PROFESSIONAL

SENTIMENT ANALYSIS

INSTRUCTIONS

Goal of the Project:

In class 118, you have learned how to interact with a webserver using AJAX and JQuery. In this Project we will use them to get sentiments for our products from the server.

Story:

Alex has added more products like Headphones , Digital Cameras , Video Games in his electronic store along with the Smartphones. To grow his business, he already created an online platform where he can get the customer reviews and sentiments associated with them. Now he needs help to add more products into that platform along with an option to save the important details into a file.

Can you help him to create this kind of a webpage using **HTML , Javascript and python (Flask) ?**

Project Template Output

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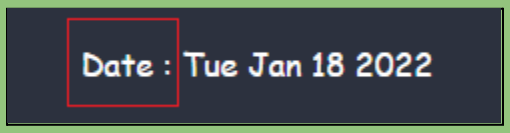
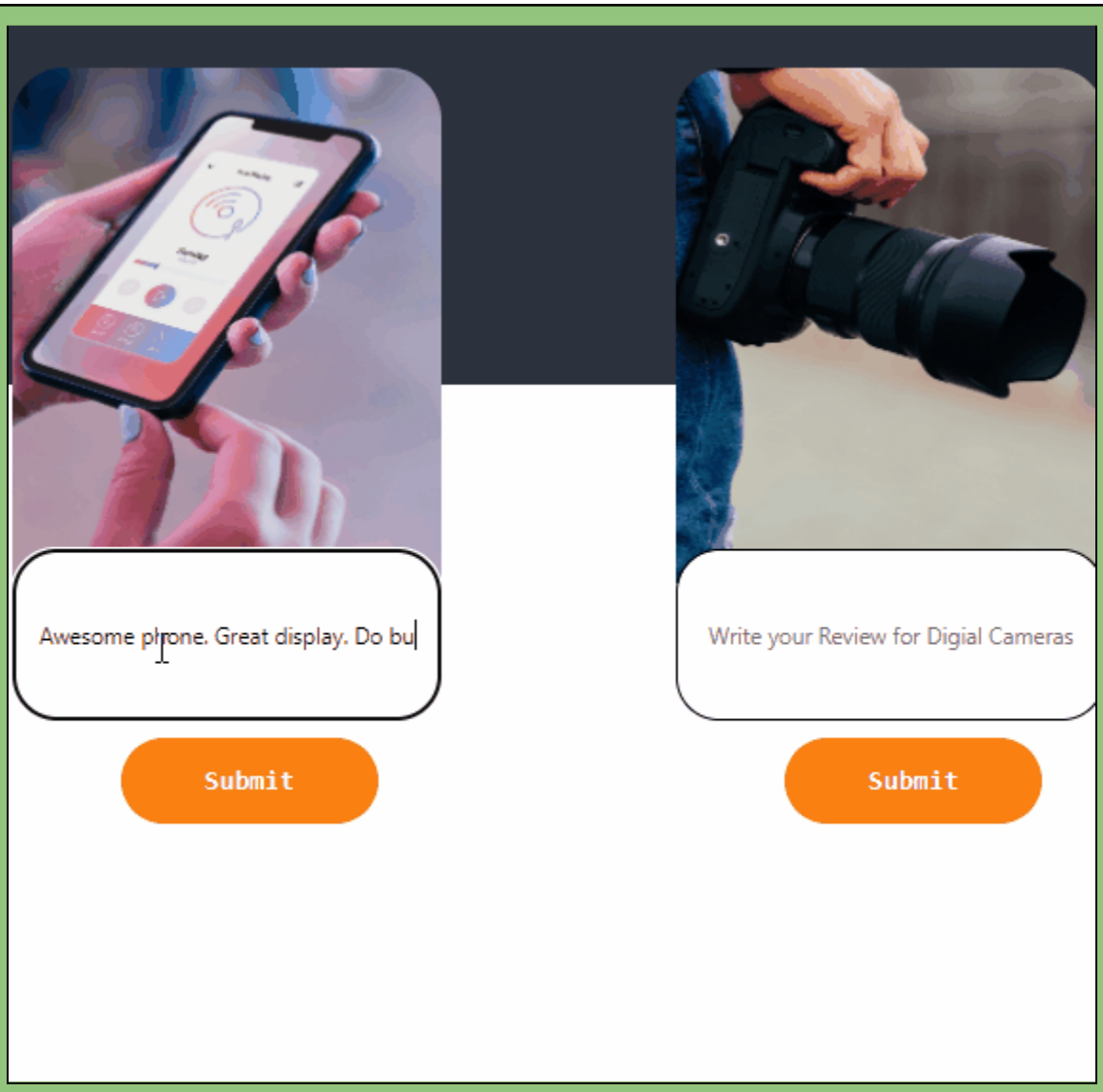
Expected Output
1) In the final output, the **date** is being displayed on the top right corner  2) We can predict the sentiments associated with the review for any product.



