UNIVERSITY PARTNER
UNIVERSITY OF WOLVERHAMPTON

HERALD COLLEGE KATHMANDU

Distributed and Cloud Systems Programming

(5CS022)

Student Id: 2227097

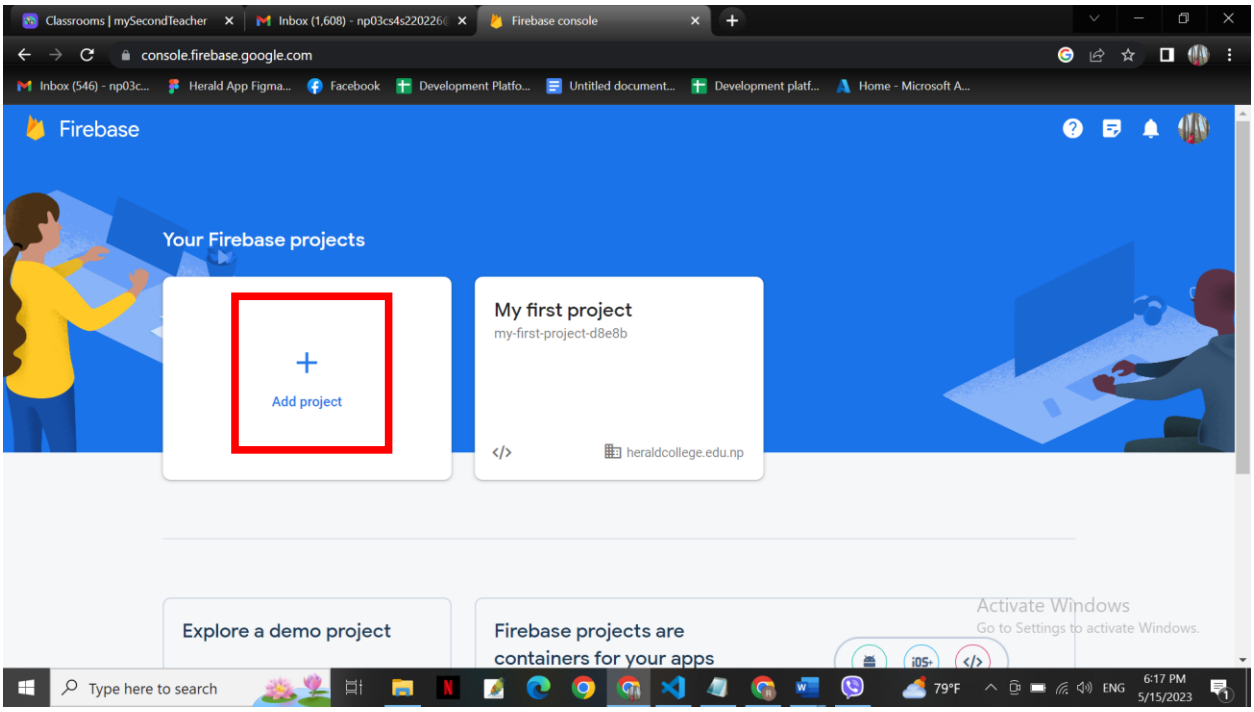
Student Name: Radhika Neupane

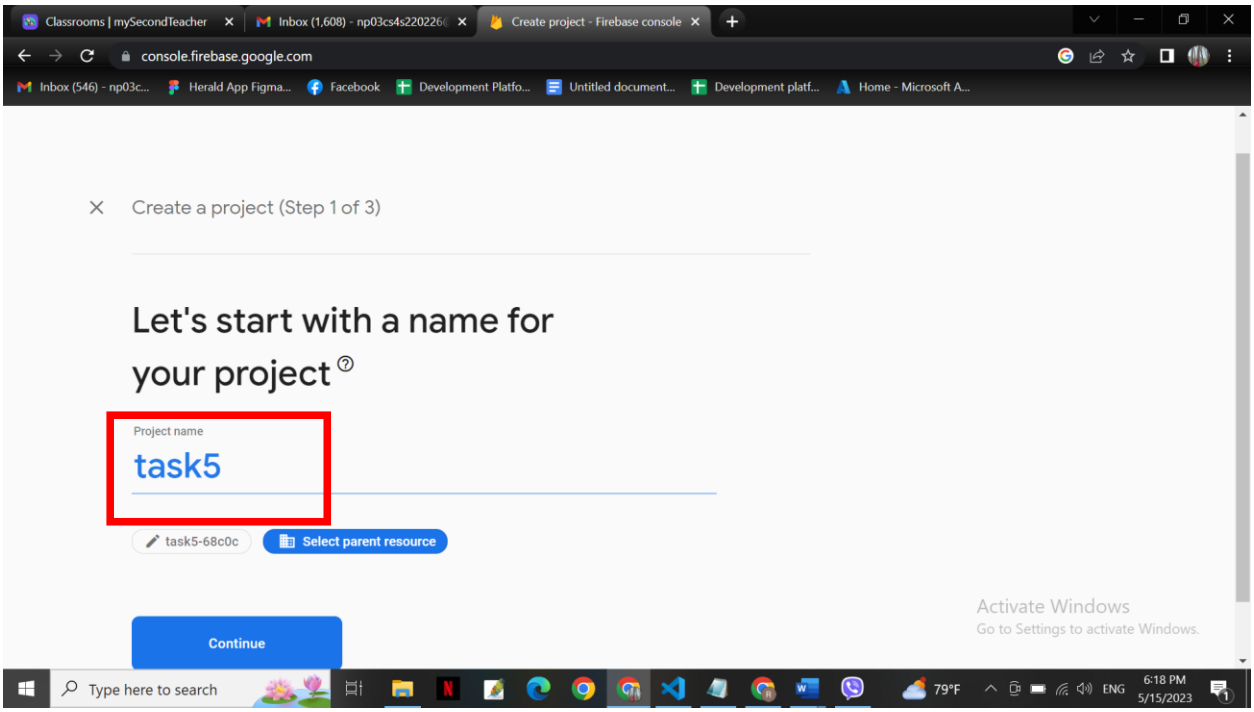
Group: L5CG10

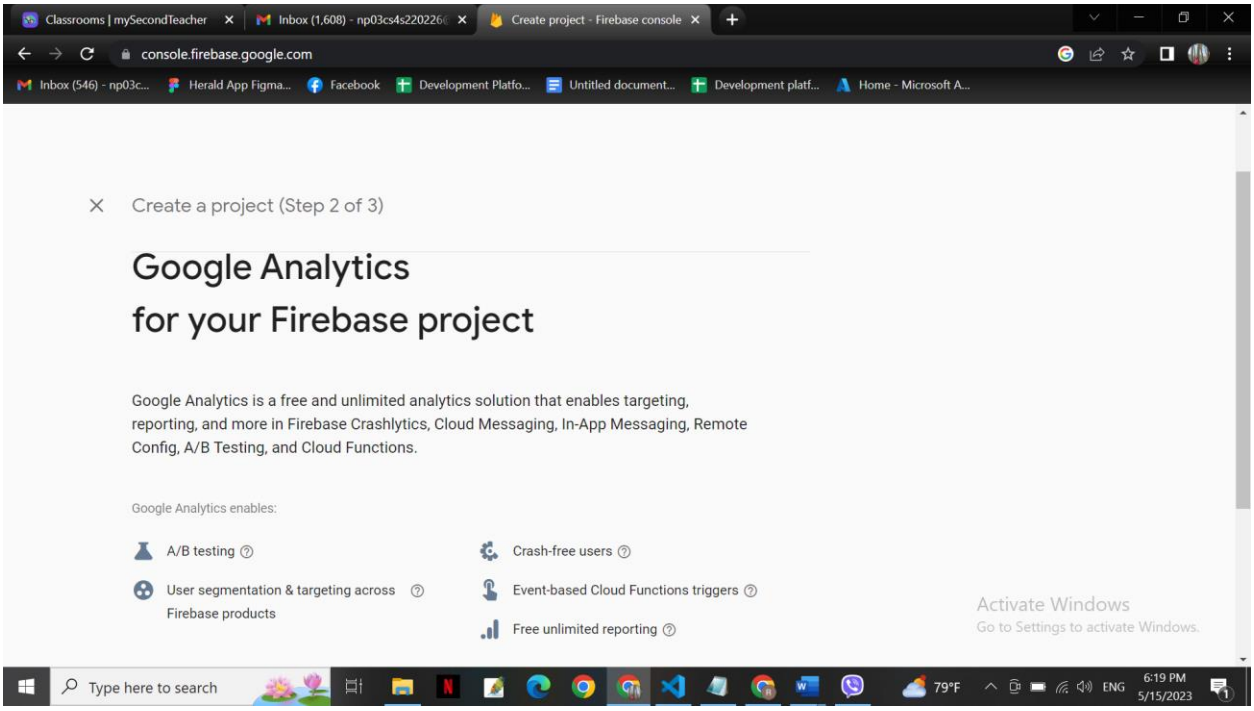
Module Leader: Deepson Shrestha

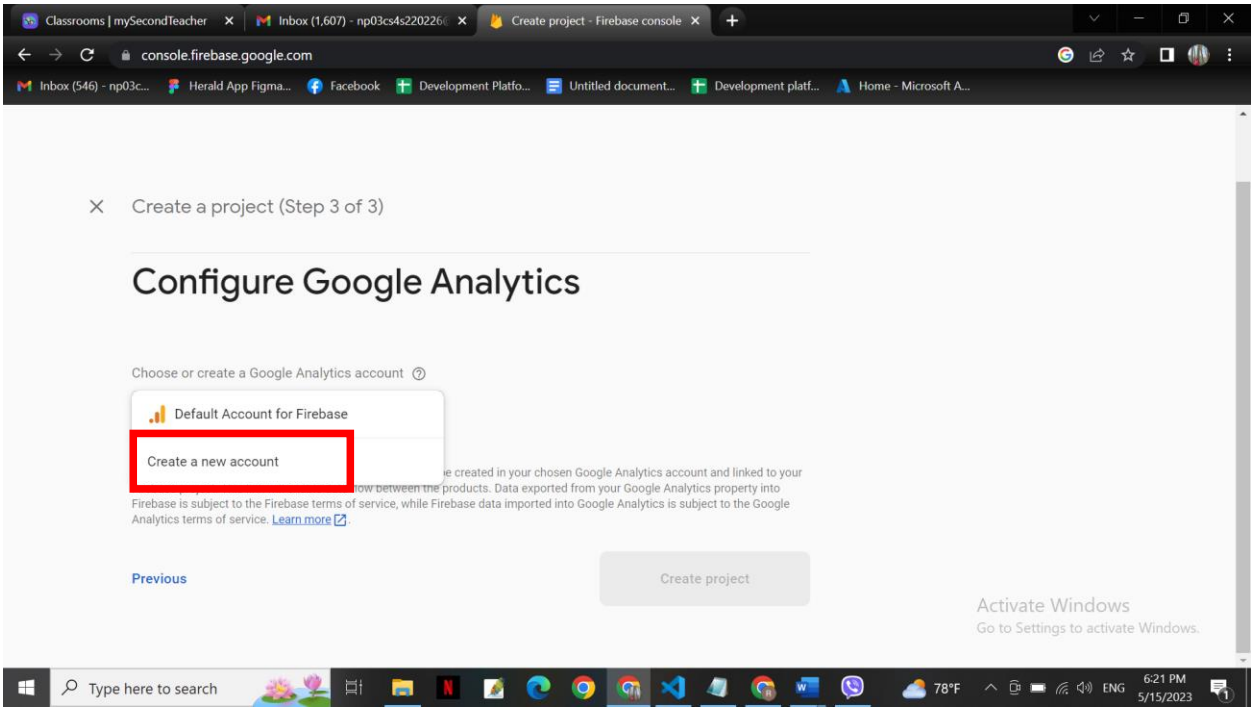
Submitted To: Deepson Shrestha

Opening Firebase and adding project






Classrooms | mySecondTeacher
Inbox (1,608) - np03cs4s220226
Create project - Firebase console
console.firebase.google.com
Inbox (546) - np03c...
Herald App Figma...
Facebook
Development Platfo...
Untitled document...
Development platf...
Home - Microsoft A...
Create a project (Step 2 of 3)
Google Analytics
for your Firebase project
Google Analytics is a free and unlimited analytics solution that enables targeting, reporting, and more in Firebase Crashlytics, Cloud Messaging, In-App Messaging, Remote Config, A/B Testing, and Cloud Functions.
Google Analytics enables:
A/B testing
User segmentation & targeting across Firebase products
Crash-free users
Event-based Cloud Functions triggers
Free unlimited reporting
Activate Windows
Go to Settings to activate Windows.
Type here to search
79°F
ENG
6:19 PM
5/15/2023


Classrooms | mySecondTeacher
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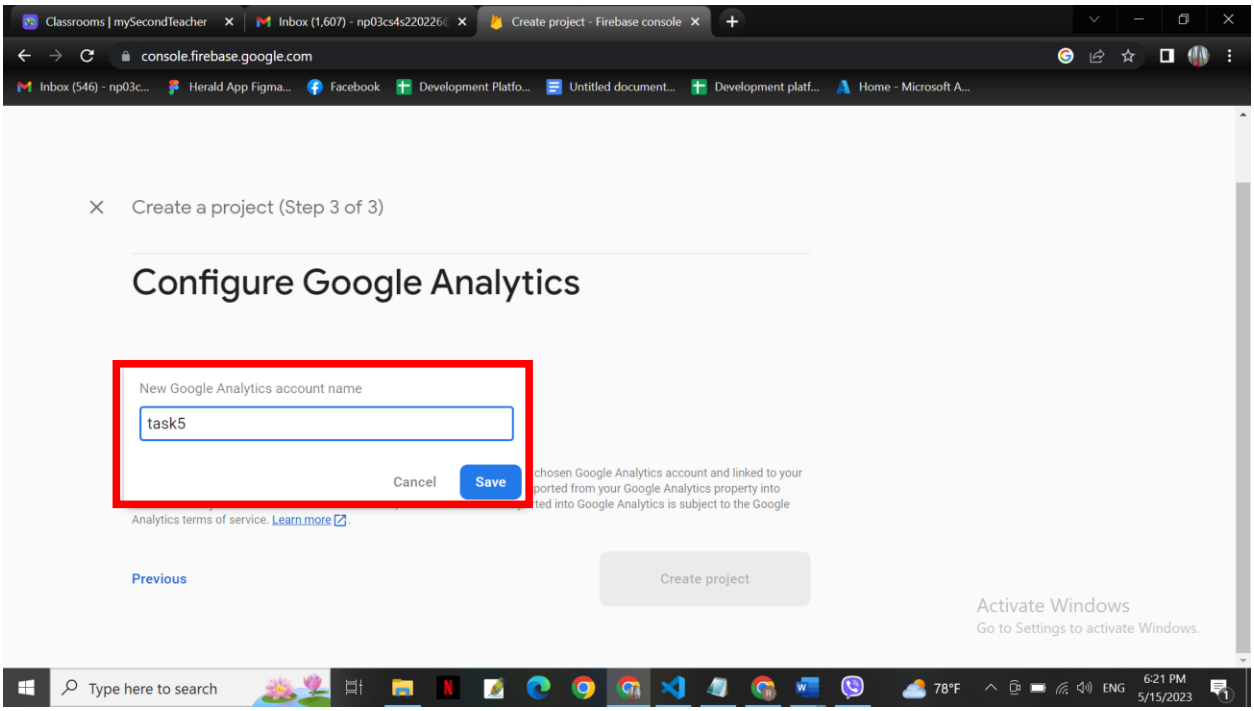
Create project - Firebase console
console.firebase.google.com
Inbox (546) - np03c...
Herald App Figma...
Facebook
Development Platfo...
Untitled document...
Development platf...
Home - Microsoft A...
Create a project (Step 3 of 3)
Configure Google Analytics
Choose or create a Google Analytics account
Default Account for Firebase
Create a new account
created in your chosen Google Analytics account and linked to your
ow between the products. Data exported from your Google Analytics property into
Firebase is subject to the Firebase terms of service, while Firebase data imported into Google Analytics is subject to the Google Analytics terms of service. Learn more
Previous
Create project
Activate Windows
Go to Settings to activate Windows.
Type here to search
78°F
ENG
6:21 PM
5/15/2023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Create project - Firebase console
console.firebase.google.com
Inbox (546) - np03c...
Herald App Figma...
Facebook
Development Platfo...
Untitled document...
Development platf...
Home - Microsoft A...
Create a project (Step 3 of 3)
Configure Google Analytics
New Google Analytics account name
task5
Cancel
Save
chosen Google Analytics account and linked to your
ported from your Google Analytics property into
ted into Google Analytics is subject to the Google
Analytics terms of service. Learn more
Previous
Create project
Activate Windows
Go to Settings to activate Windows.
Type here to search
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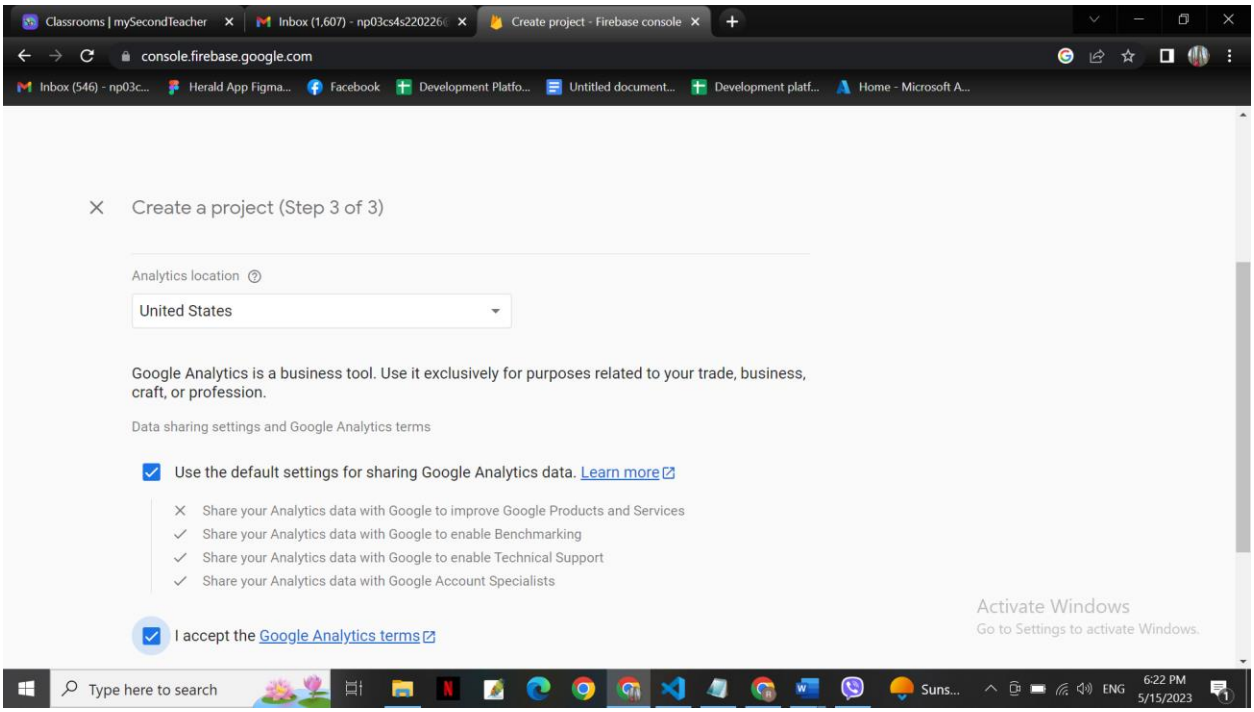
5/15/2023


