

# HEALTHCARE CONTENT DATA MANAGEMENT SYSTEM

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## Team-3

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## Project goal:

The main goal of the project is to facilitate the user to access the information related to any of the diagnosis. User can also upload images with meta data. This will help the user to know the information of disease and the cost of diagnosis.

## Motivation:

We have friends who get panicked when they get some allergy/infection and they are not aware how critical it is. To overcome this problem and to ease the people's lives by providing digital information we have come up with this idea. The project comprises of different kind of health data.

# Significance:

Following are the key benefits of the application:

1. This application can be used by non-technical minds and can be accessed from anywhere.
2. It can be used by any size of business associations.
3. It is an open source project.
4. It has collaboration environment for content sharing.

# Objective:

Developing an open source application that ease the users work in digital data life cycle management. Below are the system Features:

- User can register and then login to the application.
- User can login through oAuth.
- User will be able to upload the images with meta data.
- The meta data includes Prescription,Laboratory Reports,billing information(Cost of diagnosis).

# First Increment Report:

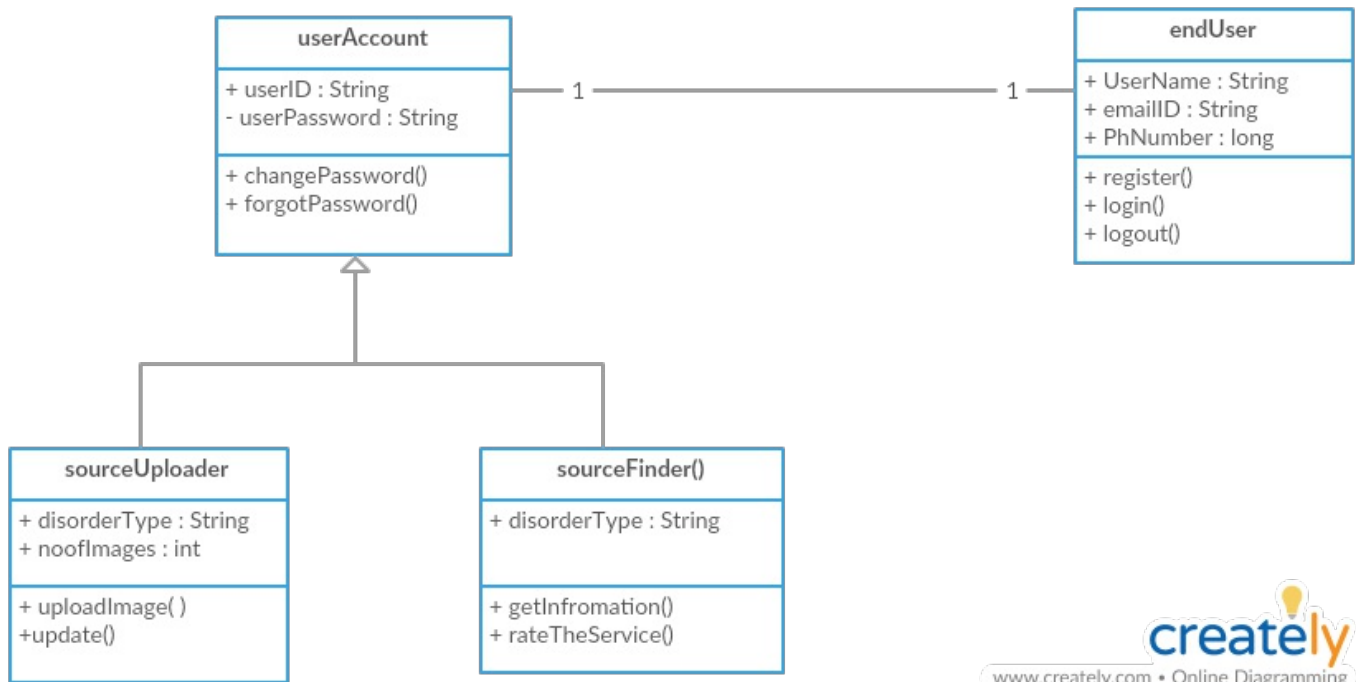
## Existing Services/REST API :