Refer link :

https://s3-whjr-curriculum-uploads.whjr.online/51ad9d90-c92e-4ed2-bea9-9d803cdf8069.gif

3) We can save the predicted review and sentiments into a csv file using the **Save** button

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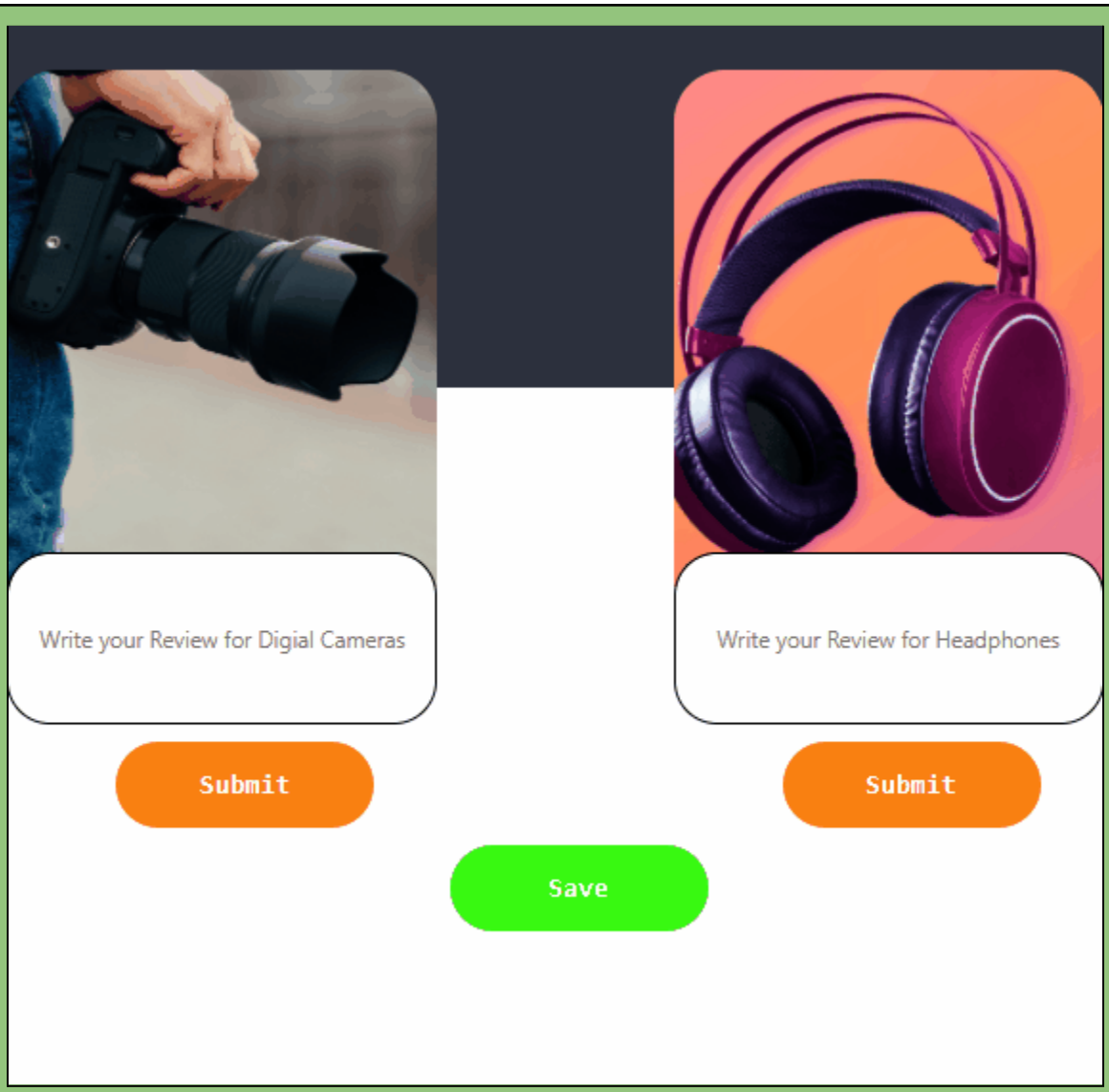

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***This is just for your reference. We expect you to apply your own creativity to the project.**

Getting Started:

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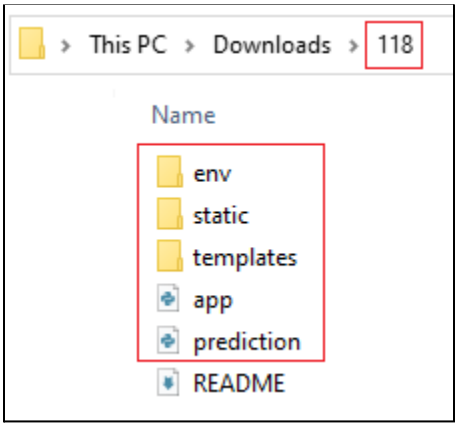
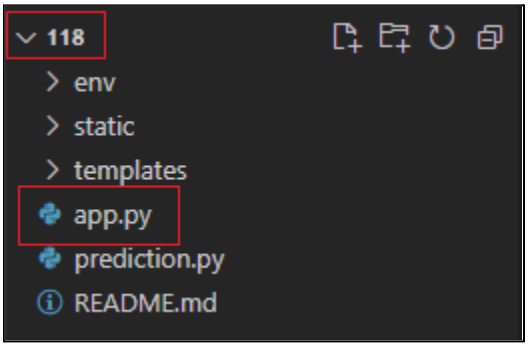
1) Open the Boilerplate link, and download all the files within a **new folder** on your system.
2) Open the **command prompt**, traverse to that folder and create a python virtual environment inside it in such a way, so that the **virtual environment** , **static folder** , **templates folder , prediction.py** and the **app.py** files are within the same folder.



