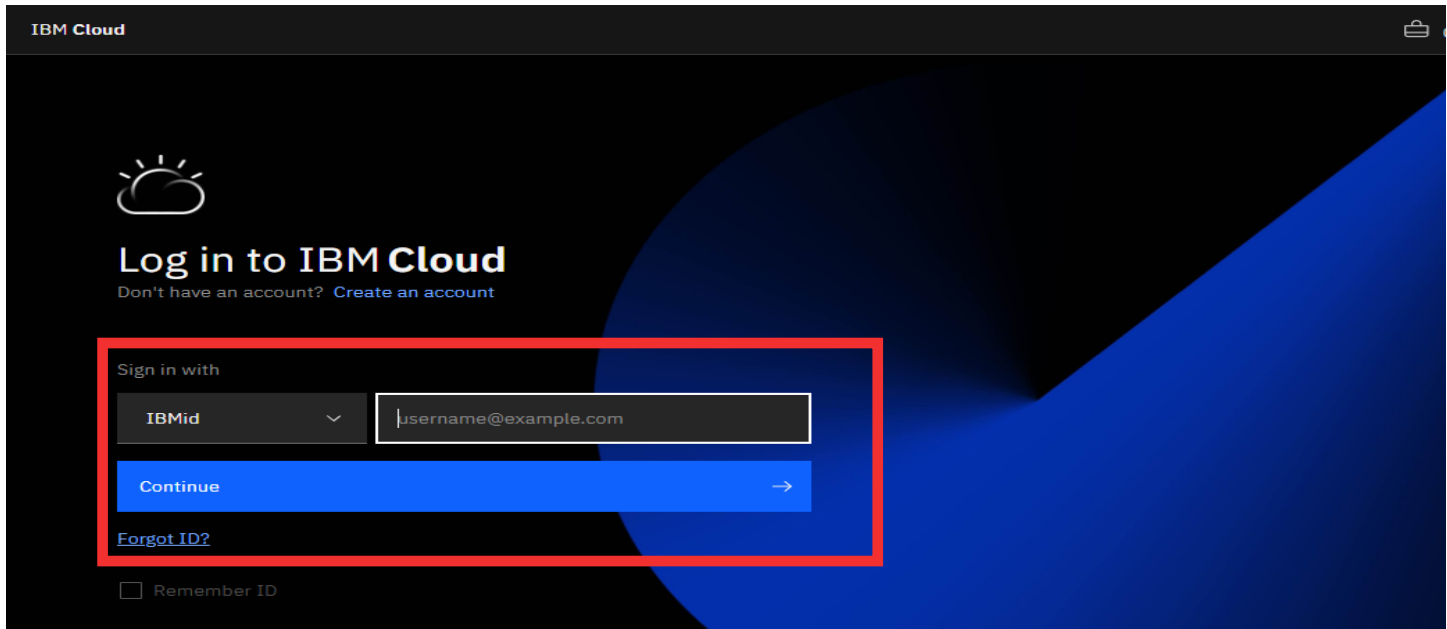


EXERCISE – 8

DEVOPS IN IBM CLOUD

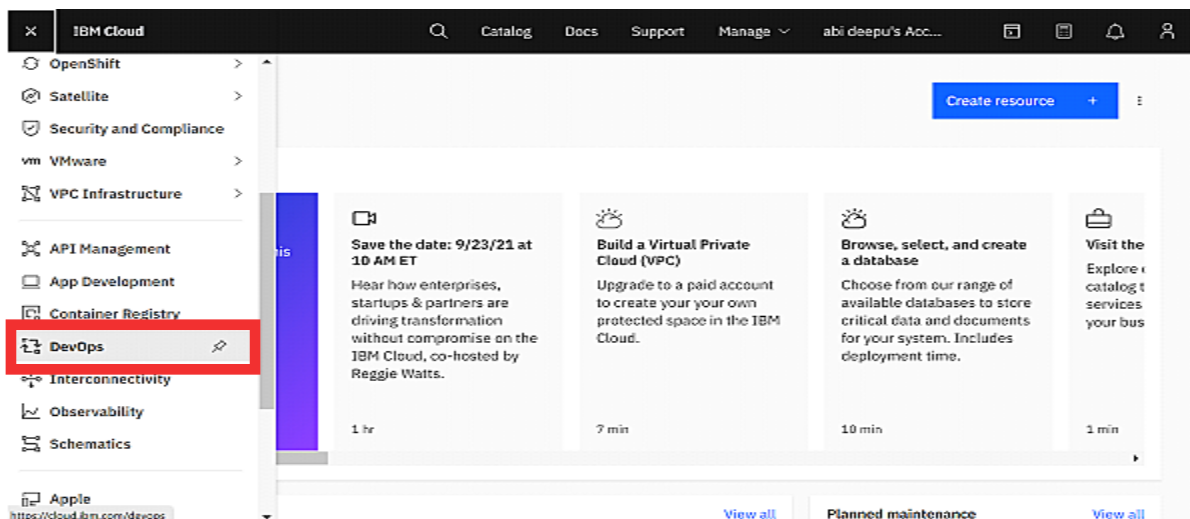
STEP – 1:

Login to IBM cloud account.



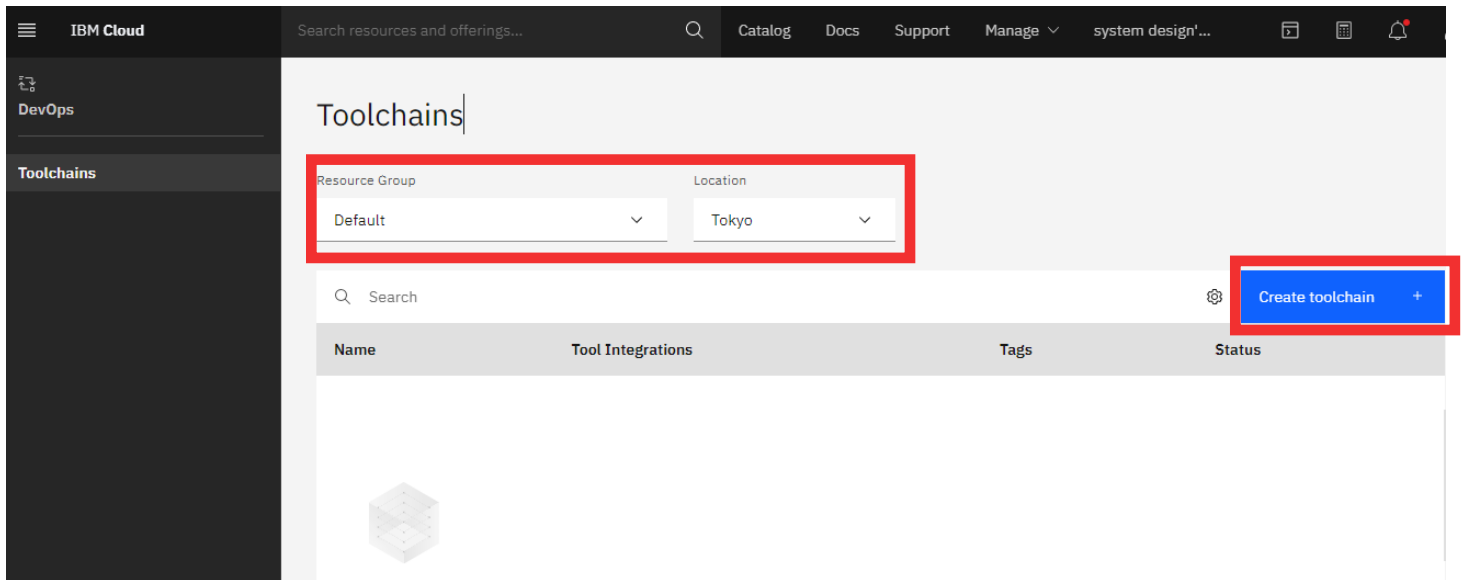
STEP – 2:

Open the left Navigation bar and go to DevOps category



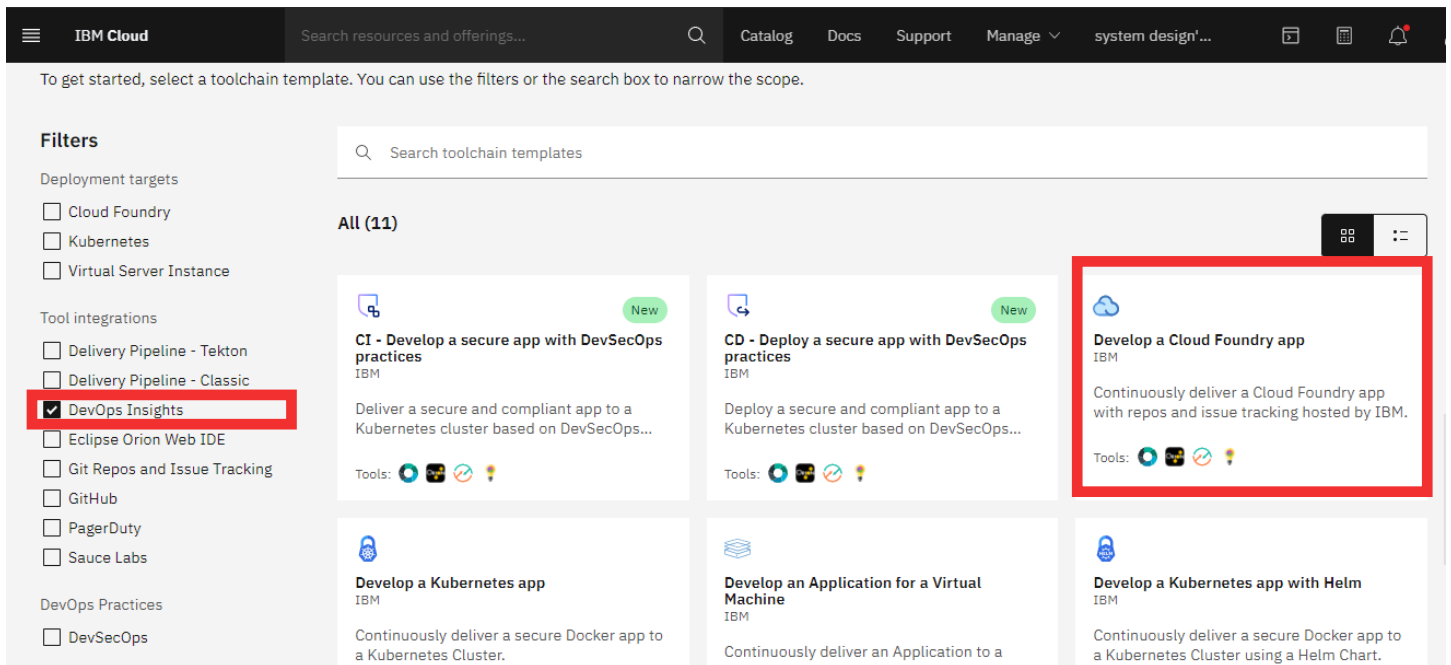
STEP – 3:

Ensure the LOCATION is “Tokyo” and click on Create Toolchain Button




STEP – 4:

Click on Develop a Cloud Foundry app with DevOps insights option.



STEP – 5:


Page will open to you to configure the default options.

 IBM Cloud

Search resources and offerings...

Catalog Docs Support Manage ▾ system design'...

[Toolchains](#) / [Create a toolchain](#) /

 Develop a Cloud Foundry app

Create About

Toolchain name

WEANJS

Select region

Tokyo ▾

Select a resource group

Default ▾


Select a source provider


Git Repos and Issue Tracking ▾


Select a pipeline type


Classic ▾

Tool Integrations

 Git Repos and Issue Tracking
Required


 Delivery Pipeline
Required


 More tools


 IBM Cloud


Search resources and offerings...

Catalog Docs Support Manage ▾ system design'...

 Git Repos and Issue Tracking

 Delivery Pipeline
Required

 DevOps Insights

 More tools

The Delivery Pipeline automates continuous deployment.

App name ⓘ

devops-insights-20210918040954800

IBM Cloud API key ⓘ

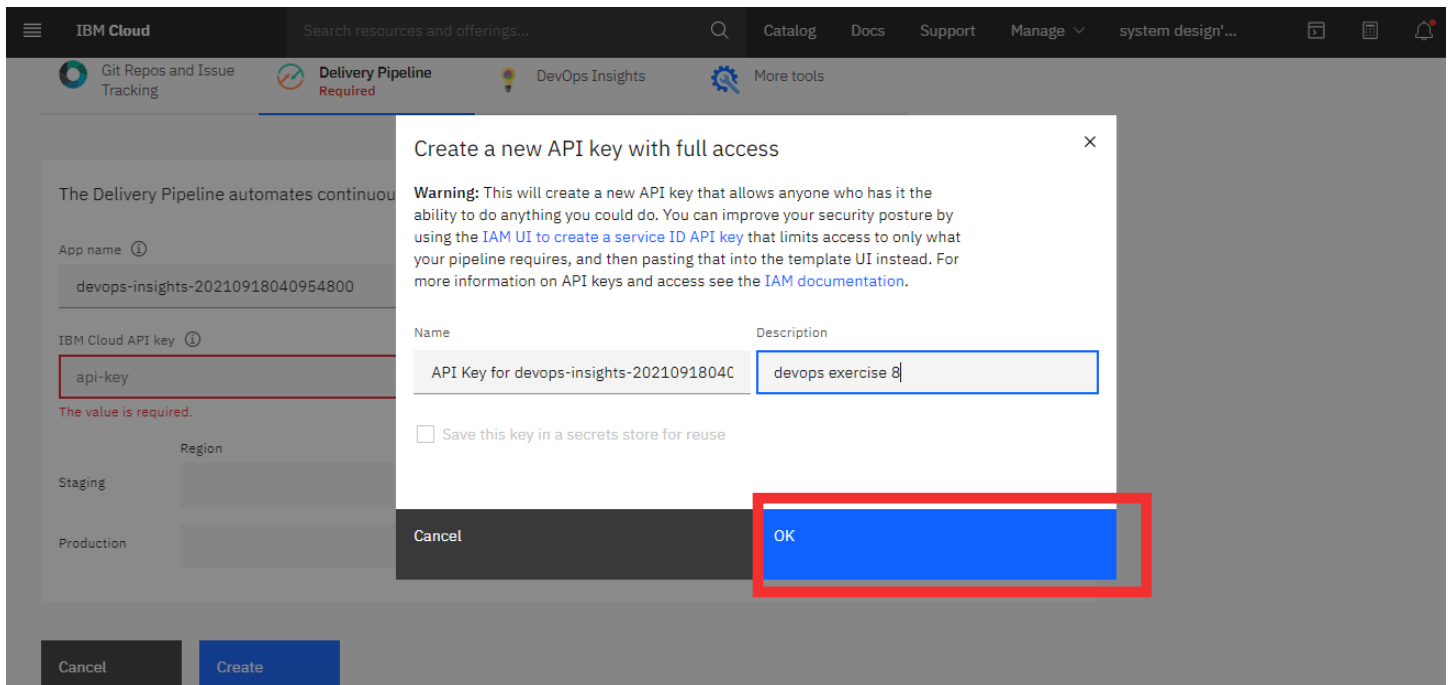
api-key ⓘ

The value is required.

