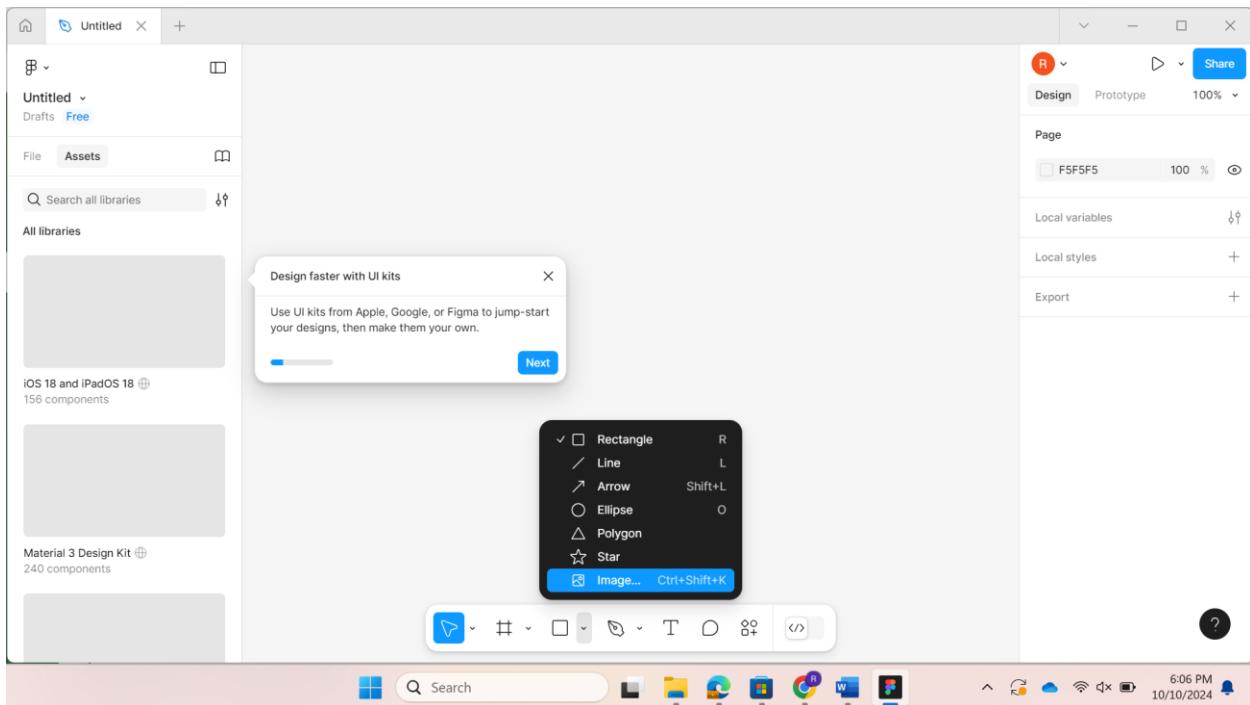
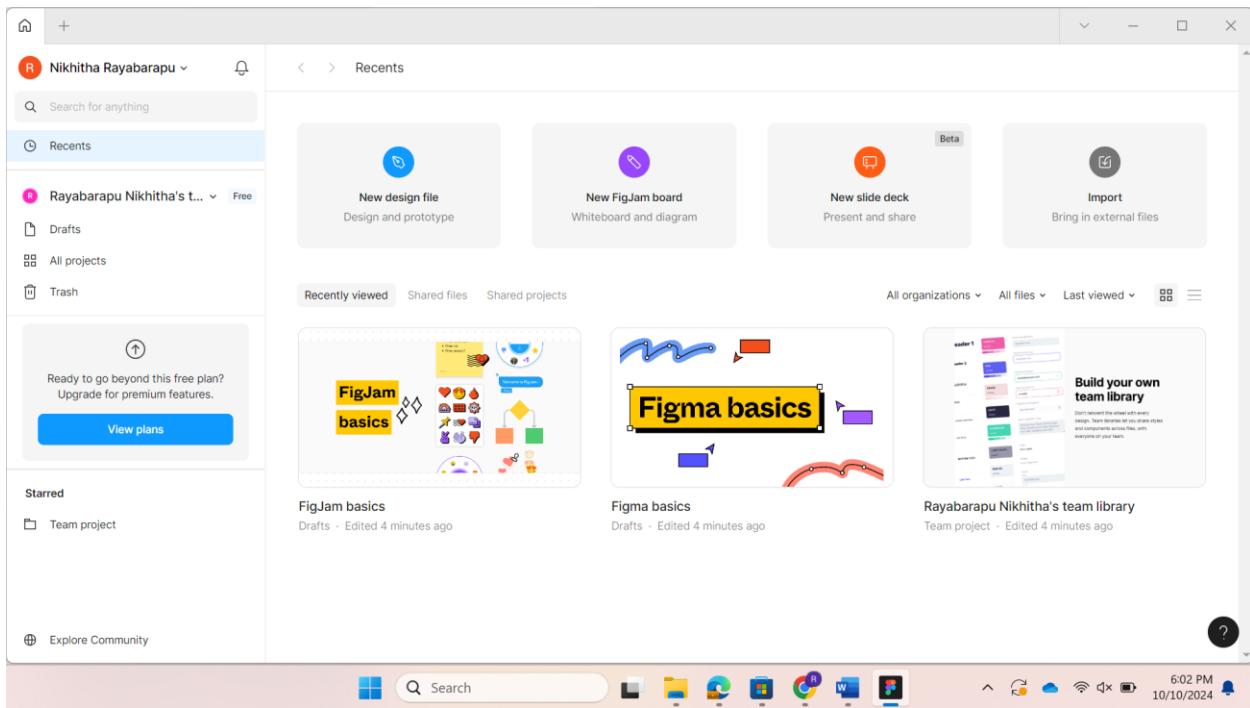
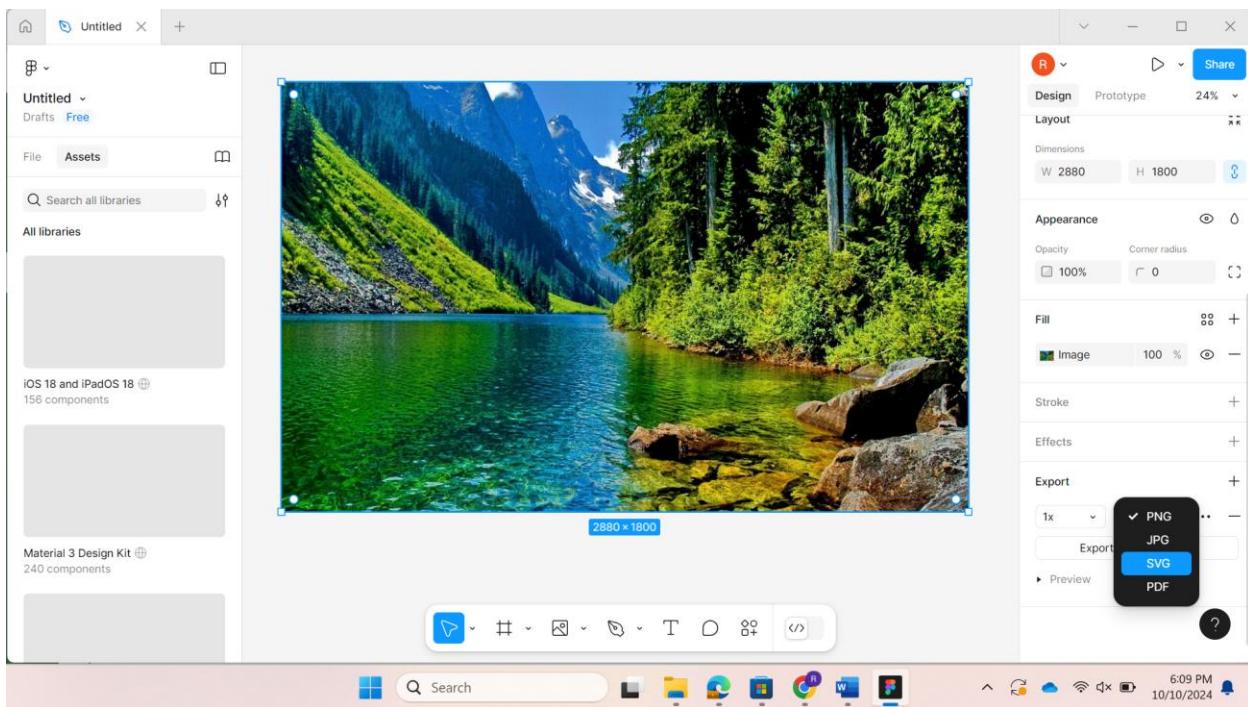
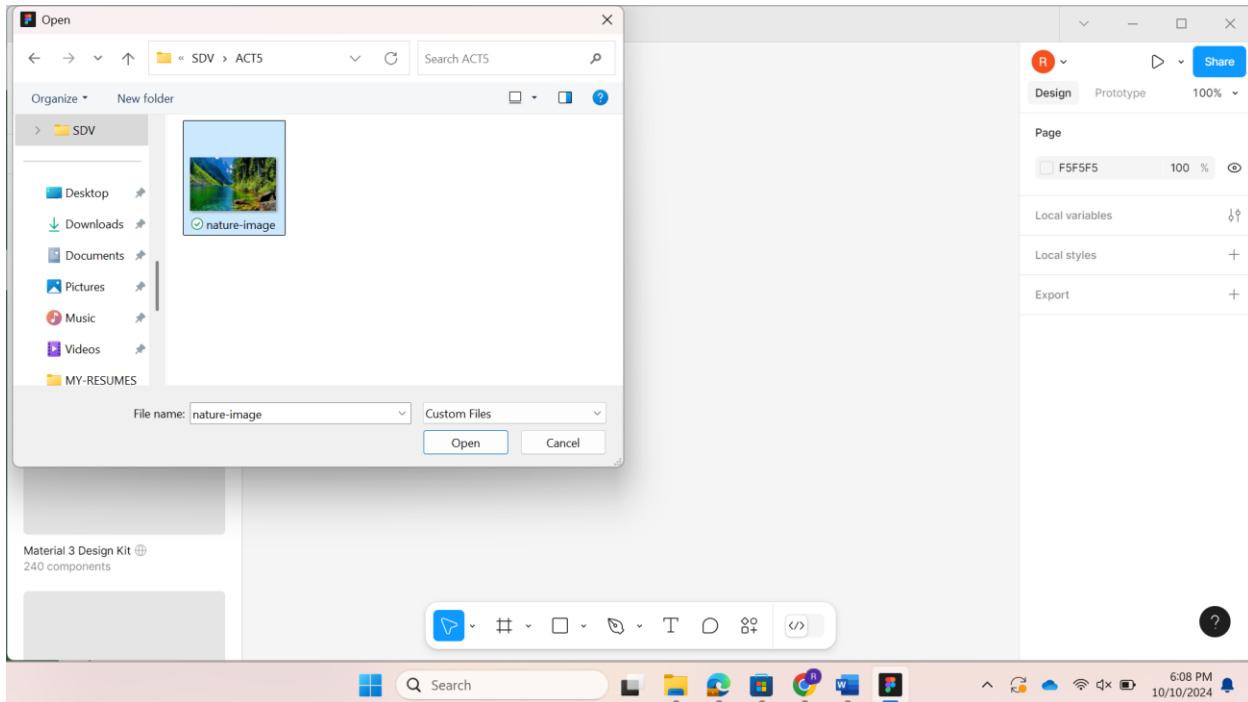