Classrooms | mySecondTeacher
Inbox (1,607) - np03cs4s220226
Create project - Firebase console
console.firebase.google.com
Inbox (546) - np03c...
Herald App Figma...
Facebook
Development Platfo...
Untitled document...
Development platf...
Home - Microsoft A...
Create a project (Step 3 of 3)
Analytics location
United States
Google Analytics is a business tool. Use it exclusively for purposes related to your trade, business, craft, or profession.
Data sharing settings and Google Analytics terms
Use the default settings for sharing Google Analytics data. Learn more
Share your Analytics data with Google to improve Google Products and Services
Share your Analytics data with Google to enable Benchmarking
Share your Analytics data with Google to enable Technical Support
Share your Analytics data with Google Account Specialists
I accept the Google Analytics terms
Activate Windows
Go to Settings to activate Windows.
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ENG
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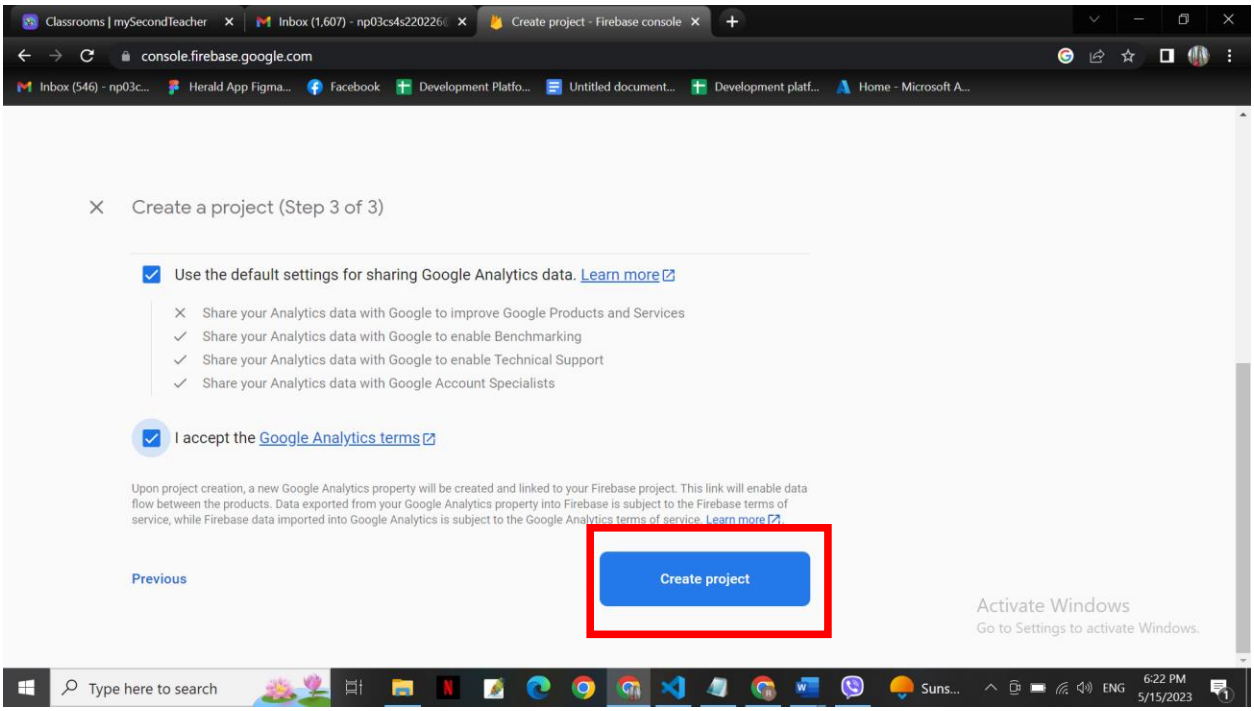
5/15/2023


Classrooms | mySecondTeacher
Inbox (1,607) - np03cs4s220226
Create project - Firebase console
console.firebase.google.com
Inbox (546) - np03c...
Herald App Figma...
Facebook
Development Platfo...
Untitled document...
Development platf...
Home - Microsoft A...
Create a project (Step 3 of 3)
Use the default settings for sharing Google Analytics data. Learn more
Share your Analytics data with Google to improve Google Products and Services
Share your Analytics data with Google to enable Benchmarking
Share your Analytics data with Google to enable Technical Support
Share your Analytics data with Google Account Specialists
I accept the Google Analytics terms
Upon project creation, a new Google Analytics property will be created and linked to your Firebase project. This link will enable data flow between the products. Data exported from your Google Analytics property into Firebase is subject to the Firebase terms of service, while Firebase data imported into Google Analytics is subject to the Google Analytics terms of service. Learn more
Previous
Create project
Activate Windows
Go to Settings to activate Windows.
Type here to search
Suns...
ENG
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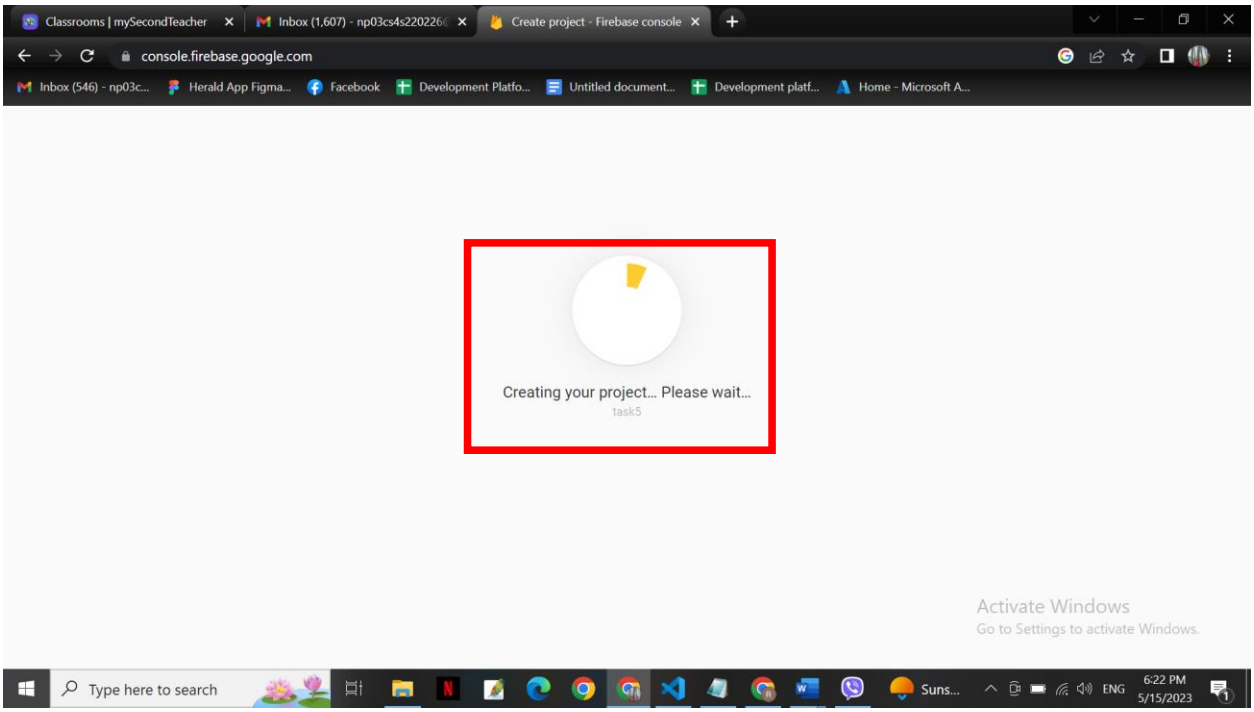
5/15/2023


Classrooms | mySecondTeacher
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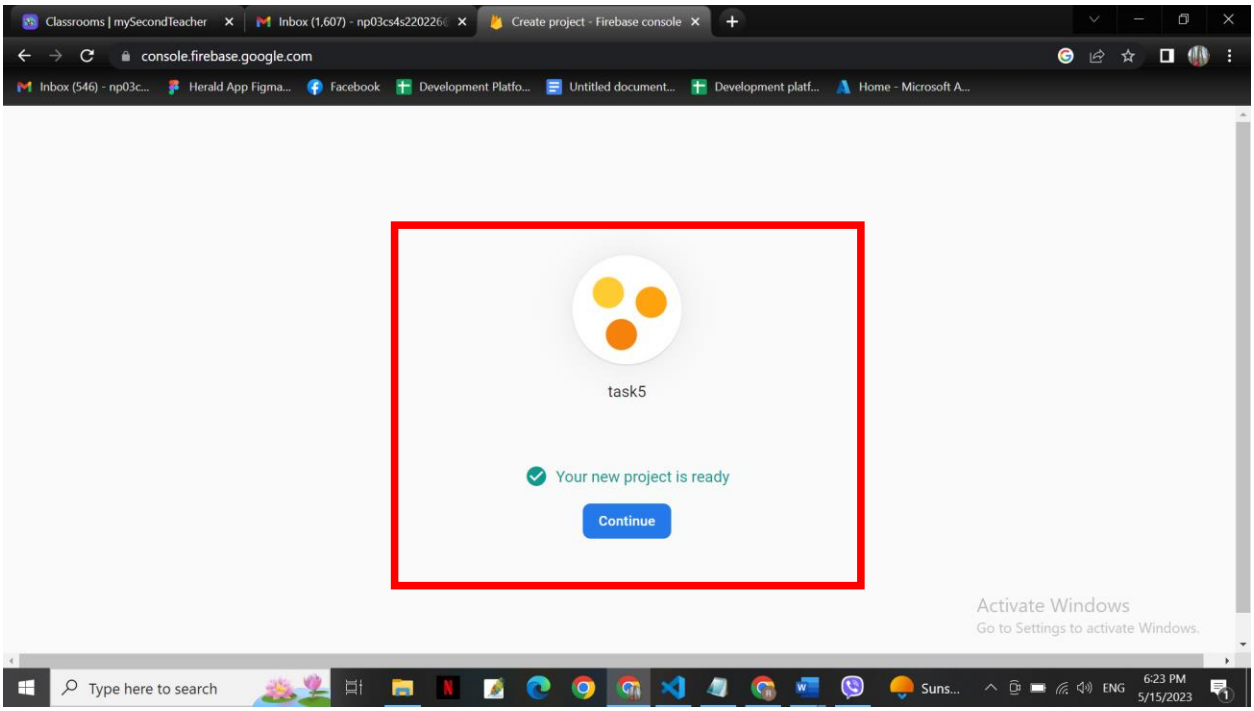
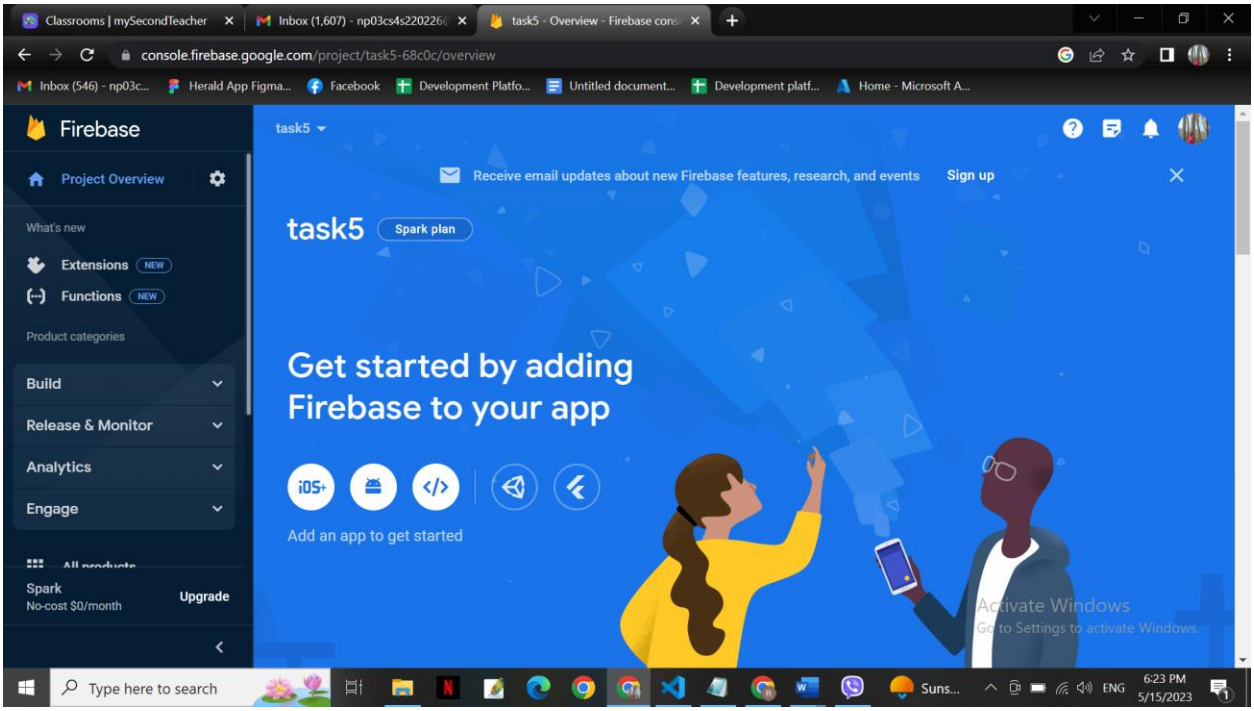
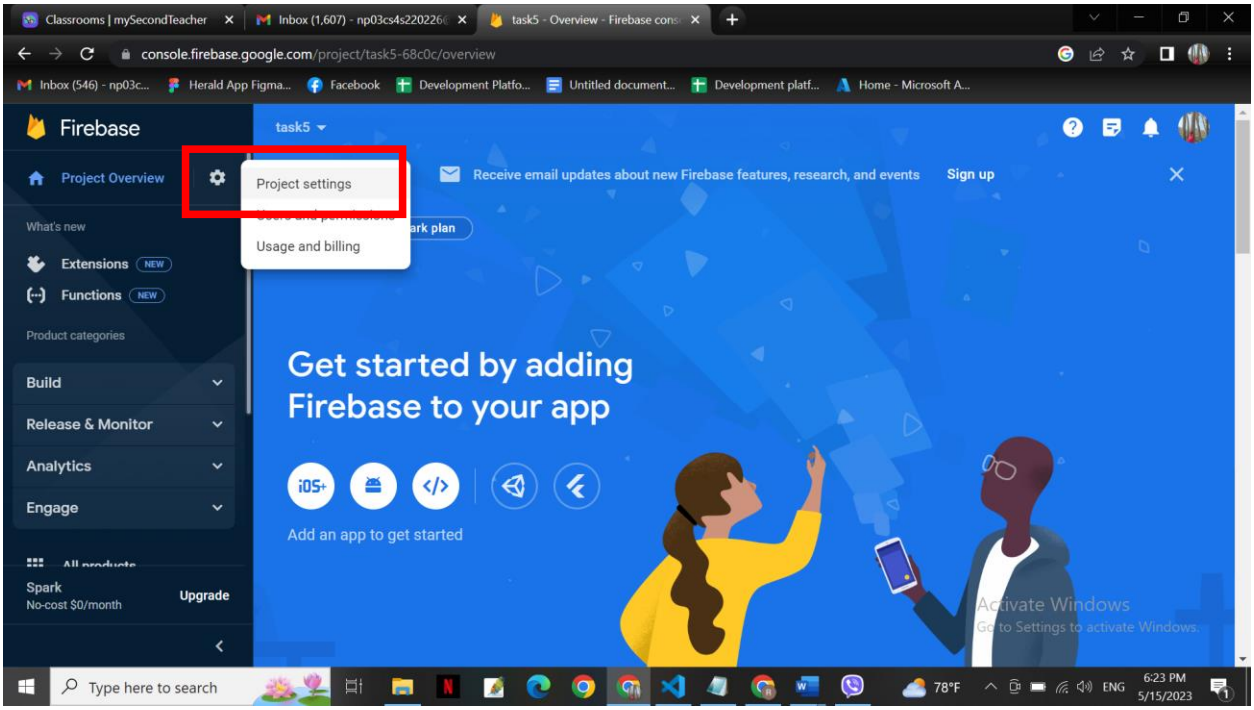
Create project - Firebase console
console.firebase.google.com
Inbox (546) - np03c...
Herald App Figma...
Facebook
Development Platfo...
Untitled document...
Development platf...
Home - Microsoft A...
Creating your project... Please wait...
task5
Activate Windows
Go to Settings to activate Windows.
Type here to search
Suns...
ENG
6:22 PM
5/15/2023