New +

	Region	Organization	Space
Staging			
Production			

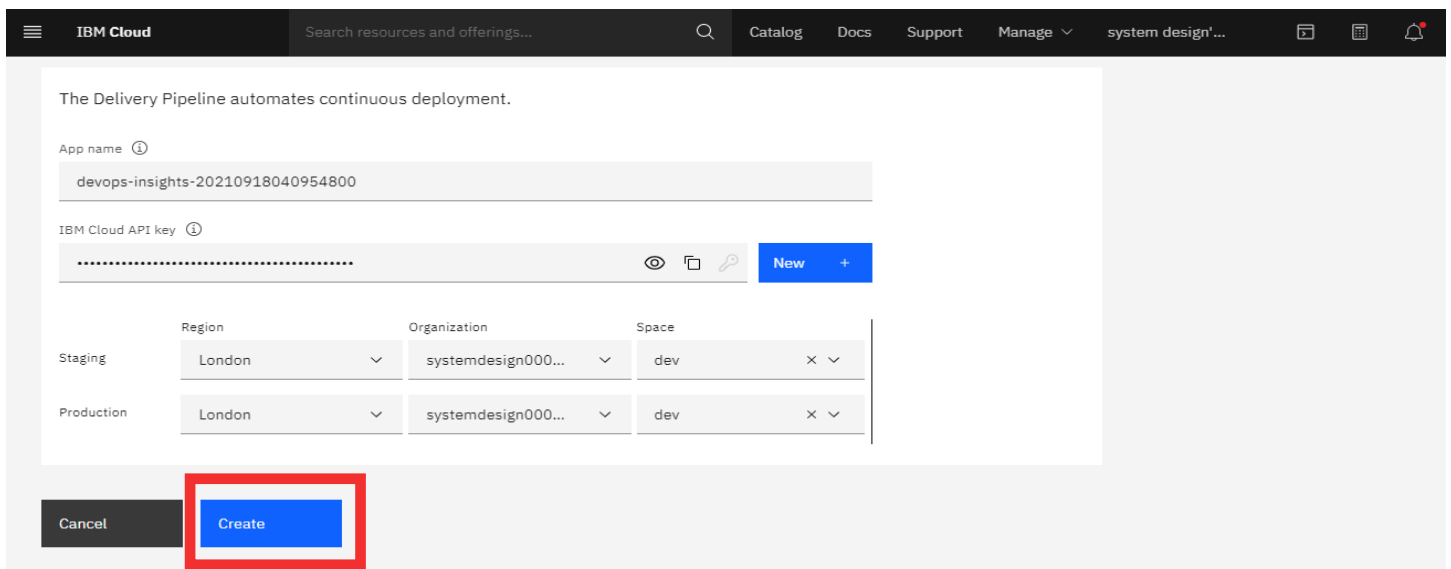
Cancel Create



STEP – 6:

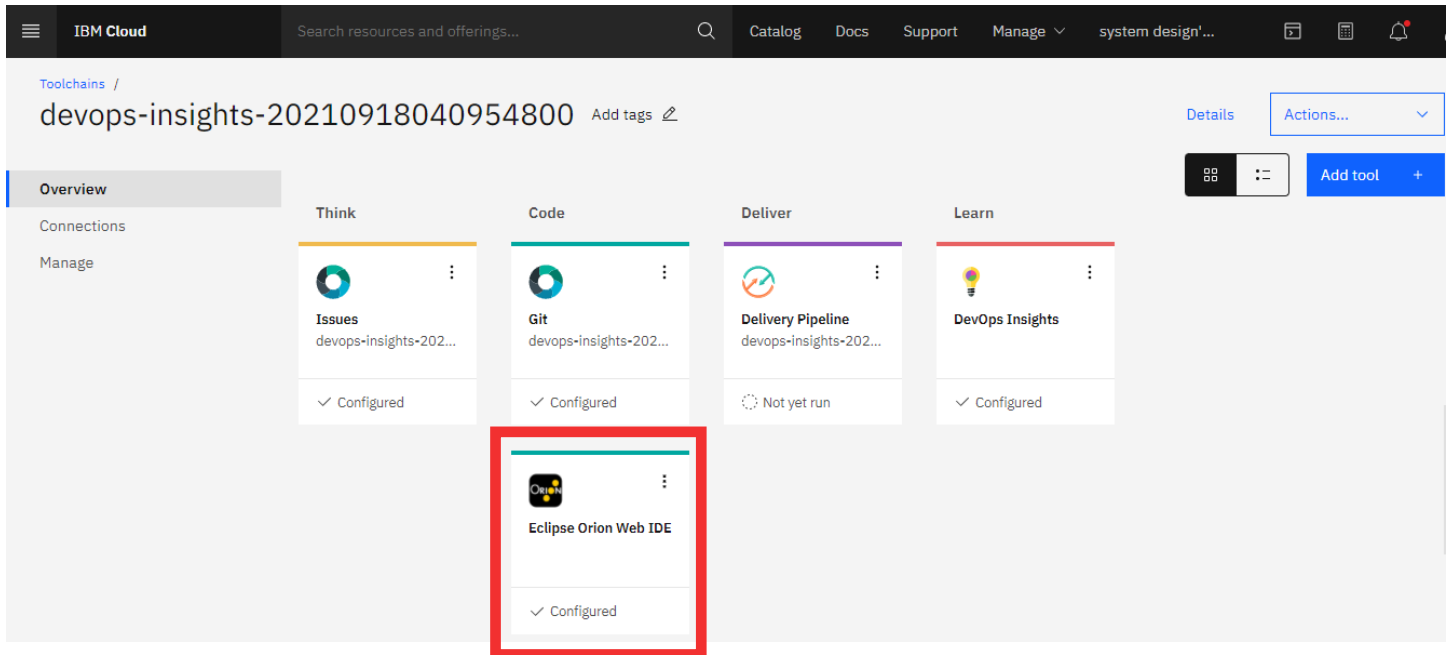
In the pipeline option you will need to create an API key.

After creating the API key will be automatically assigned to you in the place and select London as your Staging stage and Production stage.



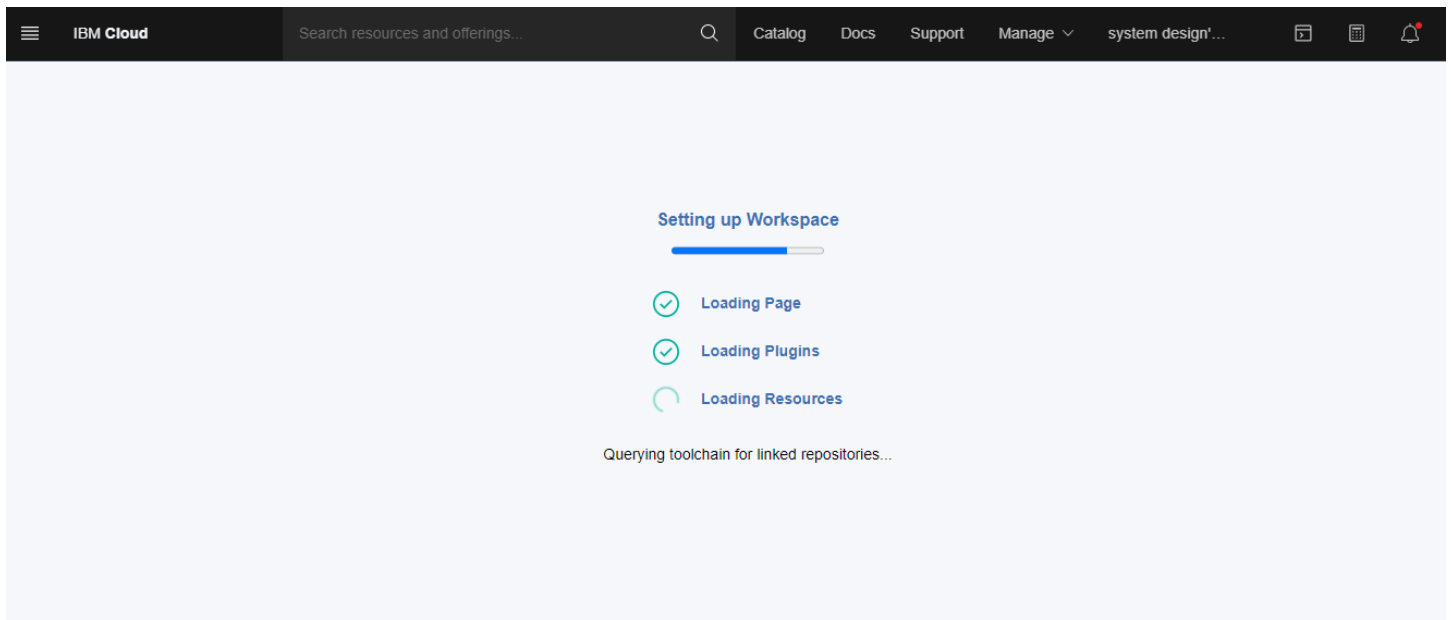
STEP – 7:

The configuration is completed now. Click on Eclipse Orion Web IDE.