TASK – I

Tutorial:





Explanation:

We are going to use Figma to create an SVG image. First, I downloaded the Nature-image.jpg that was provided and then uploaded it to Figma, and converted it to an SVG image.

Now, I'm going to create a webpage using Html and CSS as follows:

tutorial.css

The screenshot shows a browser developer tools window with the CSS tab selected. The file path is C:\Users\nr0624\OneDrive - UNT System\SDV\ACT5\# index.css. The code editor contains the following CSS:

```
1 img {  
2     height: 500px;  
3     width: 500px;  
4 }  
5 body {  
6     background-color: #rgb(200, 42, 163); /*background color of the webpage if applicable*/  
7 }  
8 p {  
9     color: #rgb(55, 0, 255); /* color and font style of the contents of paragraph p */  
10    font-style: italic;  
11    font-size: medium;  
12    font-weight: bold;  
13 }  
14 p1 {  
15    color: #blue; /* color and font style of the contents of paragraph p1 */  
16    font-weight: bolder;  
17    font-size: xx-large;  
18 }  
19 body {  
20    text-align:justify;  
21 }  
22  
23 |
```

The browser status bar at the bottom shows "Ln 23, Col 1 Spaces: 4 UTF-8 CRLF CSS".

The screenshot shows a browser developer tools window with the CSS tab selected. The file path is C:\Users\nr0624\OneDrive - UNT System\SDV\ACT5\# tutorial.css. The code editor contains the same CSS as the previous screenshot, but with a color palette overlay over the line "background-color: #rgb(200, 42, 163)". The palette shows a color circle with the hex code "#rgb(200, 42, 163)" and a color bar below it. A tooltip for the "background-color" property is visible, stating "Sets the background color of an element. (Edge 12, Firefox 1, Safari 1, Chrome 1, IE 4, Opera 3)". The browser status bar at the bottom shows "Ln 23, Col 1 Spaces: 4 UTF-8 CRLF CSS".

(we can change the background color as we want with the help of the palette)

tutorial.html

A screenshot of the Microsoft Edge browser window. The title bar says "tutorial.html". The main area shows the following HTML code:

```
<!DOCTYPE html>
<html>
<head>
<style>
</style>
</head>
<body>
<h1>IN CLASS EXERCISE-5</h1>
<p> Introduction to SVG and CSS</p>
<p>Nature Wallpaper</p>

</body>
</html>
```

The status bar at the bottom right shows "6:17 PM 10/10/2024".

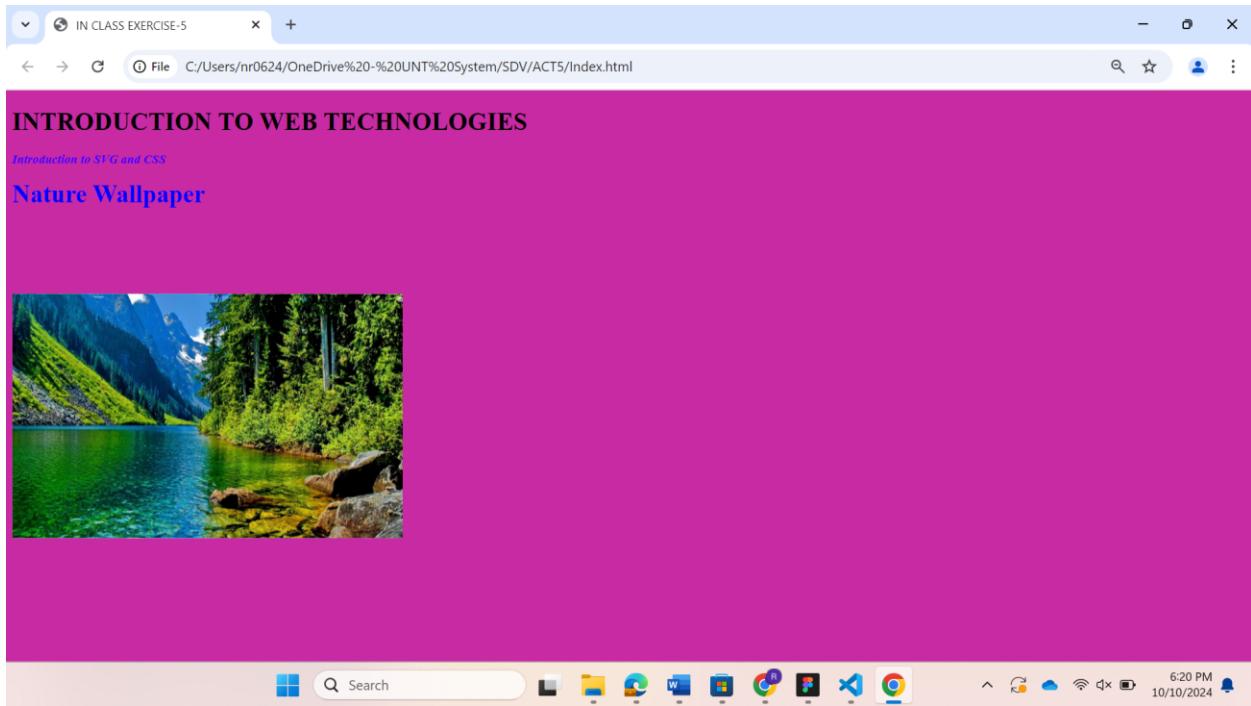
Run the code:

A screenshot of the Microsoft Edge browser window. The title bar says "tutorial.html". The left sidebar has a "RUN AND DEBUG" section with a "RUN" subsection. The main area shows the same HTML code as before:

```
<!DOCTYPE html>
<html>
<head>
<style>
</style>
</head>
<body>
<h1>IN CLASS EXERCISE-5</h1>
<p> Introduction to SVG and CSS</p>
<p>Nature Wallpaper</p>

</body>
</html>
```

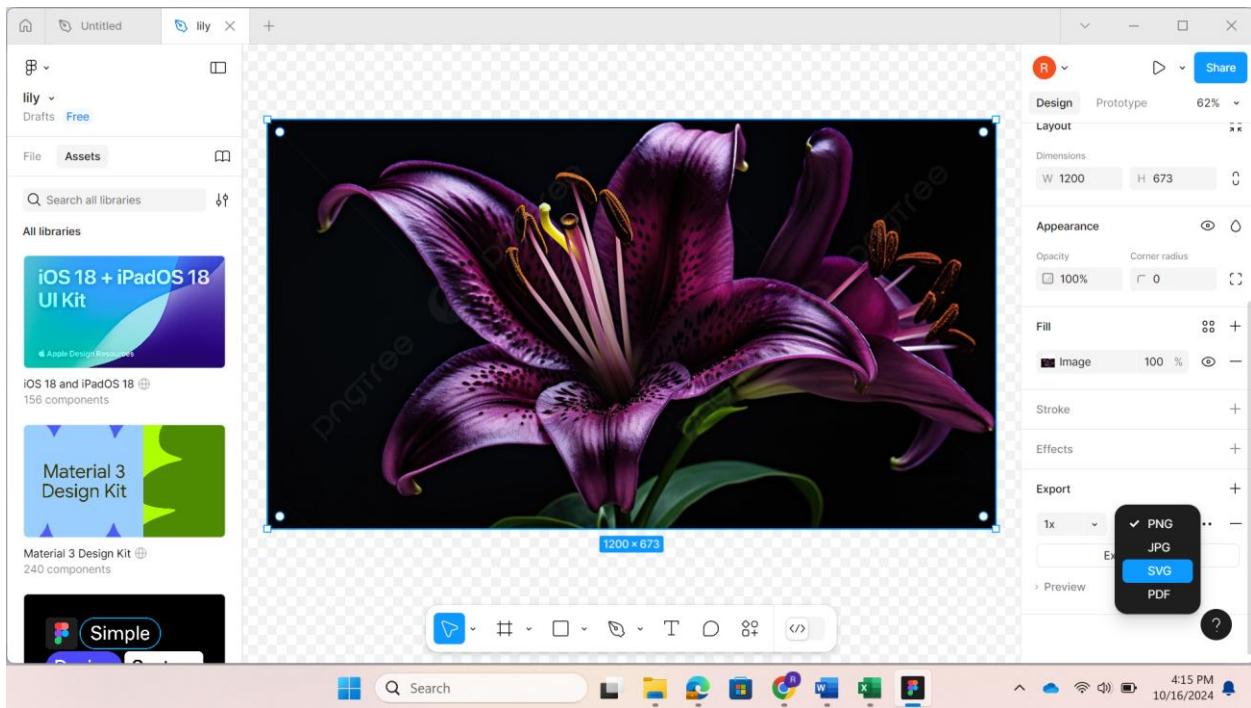
The status bar at the bottom right shows "6:20 PM 10/10/2024".