3) Activate the virtual environment and install the **flask, Tensorflow and pandas** library in it, using **pip install flask** , **pip install pandas** and **pip install tensorflow==2.5.0**
4) Open the **folder** in Visual Studio code, and click on the **app.py** file.



Specific Tasks to complete the Project:

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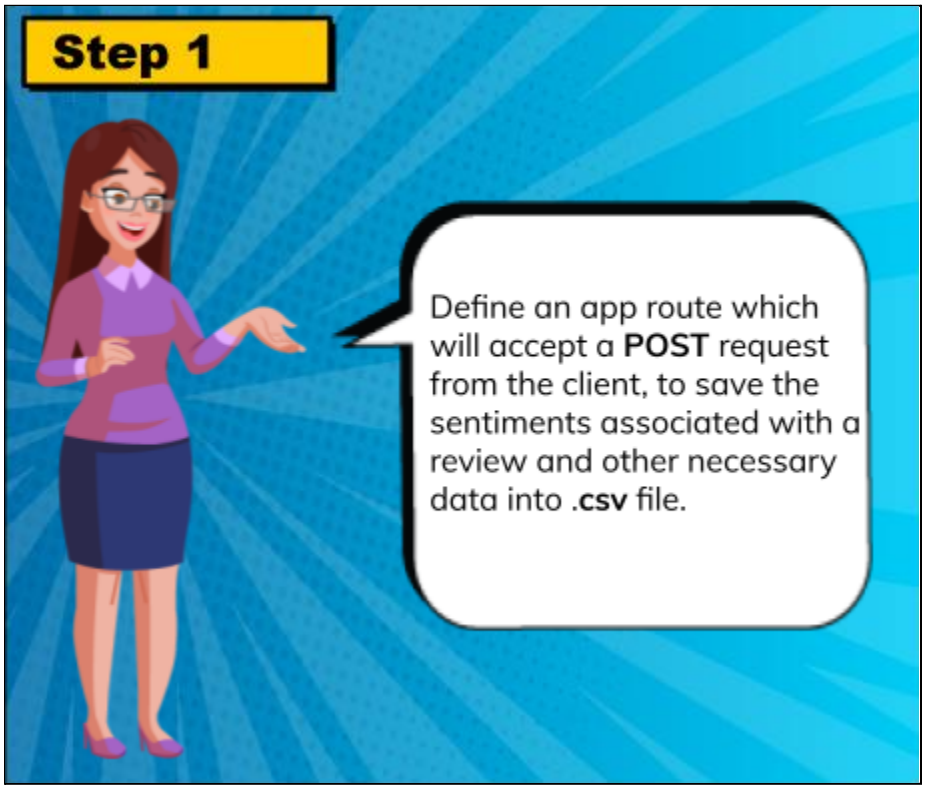
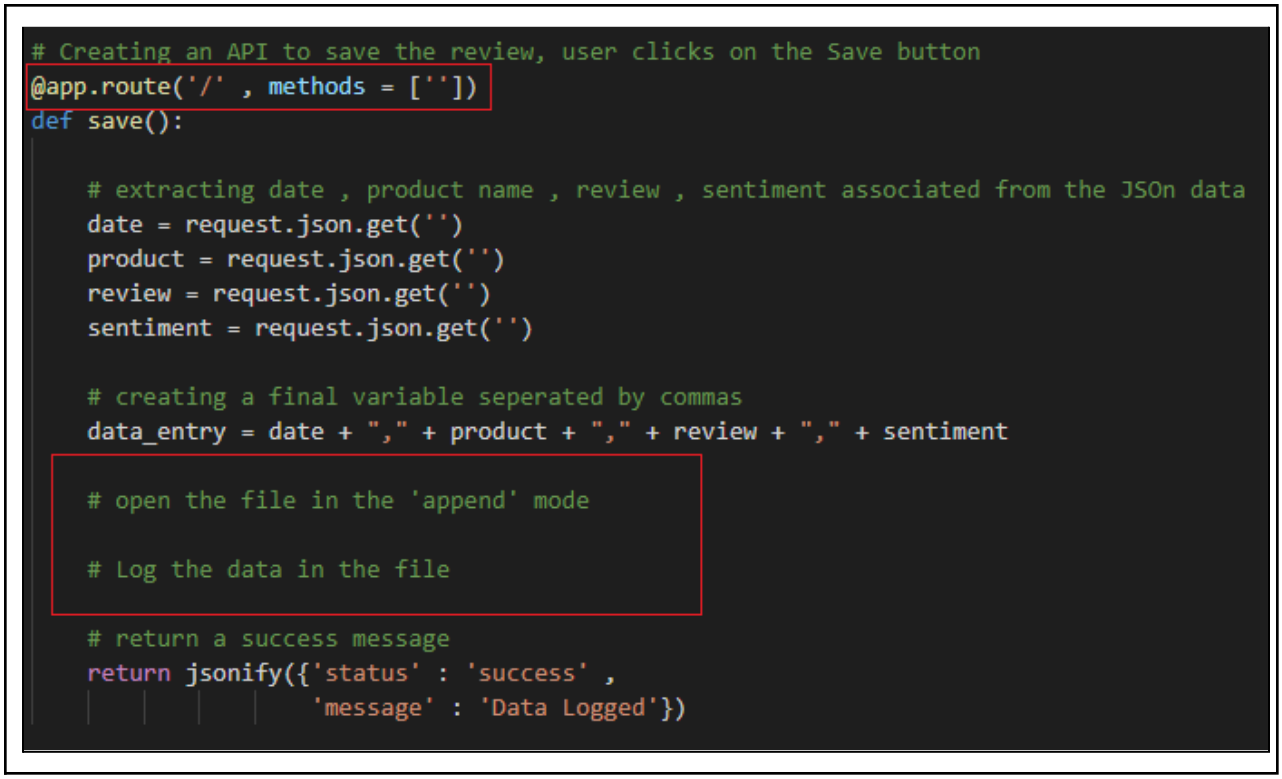
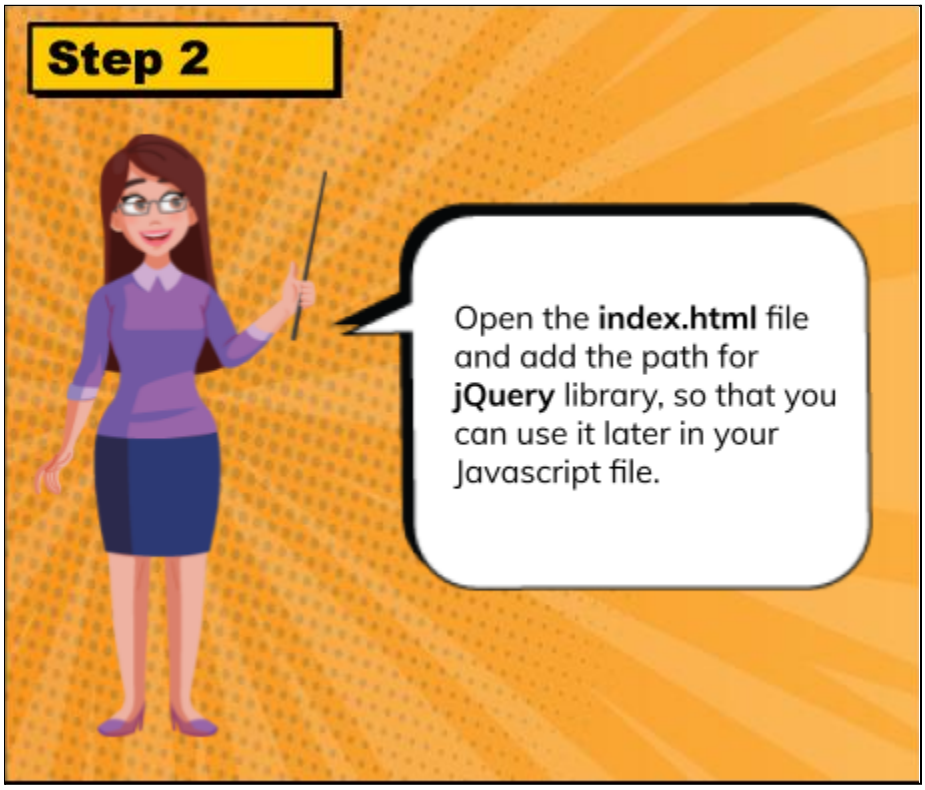
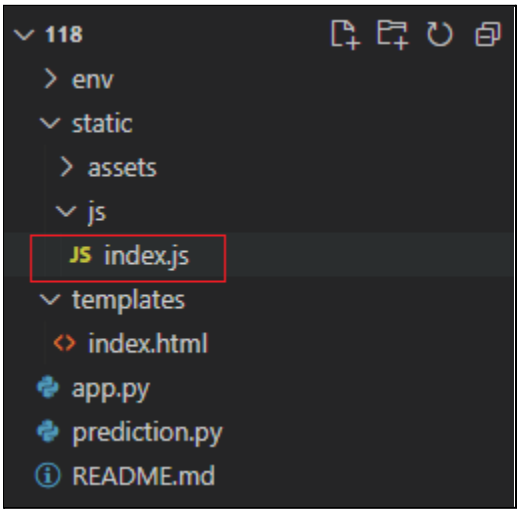