STEP – 8:

After click on Eclipse Orion Web IDE it will automatically set up workspace.



STEP – 9:

This will show up files which are set default in the initial configuration time.

Create Three files "Index.html" , "Style.css" and "Script.js"

After creating a files, Paste the below code to respective files as Show in below Images.

Index.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta name="Description" content="My Weather App">
  <title>Weather App</title>
  <link rel="stylesheet" href="style.css">
  <script src="https://kit.fontawesome.com/6392c1211e.js" crossorigin="anonymous"></script>
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link href="https://fonts.googleapis.com/css2?family=Roboto:wght@400;700;900&display=swap"
rel="stylesheet">
  <script src="script.js" defer></script>
</head>
<body>
  <div class="Search">
    <input type="text" class="Searchbar" placeholder="Search">
    <button><i class="fas fa-search-location"></i></button>
  </div>
  <div class="Card Loading">
    <div class="Card-1">
      <div class="part1">
        <h2 class="Day">Tuesday</h2>
        <div class="Date">15 Jan 2019</div>
        <div class="Location">
          <i class="fas fa-map-marker-alt"></i>
          <span class="City">Paris, FR</span>
        </div>
      </div>
    </div>
  </div>
```

```

    </div>
</div>
<div class="part2">
    
    <h1 class="Temp">25°C</h1>
    <div class="Description">Sunny</div>
</div>
</div>
<div class="Card-2">
    <table cellpadding="4">
        <tr>
            <td>PRECIPITATION</td>
            <td>0 %</td>
        </tr>
        <tr>
            <td>HUMIDITY</td>
            <td>34 %</td>
        </tr>
        <tr>
            <td>WIND</td>
            <td>0 km/h</td>
        </tr>
    </table>
<div class="Weekdays">
    <div class="Days One">
        
        <p id="d1">Tue</p>
        <p id="t1">29°C</p>
    </div>
    <div class="Days Two">
        
        <p id="d2">Wed</p>
        <p id="t2">21°C</p>
    </div>
    <div class="Days Three">
        
        <p id="d3">Thur</p>
        <p id="t3">8°C</p>
    </div>
</div>

```

```
    </div>
    <div class="Days Four">
      
      <p id="d4">Fri</p>
      <p id="t4">19°C</p>
    </div>
  </div>
</div>
</body>
</html>
```

Style.css:

```
html {
  font-family: 'Roboto', sans-serif;
  color: white;
  font-size: 20px;
  width: 100%;
  height: 100%;
}
.Search {
  display: flex;
  justify-content: center;
  align-items: center;
  margin: 12px auto;
}
button {
  margin: 0.3rem;
  width: 1.7rem;
  height: 1.7rem;
  border-radius: 50%;
  background: #3b3d54;
  color: white;
  border: none;
  outline: none;
  transition: background 0.1s ease-in-out;
}
.Searchbar:hover {
```



```
    box-shadow: 2px 2px 5px rgba(0,0,0,0.7);
}
button:hover {
    background: #4c4f69;
    cursor: pointer;
    box-shadow: 2px 2px 5px rgba(0,0,0,0.7);
}
input {
    border: none;
    outline: none;
    padding: 0.2rem 1rem;
    border-radius: 15px;
    background: #3b3d54;
    color: white;
    font-family: inherit;
    font-size: 105%;
}
.Card {
    display: flex;
    margin: 12px 20rem;
    width: auto;
    height: auto;
}
.Card-1 {
    display: flex;
    flex-direction: column;
    justify-content: space-between;
    border-radius: 25px;
    width: 24rem;
    height: 26rem;
    flex-grow: 1;
    padding: 0.5rem;
    position: relative;
    box-shadow: 3px 3px 20px rgba(0,0,0,0.7);
    text-shadow: #000 1px 0 25px;
    transition: transform 500ms ease;
}
.Card-1::after {
    content: "";
```

```
border-radius: 25px;
background: var(--background);
background-position: center;
background-repeat: no-repeat;
filter: brightness(90%);
opacity: 0.92;
top: 0;
left: 0;
bottom: 0;
right: 0;
position: absolute;
z-index: -1;
}
.Card-2 {
border-radius: 25px;
width: 24rem;
height: 26rem;
flex-grow: 1;
padding: 0.5rem;
transition: width 0.2s, height 0.2s;
display: flex;
flex-direction: column;
justify-content: space-between;
position: relative;
box-shadow: 3px 3px 20px rgba(0,0,0,0.7);
transition: transform 500ms ease;
}
.Card-2::after {
content: "";
border-radius: 25px;
background-color: #252836;
opacity: 0.92;
top: 0;
left: 0;
bottom: 0;
right: 0;
position: absolute;
z-index: -1;
}
```

```
.Card-1:hover, .Card-2:hover {  
  transform: scale(1.05);  
}
```

```
.Day {  
  margin-bottom: 0px;  
  padding-bottom: 0px;  
  font-size: 2rem;  
  margin-left: 15px;  
}
```

```
.Date {  
  margin-top: none;  
  padding-top: none;  
  margin-left: 15px;  
}
```

```
.Location {  
  margin-top: 15px;  
  margin-left: 5px;  
  font-size: 22px;  
}
```

```
.Card-1 i, .icon {  
  margin-left: 15px;  
  margin-bottom: 0px;  
}
```

```
.Temp {  
  margin-left: 15px;  
  margin-top: 0px;  
  padding-top: 0px;  
  margin-bottom: 0px;  
  font-size: 4rem;  
}
```

```
.Description {  
  font-size: 1.4rem;  
  font-weight: bold;  
  margin-left: 20px;  
  margin-bottom: 10px;  
}
```

```
table {
  margin: 1.2rem;
  margin-top: 2rem;
  margin-bottom: 2rem;
}

tr td:nth-child(1) {
  font-weight: bold;
  text-align: left;
}

tr td:nth-child(2) {
  text-align: right;
  width: 90%;
}

.Weekdays {
  display: flex;
  flex-direction: row;
  justify-content: space-evenly;
  border-radius: 1rem;
  background-color: #303445;
  width: auto;
  height: auto;
  margin: auto;
}

.Days {
  padding: 0.2rem;
  border-radius: 1rem;
  padding-top: 1rem;
  flex-direction: column;
  text-align: center;
  background-color: #303445;
  transition: background-color 300ms ease;
}

.Days:hover {
  background-color: whitesmoke;
  color: #303445;
  border-radius: 1rem;
  cursor: pointer;
}
```

```

}
.Days:hover img {
  filter: invert(1);
}
.Card.Loading {
  visibility: hidden;
  max-height: 20px;
  position: relative;
}
.Card.Loading::after {
  visibility: visible;
  content: "Loading...";
  color: white;
  position: absolute;
  top: 0;
}

```

Script.js:

```

let D = null;
let weather = {
  "apiKey": "dea886ab571fa9ba5defd3fe2cb73358",
  fetchWeather: function(city) {
    fetch("https://api.openweathermap.org/data/2.5/forecast?q="
      + city
      + "&units=metric&appid="
      + this.apiKey
    )
      .then((response) => response.json())
      .then((data) => {D = data; this.displayWeather(data, 1)});
  },
  displayWeather: function(data, DayNumber) {
    const cityname = data.city.name;
    const country = data.city.country;
    // DAY 1
    let date1 = data.list[0].dt_txt;
    const icon1 = data.list[0].weather[0].icon;
    const description1 = data.list[0].weather[0].description;
    const temp1 = data.list[0].main.temp;
  }
}

```

```
const humidity1 = data.list[0].main.humidity;
const speed1 = Math.round((Number(data.list[0].wind.speed) * 3.6) * 100) / 100;
const pop1 = data.list[0].pop;
const main1 = data.list[0].weather[0].main;
// DAY 2
let date2 = data.list[7].dt_txt;
const icon2 = data.list[7].weather[0].icon;
const description2 = data.list[7].weather[0].description;
const temp2 = data.list[7].main.temp;
const humidity2 = data.list[7].main.humidity;
const speed2 = Math.round((Number(data.list[7].wind.speed) * 3.6) * 100) / 100;
const pop2 = data.list[7].pop;
const main2 = data.list[7].weather[0].main;
// DAY 3
let date3 = data.list[15].dt_txt;
const icon3 = data.list[15].weather[0].icon;
const description3 = data.list[15].weather[0].description;
const temp3 = data.list[15].main.temp;
const humidity3 = data.list[15].main.humidity;
const speed3 = Math.round((Number(data.list[15].wind.speed) * 3.6) * 100) / 100;
const pop3 = data.list[15].pop;
const main3 = data.list[15].weather[0].main;
// DAY 4
let date4 = data.list[23].dt_txt;
const icon4 = data.list[23].weather[0].icon;
const description4 = data.list[23].weather[0].description;
const temp4 = data.list[23].main.temp;
const humidity4 = data.list[23].main.humidity;
const speed4 = Math.round((Number(data.list[23].wind.speed) * 3.6) * 100) / 100;
const pop4 = data.list[23].pop;
const main4 = data.list[23].weather[0].main;
```

```
let months = ['January', 'February', 'March', 'April', 'May', 'June', 'July', 'August', 'September', 'October', 'November', 'December'];
```

```
function dateList(date) {
  let myarr1 = date.split(" ");
  date = myarr1[0];
  let myArr2 = date.split("-");
```

```
let year = myArr2[0]
let month = months[Number(myArr2[1])];
let d = myArr2[2];
return [d, month, year];
}
```

```
let arr1 = dateList(date1);
let d = new Date(` ${arr1[0]} ${arr1[1]}, ${arr1[2]} `);
```

```
let arr2 = dateList(date2);
let dx = new Date(` ${arr2[0]} ${arr2[1]}, ${arr2[2]} `);
```

```
let arr3 = dateList(date3);
let dy = new Date(` ${arr3[0]} ${arr3[1]}, ${arr3[2]} `);
```

```
let arr4 = dateList(date4);
let dz = new Date(` ${arr4[0]} ${arr4[1]}, ${arr4[2]} `);
```

```
let weekday = ['Sunday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday'];
let day1 = weekday[d.getDay()];
let day2 = weekday[dx.getDay()];
let day3 = weekday[dy.getDay()];
let day4 = weekday[dz.getDay()];
```

```
function modify(day, arr, icon, temp, desc, pop, humidity, speed) {
  document.querySelector(".Day").innerText = day;
  document.querySelector(".Date").innerText = ` ${arr[0]} ${arr[1]} ${arr[2]} `;
  document.querySelector(".Card-1 .part2 img").src = "https://openweathermap.org/img/wn/" +
icon + ".png";
  document.querySelector(".Temp").innerText = Math.round(Number(temp)) + "°C";
  document.querySelector(".Description").innerText = desc;
  document.querySelector("table tr:nth-child(1) td:nth-child(2)").innerText = pop + " %";
  document.querySelector("table tr:nth-child(2) td:nth-child(2)").innerText = humidity + " %";
  document.querySelector("table tr:nth-child(3) td:nth-child(2)").innerText = speed + " km/h";
}
```

```
function CardBackground(main) {

  let style = document.querySelector('.Card-1').style;
```

```
if (main == 'Rain') {
    style.setProperty('--background', "url('https://source.unsplash.com/1600x900/?Rain')");
} else if (main == 'Clouds') {
    style.setProperty('--background', "url('https://source.unsplash.com/1600x900/?Clouds')");
} else if (main == 'Clear') {
    style.setProperty('--background', "url('https://source.unsplash.com/1600x900/?Sun')");
} else {
    style.setProperty('--background', "url('https://source.unsplash.com/1600x900/?" + main + "')");
}
}
```

```
switch(DayNumber) {
    case 1:
        modify(day1, arr1, icon1, temp1, description1, pop1, humidity1, speed1);
        CardBackground(main1);
        break;
    case 2:
        modify(day2, arr2, icon2, temp2, description2, pop2, humidity2, speed2);
        CardBackground(main2);
        break;
    case 3:
        modify(day3, arr3, icon3, temp3, description3, pop3, humidity3, speed3);
        CardBackground(main3);
        break;
    case 4:
        modify(day4, arr4, icon4, temp4, description4, pop4, humidity4, speed4);
        CardBackground(main4);
        break;
}
```

```
// modifications common to all 4 days
document.querySelector(".City").innerText = cityname + ", " + country;
document.querySelector(".One img").src = "https://openweathermap.org/img/wn/" + icon1 +
".png";
document.querySelector("#d1").innerText = day1.substr(0, 3);
document.querySelector("#t1").innerText = Math.round(Number(temp1)) + "°C";

document.querySelector(".Two img").src = "https://openweathermap.org/img/wn/" + icon2 +
```



```

".png";
    document.querySelector("#d2").innerText = day2.substr(0, 3);
    document.querySelector("#t2").innerText = Math.round(Number(temp2)) + "°C";

    document.querySelector(".Three img").src = "https://openweathermap.org/img/wn/" + icon3 +
".png";
    document.querySelector("#d3").innerText = day3.substr(0, 3);
    document.querySelector("#t3").innerText = Math.round(Number(temp3)) + "°C";

    document.querySelector(".Four img").src = "https://openweathermap.org/img/wn/" + icon4 +
".png";
    document.querySelector("#d4").innerText = day4.substr(0, 3);
    document.querySelector("#t4").innerText = Math.round(Number(temp4)) + "°C";

    document.querySelector(".Card").classList.remove("Loading");
    document.body.style.backgroundImage = "url('https://source.unsplash.com/1600x900/?" +
cityname + "')";
    },

    search: function() {
        this.fetchWeather(document.querySelector(".Searchbar").value);
    },

};

