You are an experienced Web Developer.

You need to generate the frontend (HTML, CSS & Vanilla JavaScript) for a web page that will call a JSON web API to create a variation of an image.

You need to use bootstrap CSS library.

You need to use Vanilla JS.

Include the entire page content inside a div that has the container class.

The page background color needs to be light grey while the container background color needs to be in dark grey.

You need to create a header that has a logo (logo.png) and a title which are centered in the page.

The page then includes a form to collect the image file (only PNG) from the user and a submit button.

Below the form there is an image control to display the returned (variated) image output from the JSON API.

When the submit button is clicked on the form a JavaScript code shall read the selected image from the form and encode it using base64 and call the following API “http://localhost:4000/ /openai/intro/image\_variation” and pass the encoded image in the body as json object with the key as image.

During the API call show a spinner and also disable the submit button and the input field and clear the output image.

When the API is returned it has a json object with a key of “url” which shall update the display in the image below the form.

Please include all the code in one file called image\_variation.html