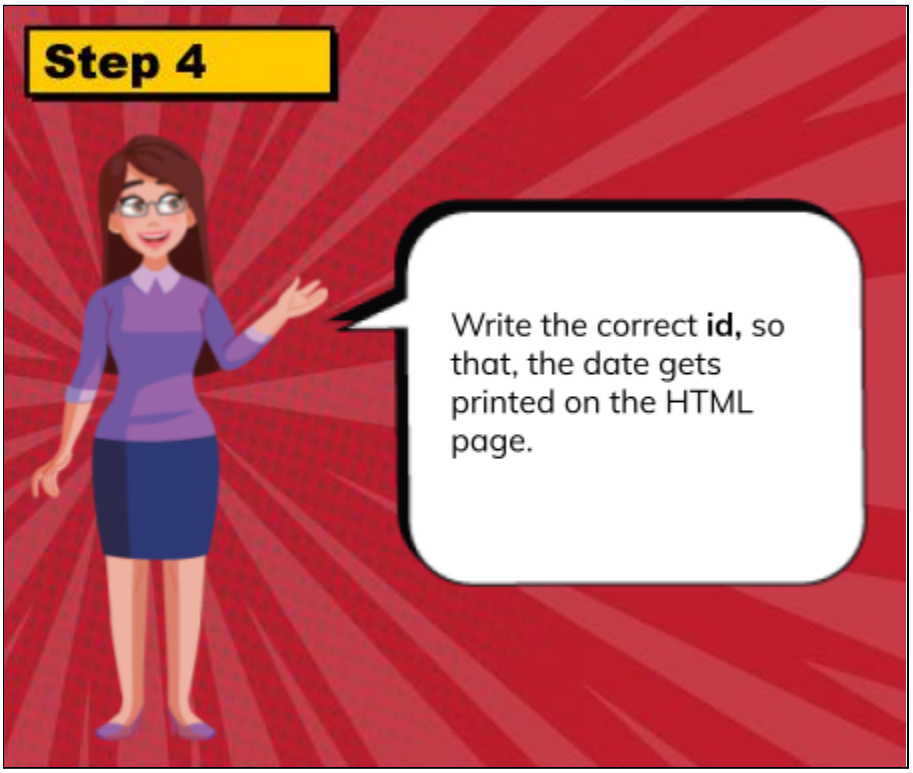


```
# Creating an API to save the review, user clicks on the Save button
@app.route('/' , methods = [''])
def save():

    # extracting date , product name , review , sentiment associated from the JSOn data
    date = request.json.get('')
    product = request.json.get('')
    review = request.json.get('')
    sentiment = request.json.get('')

    # creating a final variable seperated by commas
    data_entry = date + "," + product + "," + review + "," + sentiment

    # open the file in the 'append' mode

    # Log the data in the file

    # return a success message
    return jsonify({'status' : 'success' ,
                    'message' : 'Data Logged'})
```