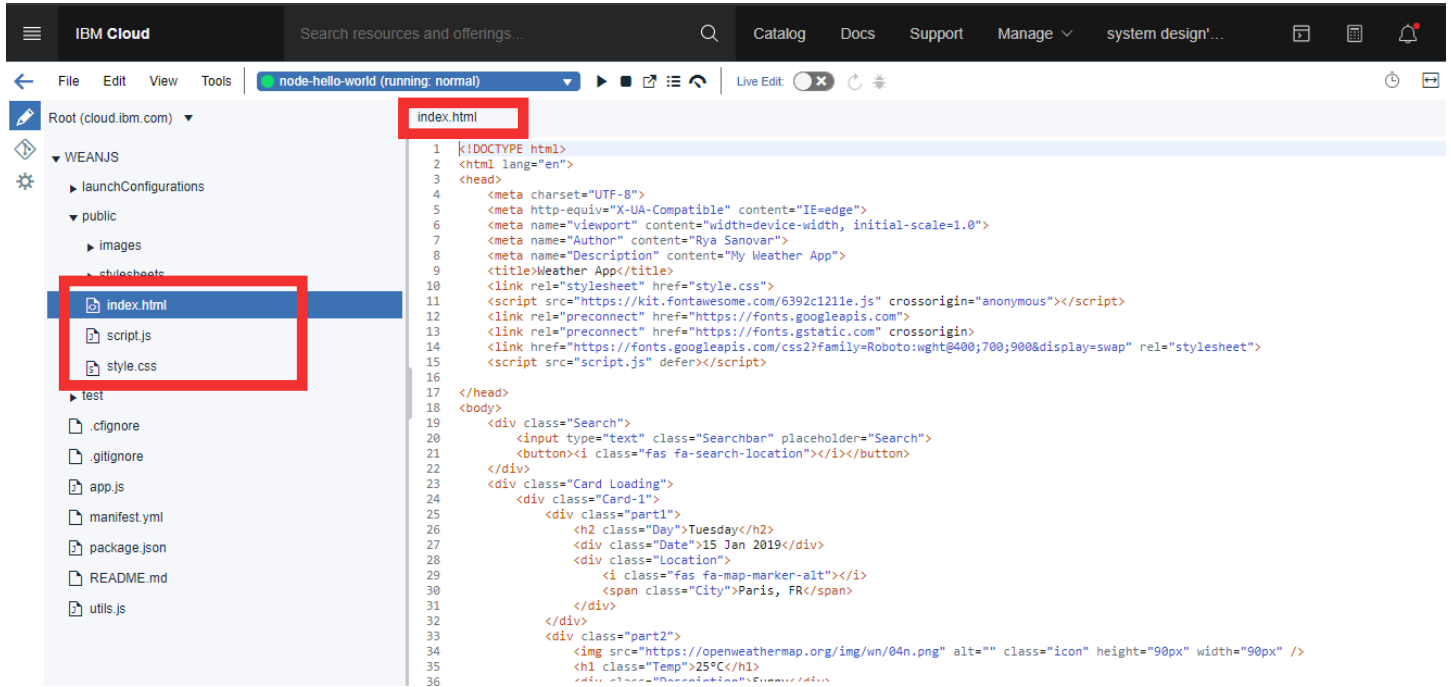
document.querySelector(".Search button").addEventListener("click", function() { weather.search(); });
document.querySelector(".Searchbar").addEventListener("keyup", function(event) {
    if (event.key == "Enter") {
        weather.search();
    }
});

document.querySelector(".One").addEventListener("click", function() { weather.displayWeather(D , 1)
});
document.querySelector(".Two").addEventListener("click", function() { weather.displayWeather(D , 2)
});
document.querySelector(".Three").addEventListener("click", function() { weather.displayWeather(D , 3)
});
document.querySelector(".Four").addEventListener("click", function() { weather.displayWeather(D , 4)

```

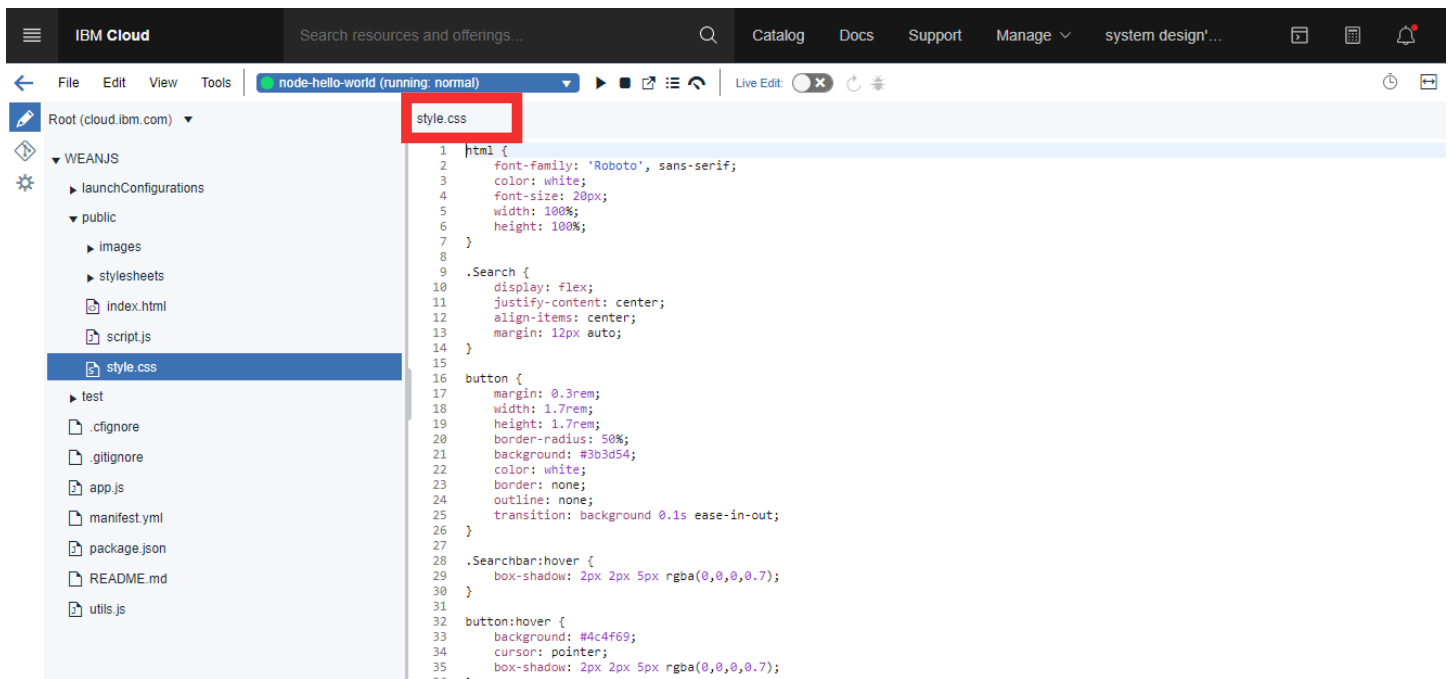
});

weather.fetchWeather("delhi");



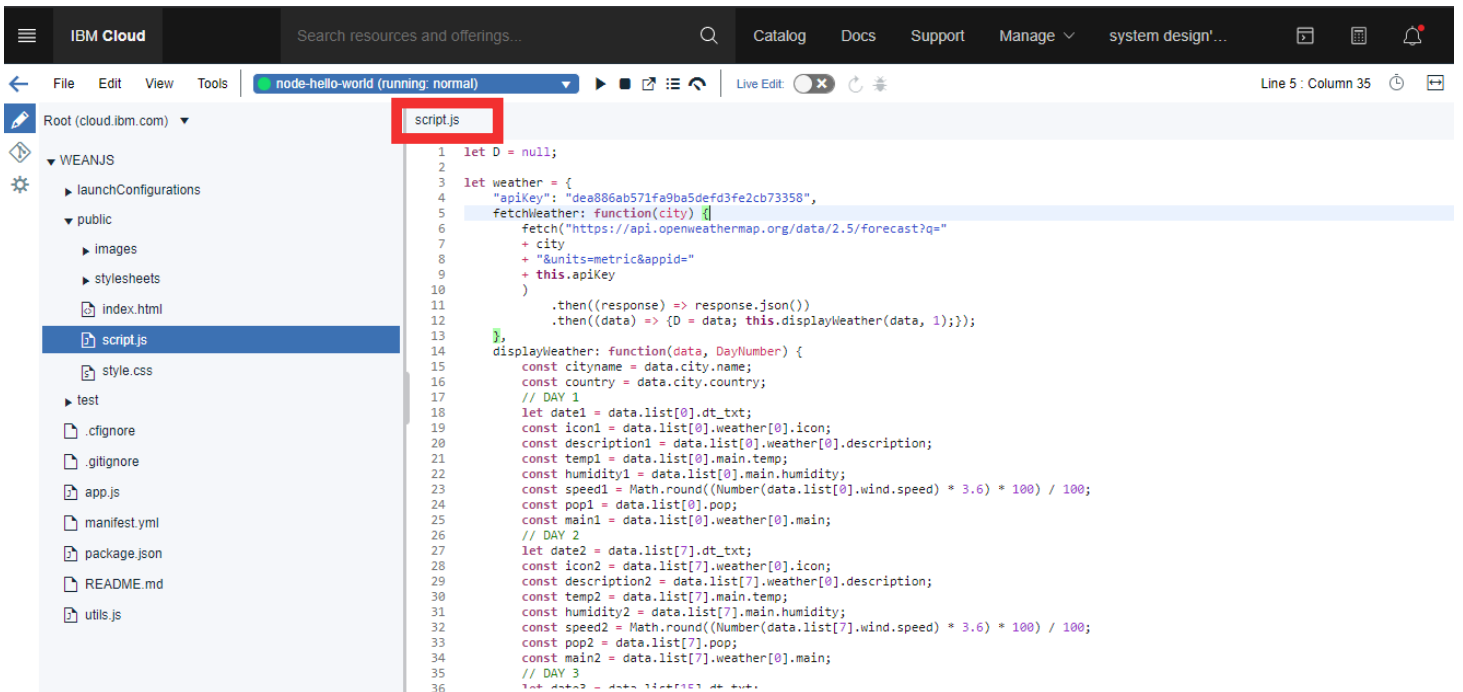
The screenshot shows the IBM Cloud IDE interface. The top bar includes the IBM Cloud logo, a search bar, and navigation links for Catalog, Docs, Support, and Manage. The main workspace is titled 'node-hello-world (running: normal)'. On the left, a file explorer shows the project structure: 'Root (cloud.ibm.com)' containing 'WEANJS' (with subfolders 'launchConfigurations' and 'public') and 'test'. The 'public' folder contains 'index.html', 'script.js', and 'style.css'. The 'index.html' file is selected and highlighted with a red box. The main editor displays the content of 'index.html', which is an HTML document for a weather app. It includes a DOCTYPE declaration, HTML and head tags, meta tags for charset, viewport, and author, and a title 'Weather App'. It also includes links to 'style.css' and 'script.js'. The body contains a search bar, a card for 'Tuesday, 15 Jan 2019' in 'Paris, FR', and a weather icon and temperature display.

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <meta name="Author" content="Rya Sanovar">
8   <meta name="Description" content="My Weather App">
9   <title>Weather App</title>
10  <link rel="stylesheet" href="style.css">
11  <script src="https://kit.fontawesome.com/6392c1211e.js" crossorigin="anonymous"></script>
12  <link rel="preconnect" href="https://fonts.googleapis.com">
13  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
14  <link href="https://fonts.googleapis.com/css2?family=Roboto:wght@400;700;900&display=swap" rel="stylesheet">
15  <script src="script.js" defer></script>
16
17 </head>
18 <body>
19   <div class="Search">
20     <input type="text" class="Searchbar" placeholder="Search">
21     <button<i class="fas fa-search-location"></i></button>
22   </div>
23   <div class="Card Loading">
24     <div class="Card-1">
25       <div class="part1">
26         <h2 class="Day">Tuesday</h2>
27         <div class="Date">15 Jan 2019</div>
28         <div class="Location">
29           <i class="fas fa-map-marker-alt"></i>
30           <span class="City">Paris, FR</span>
31         </div>
32       </div>
33       <div class="part2">
34         
35         <h1 class="Temp">25°C</h1>
36         <div class="Description">Sunny</div>
37       </div>
38     </div>
39   </div>
40 </body>
41 </html>
```