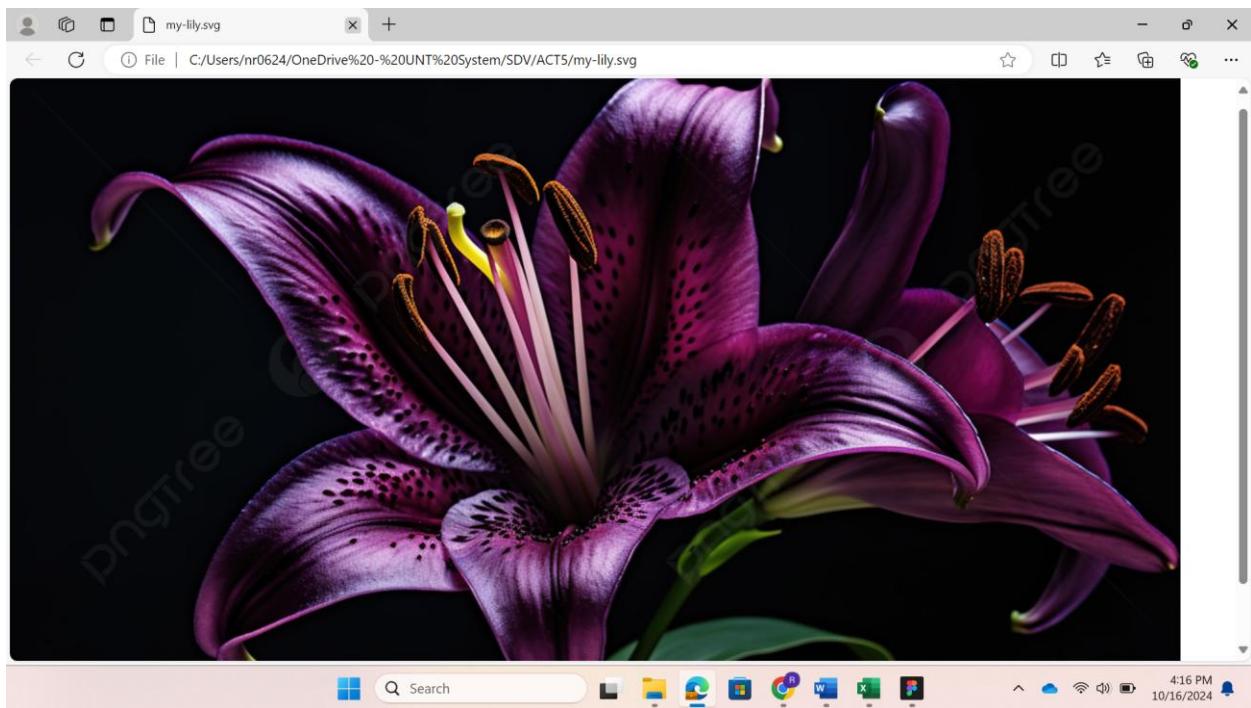


(This is the final web page formed)

Questions:

1.



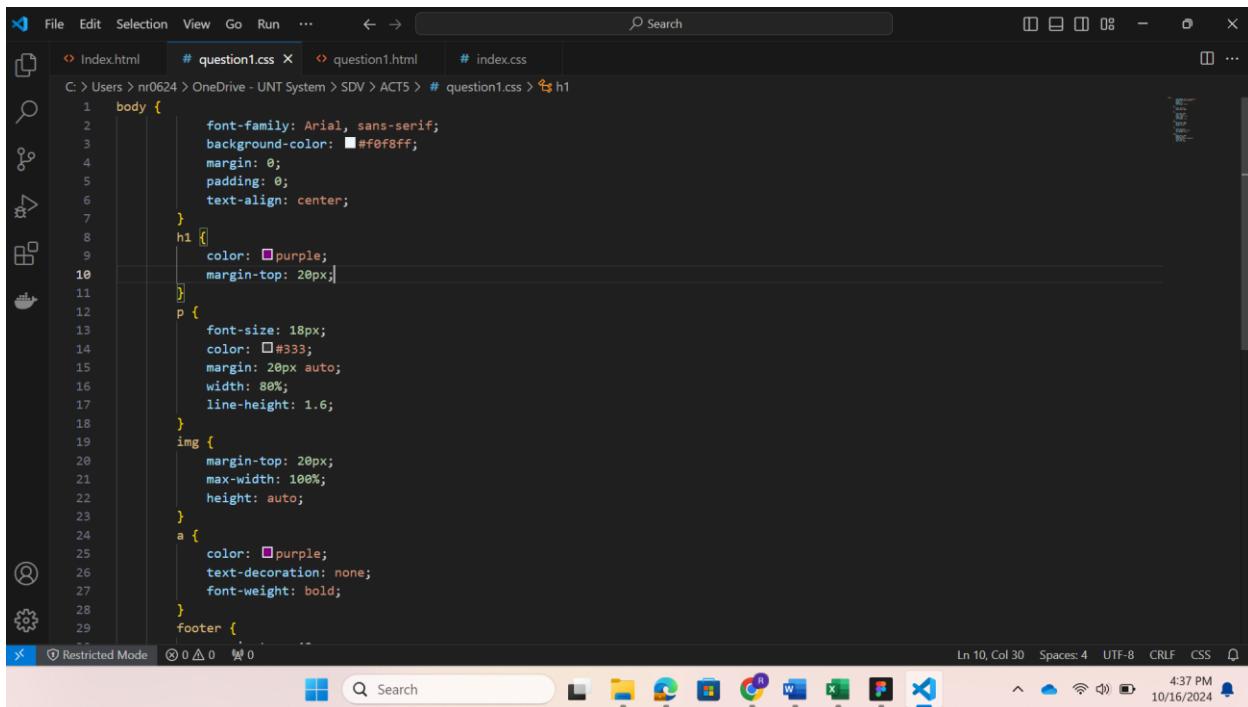


question1.html

```
C:\> Users > nr0624 > OneDrive - UNT System > SDV > ACT5 > question1.html > html > head > link
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Purple Lily</title>
7      <link href="question1.css" rel="stylesheet" />
8  </head>
9  <body>
10     <h1>The Beautiful Purple Lily</h1>
11     <p>It represents royalty, elegance and Grace</p>
12     
13     <p>Learn more <a href="https://en.wikipedia.org/wiki/Lilium">here.</a></p>
14     <footer>
15         @ Scientific Data Visualization Activity -5
16     </footer>
17  </body>
18 </html>
```

(I have used the tags: html, meta, title, head, body, link, h1, p, img, a, footer)

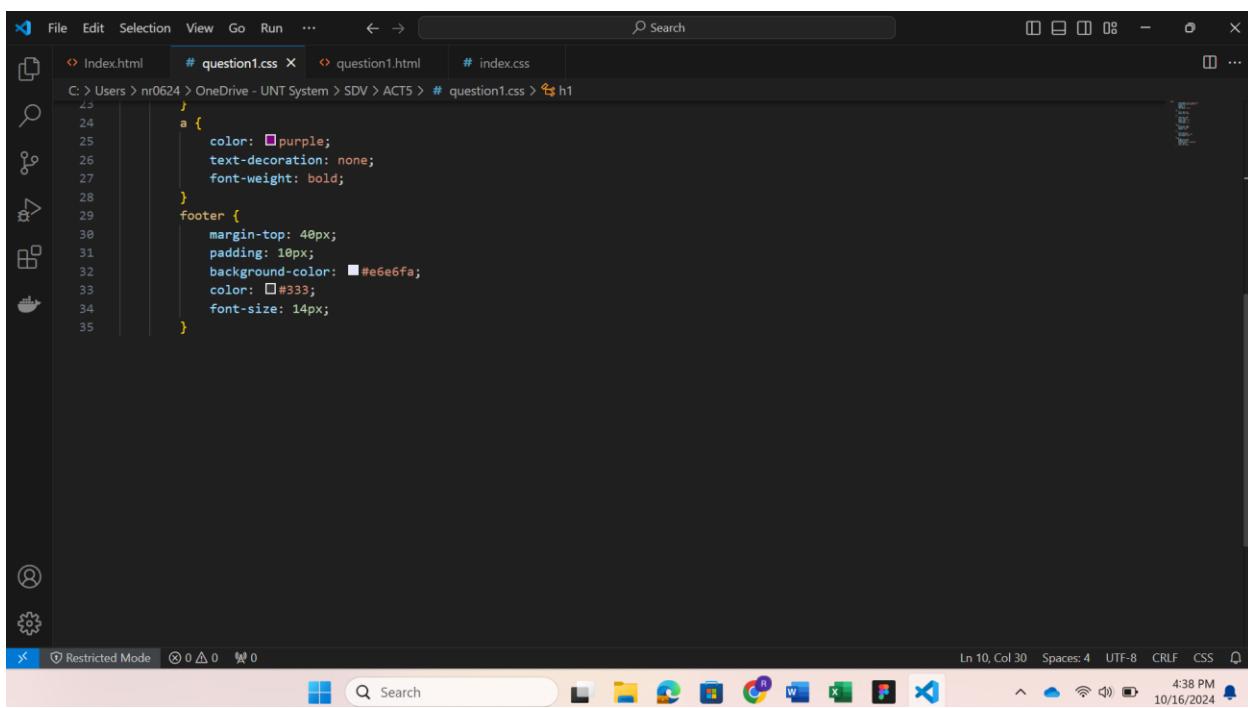
question1.css



```
File Edit Selection View Go Run ... ← → ⌂ Search
C: > Users > nr0624 > OneDrive - UNT System > SDV > ACT5 > # question1.css > h1
1 body {
2     font-family: Arial, sans-serif;
3     background-color: #f0f8ff;
4     margin: 0;
5     padding: 0;
6     text-align: center;
7 }
8 h1 {
9     color: purple;
10    margin-top: 20px;
11 }
12 p {
13     font-size: 18px;
14     color: #333;
15     margin: 20px auto;
16     width: 80px;
17     line-height: 1.6;
18 }
19 img {
20     margin-top: 20px;
21     max-width: 100%;
22     height: auto;
23 }
24 a {
25     color: purple;
26     text-decoration: none;
27     font-weight: bold;
28 }
29 footer {
30     margin-top: 40px;
31     padding: 10px;
32     background-color: #e6e6fa;
33     color: #333;
34     font-size: 14px;
35 }
```