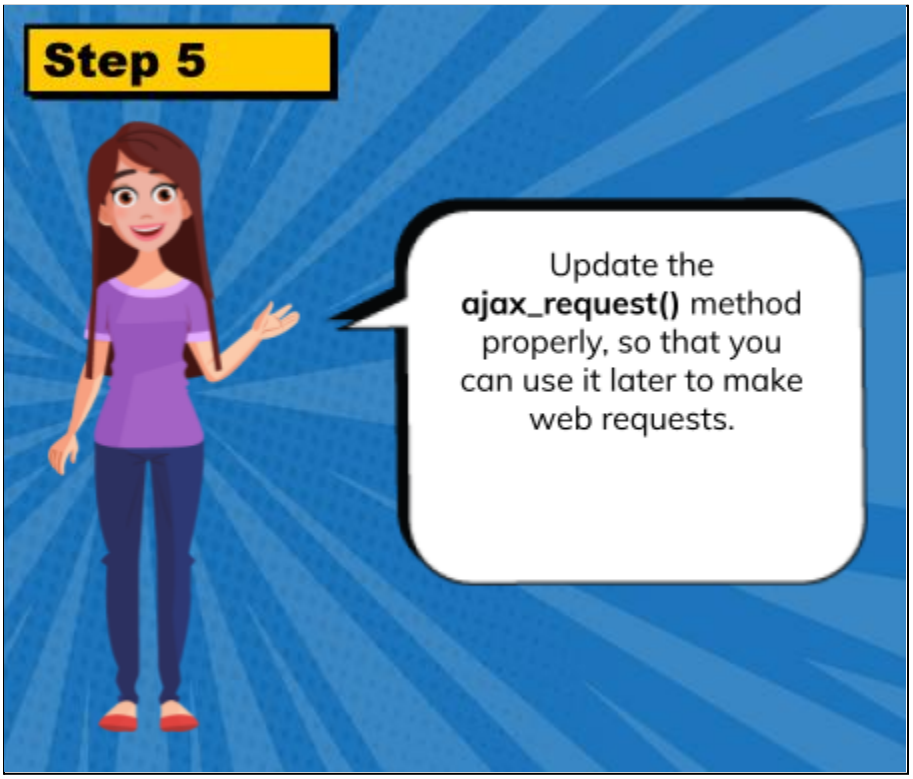



```
<!--Jquery CDN google-->
```






```
//  getting the date using Date() object and converting it to a string
let date = new Date()
let current_date = date.toDateString()

//  display the date on the HTML page using JQUERY and JS
$('').text('Date : ' + current_date)
```




```
//  making a function for AJAX request
function ajax_request(api_url , input_data){

    $.ajax({

        // type of request
        type : '',

        // url
        url : api_url,

        //  JSON data
        data : JSON.stringify(input_data),
```

