About the web application
Acquiring a new language can be a challenging endeavour that often leads to individuals quitting part-way through the process of learning one. To make language-learning less daunting, this work aims to develop a fun and engaging story-writing web-game, *WriteIt*, that supports players in learning English.

In the game, users piece together stories both collectively and incrementally; that is, each user contributes one sentence at a time, building from where a story had been previously left off by other users. In addition, users are given a specific word that they must incorporate in each sentence that they contribute. In this way, as a by-product of playing the game, users are able to foster better writing skills, build their vocabulary, and ultimately hone their mastery of English.

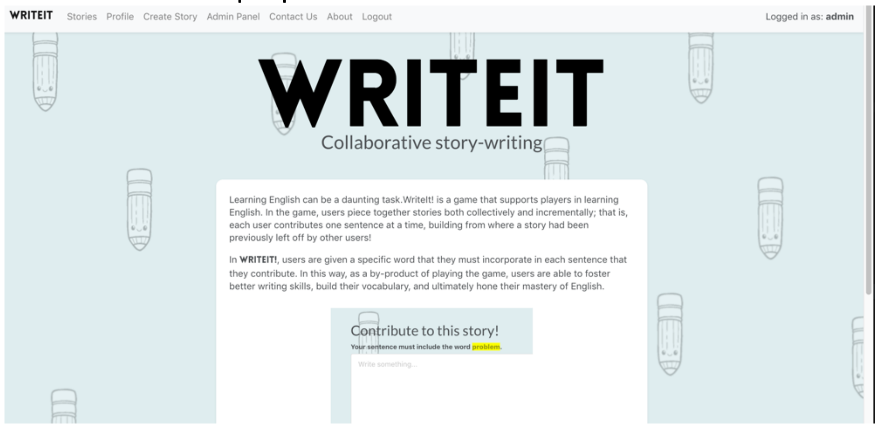
Web application structure
This web application is a React application running on a Node.js server.

Web application link
The link is writeit2.herokuapp.com.

Instructions for running the application
1. cd into the '/team15' directory.
2. Run 'npm install' to install the required modules for the web application.
3. Run 'npm run build'.
4. Run 'npm start' to launch the web application. Once launched, the application should be running on localhost:3000.
5. To login as regular player, credentials are **(username: user, password: user)**. To login as an admin, credentials are **(username: admin, password: admin)**.

User interactions
Below describe the use cases for each of our three user types: guest (i.e., a user who has not yet authenticated), regular player, and admin.

1) **About page (**
   - Describes the purpose of WriteIt. Accessible to all users.



Learning English can be a daunting task.WriteIt! is a game that supports players in learning English. In the game, users piece together stories both collectively and incrementally; that is, each user contributes one sentence at a time, building from where a story had been previously left off by other users!

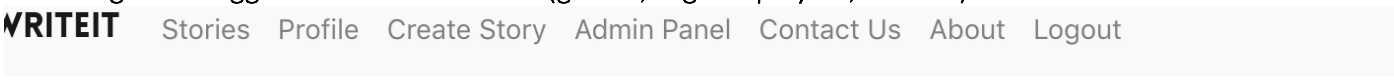
In **WRITEIT!**, users are given a specific word that they must incorporate in each sentence that they contribute. In this way, as a by-product of playing the game, users are able to foster better writing skills, build their vocabulary, and ultimately hone their mastery of English.

Contribute to this story!

Your sentence must include the word problem.

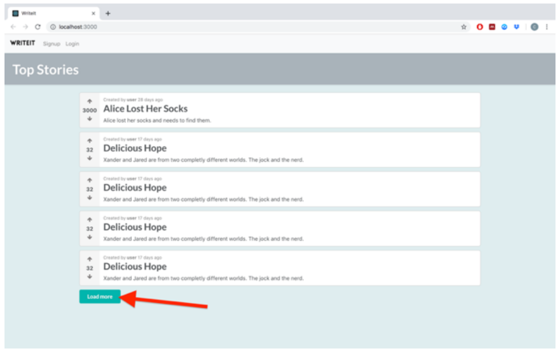
2) **Navigation bar** (Note: navigation bar items are different depending on the user type)
   - Access the about page by clicking on 'WRITEIT'/'About' (guests, regular players, admins)
   - Sign in or authenticate (guests)
   - Access personal profile page (regular players, admins)
   - Created a new story (regular players, admins)
   - Access the admin dashboard (admins)