Ln 10, Col 30 Spaces: 4 UTF-8 CRLF CSS

4:38 PM 10/16/2024

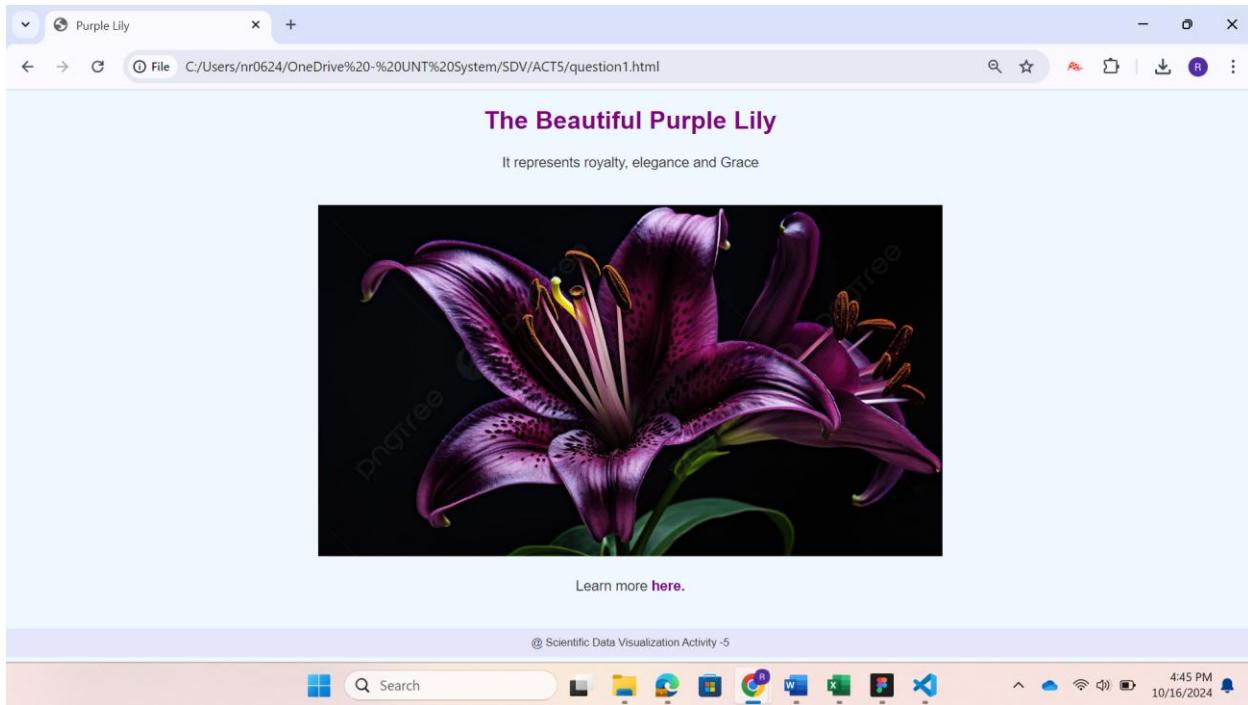


```
File Edit Selection View Go Run ... ← → ⌂ Search
C: > Users > nr0624 > OneDrive - UNT System > SDV > ACT5 > # question1.css > h1
1 body {
2     font-family: Arial, sans-serif;
3     background-color: #f0f8ff;
4     margin: 0;
5     padding: 0;
6     text-align: center;
7 }
8 h1 {
9     color: purple;
10    margin-top: 20px;
11 }
12 p {
13     font-size: 18px;
14     color: #333;
15     margin: 20px auto;
16     width: 80px;
17     line-height: 1.6;
18 }
19 img {
20     margin-top: 20px;
21     max-width: 100%;
22     height: auto;
23 }
24 a {
25     color: purple;
26     text-decoration: none;
27     font-weight: bold;
28 }
29 footer {
30     margin-top: 40px;
31     padding: 10px;
32     background-color: #e6e6fa;
33     color: #333;
34     font-size: 14px;
35 }
```

Ln 10, Col 30 Spaces: 4 UTF-8 CRLF CSS

4:38 PM 10/16/2024

Webpage:



Explanation:

In this task, I have created a simple web page about purple lilies. I have converted my lily image to SVG format in Figma. And then, I embedded it in the HTML code and added some CSS code for a more visually appealing page. This task emphasizes embedding SVG into a webpage.

TASK – 2

```
C:\> Users > nr0624 > OneDrive - UNT System > SDV > ACT5 > tutorial.html > tutorial.js > tutorial.html
1  <!DOCTYPE html>
2  <html>
3  <head>
4  <style>
5
6  </style>
7  </head>
8  <body>
9    <head>
10   <title>IN CLASS EXERCISE-5</title>
11   <link href="tutorial.css" rel="stylesheet" />
12 </head>
13 <body>
14   <h1>INTRODUCTION TO WEB TECHNOLOGIES</h1>
15   <p> Introduction to SVG and CSS</p>
16   <p>Nature Wallpaper</p>
17   
18   <script src = "tutorial.js"></script>
19 </body>
20 </html>
21
```

In my html code, I have added an extra line to get an alert before generating a webpage.

tutorial.js

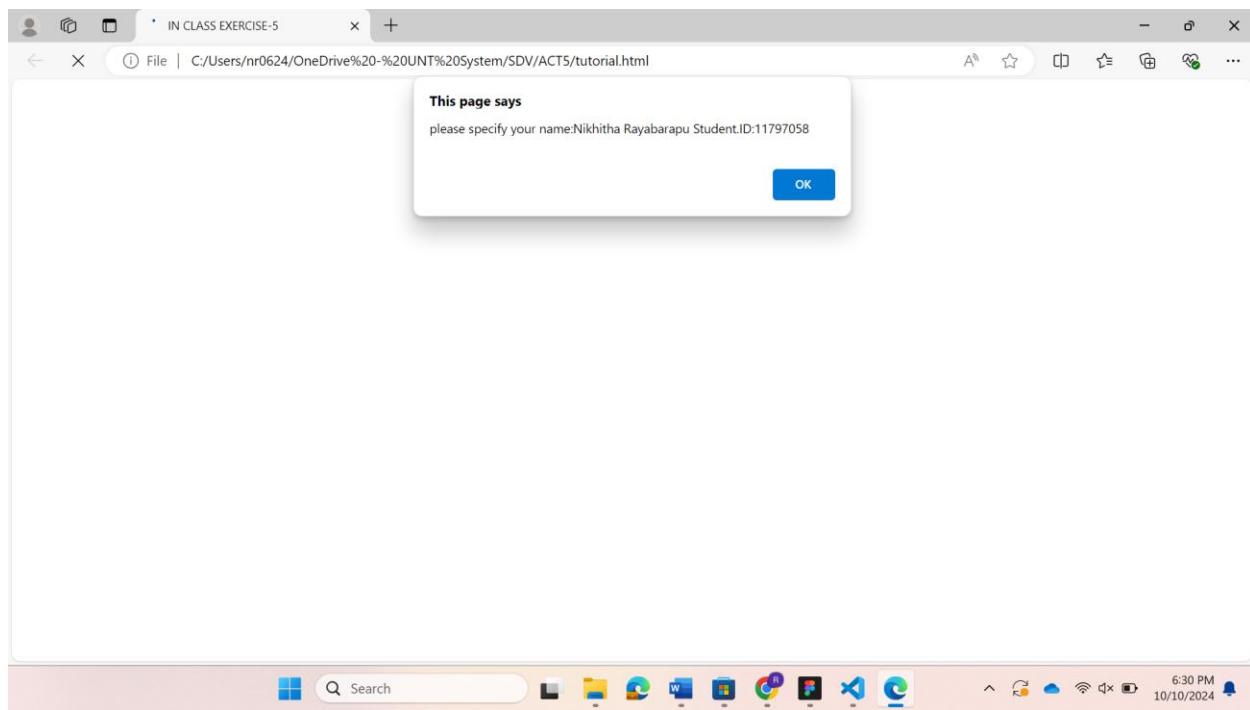
Here I have specified my name and student ID: Nikhitha Rayabarapu – 11797058 as below:

The screenshot shows the Visual Studio Code interface in dark mode. The left sidebar contains the RUN AND DEBUG panel with sections for VARIABLES, WATCH, CALL STACK, LOADED SCRIPTS, BREAKPOINTS (Caught Exceptions, Uncaught Exceptions), and EVENT LISTENER BREAKPOINTS. The main editor area shows a file named 'tutorial.js' with the following code:

```
C:\> Users > nr0624 > OneDrive - UNT System > SDV > ACT5 > JS tutorial.js
1 alert("please specify your name:Nikhitha Rayabarapu Student.ID:11797058");
```

The DEBUG CONSOLE tab is selected at the bottom of the interface. The status bar at the bottom right shows the date and time as 6:27 PM on 10/10/2024.