- Fire base AP
- REST API for Registration and Login

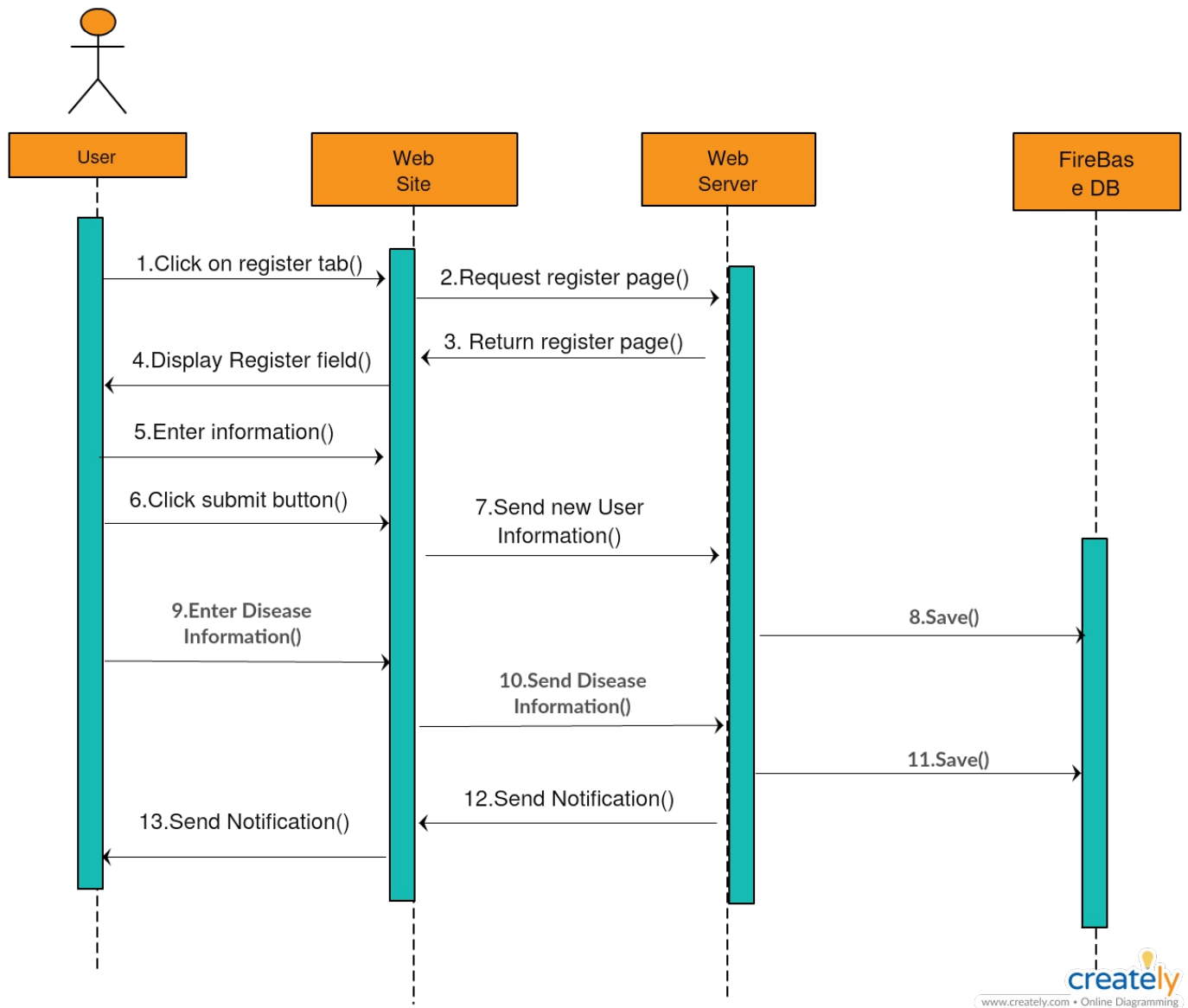
# Detail Design of Features

## Architecture Diagrams:

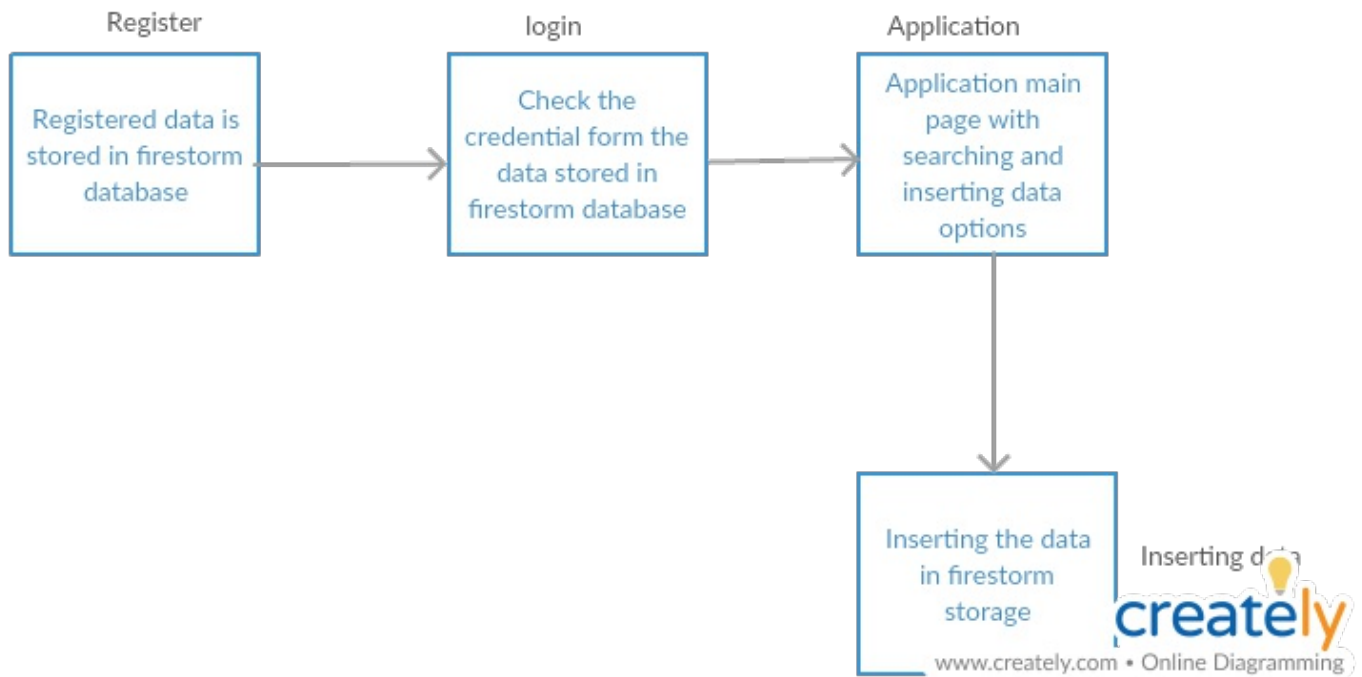
### Class Diagram



### Sequence Diagram



## Architecture Diagram



## Testing

Test Case Type	Test Case Description	Expected Output	Application Output
Registration Page	Give password and repeat password differently.	Shows the alert message that says passwords are mismatching.	Alert message came up with mismatch passwords.
Login Page	Give username and password that are not registered	Shows the alert message that says invalid credentials	Alert message came up that says invalid credentials.
Image upload home page	Upload any image of type file from your local system.	Check if it got updated in firebase storage.	Alert message that says uploaded successfully.

