

Lab 6 JavaScript Event Handlers

Given: Thursday September 19, 2018

Deadline: Thursday September 27,

2018

Lab 6 JavaScript Event Handlers

What you need to have done within lab hours

1. Generate Random Words

2. Generate random colors

What you can do after lab hours

3. Registration form

What you need to have done within lab hours

1. Generate Random Words

Develop the web app that generates random words appending with the entered name.

- You should have at least three random words in an array.
- Only one radio button can be selected at a time

In Figure 1, there is a label “Enter student name:” and followed with a text field. The next row contains two radio buttons which are English and Thai

The last row is the button with the text “Generate random words”



Figure 1: The interface of the web app

In Figure 2, when the user enters “Toon” in the text field, and press the button “Generate random words”. Then, the web app displays the text <Entered name> + “ is “ + <Random word>. In this case, the web app displays “Toon is good looking”

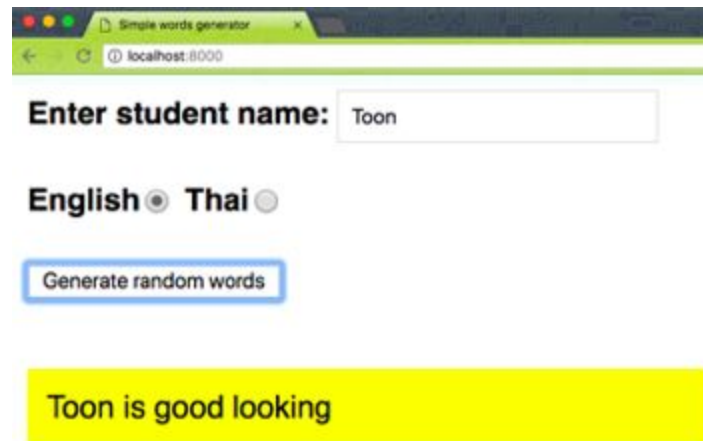


Figure 2: The behavior of the web app when English is selected

If the user chooses the radio button “Thai” then the web app displays the text <Entered name> + “ เป็นคน ” + <Random word>. In Figure 3, the web app displays “ตูนเป็นคนใจดี”

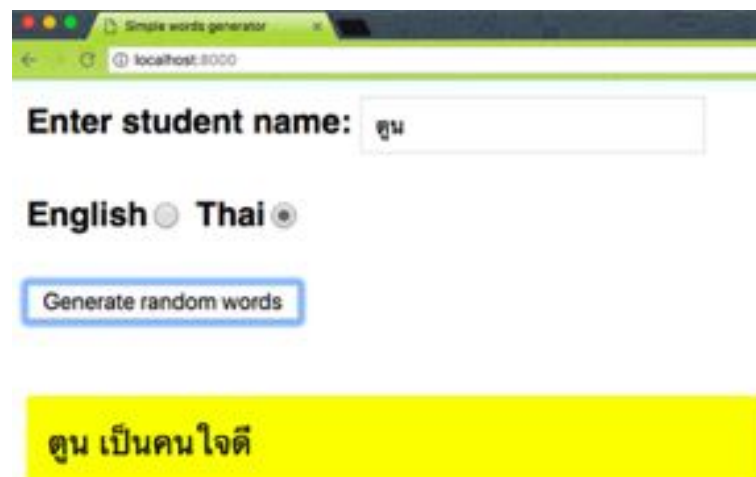


Figure 3: The behavior of the web app when Thai is selected

2. Generate random colors

Create a set of 16 tiles that originally appear in 4 rows where each row has 4 tile. The background color of tile is blue. The height of tile 100px and has the margin as 5px on top and bottom as shown in Figure 4.