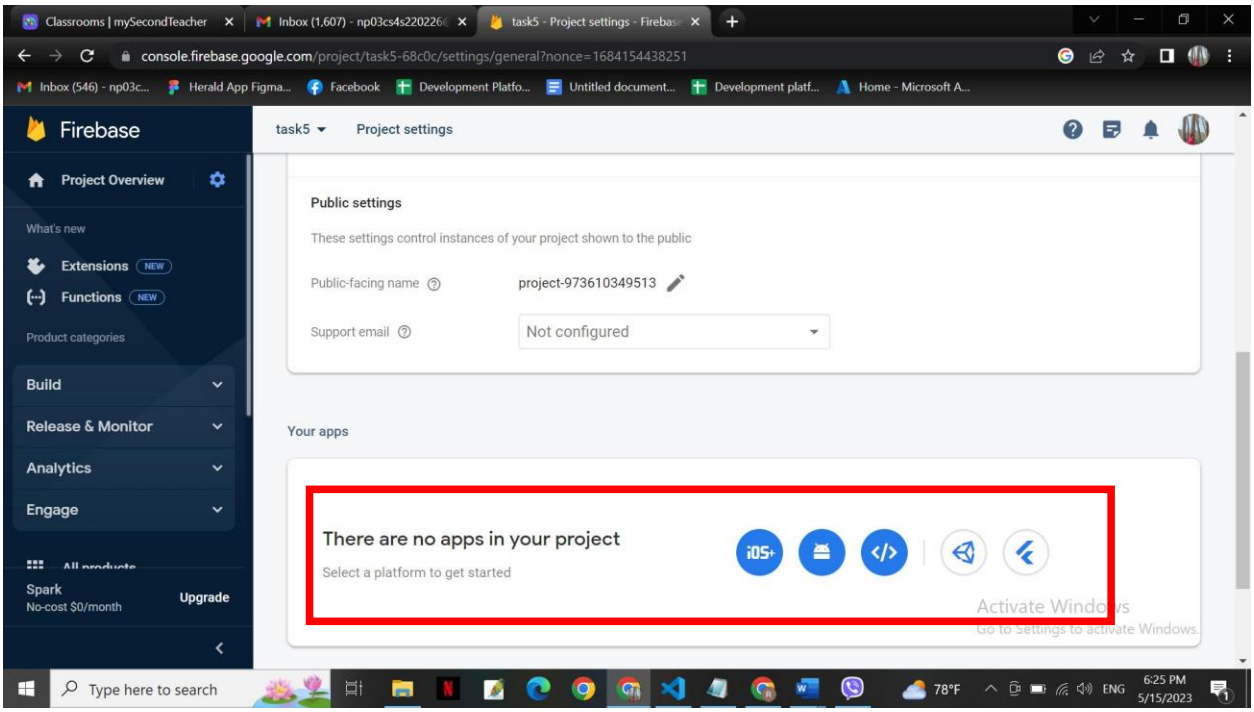


Here is how you firebase looks

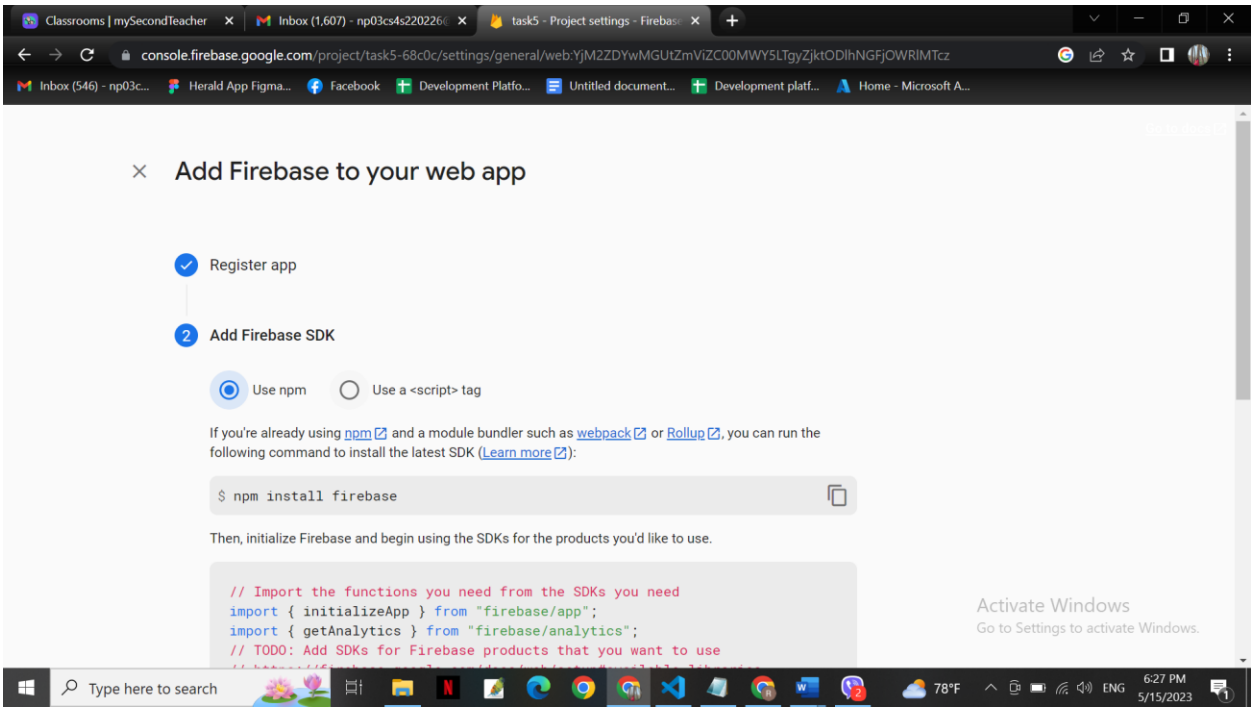


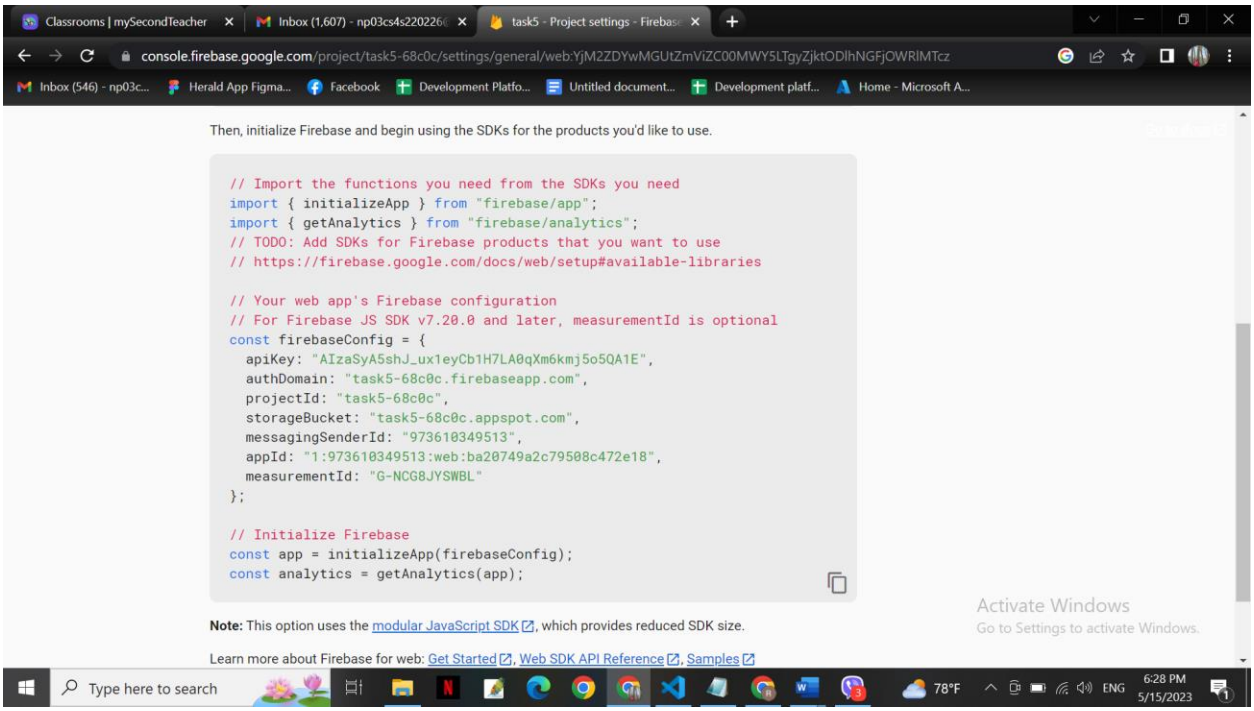
Then going to the project overview's project setting