- Send bugs and suggestions to the admins (guests, regular players, admins)



3) Landing page

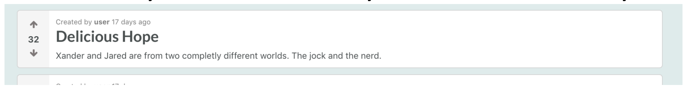
- View all stories on the landing page, order based on decreasing upvote count. Users may click on the 'Load more' button to view more stories (all users):



3000 Alice Lost Her Socks
Alice lost her socks and needs to find them.

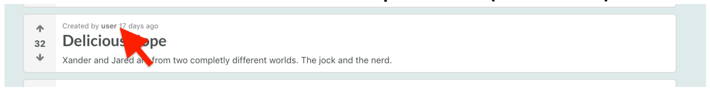
32 Delicious Hope
Xander and Jared are from two completly different worlds. The jock and the nerd.

- Click on anywhere on a story and enter its 'Story view' (all users):



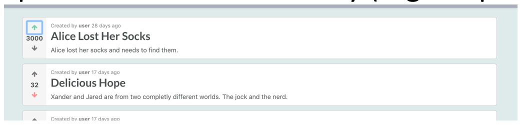
Created by **user** 17 days ago
32 Delicious Hope
Xander and Jared are from two completly different worlds. The jock and the nerd.

- Click on users and view their profiles (all users):



Created by **user** 17 days ago
32 Delicious Hope
Xander and Jared are from two completly different worlds. The jock and the nerd.

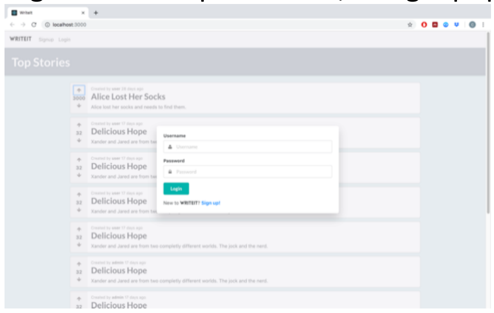
- Upvote or downvote a story (regular players and admins):



Created by **user** 28 days ago
3000 Alice Lost Her Socks
Alice lost her socks and needs to find them.

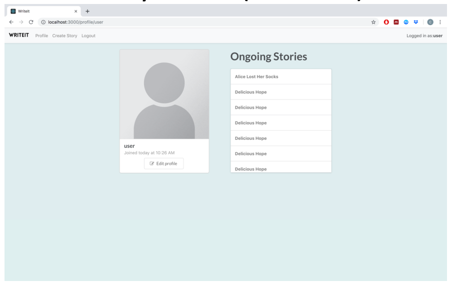
Created by **user** 17 days ago
32 Delicious Hope
Xander and Jared are from two completly different worlds. The jock and the nerd.

- If guests attempt to do so, is login popup is shown requiring them to authenticate:

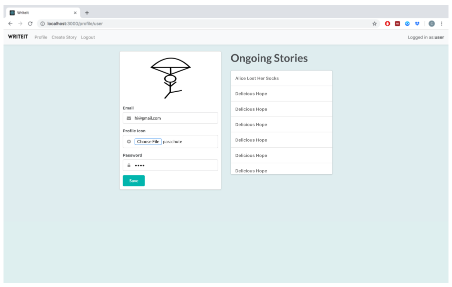


4) Profile Page

- View the profile page of users, click on stories they've contributed to (i.e., 'Ongoing Stories') and go to its 'Story View' (all users):

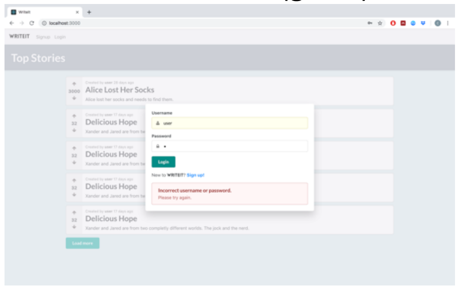


- Edit profiles (users viewing their own profile page and admins)