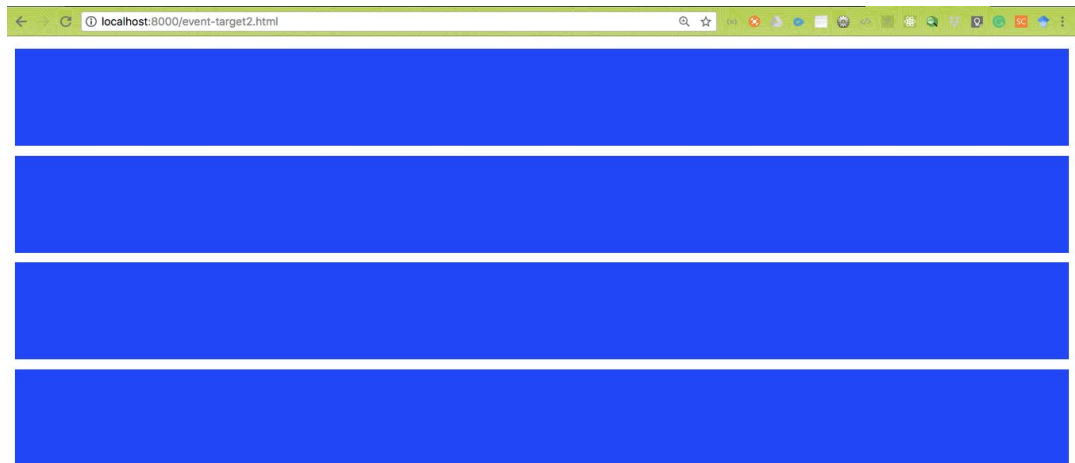


Figure 4: The original 16 tiles in blue color

When the user click each tile, the color is changed to a random color if the tile is in the order in the odd number starting from 1. If the order is an even number such as 2, 4, 6, 8, the color of the tile is yellow when a user clicks. The behavior of the web app is shown in Figure 5.

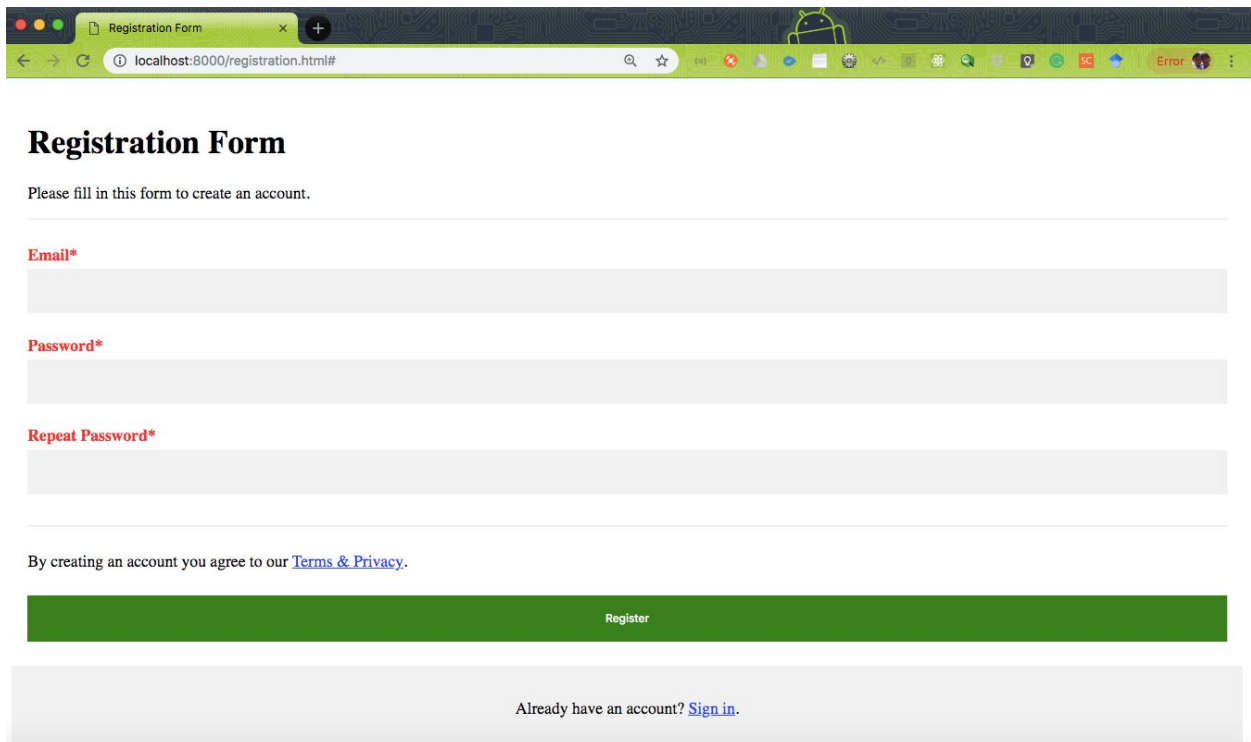


Figure 5: The 16 tiles when the user clicks each tile

What you can do after lab hours

3. Registration form

Develop the registration form that has the interface as shown in Figure 6.