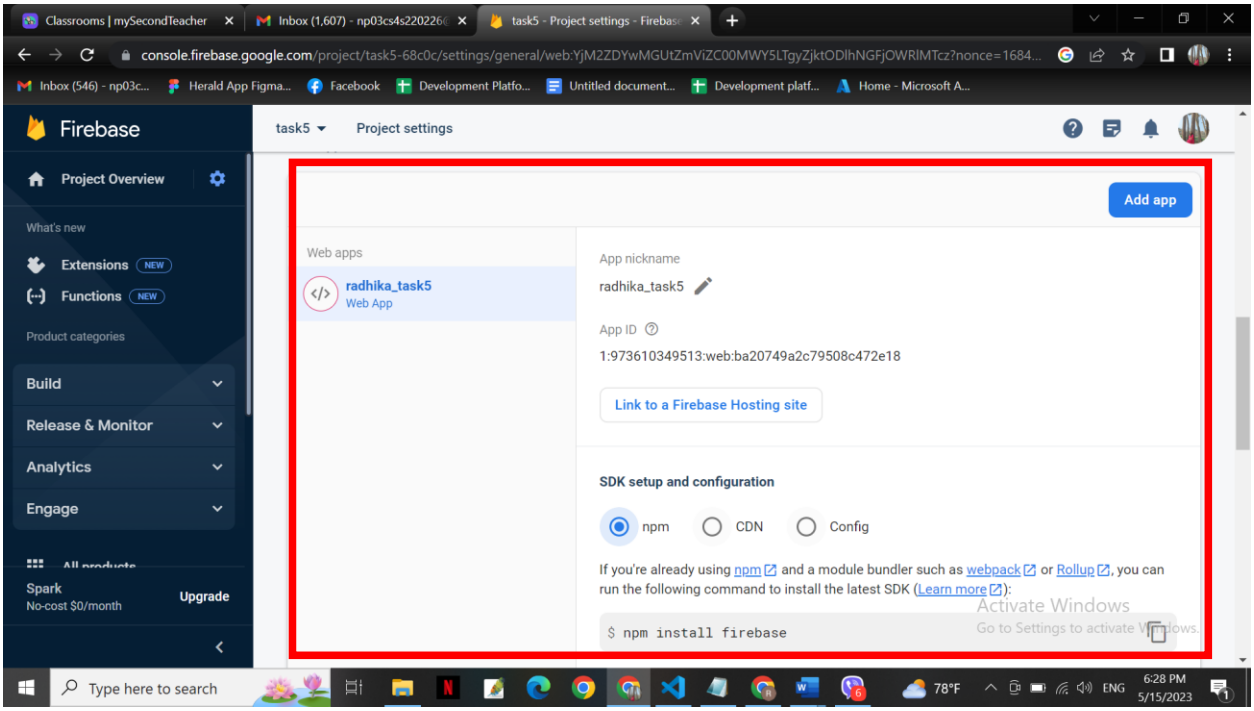


There wasn’t any app so creating web app with following steps

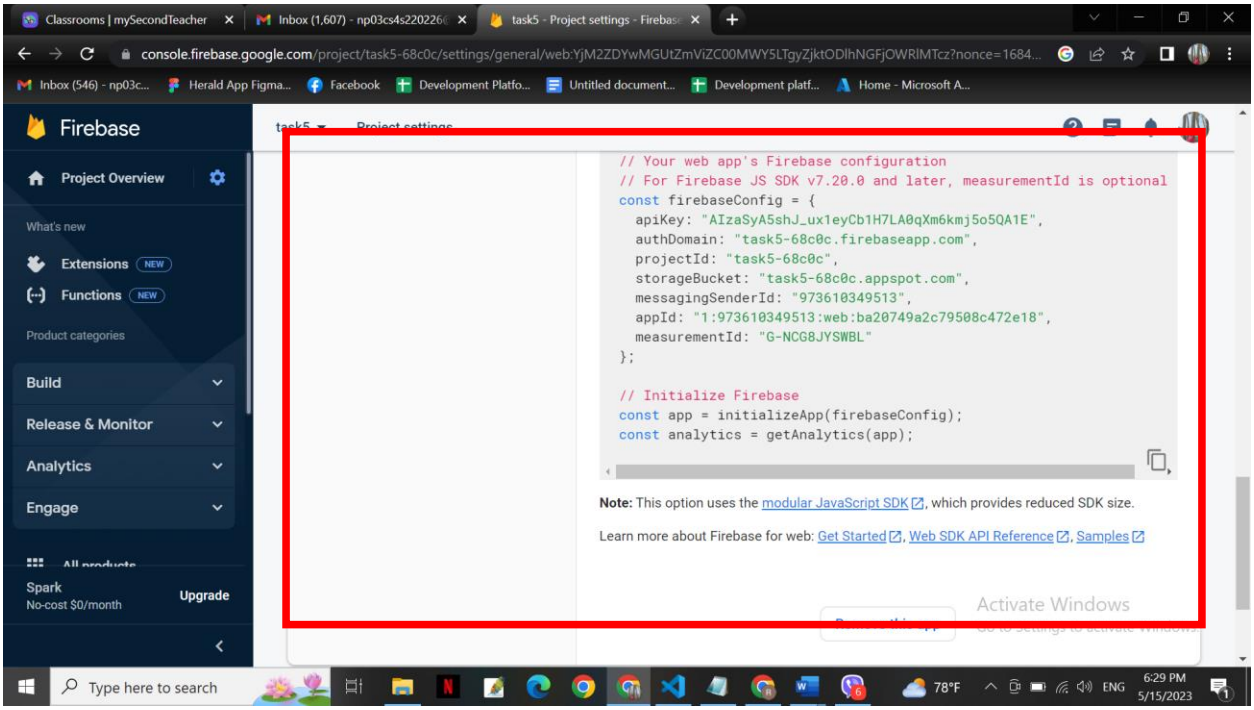




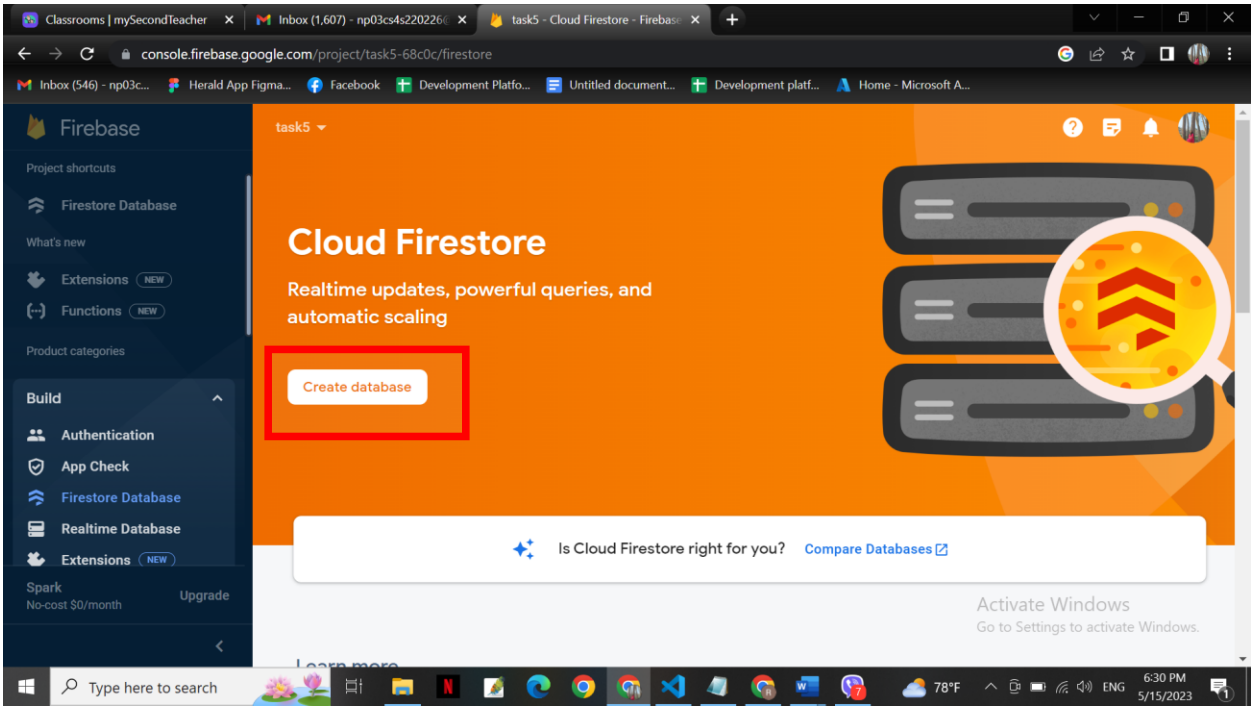
Finally app was created

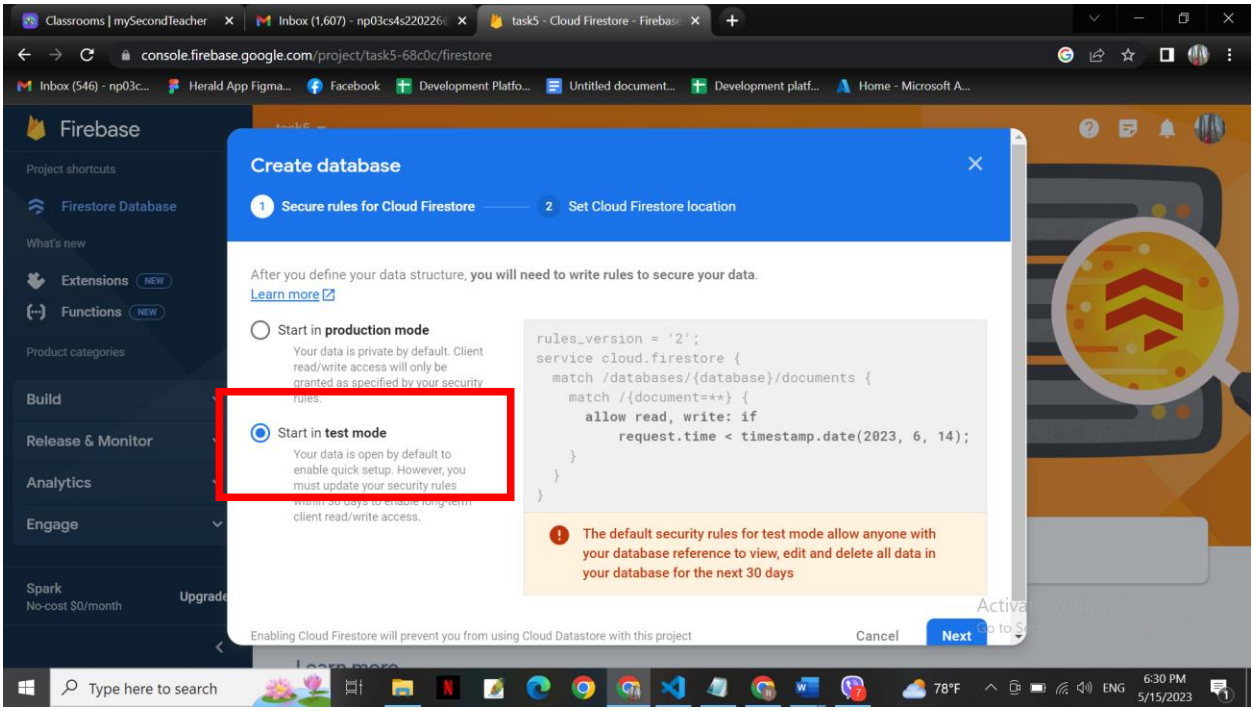


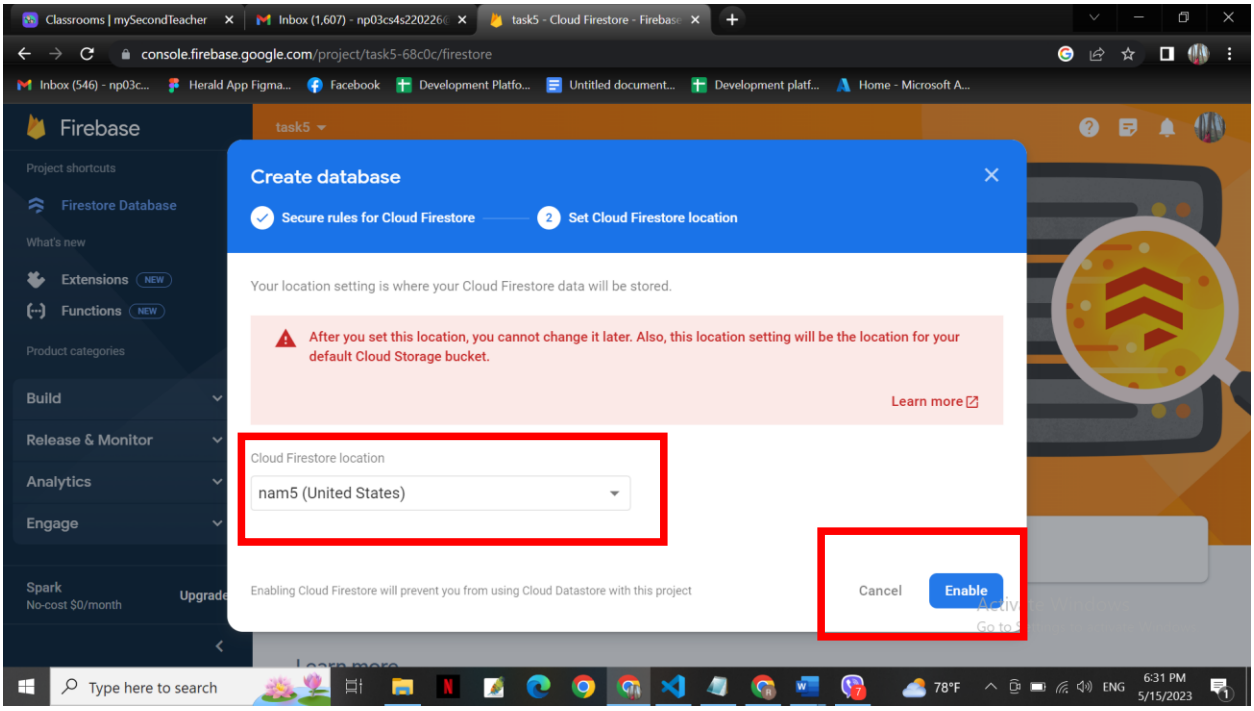
Here we can see few connections which we will be needed for connection in java script

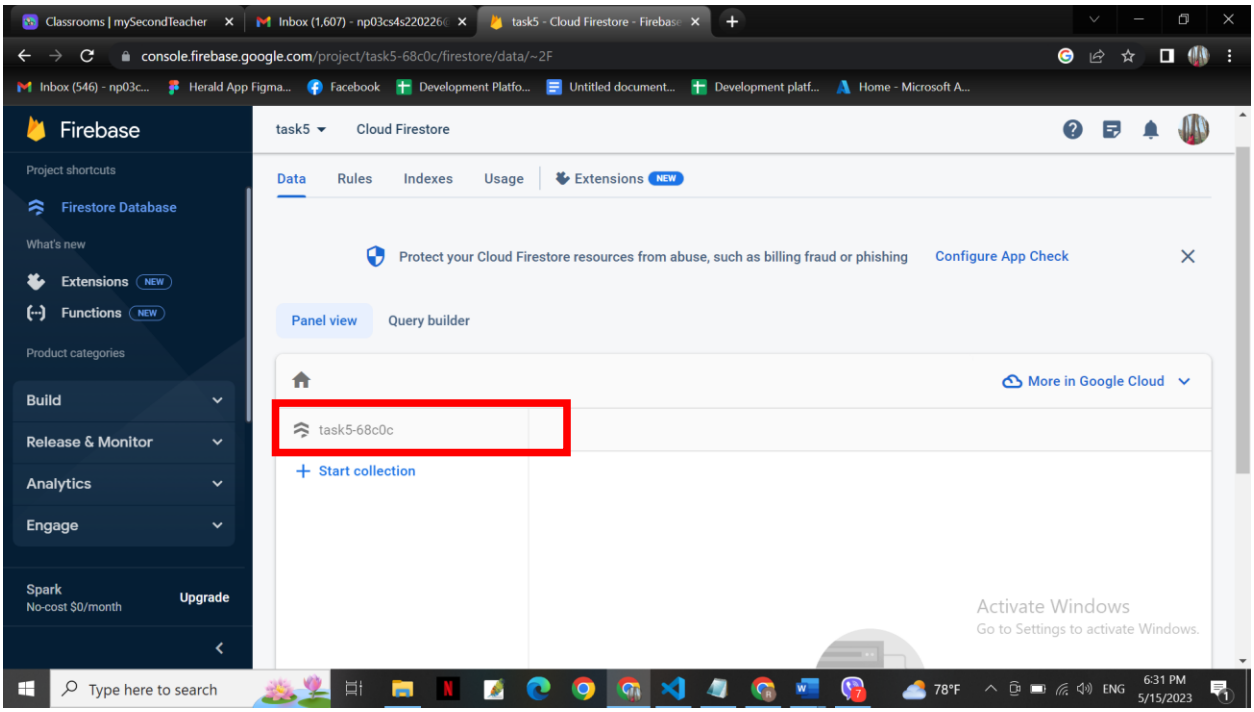


Now a database is created in test mode

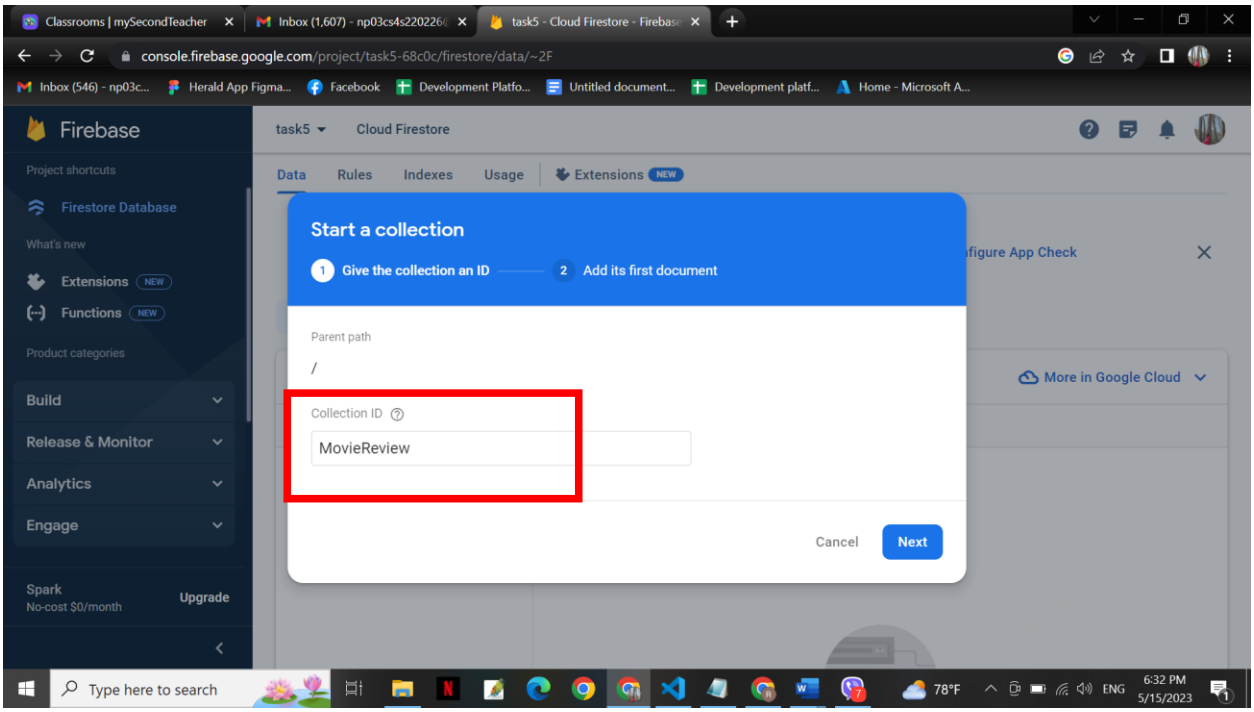


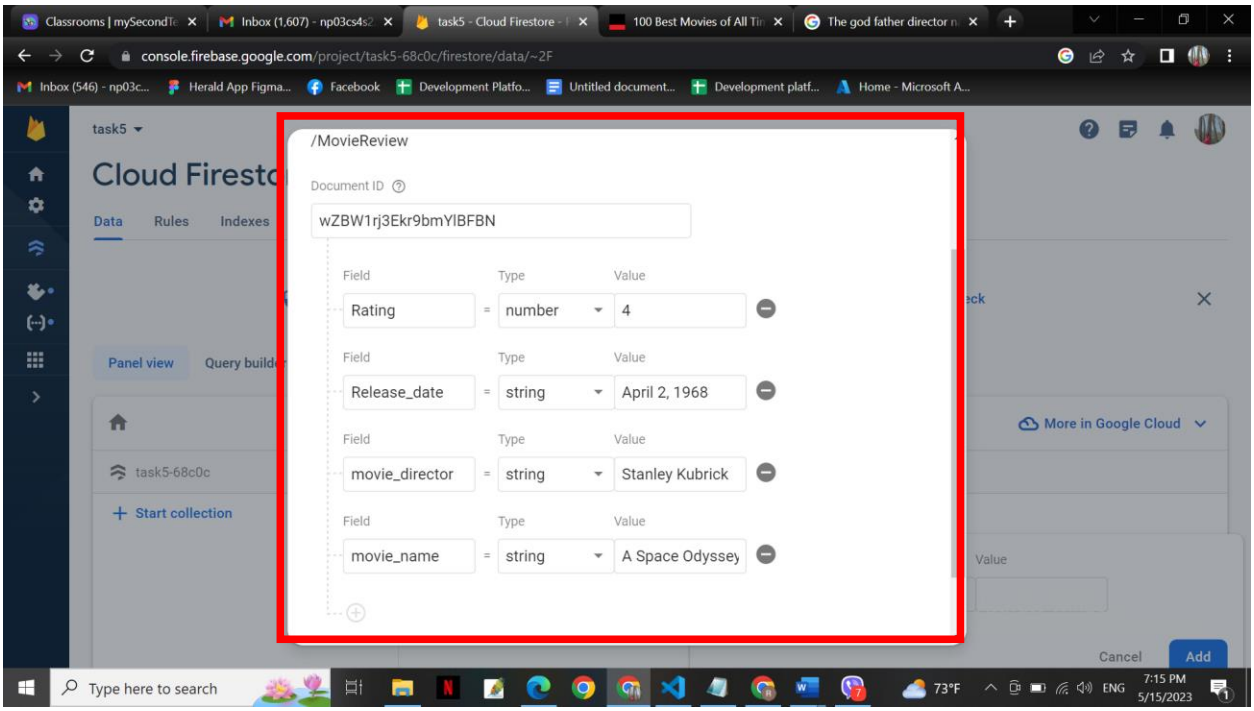


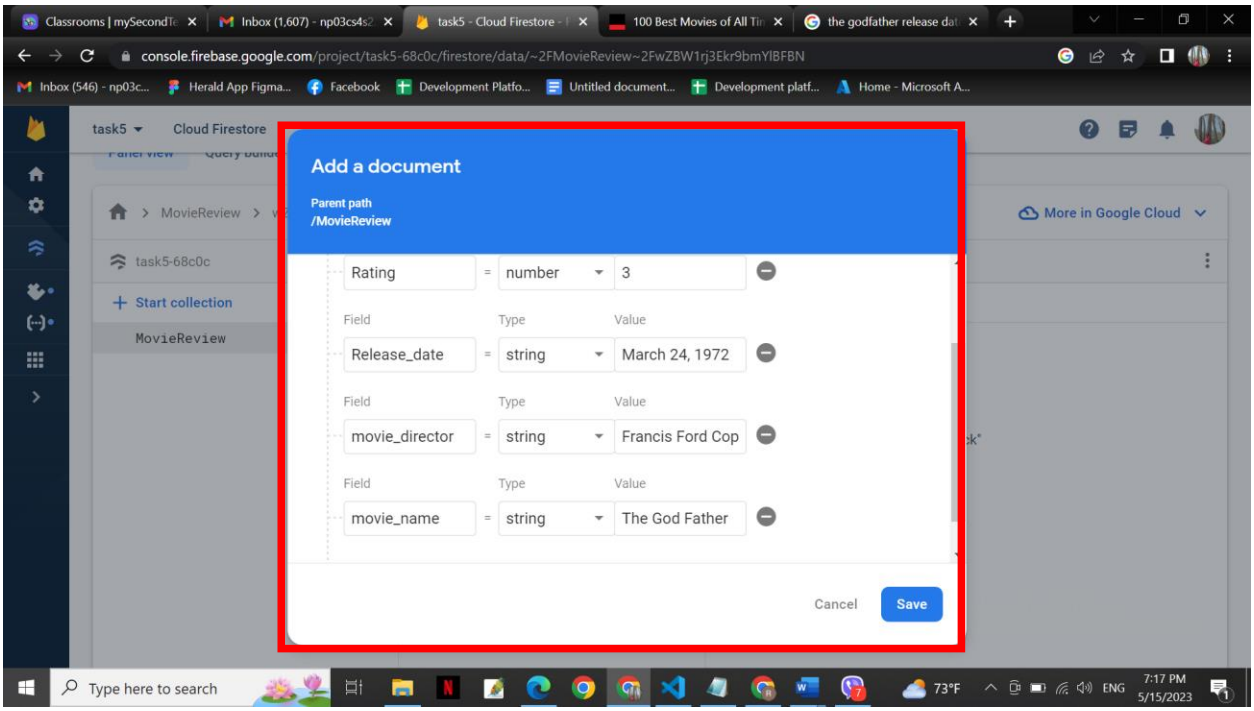

Classrooms | mySecondTeacher
Inbox (1,607) - np03cs4s220226
task5 - Cloud Firestore - Firebase
console.firebase.google.com/project/task5-68c0c/firestore
Firebase
task5
Project shortcuts
Firestore Database
What's new
Extensions NEW
Functions NEW
Product categories
Build
Release & Monitor
Analytics
Engage
Spark
No-cost $0/month
Upgrade
Create database
Secure rules for Cloud Firestore
2 Set Cloud Firestore location
Your location setting is where your Cloud Firestore data will be stored.
After you set this location, you cannot change it later. Also, this location setting will be the location for your default Cloud Storage bucket.
Learn more
Cloud Firestore location
nam5 (United States)
Enabling Cloud Firestore will prevent you from using Cloud Datastore with this project
Cancel
Enable
Type here to search
78°F
ENG
6:31 PM
5/15/2023