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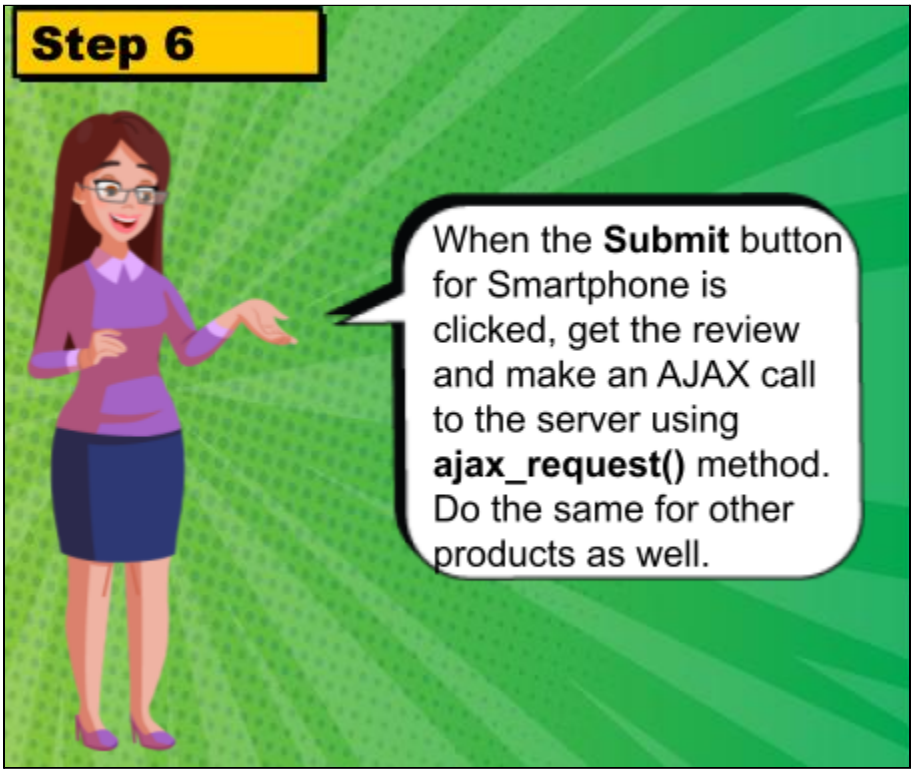

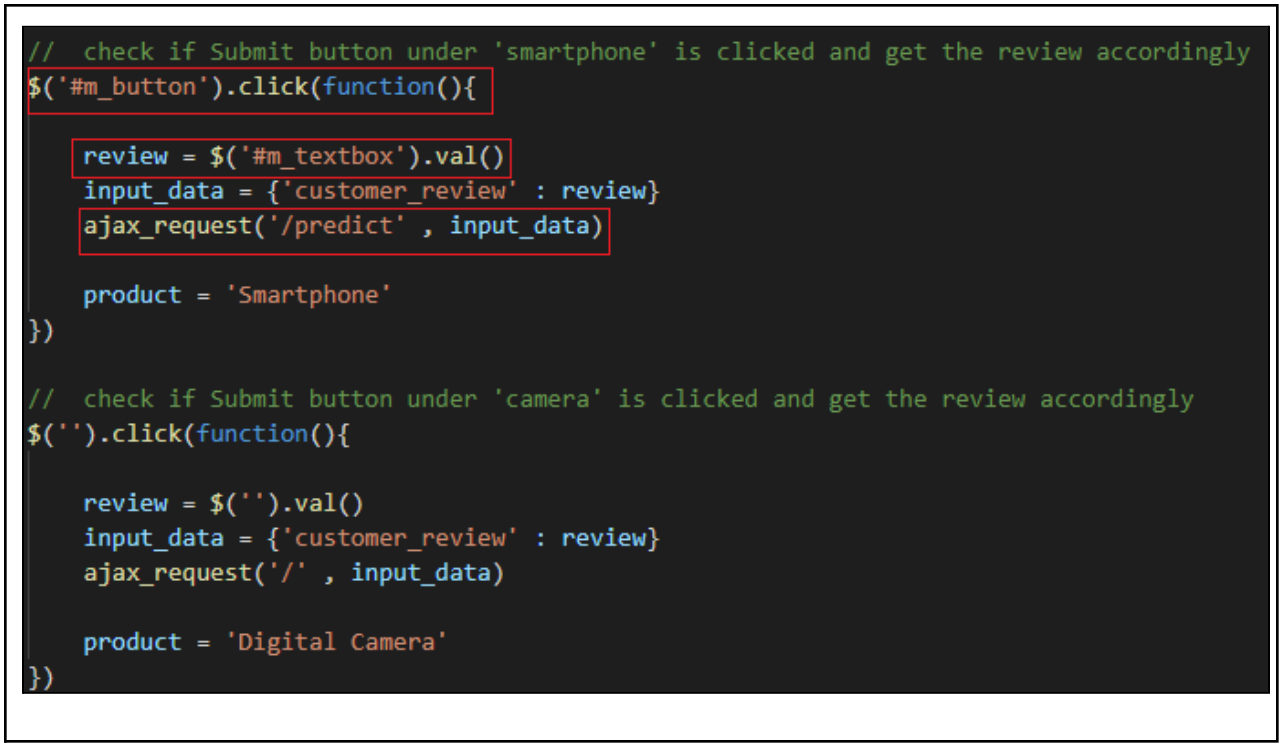

```
//  check if Submit button under 'smartphone' is clicked and get the review accordingly
$('#m_button').click(function(){

    review = $('#m_textbox').val()
    input_data = {'customer_review' : review}
    ajax_request('/predict' , input_data)

    product = 'Smartphone'
})

//  check if Submit button under 'camera' is clicked and get the review accordingly
$('').click(function(){

    review = $('').val()
    input_data = {'customer_review' : review}
    ajax_request('/' , input_data)

    product = 'Digital Camera'
})
```

