Email, Password	PASS
7.	Generate text to code	11/18/2022	- Open Application using the application URL. - Click on the get started button to access the page. - Select the programming language you want the code for. - Enter the question. - Click the Get Code button and wait for a few seconds. You get the response	User should be logged in, if not user is redirected to login page (lazy registration)	Email, Password	PASS
8.	Generate code to code	11/18/2022	- Open Application using the application URL. - Click on the get	User should be logged in, if not user is redirected to	Email, Password	PASS

			<p>started button , to access the respective page.</p> <ul style="list-style-type: none"> - Select the programming language you want to convert from. - Select the programming language you want to convert into. - Enter the code. - Click the Translate Code button and wait for a few seconds. <p>You get the response</p>	login page (lazy registration)		
9.	Add Feedback	11/19/2022	<ul style="list-style-type: none"> - Open Application using the application URL. - Click the get started button from the home page. - After generating the response for your question, you get the input and output automatically. - Add the feedback about the response generated and give a rating about the experience using this tool. 	User should be logged in and use one of the Code to Text, Text to Code or Code to Code feature	NA	PASS
10.	View Feedback	11/20/2022	<ul style="list-style-type: none"> - Open Application using the application URL. - Click on Feedback from the navigation bar. 	User should be logged in as Professor to view feedbacks from students	N/A	PASS
9.	Able to see the About us page	11/15/2022	<ul style="list-style-type: none"> - Open Application using the application URL. - Click on About from the navigation bar 	N/A	N/A	PASS
10.	Able to access Code	11/15/2022	<ul style="list-style-type: none"> - Open Application using the application 	N/A	N/A	PASS

	Talkers creator introduction		URL. - Click on About from the navigation bar - Click on About Me to see individual introduction pages			
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3. Code review

a) Coding Style

We follow the Google's Javascript Style Guide:

<https://google.github.io/styleguide/jsguide.html>

- **Design:** Is the code well-designed and appropriate for your system?
- **Functionality:** Does the code behave as the author likely intended? Is the way the code behaves good for its users?
- **Complexity:** Could the code be made simpler? Would another developer be able to easily understand and use this code when they come across it in the future?
- **Naming:** Did the developer choose clear names for variables, classes, methods, etc.?
- **Comments:** Are the comments clear and useful?
- **Style:** Does the code follow our style guide

b) Code with Code Review

```
{
  feedbacks.map(userFeedback => {
    return (
      <>
        {userFeedback.feedbacks && userFeedback.feedbacks.map(feedback => {
          return (
            <tr key={feedback._id}>
              <td>{feedback.email}</td>
              <td>{feedback.question}</td>
              <td>{feedback.answer}</td>
              <td>{feedback.feedback}</td>
            </tr>
          )
        })}
      </>
    )
  })
}
```


The screenshot displays a GitHub pull request interface. At the top, a comment by **Manali-Seth** from 9 days ago says "Please review changes". Below this, a commit history section shows that **Manali-Seth** added 8 commits 12 days ago. The commits listed are:

- Changing class to function based component (46cc04a)
- Added user feedback form and submitting feedback to database for text... (96533a2)
- Changing class to function based component for code to code (a265def)
- Added user feedback form and submitting feedback to database for code... (864fa28)
- Adding Form and Button components of react-bootstrap (68dc024)
- Assigning controlId to Forms (ebf818b)
- Retrived feedbacks from db and displayed on UI (e54aa61)
- Resolving merge conflicts (bfc11a0)

Below the commit history, **Manali-Seth** requested a review from **snehalp396** 9 days ago. **snehalp396** has approved these changes 9 days ago, with a link to "View changes". A comment from **snehalp396** states: "The code looks in a proper format. Also, the changes discussed have been applied after the merge. Currently, the feedback is visible to all users. for future, we need to make it role based visible."

c) Github pull requests

<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/5>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/17>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/25>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/27>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/28>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/33>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/35>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/36>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/37>
<https://github.com/CSC-648-SFSU/csc890-03-fa22-team04/pull/70>