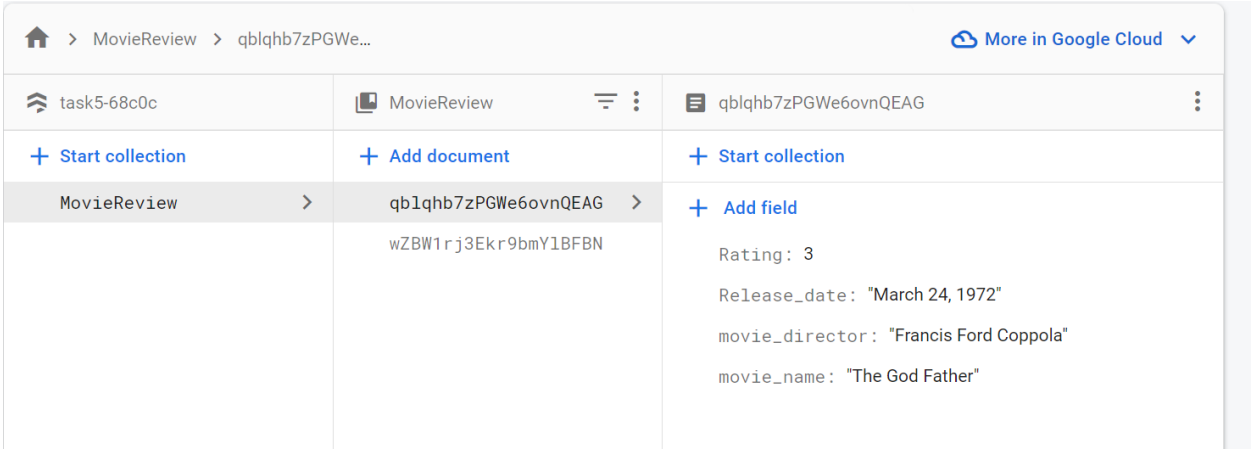

Classrooms | mySecondTeacher
Inbox (1,607) - np03cs4s220226
task5 - Cloud Firestore - Firebase
console.firebase.google.com/project/task5-68c0c/firestore/data/~2F
Firebase
task5
Cloud Firestore
Project shortcuts
Firestore Database
What's new
Extensions NEW
Functions NEW
Product categories
Build
Release & Monitor
Analytics
Engage
Spark
No-cost $0/month
Upgrade
Data
Rules
Indexes
Usage
Extensions NEW
Protect your Cloud Firestore resources from abuse, such as billing fraud or phishing
Configure App Check
Panel view
Query builder
More in Google Cloud
task5-68c0c
Start collection
Activate Windows
Go to Settings to activate Windows.
Type here to search
78°F
ENG
6:31 PM
5/15/2023

Then collections and documents are created as shown below



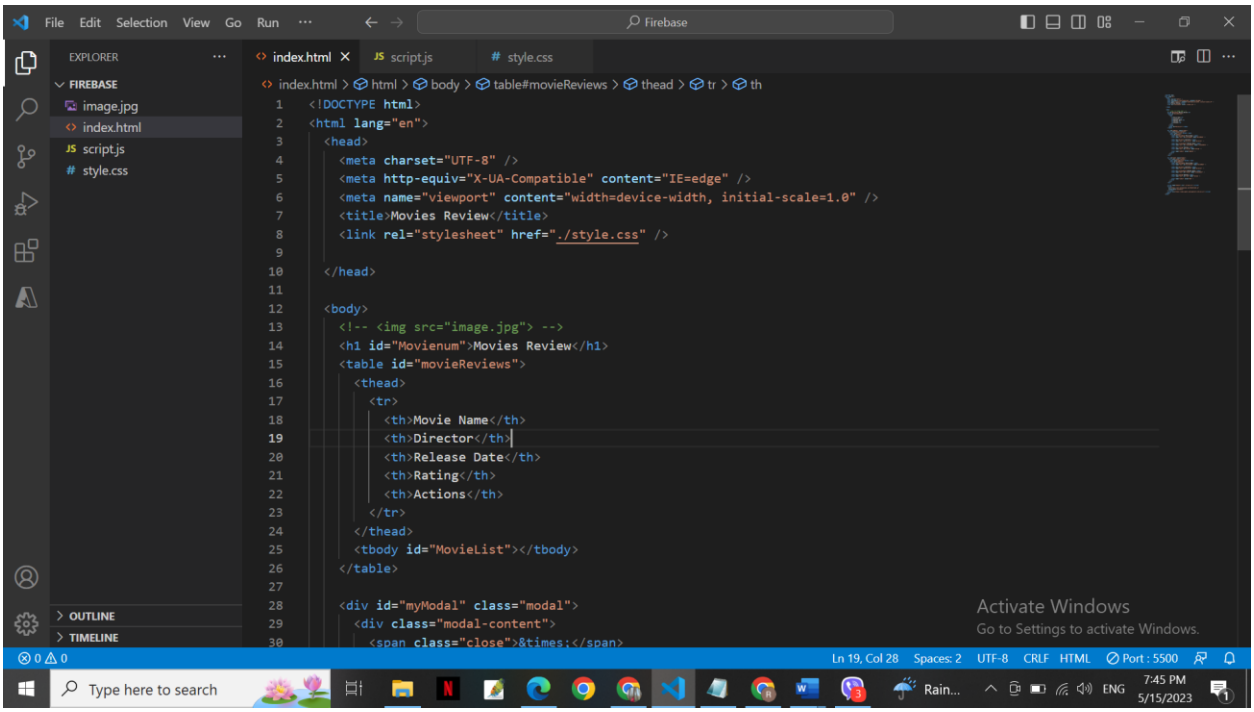

console.firebase.google.com/project/task5-68c0c/firestore/data/~2F
task5
Cloud Firesto
Data
Rules
Indexes
Panel view
task5-68c0c
Start collection
/MovieReview
Document ID
wZBW1rj3Ekr9bmYlBFBN
Field
Type
Value
Rating
number
4
Release_date
string
April 2, 1968
movie_director
string
Stanley Kubrick
movie_name
string
A Space Odyssey
More in Google Cloud
Cancel
Add
Type here to search
73°F
ENG
7:15 PM
5/15/2023

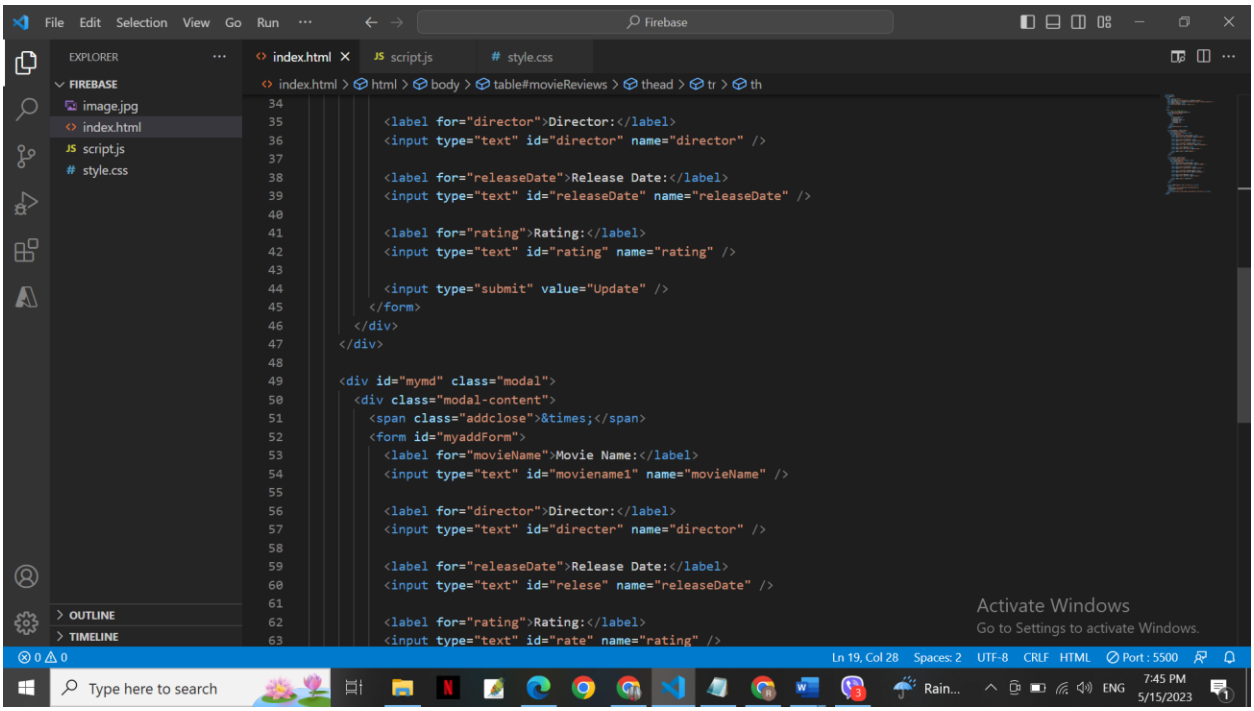

Add a document
Parent path
/MovieReview
Rating = number 3
Field Type Value
Release_date = string March 24, 1972
Field Type Value
movie_director = string Francis Ford Cop
Field Type Value
movie_name = string The God Father
Cancel
Save
task5
Cloud Firestore
MovieReview
task5-68c0c
Start collection
MovieReview
More in Google Cloud
Type here to search
73°F
ENG
7:17 PM
5/15/2023


MovieReview > qblqhb7zPGWe...
More in Google Cloud
task5-68c0c
MovieReview
qblqhb7zPGWe6ovnQEAG
Start collection
Add document
Start collection
MovieReview
qblqhb7zPGWe6ovnQEAG
wZBW1rj3Ekr9bmYlBFBN
Add field
Rating: 3
Release_date: "March 24, 1972"
movie_director: "Francis Ford Coppola"
movie_name: "The God Father"

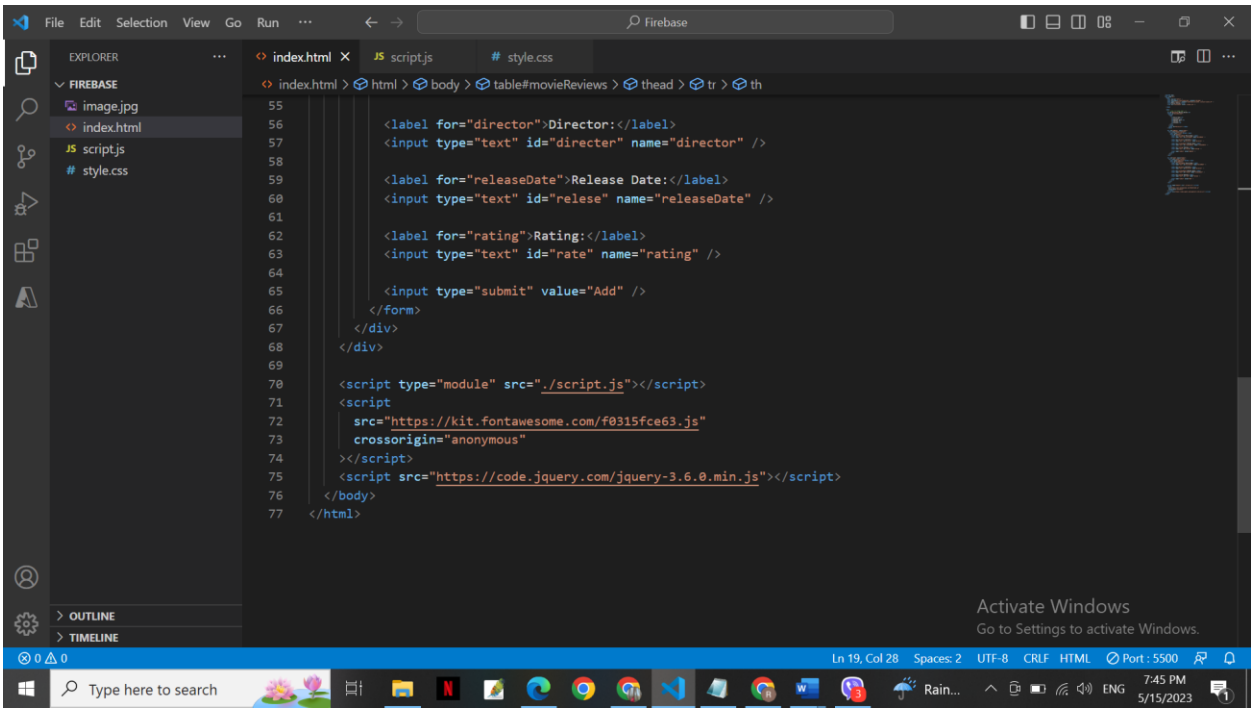
Now accessing the data in web browser using JavaScript, html and CSS which files are attached along with this pdf.

HTML CODE




File Edit Selection View Go Run
Firebase
EXPLORER
FIREBASE
image.jpg
index.html
script.js
style.css
index.html
script.js
style.css
index.html > html > body > table#movieReviews > thead > tr > th
<label for="director">Director:</label>
<input type="text" id="director" name="director" />
<label for="releaseDate">Release Date:</label>
<input type="text" id="releaseDate" name="releaseDate" />
<label for="rating">Rating:</label>
<input type="text" id="rating" name="rating" />
<input type="submit" value="Update" />
</form>

×
<form id="myaddForm">
<label for="movieName">Movie Name:</label>
<input type="text" id="moviename1" name="movieName" />
<label for="director">Director:</label>
<input type="text" id="directer" name="director" />
<label for="releaseDate">Release Date:</label>
<input type="text" id="relese" name="releaseDate" />
<label for="rating">Rating:</label>
<input type="text" id="rate" name="rating" />
OUTLINE
TIMELINE
Activate Windows
Go to Settings to activate Windows.
Ln 19, Col 28 Spaces: 2 UTF-8 CRLF HTML Port : 5500
Type here to search
Rain...
ENG
7:45 PM
5/15/2023


File Edit Selection View Go Run
Firebase
EXPLORER
FIREBASE
image.jpg
index.html
script.js
style.css
index.html
script.js
style.css
index.html > html > body > table#movieReviews > thead > tr > th
<label for="director">Director:</label>
<input type="text" id="directer" name="director" />
<label for="releaseDate">Release Date:</label>
<input type="text" id="relese" name="releaseDate" />
<label for="rating">Rating:</label>
<input type="text" id="rate" name="rating" />
<input type="submit" value="Add" />
</form>

<script type="module" src="./script.js"></script>
<script
src="https://kit.fontawesome.com/f0315fce63.js"
crossorigin="anonymous"
></script>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</body>
</html>
OUTLINE
TIMELINE
Activate Windows
Go to Settings to activate Windows.
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Rain...
ENG
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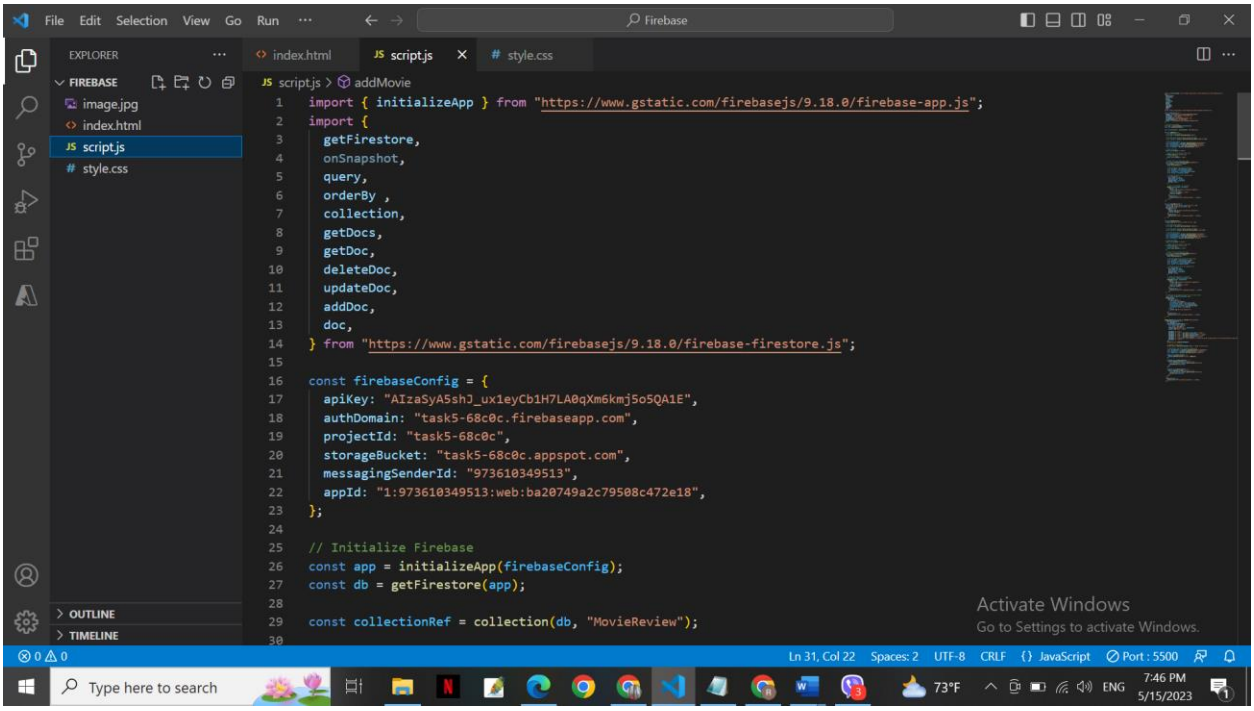
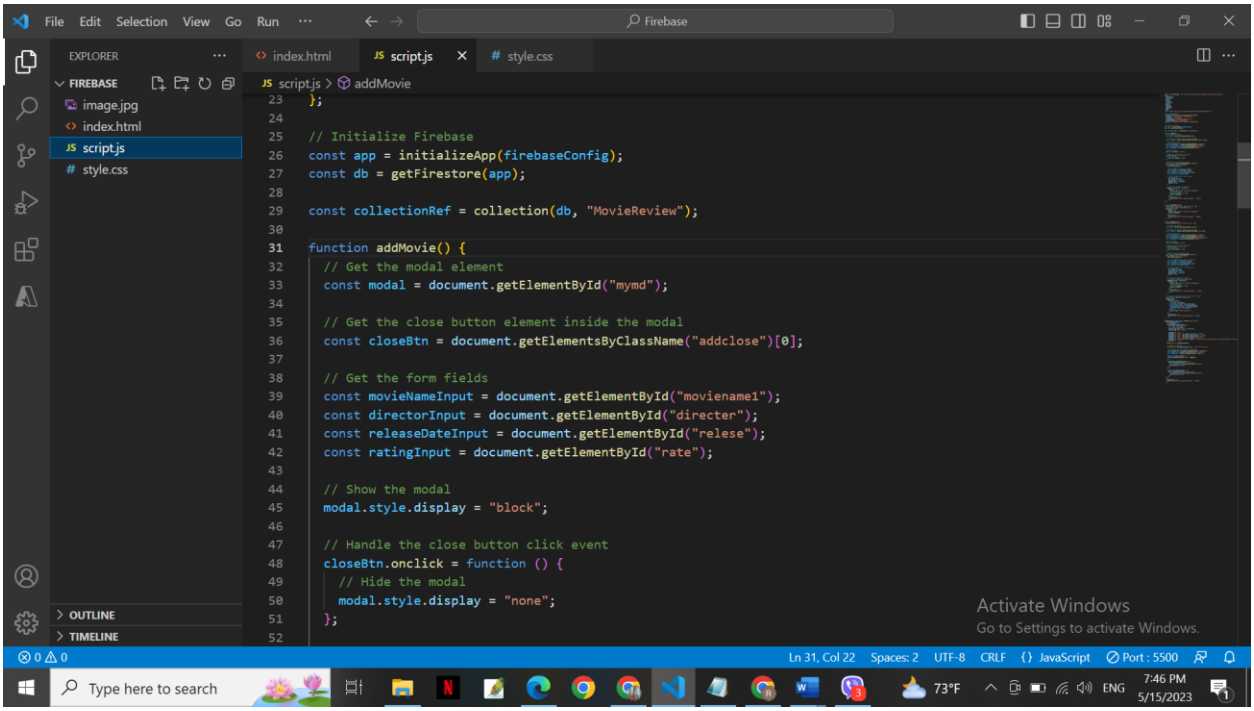
5/15/2023