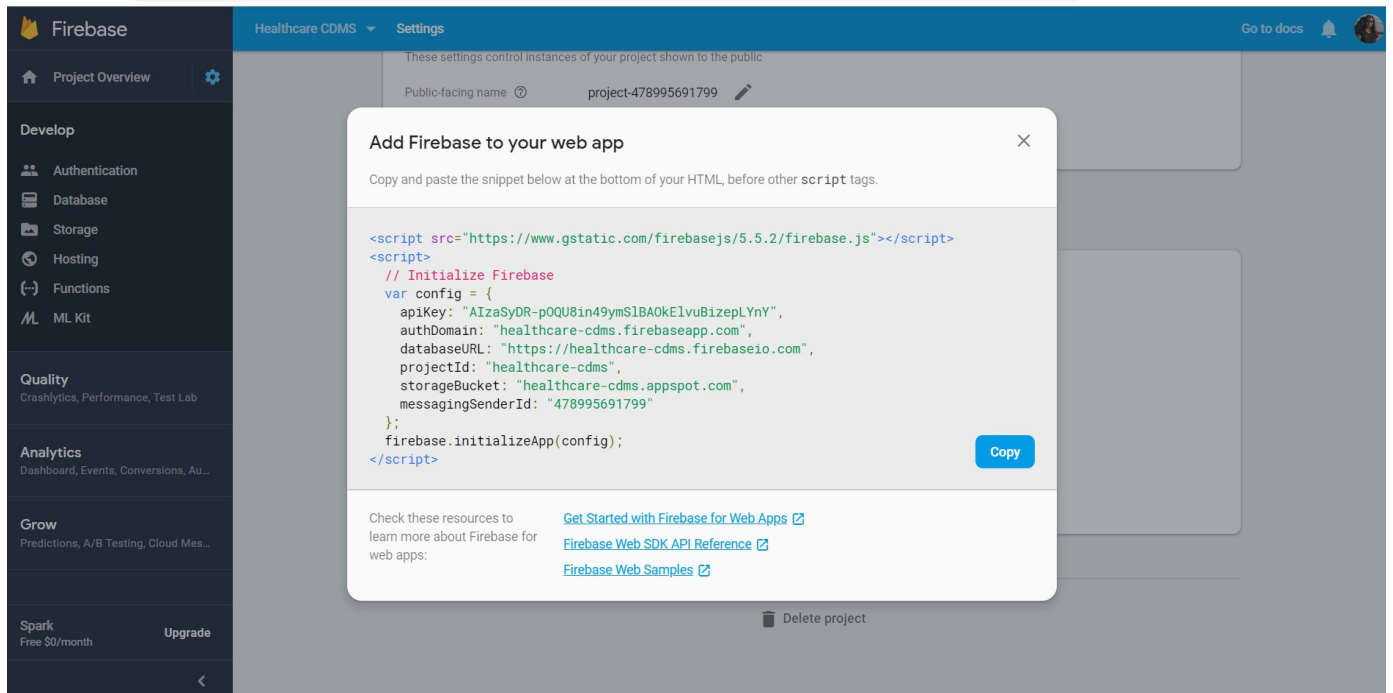
## Implementation:

Created application in Web Storm which has login page and registration page where user can register to use the services provided in the

application. User can upload images with metadata.

# Code Snippet:

## Fire base API key:



# Firebase API for storing registration data.

```

var myApp = angular.module('hcdmsApp', []);
myApp.controller("HCDMSController", function($scope) {
    $scope.config = {
        apiKey: "AIzaSyDR-pQU8in49ymslBAOkElvuBizepLYnY",
        authDomain: "healthcare-cdms.firebaseio.com",
        databaseURL: "https://healthcare-cdms.firebaseio.com",
        projectId: "healthcare-cdms",
        storageBucket: "healthcare-cdms.appspot.com",
        messagingSenderId: "478995691799"
    };
    firebase.initializeApp($scope.config);
    /** Registration Storage */
    $scope.createReg = function() {
        $scope.regData = {
            "Name": $scope.regName,
            "Email": $scope.regEmail,
            "Phone-no": $scope.regPhno,
            "Address": $scope.regAddress,
            "Password": $scope.regPwd
        };

        /** firebaseRef to push regData into server */
        firebaseRef = firebase.database().ref();
        firebaseRef.push().set($scope.regData);
        if($scope.regPwd !== $scope.regRepeatPwd) {
            alert("mismatch");
        }
        alert("Successfully!! Created an account");
        location.replace("HomePage.html");
    };

```

## Firestore API for authentication.

```

/** Login function */
$scope.login = function() {
    firebaseRef = firebase.database().ref('');
    firebaseRef.once('value', function(snapshot) {
        $scope.jsonData = snapshot.val();
        $scope.keys = Object.keys(snapshot.val());
        $scope.checkUser = false;
        console.log($scope.jsonData);
        for(var i=0; i<$scope.keys.length; i++) {
            if($scope.jsonData[$scope.keys[i]].Email === $scope.loginEmail && $scope.jsonData[$scope.keys[i]].Password === $scope.log:
            {
                location.replace("HomePage.html");
                alert("Hello " + $scope.jsonData[$scope.keys[i]].Name);
                $scope.checkUser = true;
            }
        }
        if($scope.checkUser === false) {
            alert("Invalid Credentials");
        }
    });
}