A screenshot of a web browser displaying a registration form. The browser's address bar shows 'localhost:8000/registration.html#'. The form has a title 'Registration Form' and a subtitle 'Please fill in this form to create an account.' Below this are three input fields with labels 'Email*', 'Password*', and 'Repeat Password*' in red. A green 'Register' button is positioned below the fields. At the bottom, there is a link 'Already have an account? Sign in.'.

Registration Form

Please fill in this form to create an account.

Email*

Password*

Repeat Password*

By creating an account you agree to our [Terms & Privacy](#).

Register

Already have an account? [Sign in](#).

Figure 6: The interface of the registration form

The web app has these following components

- 1) The title and the header1 as "Registration Form"
- 2) The paragraph with the content as "Please fill in this form to create an account." below the header1
- 3) The horizontal rule is then separated between the paragraph and the next part of the web page
- 4) The label "Email*" in red color and the input text field for Email
- 5) The label "Password*" in red color and the input password field for Password
- 6) The label "Repeat Password*" in red color and the input password field for Repeat Password

- 7) The horizontal rule is then separated between the above part and the next part of the web page
- 8) The paragraph with the content as “By creating an account you agree to our Terms & Privacy” while “Terms & Privacy” is linked with the current page
- 9) The button with the text “Register”
- 10) The paragraph “Already have an account? Sign in.” while “Sign in” has is linked with the current page

The web page has these following style requirements

- 1) There is the padding around the form 16px
- 2) For the input text or the input password, the width is 100%, the padding is 15px, the top margin is 5px and the bottom margin is 22px, no border, and the background color is #f1f1f1
- 3) For the horizontal rule, it has the border 1px and the color is #f1f1f1, and has the margin bottom as 25px
- 4) For the button “Register”, the background color is green, the text color is white, the padding top and bottom is 16px while the padding left and right is 20px, the margin top and bottom is 8px, there is no border, and the width is 100%
- 5) The color of the text with the link is blue
- 6) For the sign in part, the background color is #f1f1f1 and the text is aligned center

The web app has these following behavior

1) When the user clicks the register button, then the app checks whether the entered email is a valid email by checking whether it has “@” and has “.” at the position at least one character after “@”. If there is an error, the app displays a prompt box with message “Please enter a correct email address”

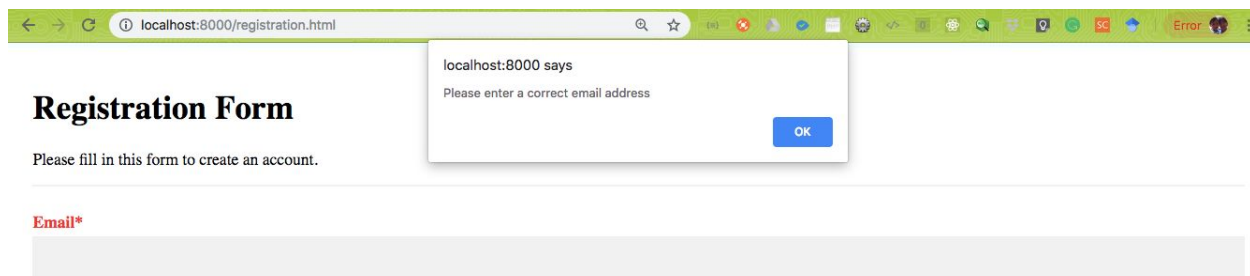


Figure 7: There is an error message when the user does not type anything

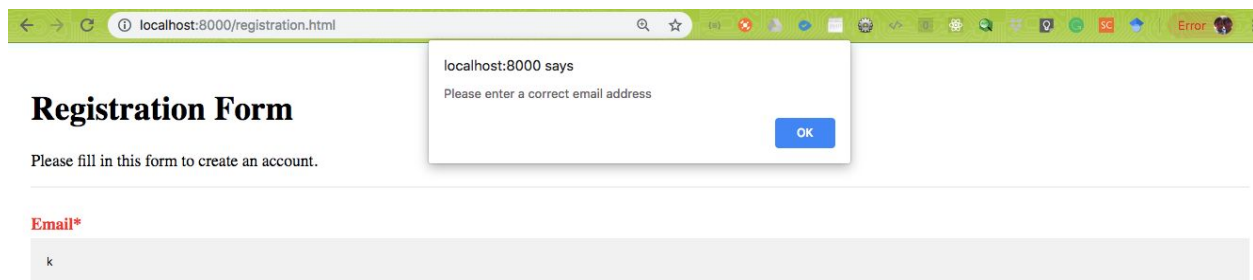


Figure 8: There is an error message when the user types only “k” with no “@”