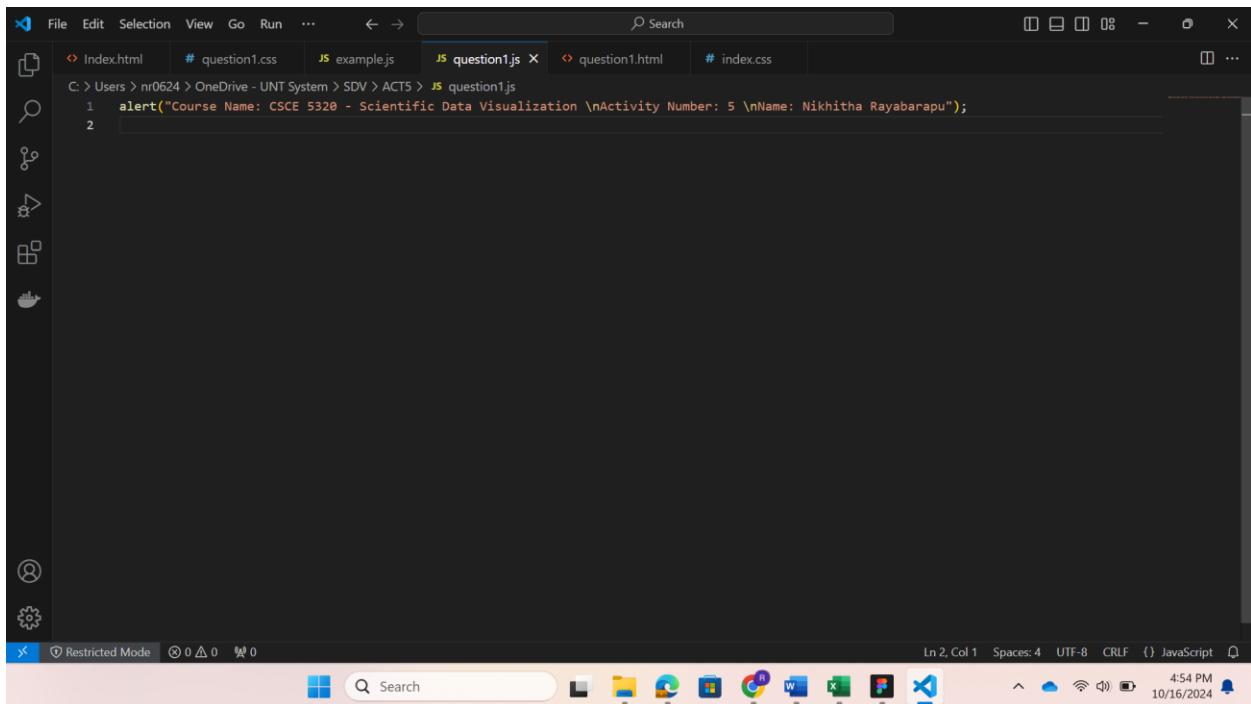
After running the code, the result is as follows:



Here, the webpage is not displayed yet, but once I press the 'OK' button, it is displayed. This proves that our javascript code is working properly.

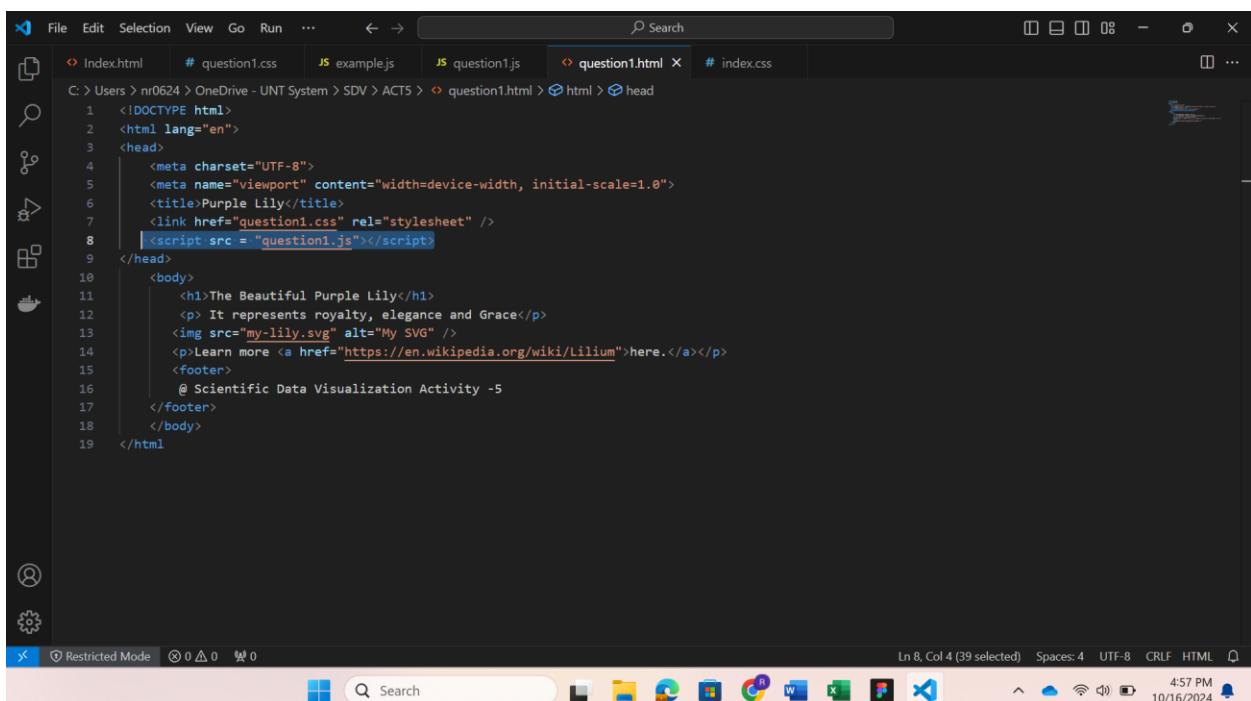
Questions:

1&2.Java script code:



```
C: > Users > nr0624 > OneDrive - UNT System > SDV > ACT5 > JS question1.js
1  alert("Course Name: CSCE 5328 - Scientific Data Visualization \nActivity Number: 5 \nName: Nikhitha Rayabarapu");
2
```