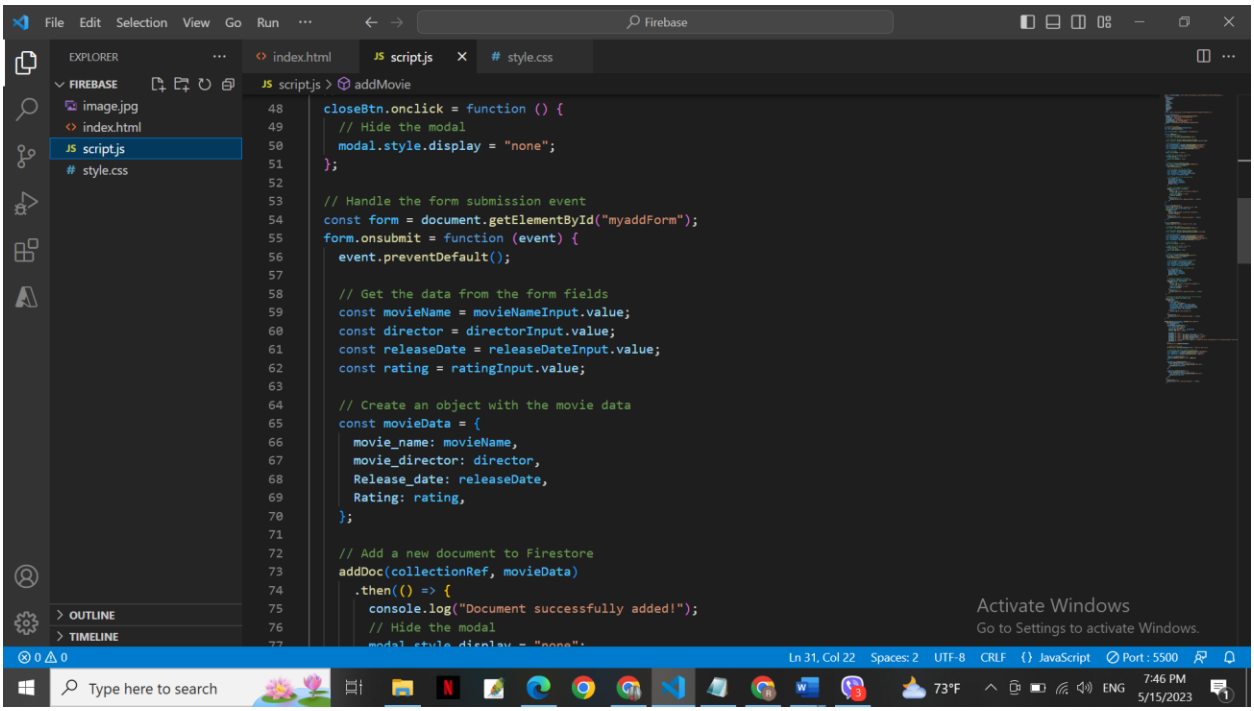
JavaScript Code

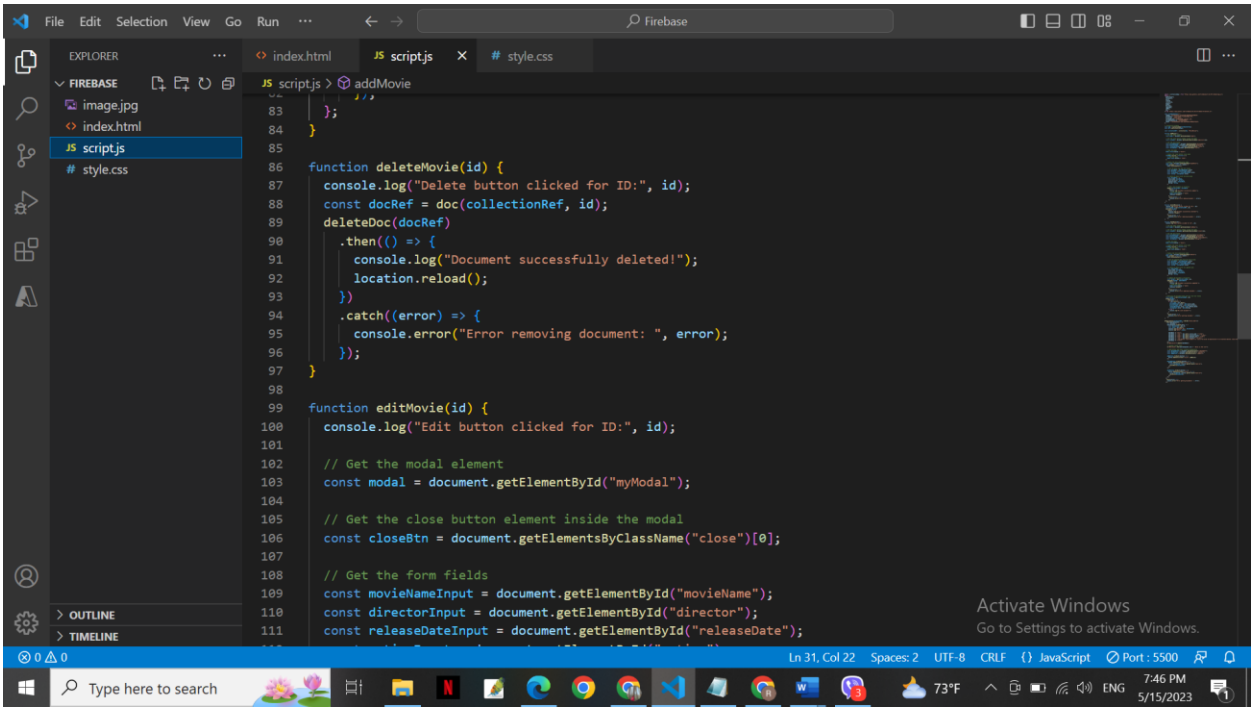


```
import { initializeApp } from "https://www.gstatic.com/firebasejs/9.18.0/firebase-app.js";
import {
  getFirestore,
  onSnapshot,
  query,
  orderBy ,
  collection,
  getDocs,
  getDoc,
  deleteDoc,
  updateDoc,
  addDoc,
  doc,
} from "https://www.gstatic.com/firebasejs/9.18.0/firebase-firestore.js";

const firebaseConfig = {
  apiKey: "AIzaSyA5shJ_ux1eyCb1H7LA0qXm6kmj5o5QA1E",
  authDomain: "task5-68c0c.firebaseapp.com",
  projectId: "task5-68c0c",
  storageBucket: "task5-68c0c.appspot.com",
  messagingSenderId: "973610349513",
  appId: "1:973610349513:web:ba20749a2c79508c472e18",
};

// Initialize Firebase
const app = initializeApp(firebaseConfig);
const db = getFirestore(app);

const collectionRef = collection(db, "MovieReview");
```



```
};

// Initialize Firebase
const app = initializeApp(firebaseConfig);
const db = getFirestore(app);

const collectionRef = collection(db, "MovieReview");

function addMovie() {
  // Get the modal element
  const modal = document.getElementById("mymd");

  // Get the close button element inside the modal
  const closeBtn = document.getElementsByClassName("addclose")[0];

  // Get the form fields
  const movieNameInput = document.getElementById("moviename1");
  const directorInput = document.getElementById("directer");
  const releaseDateInput = document.getElementById("relese");
  const ratingInput = document.getElementById("rate");

  // Show the modal
  modal.style.display = "block";

  // Handle the close button click event
  closeBtn.onclick = function () {
    // Hide the modal
    modal.style.display = "none";
  };
```


File Edit Selection View Go Run
Firebase
EXPLORER
FIREBASE
image.jpg
index.html
script.js
style.css
index.html
script.js
style.css
script.js > addMovie
closeBtn.onclick = function () {
// Hide the modal
modal.style.display = "none";
};
// Handle the form submission event
const form = document.getElementById("myaddForm");
form.onsubmit = function (event) {
event.preventDefault();
// Get the data from the form fields
const movieName = movieNameInput.value;
const director = directorInput.value;
const releaseDate = releaseDateInput.value;
const rating = ratingInput.value;
// Create an object with the movie data
const movieData = {
movie_name: movieName,
movie_director: director,
Release_date: releaseDate,
Rating: rating,
};
// Add a new document to Firestore
addDoc(collectionRef, movieData)
.then(() => {
console.log("Document successfully added!");
// Hide the modal
OUTLINE
TIMELINE
Activate Windows
Go to Settings to activate Windows.
Ln 31, Col 22 Spaces: 2 UTF-8 CRLF JavaScript Port : 5500
Type here to search
73°F
ENG
7:46 PM
5/15/2023


File Edit Selection View Go Run
Firebase
EXPLORER
FIREBASE
image.jpg
index.html
script.js
style.css
index.html
script.js
style.css
script.js > addMovie
};
}
function deleteMovie(id) {
console.log("Delete button clicked for ID:", id);
const docRef = doc(collectionRef, id);
deleteDoc(docRef)
.then(() => {
console.log("Document successfully deleted!");
location.reload();
})
.catch((error) => {
console.error("Error removing document: ", error);
});
}
function editMovie(id) {
console.log("Edit button clicked for ID:", id);
// Get the modal element
const modal = document.getElementById("myModal");
// Get the close button element inside the modal
const closeBtn = document.getElementsByClassName("close")[0];
// Get the form fields
const movieNameInput = document.getElementById("movieName");
const directorInput = document.getElementById("director");
const releaseDateInput = document.getElementById("releaseDate");
OUTLINE
TIMELINE
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Go to Settings to activate Windows.
Ln 31, Col 22 Spaces: 2 UTF-8 CRLF JavaScript Port : 5500
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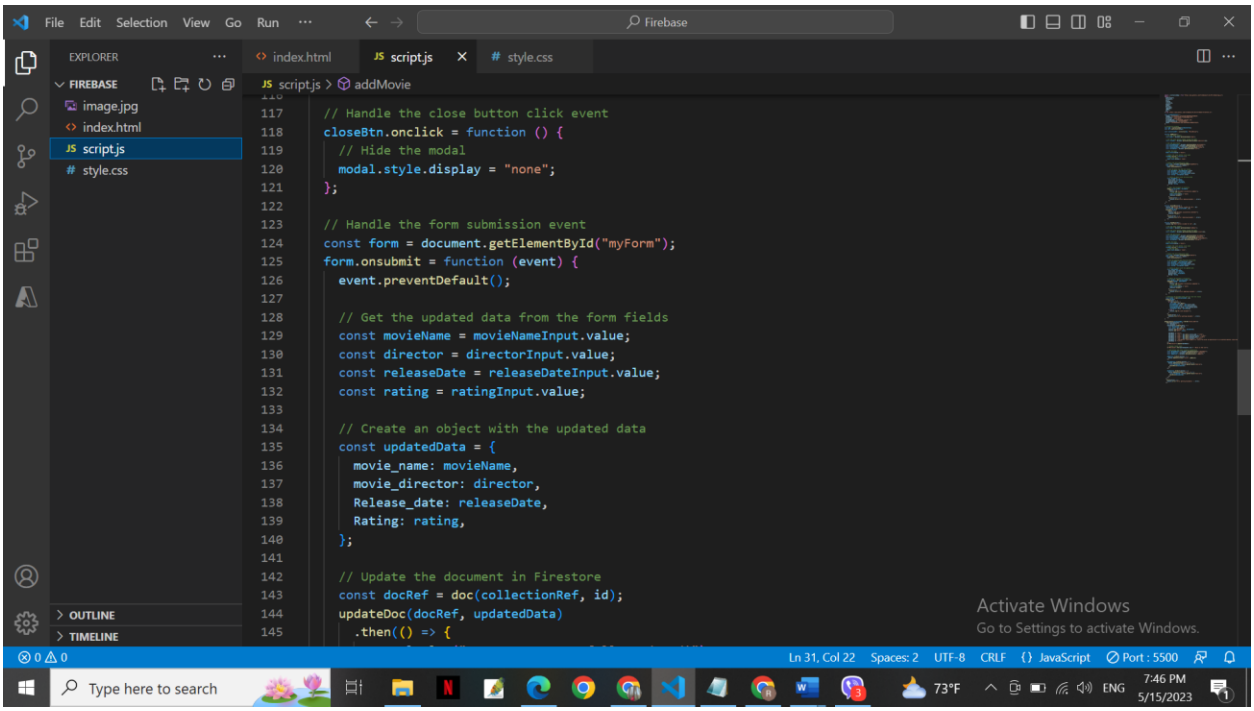
ENG
7:46 PM
5/15/2023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script.js
style.css
index.html
script.js
style.css
script.js > addMovie
// Handle the close button click event
closeBtn.onclick = function () {
// Hide the modal
modal.style.display = "none";
};
// Handle the form submission event
const form = document.getElementById("myForm");
form.onsubmit = function (event) {
event.preventDefault();
// Get the updated data from the form fields
const movieName = movieNameInput.value;
const director = directorInput.value;
const releaseDate = releaseDateInput.value;
const rating = ratingInput.value;
// Create an object with the updated data
const updatedData = {
movie_name: movieName,
movie_director: director,
Release_date: releaseDate,
Rating: rating,
};
// Update the document in Firestore
const docRef = doc(collectionRef, id);
updateDoc(docRef, updatedData)
.then(() => {
OUTLINE
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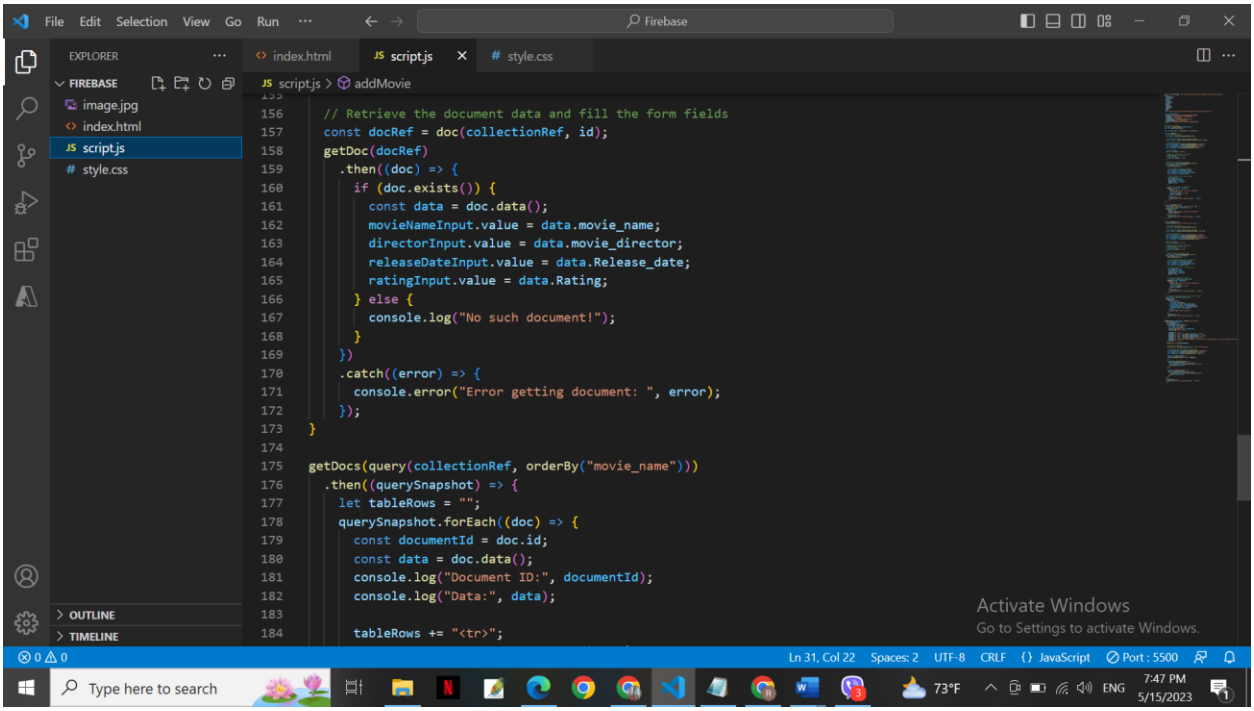
File Edit Selection View Go Run
Firebase
EXPLORER
FIREBASE
image.jpg
index.html
script.js
style.css
index.html
script.js
style.css
script.js > addMovie
// Retrieve the document data and fill the form fields
const docRef = doc(collectionRef, id);
getDoc(docRef)
.then((doc) => {
if (doc.exists()) {
const data = doc.data();
movieNameInput.value = data.movie_name;
directorInput.value = data.movie_director;
releaseDateInput.value = data.Release_date;
ratingInput.value = data.Rating;
} else {
console.log("No such document!");
}
})
.catch((error) => {
console.error("Error getting document: ", error);
});
}
getDocs(query(collectionRef, orderBy("movie_name")))
.then((querySnapshot) => {
let tableRows = "";
querySnapshot.forEach((doc) => {
const documentId = doc.id;
const data = doc.data();
console.log("Document ID:", documentId);
console.log("Data:", data);
tableRows += "<tr>";
OUTLINE
TIMELINE
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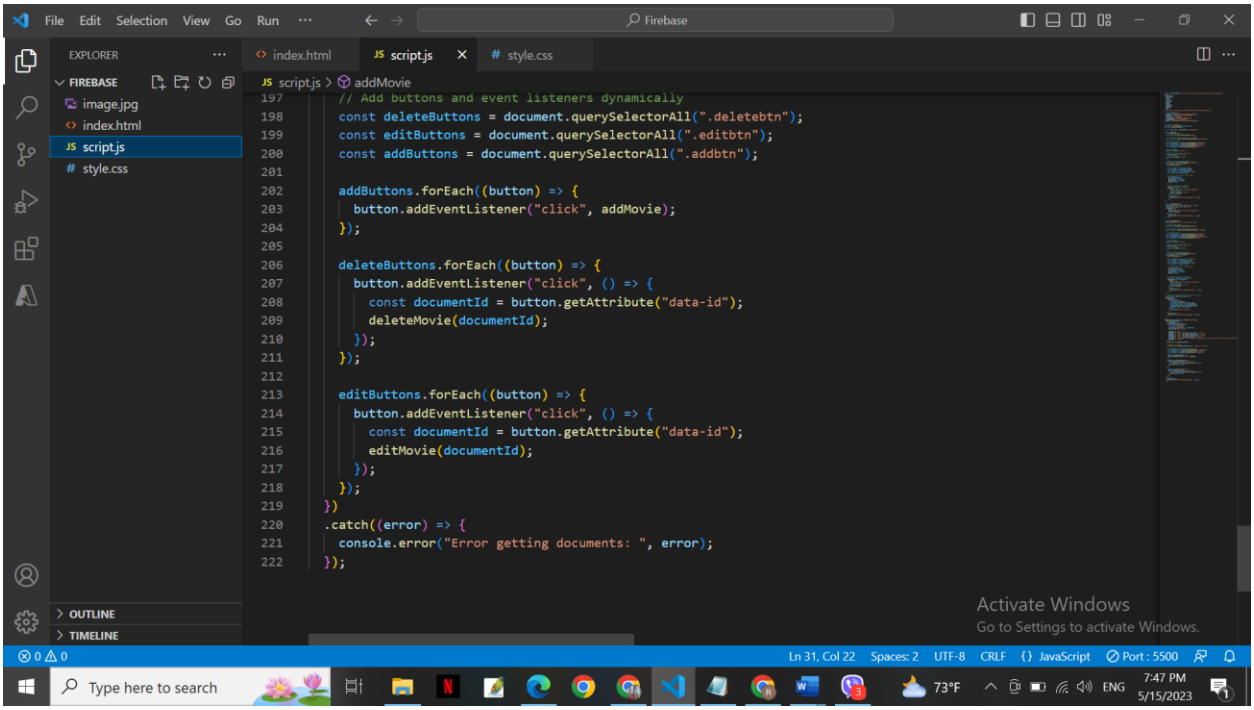
File Edit Selection View Go Run
Firebase
EXPLORER
FIREBASE
image.jpg
index.html
script.js
style.css
index.html
script.js
style.css
script.js > addMovie
// Add buttons and event listeners dynamically
const deleteButtons = document.querySelectorAll(".deletebtn");
const editButtons = document.querySelectorAll(".editbtn");
const addButtons = document.querySelectorAll(".addbtn");
addButtons.forEach((button) => {
button.addEventListener("click", addMovie);
});
deleteButtons.forEach((button) => {
button.addEventListener("click", () => {
const documentId = button.getAttribute("data-id");
deleteMovie(documentId);
});
});
editButtons.forEach((button) => {
button.addEventListener("click", () => {
const documentId = button.getAttribute("data-id");
editMovie(documentId);
});
});
})
.catch((error) => {
console.error("Error getting documents: ", error);
});
OUTLINE
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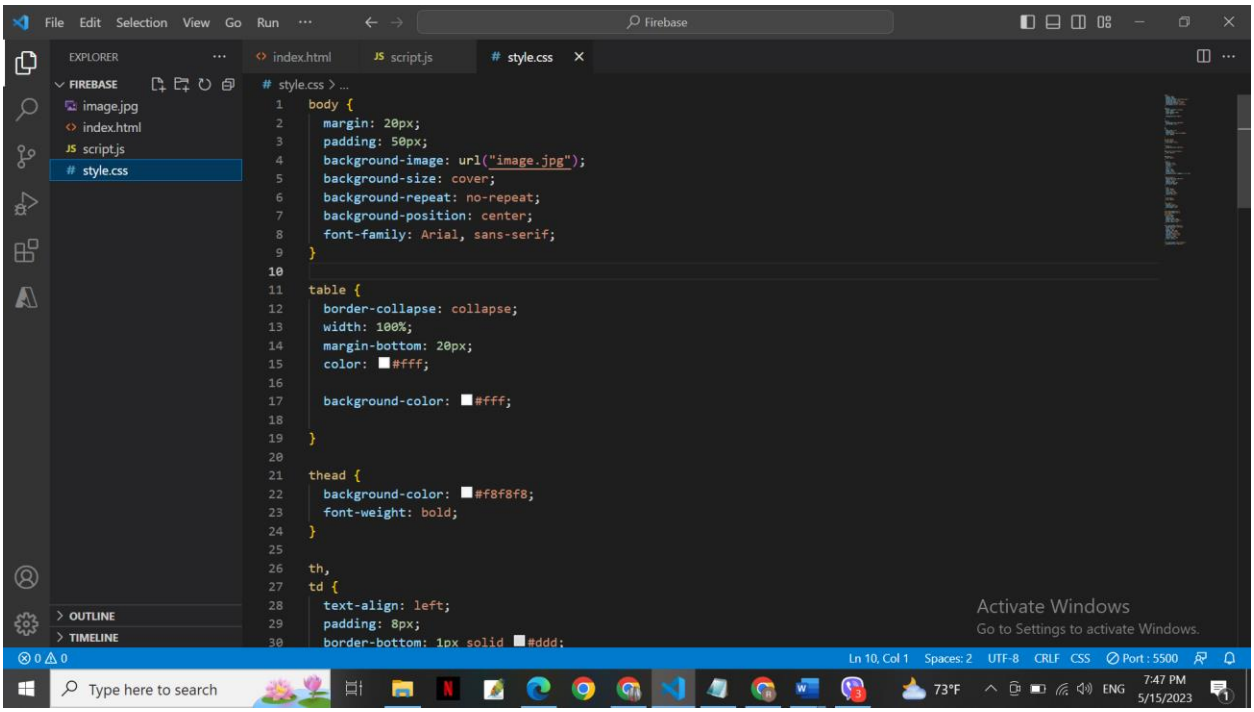
CSS Code