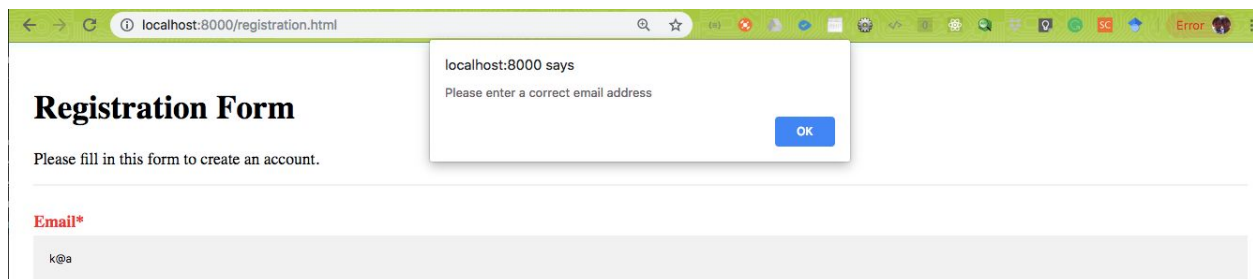


Figure 9: There is an error message when the user types “k@a” with no “.”

2) When the user clicks the register button, the app will check whether a password or a repeat password has at least six characters, has at least one number, and has at least one letter.

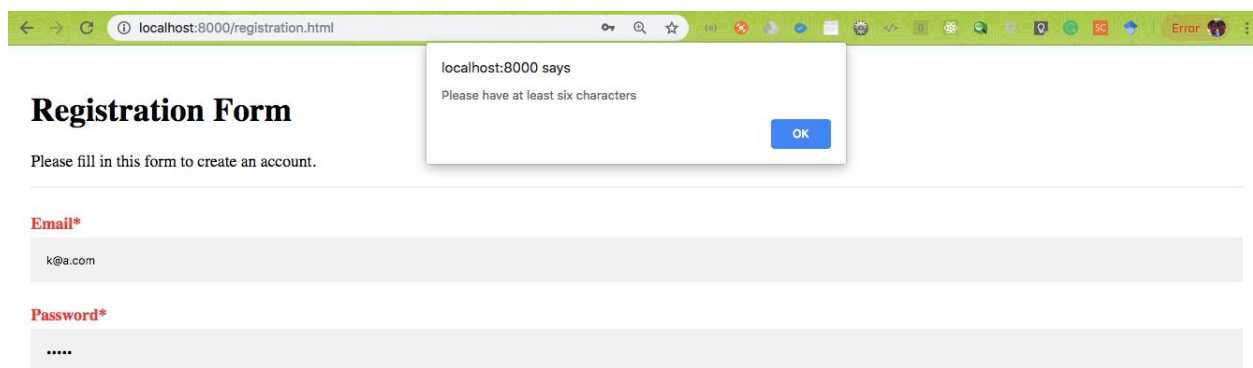
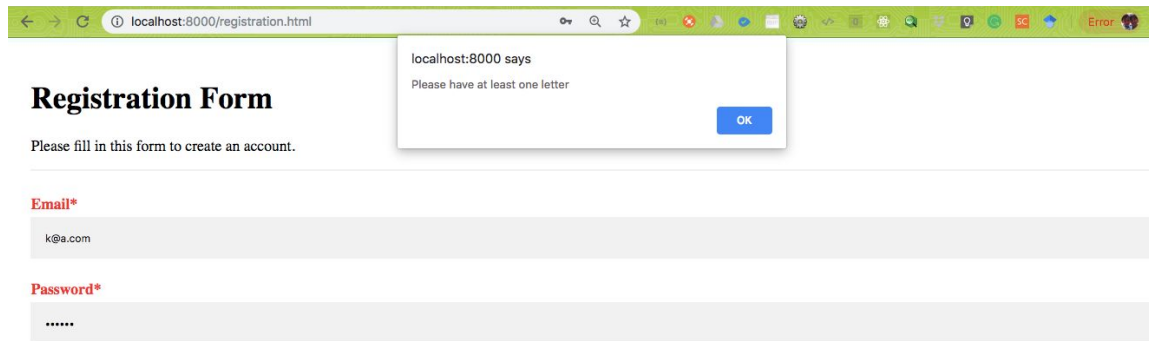
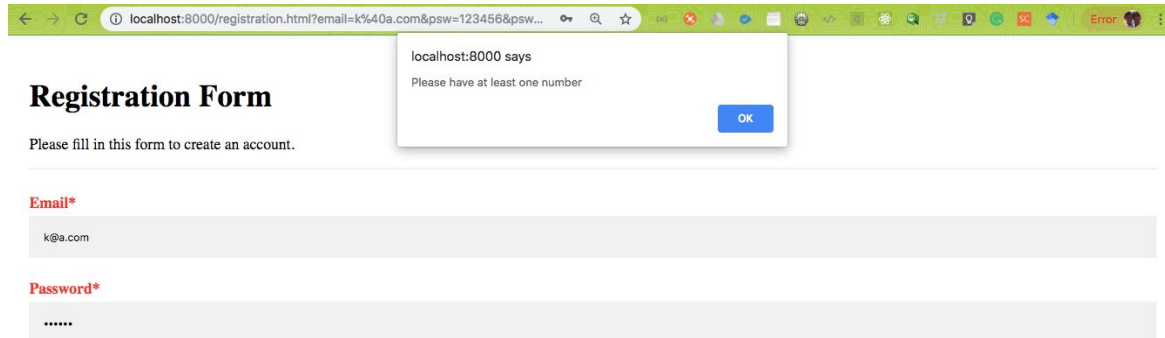