5) Login

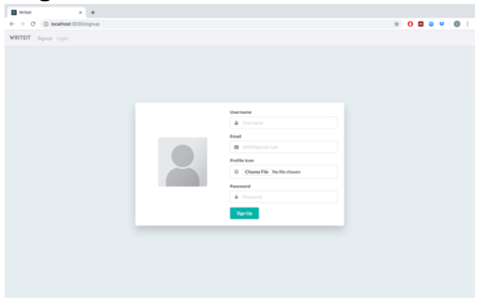
- Login to the web application or get redirected to the signup page. Users are notified if they entered incorrect credentials (guest):



- Login info such as username, user type and token are stored in local storage for future access.
- Login will refresh the page to landing and login option will be replaced by logout option.

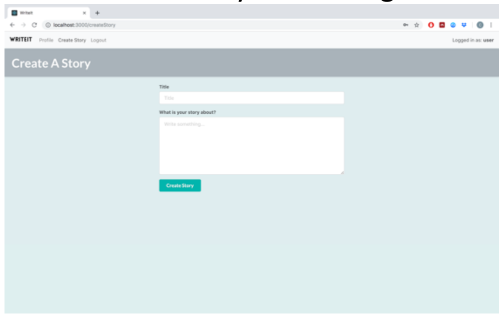
6) Signup

- Register for an account:

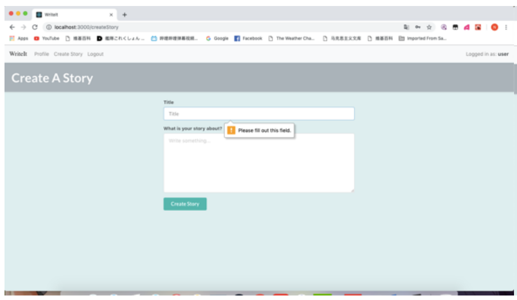


7) Create Story

- Create a new story and then get redirected to its 'Story View':



Will get warnings if don't fill in the title and content:


localhost:3000/createStory

WriteIt Profile Create Story Logout — Logged in as: **user**

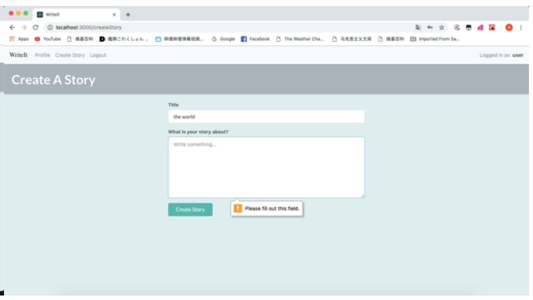
Create A Story

Title

What is your story about?

Please fill out this field.

Create Story


localhost:3000/createStory

WriteIt Profile Create Story Logout — Logged in as: **user**

Create A Story

Title: the world

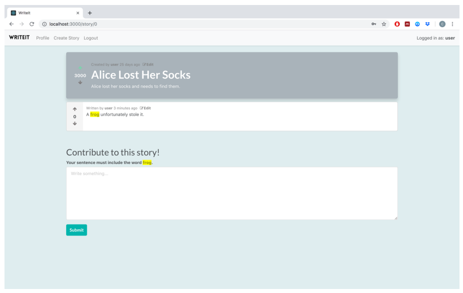
What is your story about?

Create Story

Please fill out this field.

8) Story View

- View the sentences written for a story (all users):


localhost:3000/story/0

WRITEIT Profile Create Story Logout — Logged in as: **user**

Created by **user** 25 days ago Edit

3000 Alice Lost Her Socks

Alice lost her socks and needs to find them.

Written by **user** 3 minutes ago Edit

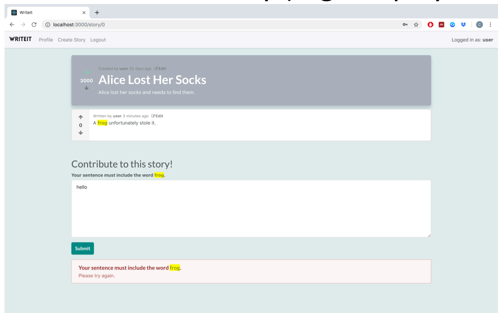
0 A frog unfortunately stole it.