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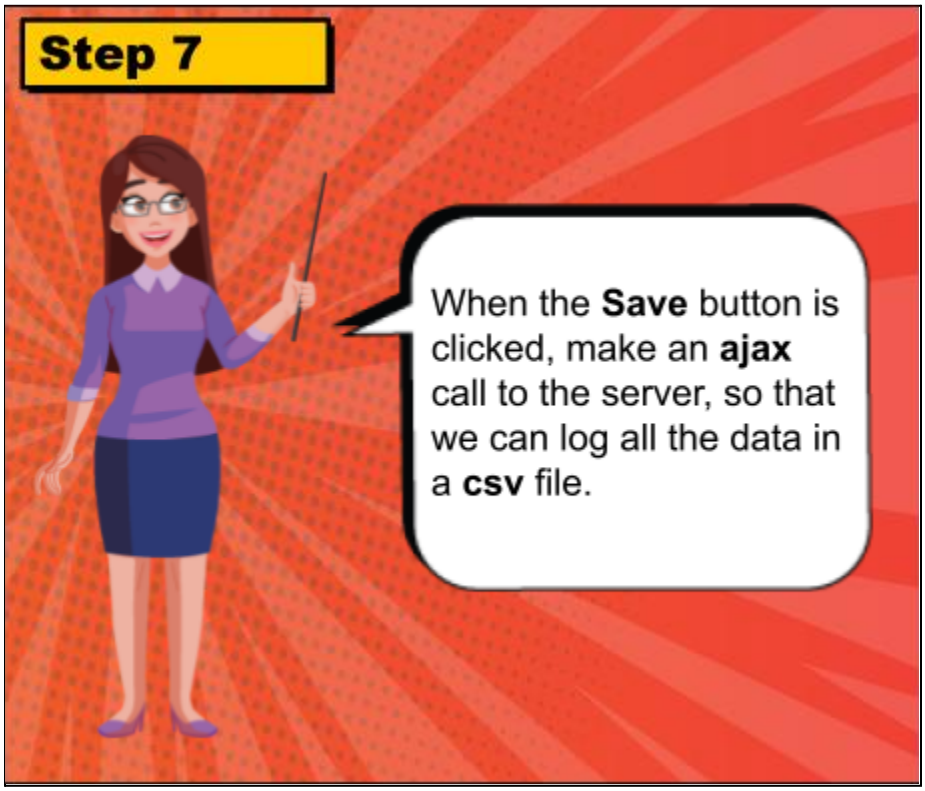

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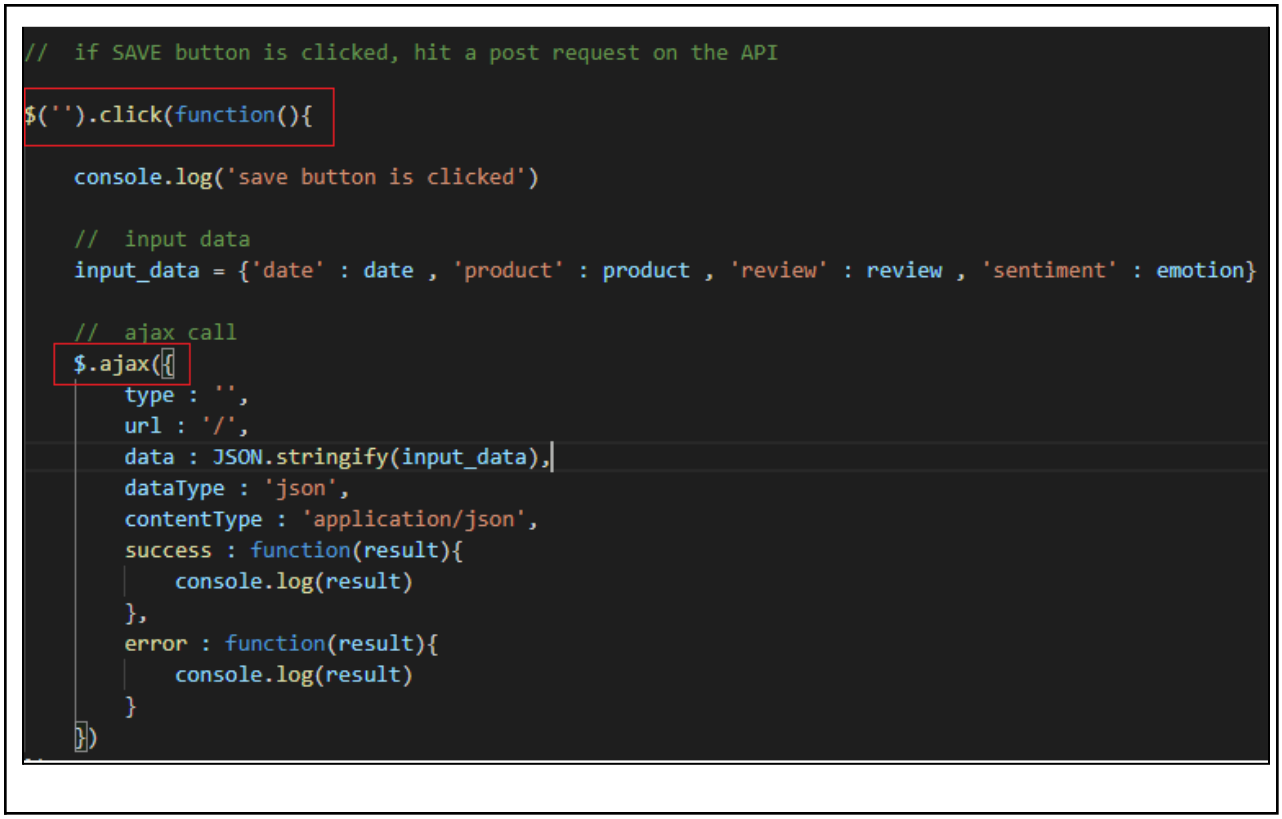

```
//  if SAVE button is clicked, hit a post request on the API

$('').click(function(){

    console.log('save button is clicked')

    //  input data
    input_data = {'date' : date , 'product' : product , 'review' : review , 'sentiment' : emotion}

    //  ajax call
    $.ajax({
        type : '',
        url : '/',
        data : JSON.stringify(input_data),
        dataType : 'json',
        contentType : 'application/json',
        success : function(result){
            console.log(result)
        },
        error : function(result){
            console.log(result)
        }
    })
```