Figure 10: There is an error message “Please have at least six characters” when a password does not have at least six characters



The screenshot shows a web browser at the URL `localhost:8000/registration.html`. The page title is "Registration Form" and the instruction is "Please fill in this form to create an account." There are two input fields: "Email*" with the value `k@a.com` and "Password*" which is empty. A modal dialog box is displayed over the form, titled "localhost:8000 says", with the message "Please have at least one letter" and an "OK" button.

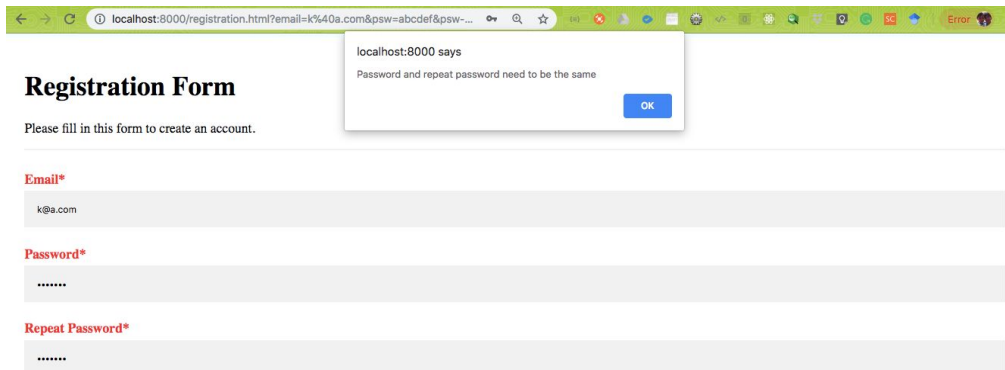
Figure 11: There is an error message “Please have at least one letter” when a password does not have at least one letter



The screenshot shows the same registration form, but the URL is `localhost:8000/registration.html?email=k%40a.com&psw=123456&psw=...`. The "Email*" field contains `k@a.com` and the "Password*" field contains `123456`. A modal dialog box is displayed, titled "localhost:8000 says", with the message "Please have at least one number" and an "OK" button.

Figure 12: There is an error message “Please have at least one number” when a password does not have at least one number

3) When the user clicks the register button, the app will check whether a password is the same as a repeat password. If these passwords are not the same, the app displays a prompt box with message “Password and repeat password need to be the same”



The screenshot shows the registration form with the URL `localhost:8000/registration.html?email=k%40a.com&psw=abcdef&psw=...`. The "Email*" field contains `k@a.com`, the "Password*" field contains `abcdef`, and the "Repeat Password*" field is empty. A modal dialog box is displayed, titled "localhost:8000 says", with the message "Password and repeat password need to be the same" and an "OK" button.

Figure 13: There is an error message when a password and a repeat password is not the same.