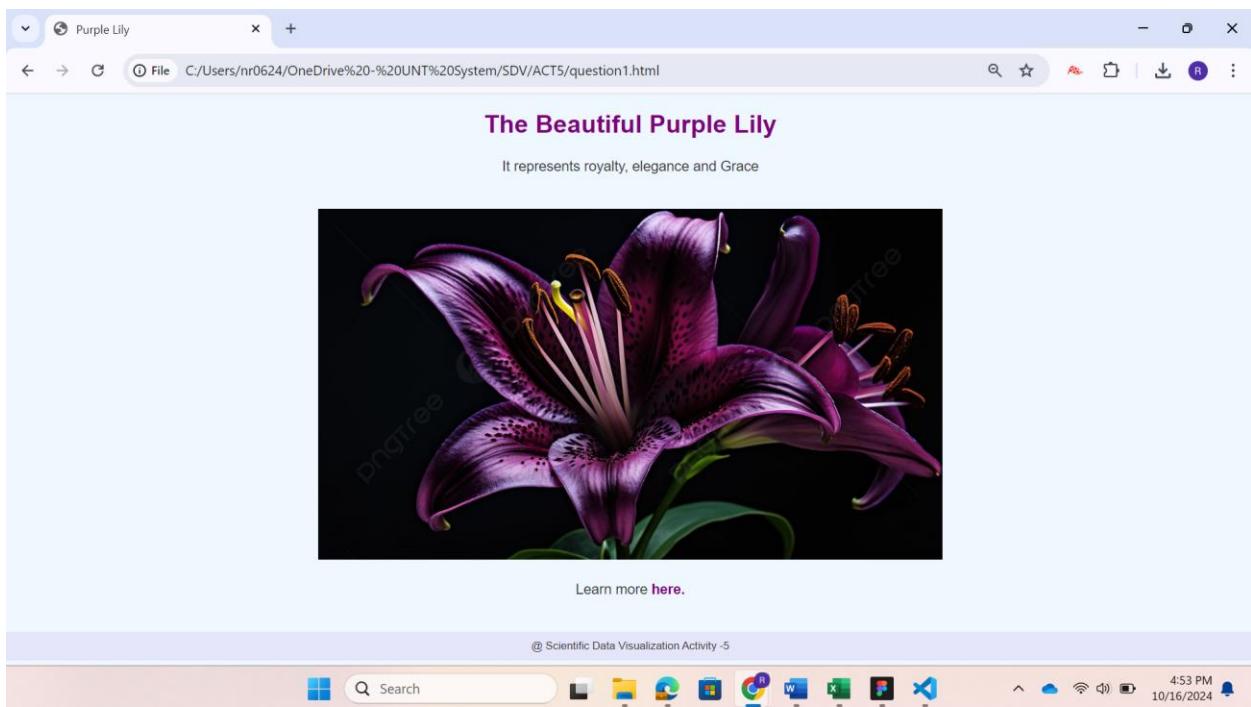
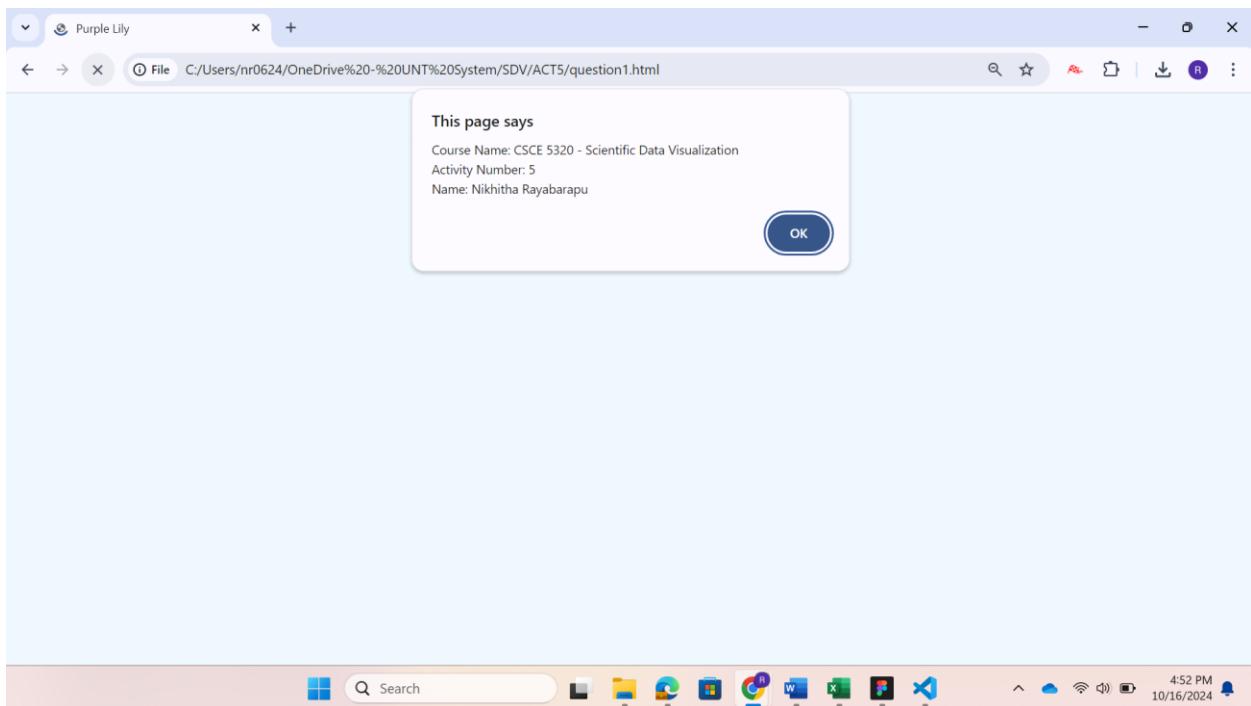
Ln 2, Col 1 Spaces: 4 UTF-8 CRLF {} JavaScript 4:54 PM 10/16/2024



```
C: > Users > nr0624 > OneDrive - UNT System > SDV > ACT5 > question1.html > html > head
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Purple Lily</title>
7      <link href="question1.css" rel="stylesheet" />
8      <script src = "question1.js"></script>
9  </head>
10     <body>
11         <h1>The Beautiful Purple Lily</h1>
12         <p> It represents royalty, elegance and Grace</p>
13         
14         <p>Learn more <a href="https://en.wikipedia.org/wiki/Lilium">here.</a></p>
15         <footer>
16             @ Scientific Data Visualization Activity -5
17         </footer>
18     </body>
19 </html>
```

Ln 8, Col 4 (39 selected) Spaces: 4 UTF-8 CRLF HTML 4:57 PM 10/16/2024

3. Alert-page:



4. Explanation:

In this task, I have created a JavaScript file that creates an alert when we open the web page. In the alert, the Class name, activity number, and my name are displayed. Once the user presses OK, the web page is shown. This task explains how to create alerts using JavaScript and embed them in my webpage.

TASK – 3

I have opened VizHub and logged in and connected to my github account as shown below:

The screenshot shows a browser window with the URL https://github.com/login?client_id=caf0f01b3dc9203bd6e2&return_to=%2Flogin%2Foauth%2Fauthorize%3Fclient_id.... The page displays the GitHub logo and the text "Sign in to GitHub to continue to VizHub 3 Beta". It includes fields for "Username or email address" (nikkiray309) and "Password", along with a "Sign in" button and a "Forgot password?" link. Below the main form is a "Sign in with a passkey" option and links for "New to GitHub? Create an account".

The screenshot shows a browser window with the URL <https://vizhub.com/nikkiray309>. The page features the VizHub logo and the name "Rayabarapu Nikhitha" with the handle "@nikkiray309". Below the profile information are three navigation links: "My public vizzes" (highlighted in blue), "My private vizzes", and "My unlisted vizzes". The browser's taskbar at the bottom shows various pinned application icons.

(Now my profile has been created)

VizHub Search Results

https://vizhub.com/search?query=

NizHub

Search

Pricing Resources

Sort by Most popular + Create viz

Most recent

Most forked

Search Results

Hello HTML!

HTML Starter

11.1K Forks 207 Stars

Curran Kelleher Jan 04, 2024

Circles with D3

326 Forks 3 Stars

Curran Kelleher Sep 26, 2024

Hello VizHub!

6K Forks 38 Stars

Curran Kelleher Nov 10, 2023

https://vizhub.com/search?query=

Search

6:48 PM 10/10/2024

VizHub Search Results

https://vizhub.com/search?query=BUDDHA

NizHub

Search

Pricing Resources

Sort by Most popular + Create viz

Search Results

Fork of Fork of Fork of Fork of Buddha in colors -...

474 Forks 3 Stars

Mgk1255 Feb 22, 2023

Buddha

3 Forks 3 Stars

Nita Jan 20, 2024

Fork of Fork of Fork of Fork of Buddha in...

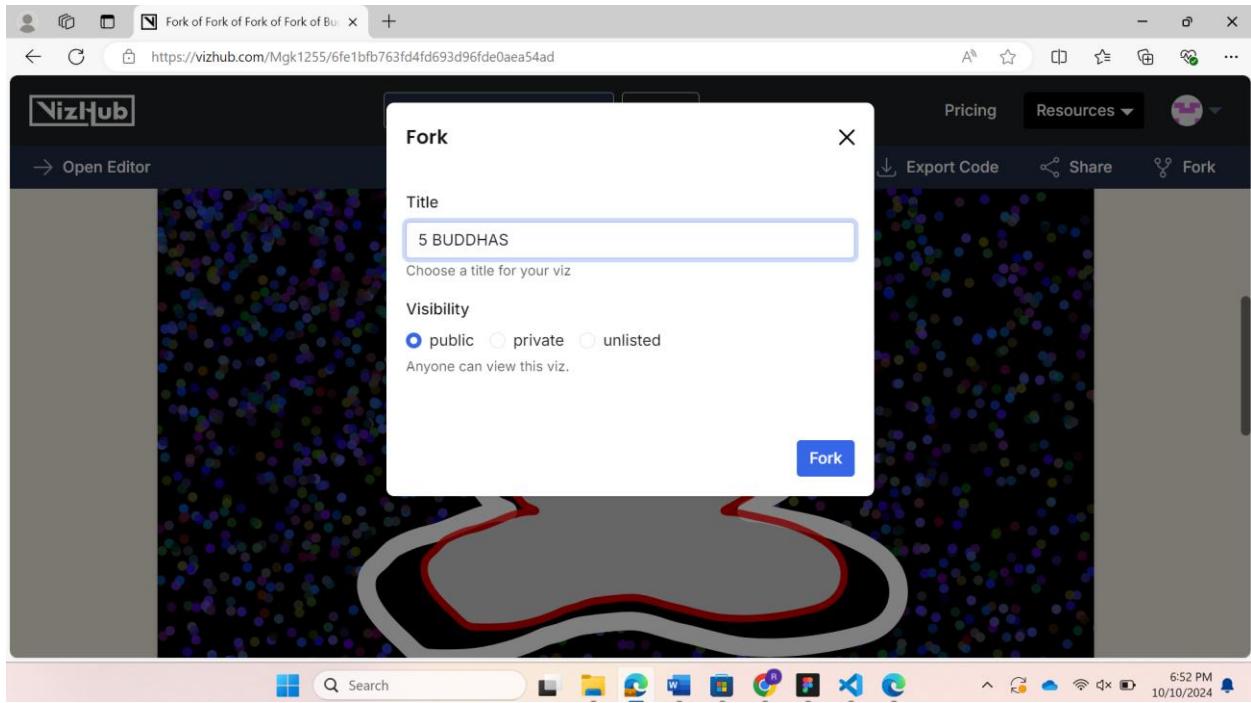
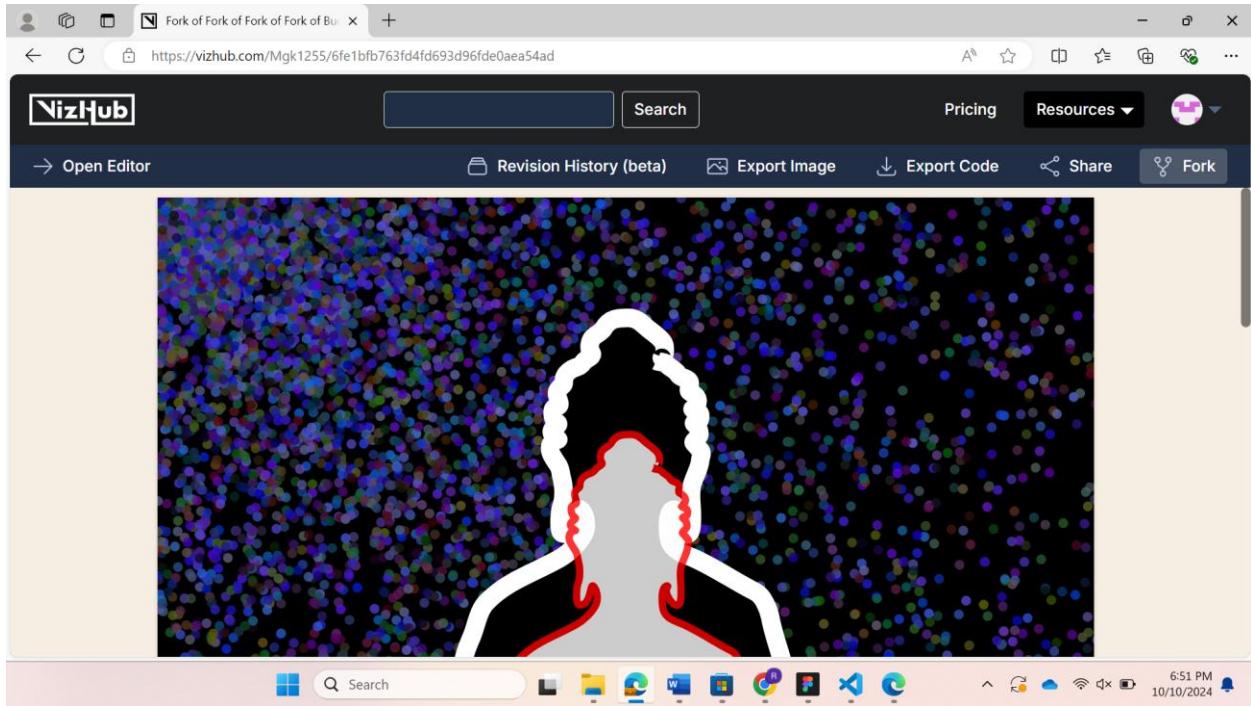
32 Forks