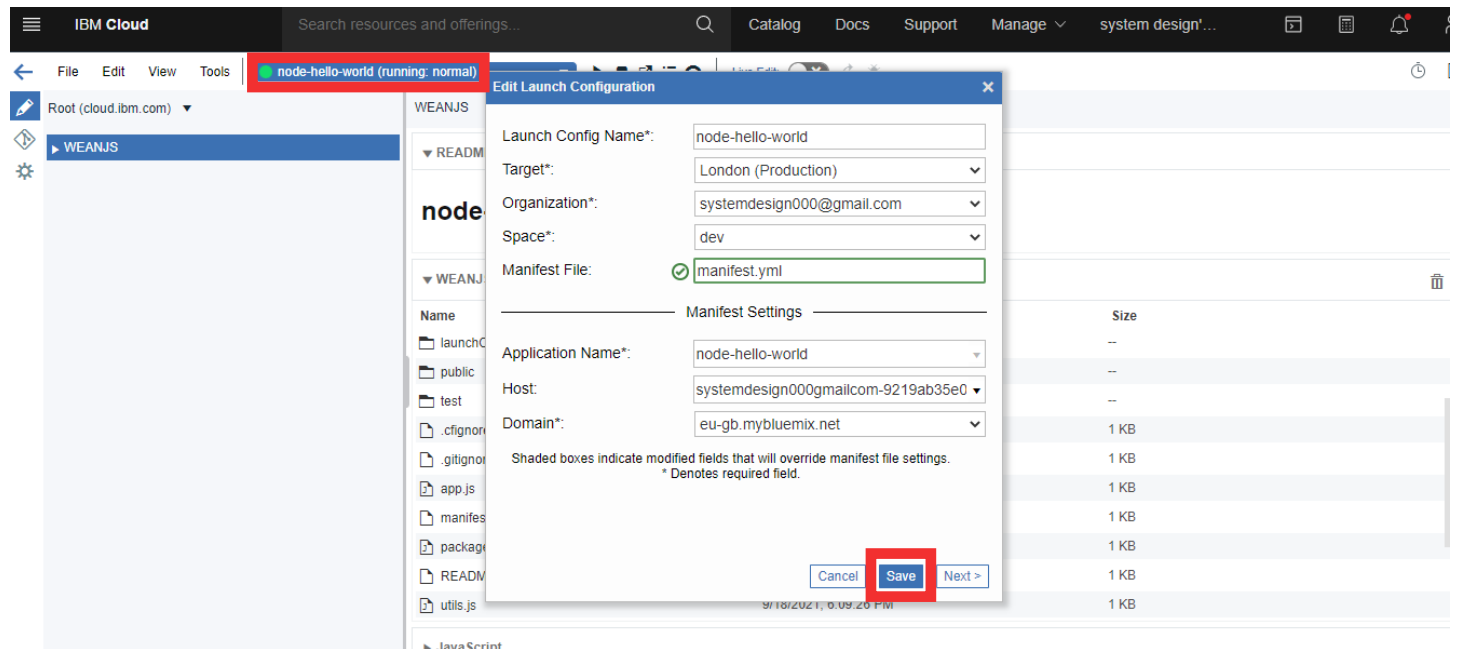
The screenshot shows the IBM Cloud IDE interface. The top bar includes the IBM Cloud logo, a search bar, and navigation links for Catalog, Docs, Support, and Manage. The main workspace is titled 'node-hello-world (running: normal)'. On the left, a file explorer shows the project structure: 'Root (cloud.ibm.com)' containing 'WEANJS' (with subfolders 'launchConfigurations' and 'public') and 'test'. The 'public' folder contains 'index.html', 'script.js', and 'style.css'. The 'style.css' file is selected and highlighted with a red box. The main editor displays the content of 'style.css', which defines the styling for the weather app. It includes a base style for the HTML element, a search bar style, and a button style.

```
1 html {
2   font-family: 'Roboto', sans-serif;
3   color: white;
4   font-size: 20px;
5   width: 100%;
6   height: 100%;
7 }
8
9 .Search {
10  display: flex;
11  justify-content: center;
12  align-items: center;
13  margin: 12px auto;
14 }
15
16 button {
17   margin: 0.3rem;
18   width: 1.7rem;
19   height: 1.7rem;
20   border-radius: 50%;
21   background: #3b3d54;
22   color: white;
23   border: none;
24   outline: none;
25   transition: background 0.1s ease-in-out;
26 }
27
28 .Searchbar:hover {
29   box-shadow: 2px 2px 5px rgba(0,0,0,0.7);
30 }
31
32 button:hover {
33   background: #4c4f69;
34   cursor: pointer;
35   box-shadow: 2px 2px 5px rgba(0,0,0,0.7);
36 }
37
```