Contribute to this story!

Your sentence must include the word frog.

Submit

- Contribute to a story (regular players and admins):


localhost:3000/story/0

WRITEIT Profile Create Story Logout — Logged in as: **user**

Created by **user** 25 days ago Edit

3000 Alice Lost Her Socks

Alice lost her socks and needs to find them.

Written by **user** 3 minutes ago Edit

0 A frog unfortunately stole it.

Contribute to this story!

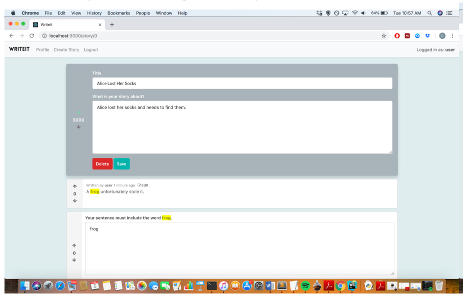
Your sentence must include the word frog.

hello

Submit

Your sentence must include the word frog.
Please try again.

- Upvote or downvote a story or sentence (regular players and admins)
- Edit stories and sentences or delete a story (regular players who are the authors of the corresponding story or sentence and admins). A confirmation popup is shown for any edits made:


localhost:3000/story/0

WRITEIT Profile Create Story Logout — Logged in as: **user**

Title: Alice Lost Her Socks

What is your story about?: Alice lost her socks and needs to find them.

3000

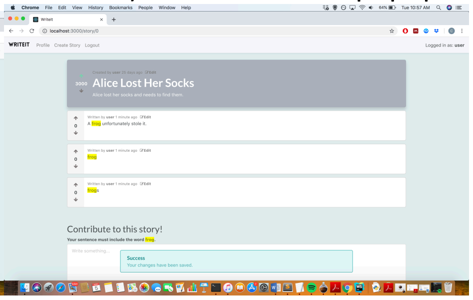
Delete Save

Written by **user** 1 minute ago Edit

0 A frog unfortunately stole it.

Your sentence must include the word frog.

frog


localhost:3000/story/0

WRITEIT Profile Create Story Logout — Logged in as: **user**

Created by **user** 25 days ago Edit

3000 Alice Lost Her Socks

Alice lost her socks and needs to find them.

Written by **user** 1 minute ago Edit

0 A frog unfortunately stole it.

Written by **user** 1 minute ago Edit

0 frog

Written by **user** 1 minute ago Edit

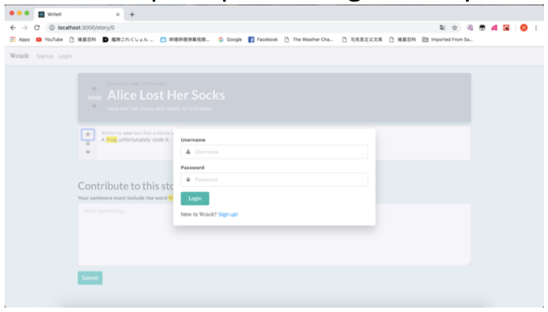
0 frogs

Contribute to this story!

Your sentence must include the word frog.

Success
Your changes have been saved.

- Guests are prompted to login if they attempt to do anything unauthorized(a log-in window pop up).


localhost:3000/story/0

WriteIt Signup Login

3000 Alice Lost Her Socks

Username

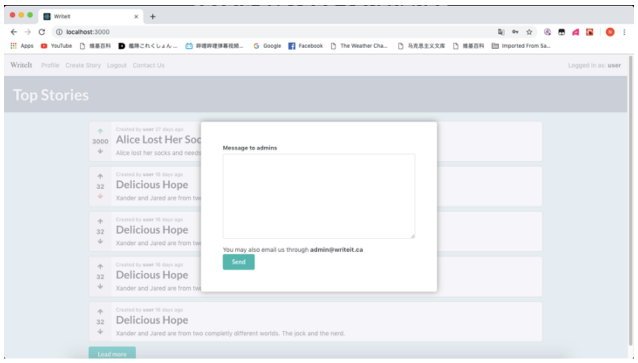
Password

Login

New to WriteIt? Sign up!