INDU1998-GIT Mar 05, 2024

https://vizhub.com/search?query=

Search

6:50 PM 10/10/2024



Explanation:

Here I have selected the Buddhas with 2 reflections as asked saved it as “5 BUDDHAS” & clicked on the `fork` button. I have done the below modification in my **index.js** code in the code editor and after running it I got 5 reflections Buddha background.

Before changes(2 Buddhas code)

The screenshot shows a VizHub interface with a title bar "5 BUDDHAS". The left sidebar lists files: index.html, index.js (selected), and README.md. The main editor area displays the following JavaScript code:

```
21  {A.map(a =>
22    A.map(a =>
23      A.map(a => (
24        <circle
25          r={radius}
26          cx={a * 100 * Math.random(a)}
27          cy={a * 100 * Math.random(a)}
28          fill={`rgb(${Math.random() * 105}, ${Math.random() * 105}, ${Math
29            opacity=0.8}
30        )
31      ))
32    ))
33  })
34 // Image 1
35 <g transform={'translate(210,120) scale( 1.9)'>
36 <path d={"M161.633 22.8007C161.026 24.1899 163.146 21.5968 163.146 19.776
37   fill={'black'} stroke-width={10}stroke={'white'} opacity={1}>
38 </g>
39 //Image 2
40 <g transform={'translate(270,240) scale( 1.5)'>
41 <path
42   d={
43     'M161.633 22.8007C161.026 24.1899 163.146 21.5968 163.146 19.776C163.146 17.2713 163.24 15.9871 161.745 1
44   }
45   stroke-width={5}
46   stroke={'none'}
47   fill={'violet'}
48   stroke-width={6}
49   stroke={'white'}
50   opacity={1}
51   />
52 </g>
```

The right sidebar shows a profile for "Rayabarapu Nikhitha" and a note: "React Starter code." Below it is a comment section.

After changes (5 Buddhas):

The screenshot shows the same VizHub interface after changes. The file list and title bar remain the same. The main editor area now displays more complex SVG code, indicating the addition of three more Buddhas (totaling five). The code includes additional path definitions and styling for the new figures.

```
32  })
33 // Image 1
34 <g transform={'translate(210,120) scale( 1.9)'>
35 <path
36   d={
37     'M161.633 22.8007C161.026 24.1899 163.146 21.5968 163.146 19.776C163.146 17.2713 163.24 15.9871 161.745 1
38   }
39   stroke-width={5}
40   stroke={'none'}
41   fill={'violet'}
42   stroke-width={6}
43   stroke={'white'}
44   opacity={1}
45   />
46 </g>
47 //Image 2
48 <g transform={'translate(270,240) scale( 1.5)'>
49 <path
50   d={
51     'M161.633 22.8007C161.026 24.1899 163.146 21.5968 163.146 19.776C163.146 17.2713 163.24 15.9871 161.745 1
52   }
```

5 BUDDHAS



index.js

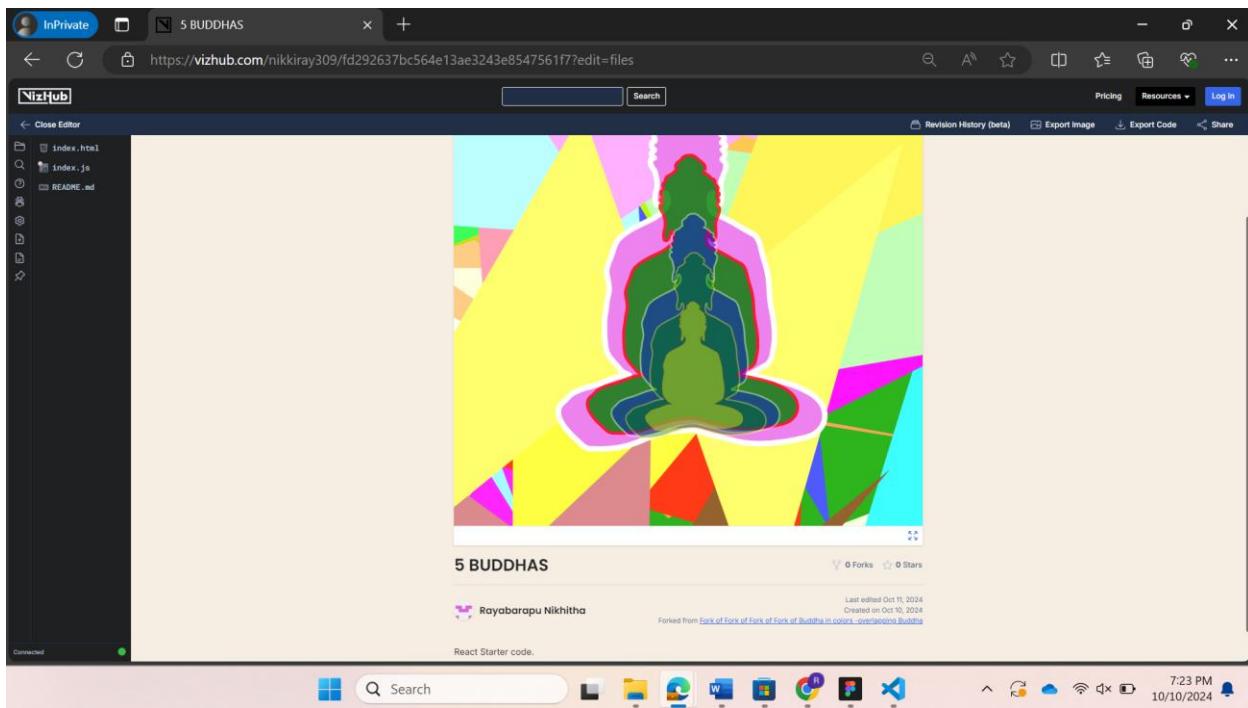
```
15 //console.log(A);
16 console.log(sq(70));
17 //-----
18 const App = () =>
19   <div>
20     <svg width={width} height={height}>
21       {A.map((a) =>
22         A.map((a) =>
23           A.map((a) => (
24             <polygon
25               points={`${a * 100 * Math.random(a)}, ${a * 100 * Math.random(a)}
26               fill={`rgb(${Math.random() * 500}, ${Math.random() * 500}, ${Math
27               opacity=2}
28               transform=`rotate(45 ${a * 100 * Math.random(a)} ${a * 100 * Ma
29             `/>
30           )),
31         )),
32       ))
33     // Image 1
34     <g transform='translate(210,120) scale( 1.9)'>
35       <path
36         d={
```