STEP – 10:

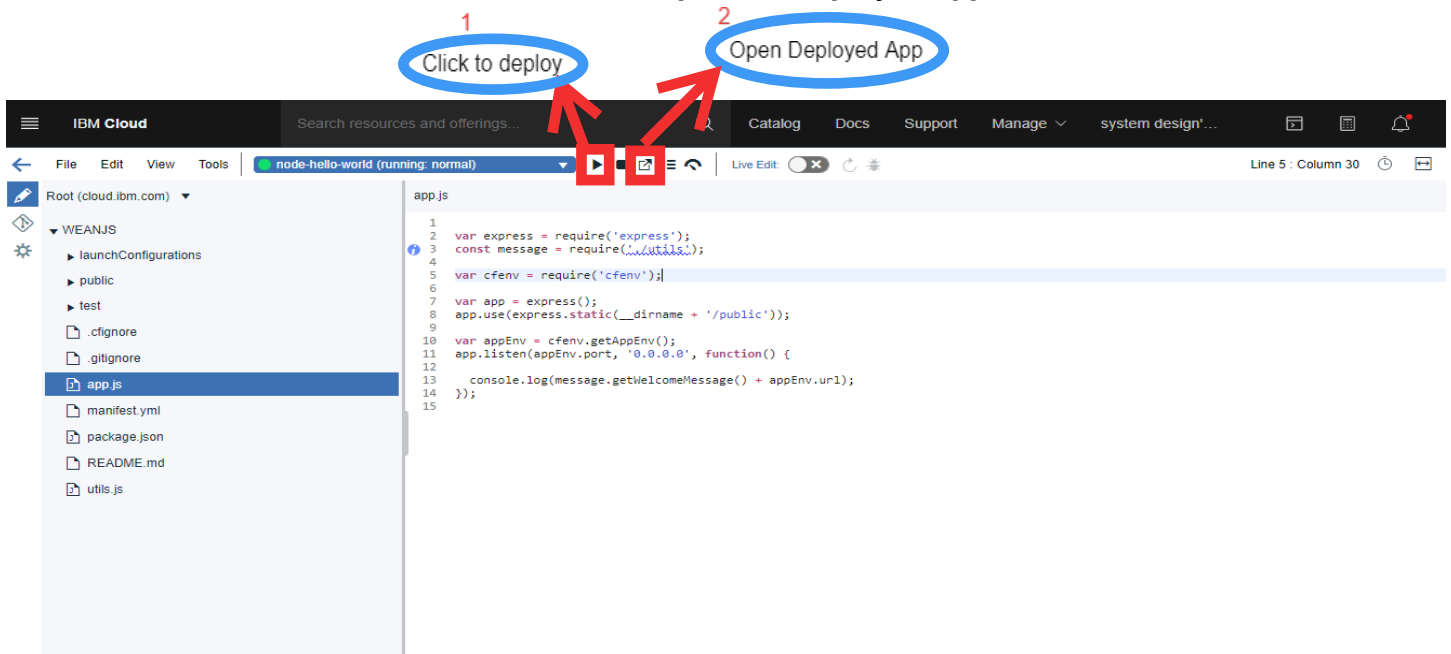
Edit the launch configuration as shown.



STEP – 11:

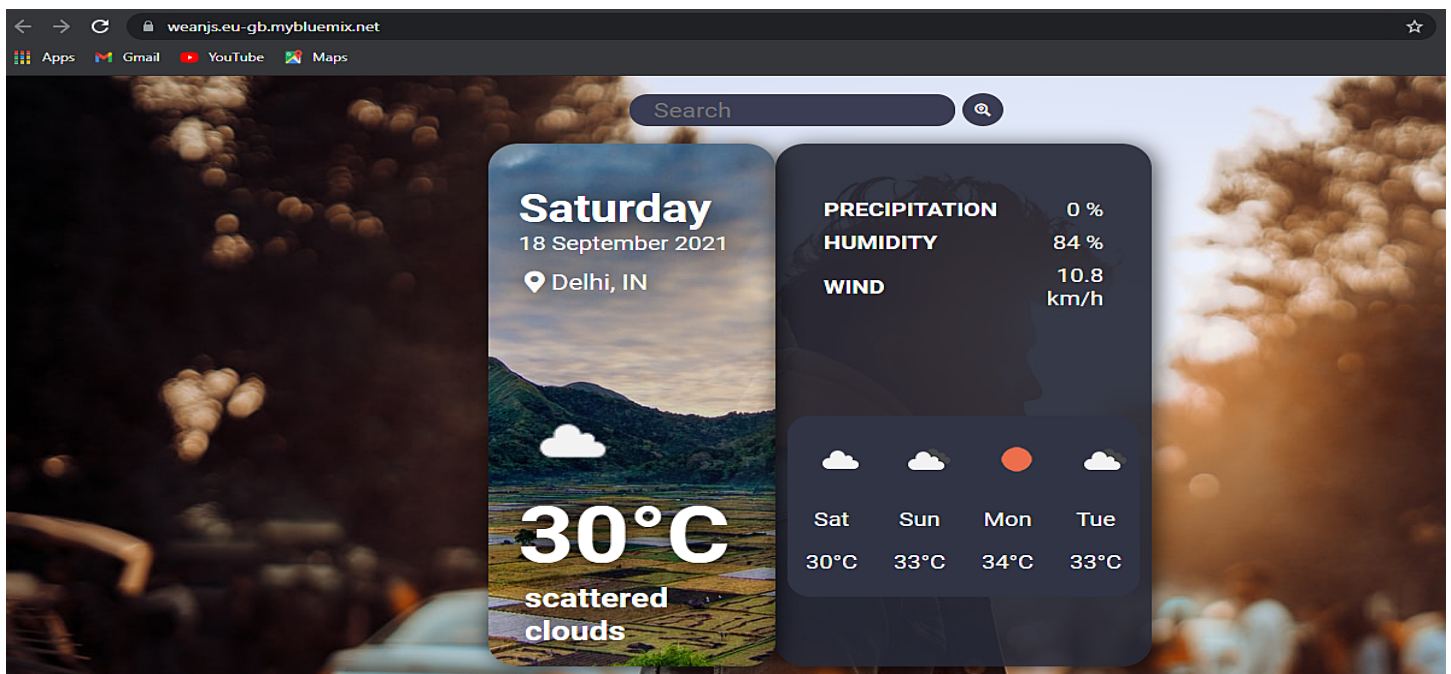
Click on save and click deploy the app from the workspace to IBM cloud

Once the editor is reloaded click on Open the Deployed app.



STEP - 12:

This will open the app in a new window and display the output.



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Apps Gmail YouTube Maps

chennai

Saturday
18 September 2021
Chennai, IN

30°C
few clouds

PRECIPITATION 0 %
HUMIDITY 79 %
WIND 17.96 km/h

Sat Sun Mon Tue
30°C 30°C 31°C 30°C

weanjs.eu-gb.mybluemix.net

Apps Gmail YouTube Maps

tenkasi

Saturday
18 September 2021
Tenkasi, IN

27°C
light rain

PRECIPITATION 0.3 %
HUMIDITY 84 %
WIND 8.96 km/h

Sat Sun Mon Tue
27°C 30°C 29°C 28°C