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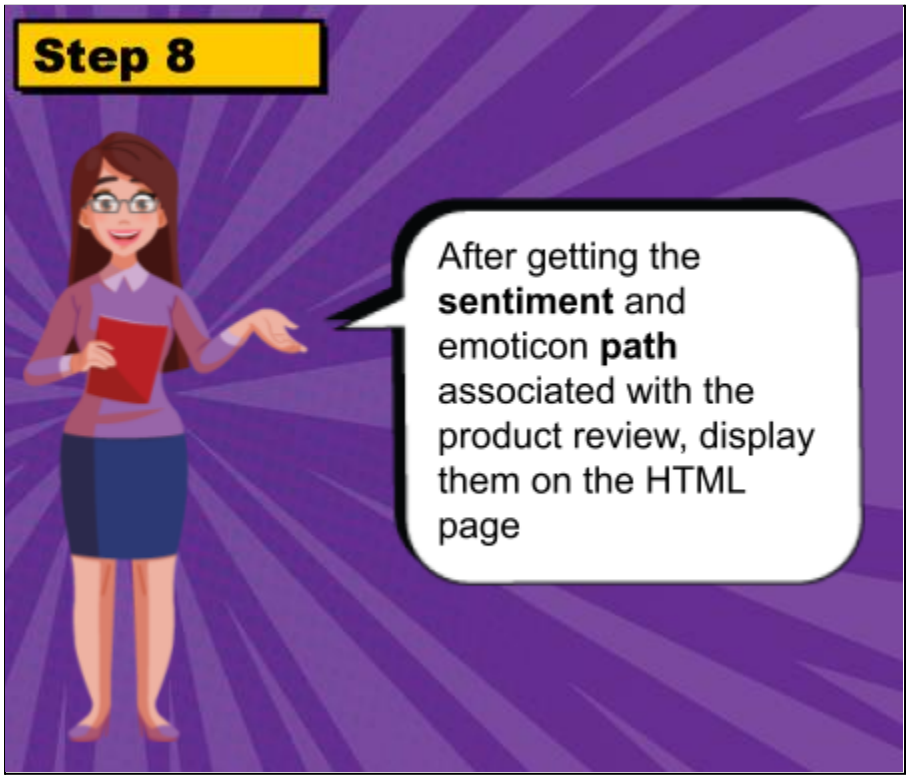

Submitting the Project:

1. **SAVE** all the changes made to the project.
2. Click on "**Run**" once to check if it is working.
3. Open Github and create a repository named **Project118.**
4. Upload files and click **Commit Changes.**
5. Copy this link and submit it in the Student Dashboard Projects panel against the correct class number.

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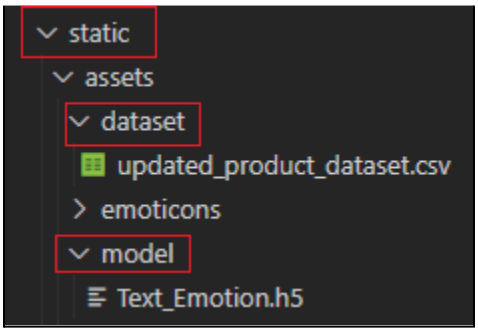
Hints:

1) The dataset and model files are already included in the source folder, so if you want to add your model, you can replace them.



2) The syntax of JQuery is **$('selector').action().** You can select elements from their ids as well by using the # sign.

REMEMBER... Try your best, that's more important than being correct.

After submitting your project, your teacher will send you feedback on your work.

——— **xxx** ——— **xxx** ——— **xxx** ——— **xxx** ——— **xxx** ———