Connected

Search

5 BUDDHAS

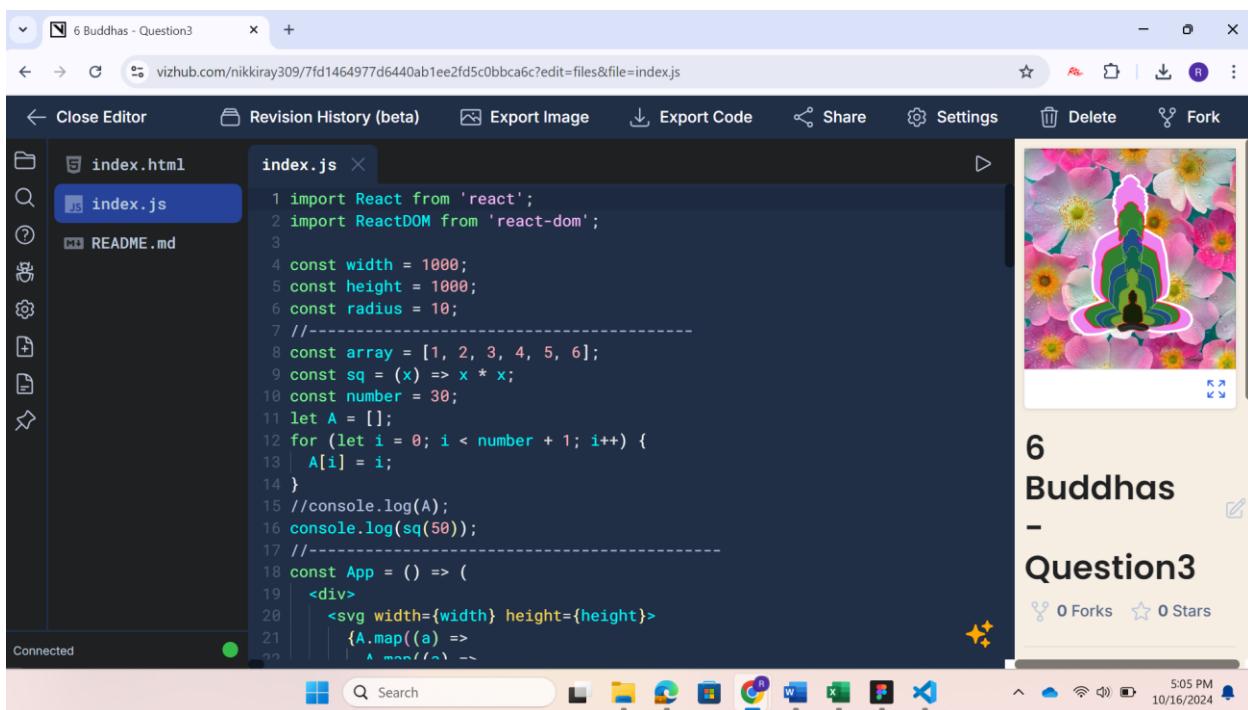
0 Forks 0 Stars



My vizhub link: [5 BUDDHAS \(vizhub.com\)](https://vizhub.com/nikkiray309/fd292637bc564e13ae3243e8547561f7?edit=files&file=index.js)

Questions:

1.



6 Buddhas - Question3

vizhub.com/nikkiray309/7fd1464977d6440ab1ee2fd5c0bbca6c?edit=files&file=index.js

```
index.js
34  })
35  // Image 1
36  <g transform="translate(210,120) scale( 1.9)">
37  <path
38  d={
39   'M161.633 22.8807C161.826 24.1899 163.146 21.5968 163.146 19.776C163.146 17.2713 163.24 15.9871 161.745 14.1187C159.539 11.3688 157.187 9.98361 154.324 7.67718C158.686 4.76693 148.717 1.62776 143.233 1.62776C137.767 1.62776
40  stroke-width(1) stroke='none'
41  fill='violet'
42  stroke-width(4)
43  stroke-color('white')
44  opacity=(1)
45  />
46  //Image 2
47  <g transform="translate(270,240) scale( 1.5)">
48  <path
49  d={
50   'M161.633 22.8807C161.826 24.1899 163.146 21.5968 163.146 19.776C163.146 17.2713 163.24 15.9871 161.745 14.1187C159.539 11.3688 157.187 9.98361 154.324 7.67718C158.686 4.76693 148.717 1.62776 143.233 1.62776C137.767 1.62776
51  stroke-width(1)
52  stroke='none'
53  fill='green'
54  stroke-width(4)
55  stroke-color('red')
56  opacity=(0.8)
57  />
58  //Image 3
59  <g transform="translate(320,360) scale( 1.2)">
60  <path
61  d={
62   'M161.633 22.8807C161.826 24.1899 163.146 21.5968 163.146 19.776C163.146 17.2713 163.24 15.9871 161.745 14.1187C159.539 11.3688 157.187 9.98361 154.324 7.67718C158.686 4.76693 148.717 1.62776 143.233 1.62776C137.767 1.62776
63  stroke-width(1)
64  stroke='none'
65  fill='blue'
66  stroke-width(3)
67  stroke-color('white')
68  opacity=(0.4)
69  />
70  //Image 4
71  <g transform="translate(350,440) scale( 1.8)">
72  <path
73  d={
74   'M161.633 22.8807C161.826 24.1899 163.146 21.5968 163.146 19.776C163.146 17.2713 163.24 15.9871 161.745 14.1187C159.539 11.3688 157.187 9.98361 154.324 7.67718C158.686 4.76693 148.717 1.62776 143.233 1.62776C137.767 1.62776
75  stroke-width(1)
76  stroke='none'
77  fill='black'
78  stroke-width(10)
79  stroke-color('black')
80  />
```

Connected

5:44 PM 10/16/2024

2.

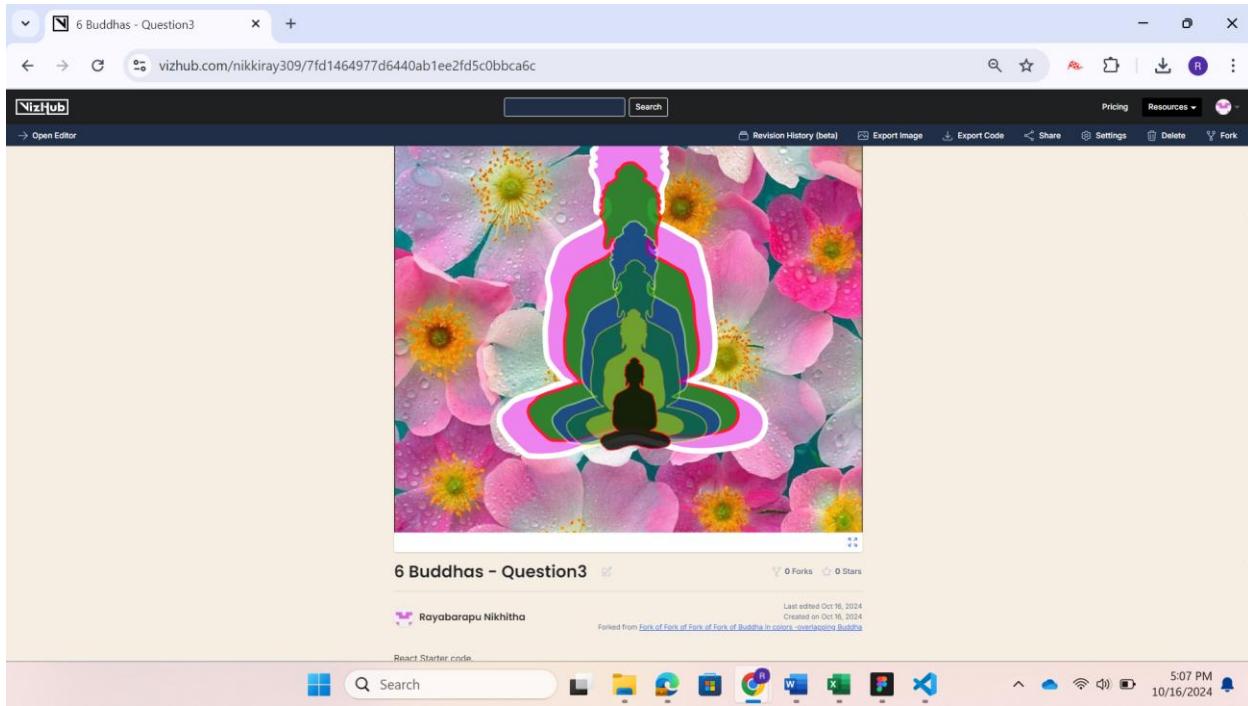
6 Buddhas - Question3

vizhub.com/nikkiray309/7fd1464977d6440ab1ee2fd5c0bbca6c?edit=files&file=index.html

```
index.html
1  <!doctype html>
2  <html>
3  <head>
4  <title>
5   Fork of Fork of Fork of Fork of Fork of Buddha
6   in colors - overlapping Buddha
7  </title>
8  <style>
9   *{
10    margin: 0;
11    padding: 0;
12    font-size: 12px;
13    text-align: center;
14  }
15  #Div-id {
16    font-size: 7em;
17  }
18  body {
19    background-image: url('https://wallup.net/wp-content/uploads/2019/09/458974-flowers-nature-plant-beautiful-green-flower.jpg');
20    margin: 0;
21    overflow: hidden;
22    border: 1px solid black;
23    box-shadow: 5px 5px 5px rgba(0, 0, 0, 0.3);
24  }
25  </style>
26  <script src="https://unpkg.com/react@16.10.0/umd/react.production.min.js"></script>
27  <script src="https://unpkg.com/react-dom@16.10.0/umd/react-dom.production.min.js"></script>
28  </head>
29  <body>
30  <div id="root"></div>
31  <script src="bundle.js"></script>
32  </body>
33  </html>
34
```

Connected

5:44 PM 10/16/2024



My vizHub link: <https://vizhub.com/nikkiray309/7fd1464977d6440ab1ee2fd5c0bbca6c>

3. Explanation:

Step 1: Open Vizhub and fork the visualization with two buddhas.

Step 2: Change the code below in **index.js**:

```
<g transform={'translate(210,120) scale( 1.9)'>
  <path
    d={ 'M161.633 22.8007C161.026 24.1899 163.... }
    stroke-width={5} stroke={'none'} fill={'violet'} stroke-width={6} stroke={'white'}
    opacity={1}
  />
</g>
```

Change the values in translate() and scale() to manipulate the size of Buddha and create 6 different images as asked.

Step 3: Change the background by adding the URL in the index.html code

Step 4: Run the code and share the link