File Edit Selection View Go Run
Firebase
EXPLORER
FIREBASE
image.jpg
index.html
script.js
style.css
index.html
script.js
style.css
style.css > ...
body {
margin: 20px;
padding: 50px;
background-image: url("image.jpg");
background-size: cover;
background-repeat: no-repeat;
background-position: center;
font-family: Arial, sans-serif;
}
table {
border-collapse: collapse;
width: 100%;
margin-bottom: 20px;
color: #fff;
background-color: #fff;
}
thead {
background-color: #f8f8f8;
font-weight: bold;
}
th,
td {
text-align: left;
padding: 8px;
OUTLINE
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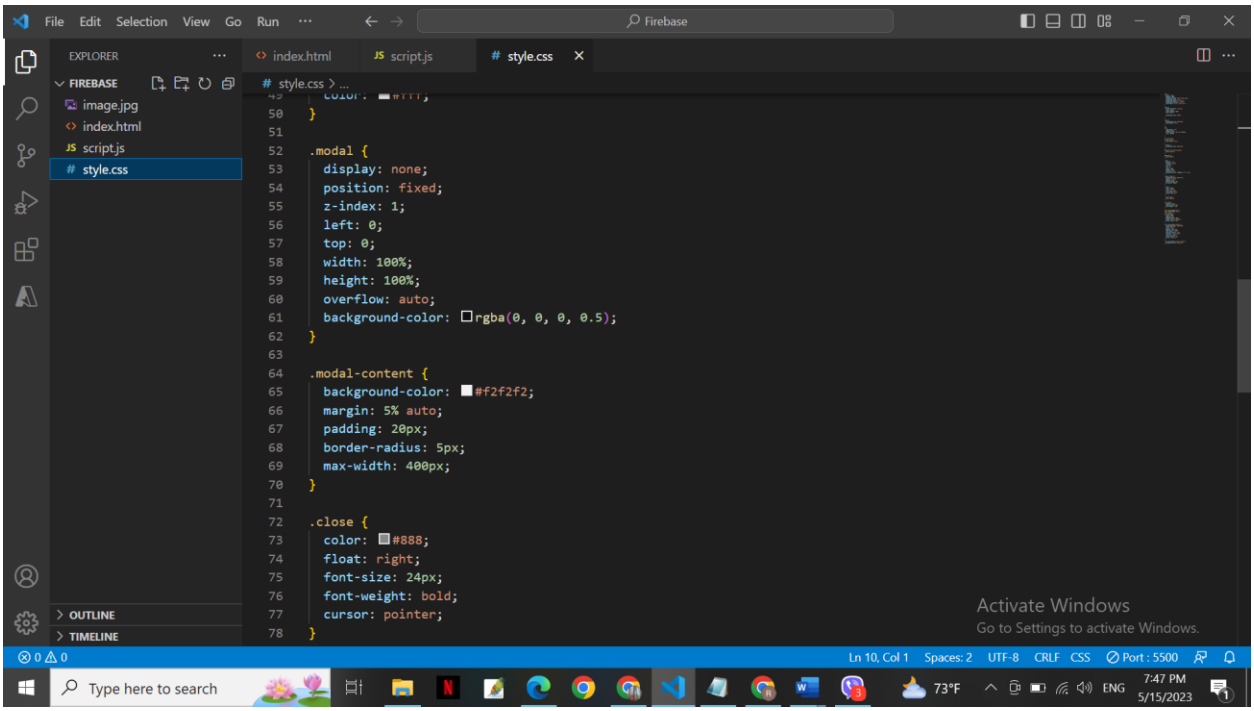
File Edit Selection View Go Run
Firebase
EXPLORER
index.html
script.js
style.css
FIREBASE
image.jpg
index.html
script.js
style.css
style.css > ...
}
.modal {
display: none;
position: fixed;
z-index: 1;
left: 0;
top: 0;
width: 100%;
height: 100%;
overflow: auto;
background-color: rgba(0, 0, 0, 0.5);
}
.modal-content {
background-color: #f2f2f2;
margin: 5% auto;
padding: 20px;
border-radius: 5px;
max-width: 400px;
}
.close {
color: #888;
float: right;
font-size: 24px;
font-weight: bold;
cursor: pointer;
}
OUTLINE
TIMELINE
Activate Windows
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Ln 10, Col 1 Spaces: 2 UTF-8 CRLF CSS Port : 5500
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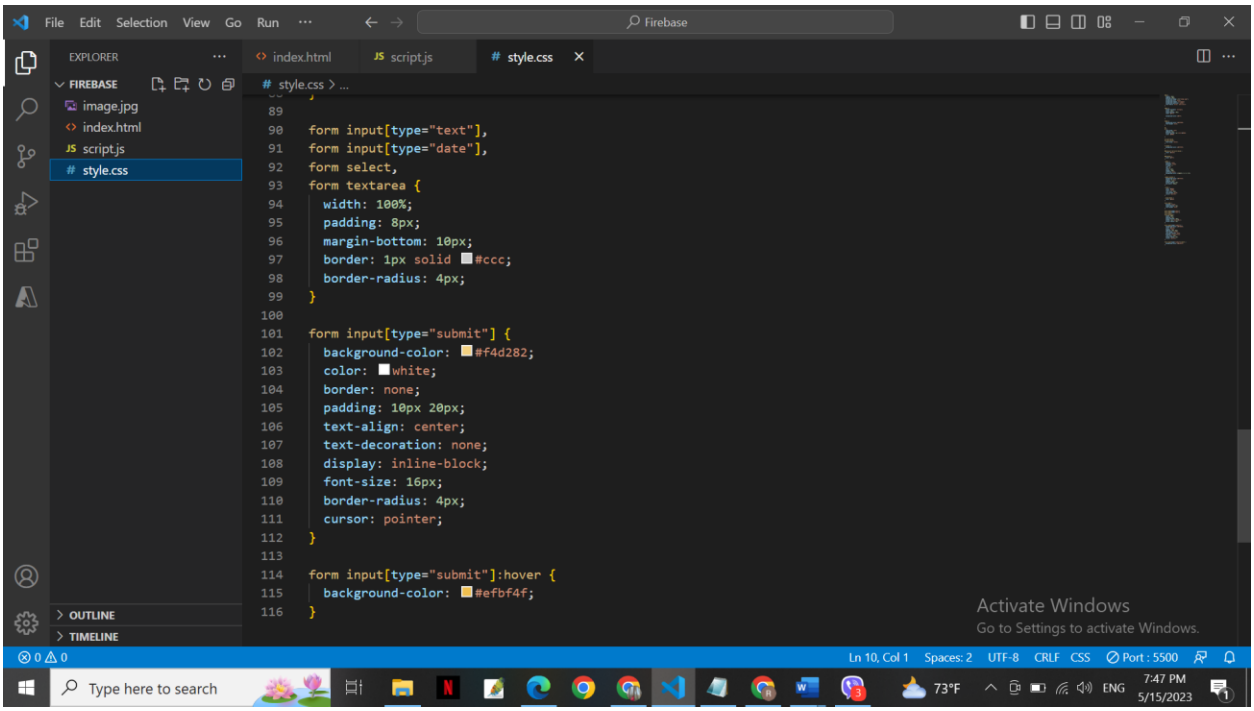
File Edit Selection View Go Run
Firebase
EXPLORER
FIREBASE
image.jpg
index.html
script.js
style.css
index.html
script.js
style.css
style.css > ...
89
90 form input[type="text"],
91 form input[type="date"],
92 form select,
93 form textarea {
94 width: 100%;
95 padding: 8px;
96 margin-bottom: 10px;
97 border: 1px solid #ccc;
98 border-radius: 4px;
99 }
100
101 form input[type="submit"] {
102 background-color: #f4d282;
103 color: white;
104 border: none;
105 padding: 10px 20px;
106 text-align: center;
107 text-decoration: none;
108 display: inline-block;
109 font-size: 16px;
110 border-radius: 4px;
111 cursor: pointer;
112 }
113
114 form input[type="submit"]:hover {
115 background-color: #efbf4f;
116 }
OUTLINE
TIMELINE
Activate Windows
Go to Settings to activate Windows.
Ln 10, Col 1 Spaces: 2 UTF-8 CRLF CSS Port : 5500
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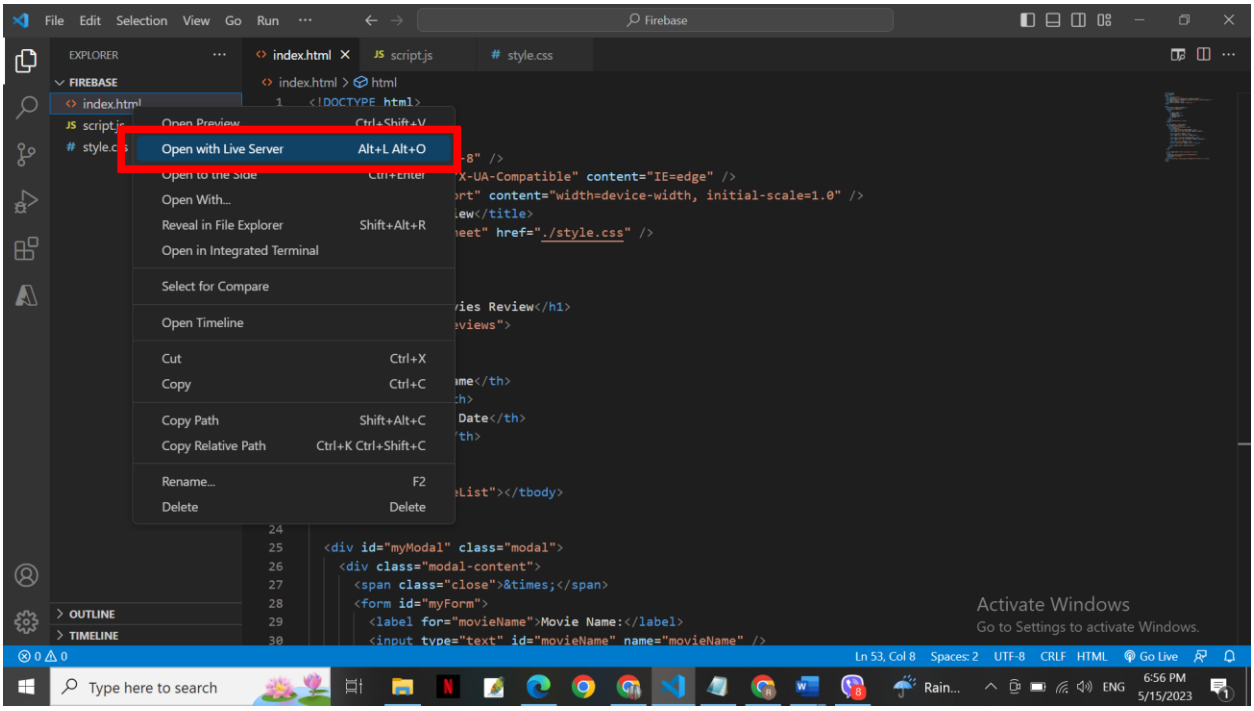
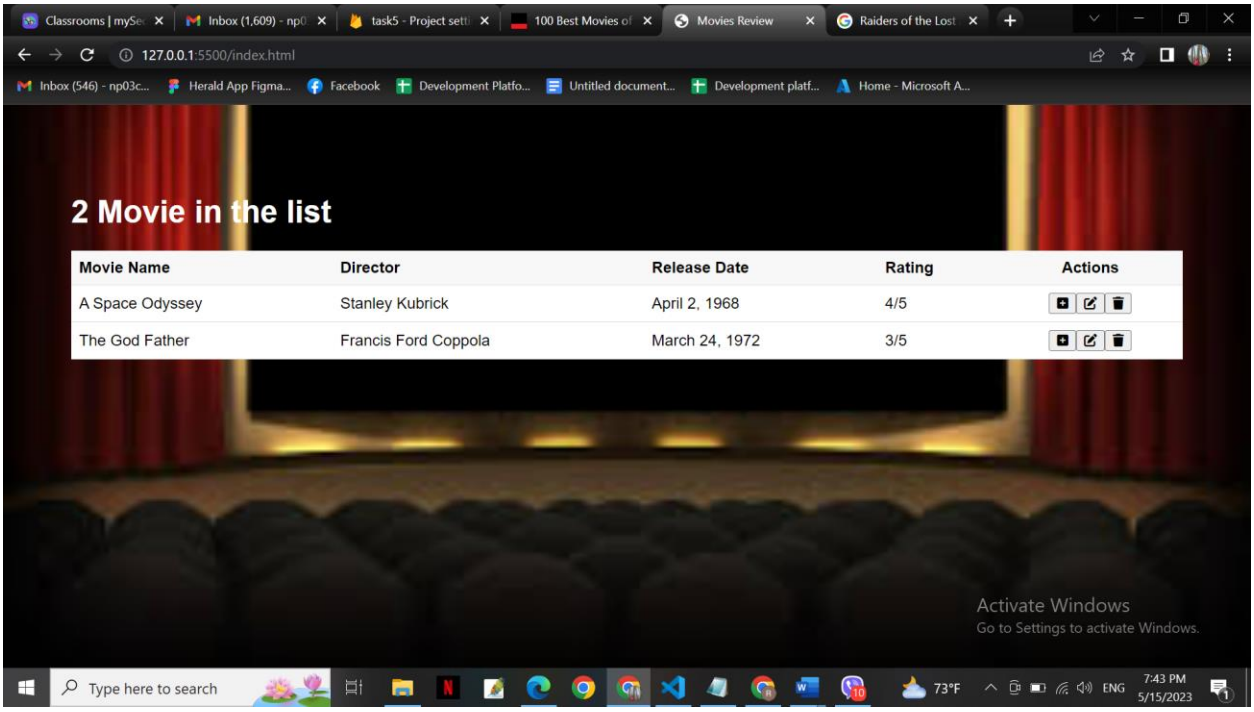
Using live server opening it in web browser