9) Report view

- Contact the admins (all users)

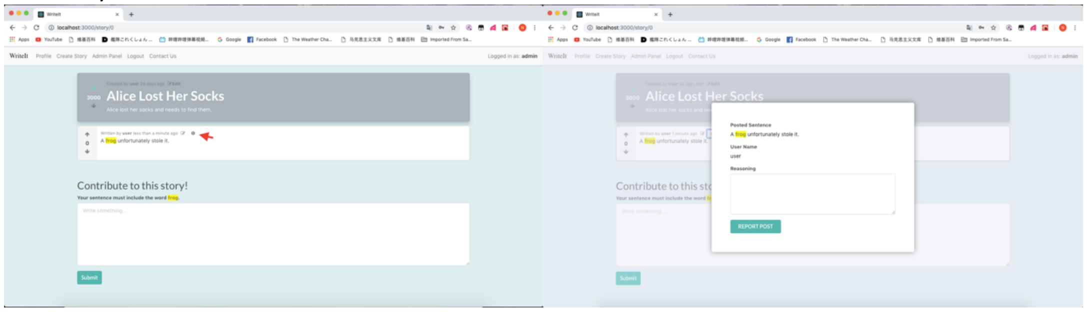


Message to admins

You may also email us through **admin@writeit.ca**

Send

- Report any inappropriate sentences by clicking the small button beside edit (regular players and admins)



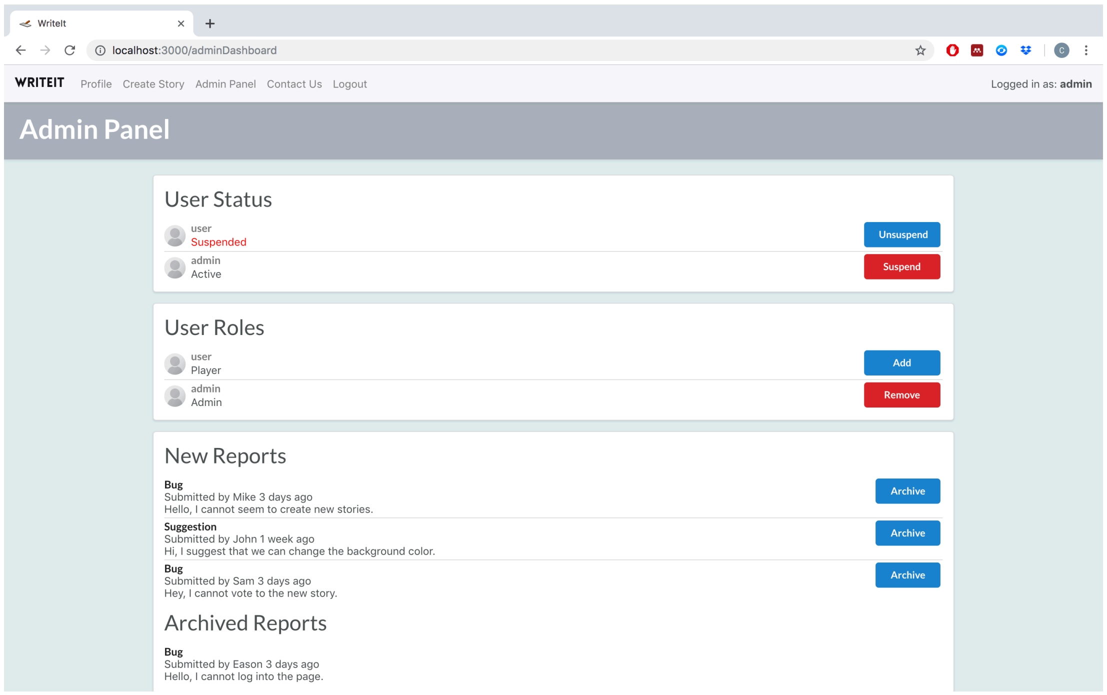
A frog unfortunately stole it.

Your sentence must include the word frog.

Posted Sentence
A frog unfortunately stole it.
User Name
user
Reasoning

10) Admin dashboard (only admins can interact with this view)

- Suspend/unsuspend user accounts
- Set user roles
- Archive user reports



Admin Panel

User Status

user Suspended	Unsuspend
admin Active	Suspend

User Roles

user Player	Add
admin Admin	Remove

New Reports

Bug Submitted by Mike 3 days ago Hello, I cannot seem to create new stories.	Archive
Suggestion Submitted by John 1 week ago Hi, I suggest that we can change the background color.	Archive
Bug Submitted by Sam 3 days ago Hey, I cannot vote to the new story.	Archive

Archived Reports

Bug
Submitted by Eason 3 days ago
Hello, I cannot log into the page.

Routes Overview

User Report Routes (located in '/routes/message.js')

- Route: '/message', method: POST
  - Create a new user report
- Route: '/message', method: PUT

  - Update a user report. Used by admins to archive reports
- Route: '/message', method: GET
  - Get user reports. Used in the admin dashboard to display both archived and unarchived user reports (which admins can be specified using req.query)

Authentication Middleware (located in '/routes/authentication.js')

- authenticateUser:
  - check if the current user is logged in and calls next() if so, and sends a 401 status code if not (used for interactions that requires users to be logged in)
- authenticateAdmin:
  - check if the current user is and admin and calls next() if so, and sends a 401 status code if not (used for interactions that require admin priviledges)
- authenticateCurUserOrAdmin:
  - check if user is either the user specified in req.body or is an admin (used for interactions that involve changing user information, such as user profiles. User must be the owner of that information or an admin)

Sentence Routes (located in '/routes/sentence.js')

- Route: '/sentences/:storyId', Method: POST
  - Create a new sentence and add it to story with id *storyId*. Used to add sentences to a story
- Route: '/sentences/:storyId/:sentence', method: PUT
  - Update the sentence with id *sentence* from story with id *storyId* . Used when admins want to edit a sentence or players want to edit their own sentences
- Route: '/sentences/:storyId/:sentence', method: DELETE
  - Delete the sentence with id *sentence* from story with id *storyId*. Used when admins want to delete a sentence or players want to delete stories they have authored

Upvote Routes (located in '/routes/upvote.js')

- Route: '/upvote/:storyId', Method: POST
  - Upvote/downvote the story with id *storyId*. Used on the 'Landing' page and 'Story' view
- Route: '/upvote/:storyId/:value', Method: DELETE
  - Delete the upvote/downvote for the story with id *storyId* and value *value*. Used on the 'Landing' page and 'Story' view
- Route: '/upvote/:storyId/:sentence', Method: POST
  - Upvote/downvote the sentence with id *sentence* from the story with id *storyId*. Used on the 'Landing' page and 'Story' view
- Route: '/upvote/:storyId/:sentence/:value', Method: DELETE
  - Delete the Upvote/downvote for the sentence with id *sentence* from the story with id *storyId* with value *value*. Used on the 'Landing' page and 'Story' view

Story Routes (located in '/routes/story.js')

- Route: '/storys', Method: POST
  - Create a new story. Used for users to create a new story
- Route: '/storys/:storyId', Method: PUT
  - Update the story with id *storyId*. Used when admins want to update a story or players want to update their own stories
- Route: '/oneStory/:storyId', Method: GET
  - Get the story with id *storyId*. Used for displaying a story in the 'Story' view
- Route: '/storys', Method: GET

    - Get a list of stories based on query specified in req.query. Used for showing a user's stories in his/her profile page
- Route: '/storys', Method: GET
    - Get a page of stories. Used on the 'Landing' page
- Route: '/storys/:id', Method: DELETE
    - Delete a story with id *id*. Used when admins want to delete a story or if players want to delete stories they have authored

User Routes (located in '/routes/user.js')

- Route: '/signup', Method: POST
    - Create a new user. Used for user signup
- Route: '/login', Method: POST
    - Login a user
- Route: '/logout', Method: DELETE
    - Logout the current user
- Route: '/user/:name', Method: GET
    - Get user with name *name*. Used for displaying user profiles
- Route: '/user', Method: GET
    - Get users based on the query specified in req.query. Used for the admin dashboard to listen lists of users