Here is how it looks like



I am adding new data in the table

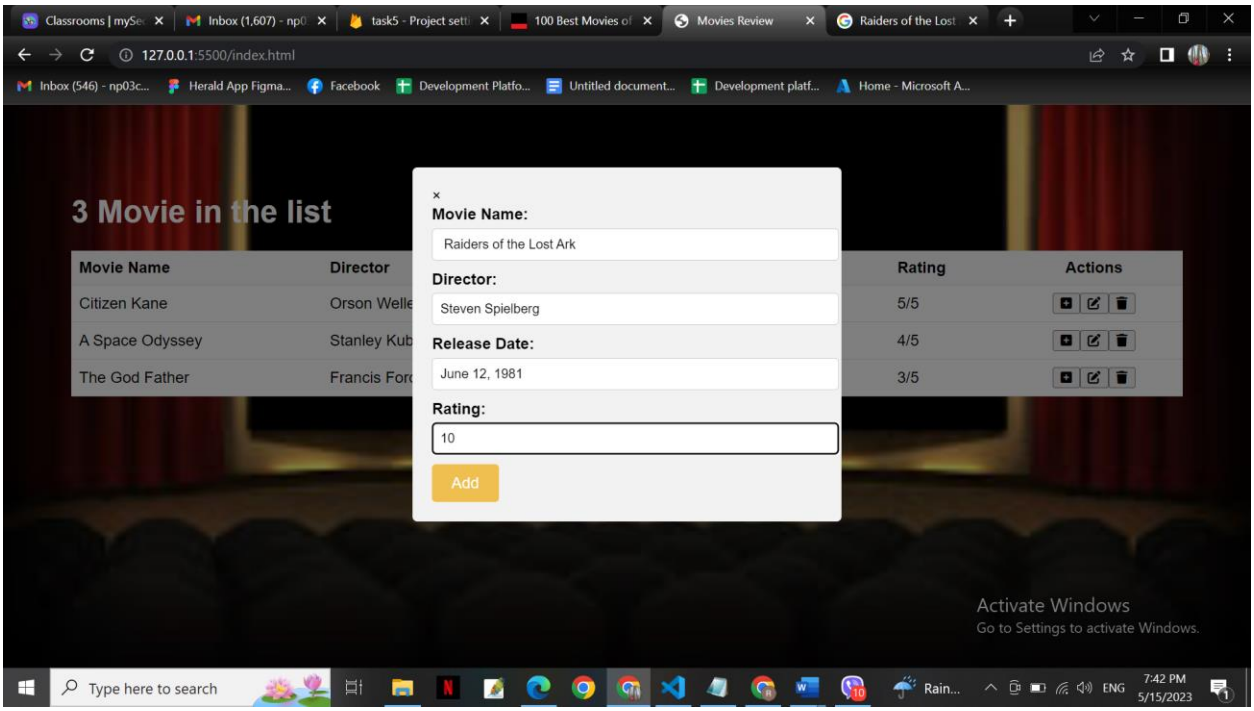
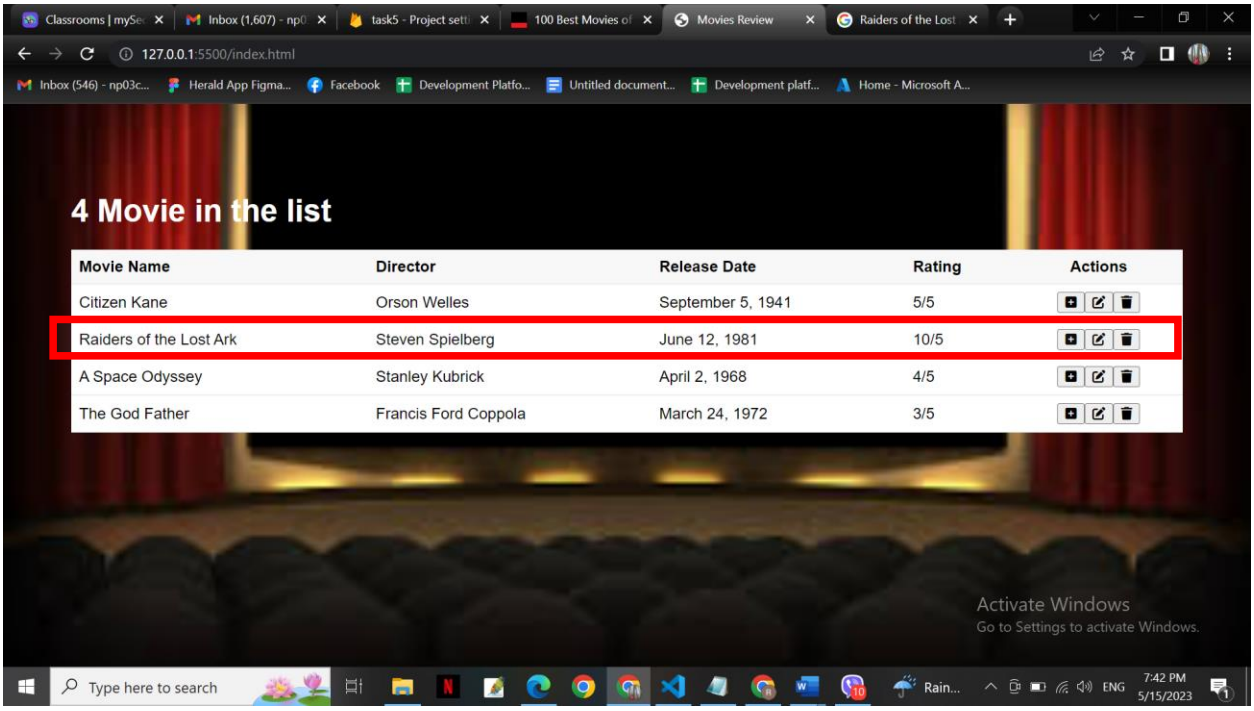
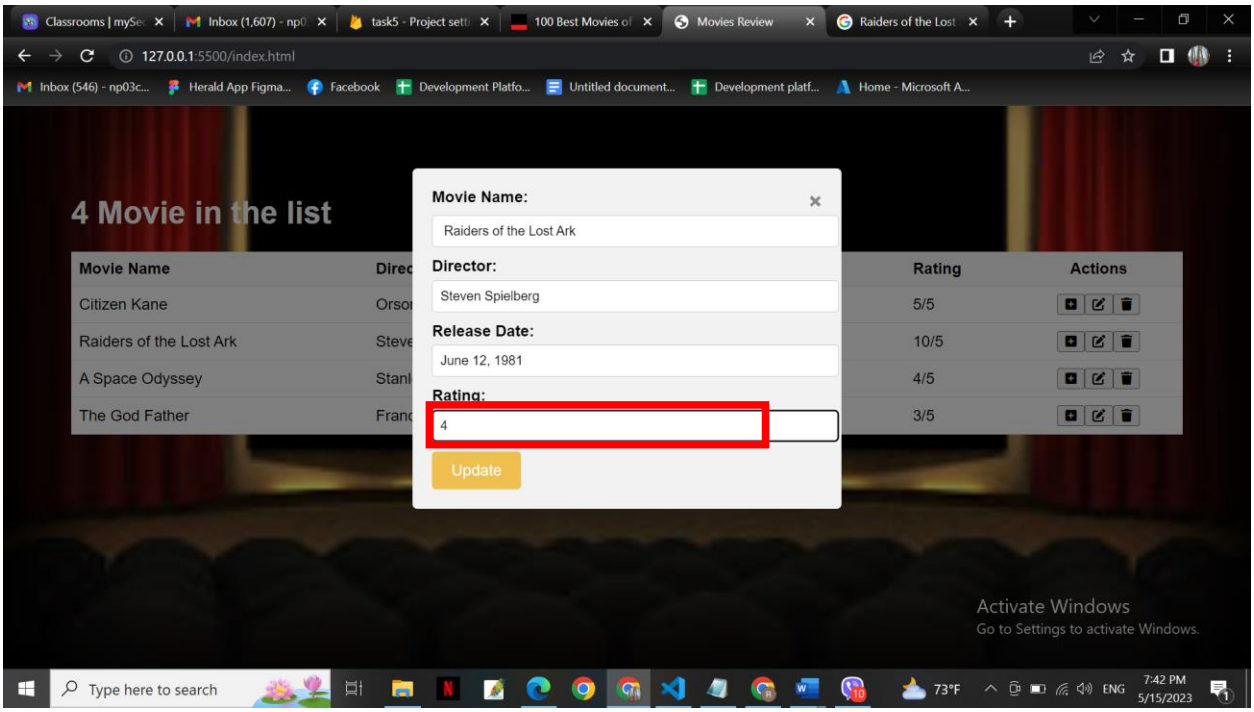
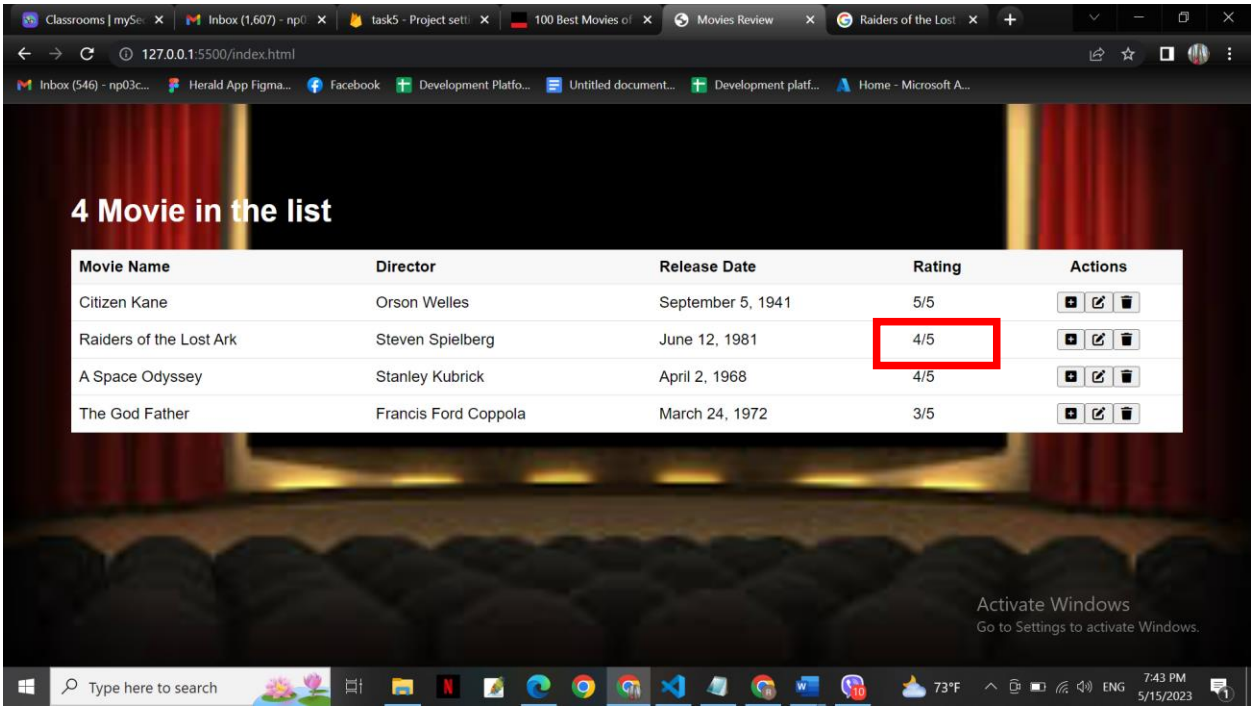


Table after data is added



I gave 10 in rating so, updating the data




Movies Review
Raiders of the Lost
127.0.0.1:5500/index.html
4 Movie in the list
Movie Name
Director
Release Date
Rating
Actions
Citizen Kane
Orson Welles
September 5, 1941
5/5
Raiders of the Lost Ark
Steven Spielberg
June 12, 1981
4/5
A Space Odyssey
Stanley Kubrick
April 2, 1968
4/5
The God Father
Francis Ford Coppola
March 24, 1972
3/5
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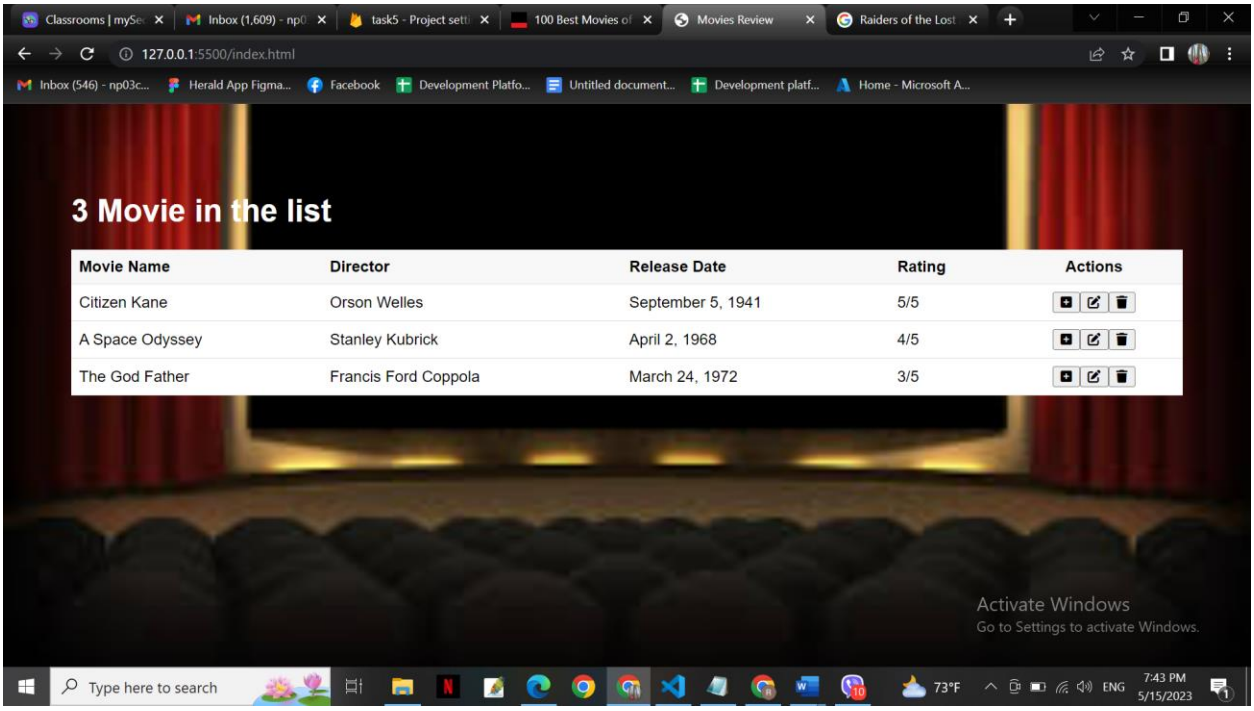
5/15/2023

Then I deleted that data from table



http://127.0.0.1:5500/index.html