```

## Firestore API to store images

```

var myApp = angular.module("homeApp", []);
myApp.controller("homeController", function($scope) {
  $scope.config = {
    apiKey: "AIzaSyDR-pQU8in49ymSlBAOkElvuBizepLYnY",
    authDomain: "healthcare-cdms.firebaseio.com",
    databaseURL: "https://healthcare-cdms.firebaseio.com",
    projectId: "healthcare-cdms",
    storageBucket: "healthcare-cdms.appspot.com",
    messagingSenderId: "478995691799"
  };
  firebase.initializeApp($scope.config);
  $scope.uploadImage = function() {
    $scope.metadata = {
      "Created By": $scope.createdBy,
      // "Created Date": $scope.createdDate,
      "Contact no": $scope.createdPhno,
      "Category": $scope.createdCategory,
      "Disease": $scope.createdDisease,
      "Diagnosis Cost": $scope.createdCost,
      "Prescription": $scope.createdPrescriptions
    };
    var fileUploader = document.getElementById('fileUploader');
    var file = fileUploader.files[0];
    var storageRef = firebase.storage().ref('HealthcareImageStorage/'+file.name);
    storageRef.put(file, $scope.metadata).then(function() {
      console.log("Upload successful");
    });
    storageRef.getMetadata().then(function(metadata) {
      console.log(metadata);
    });
  };
});

```

## Registration Page:

If the user is new to the application or never used the application he should register using registration page or user can login using Google account

# HealthCare Content Data Management System

Name:

Email:

Phone Number:

Address:

Password:

Retype Password:

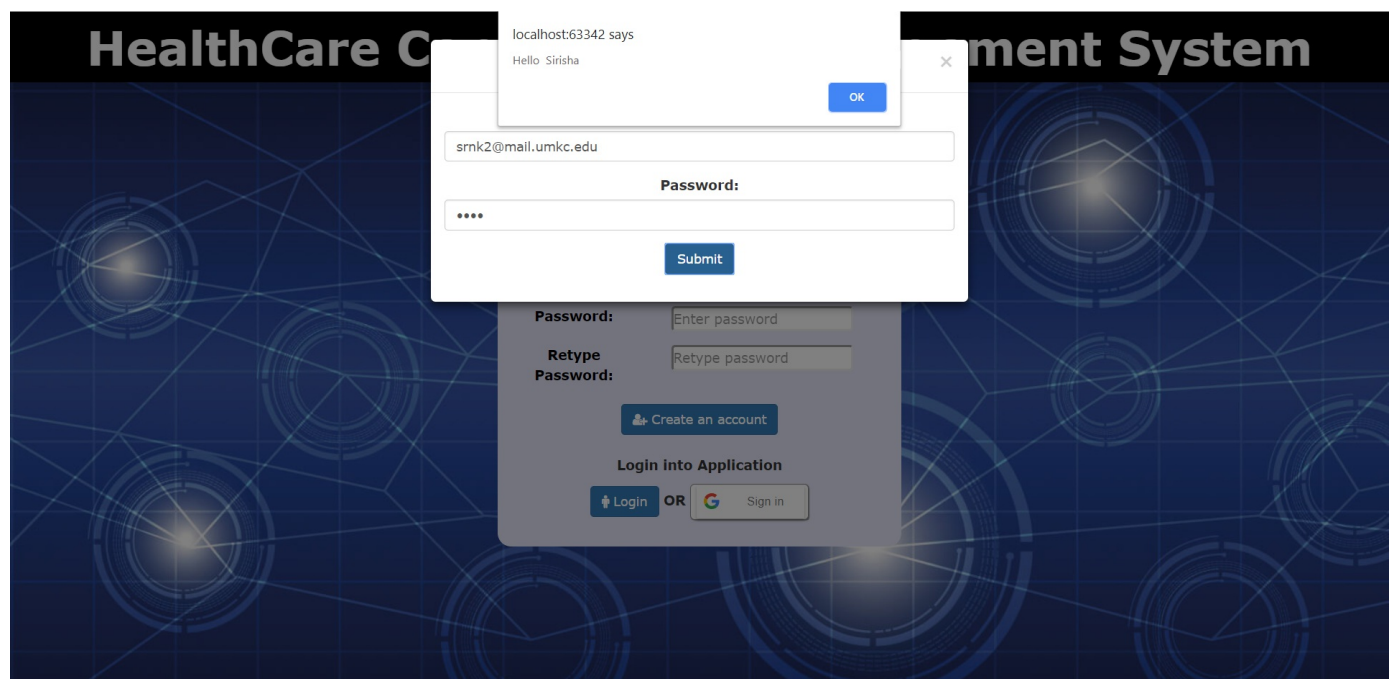
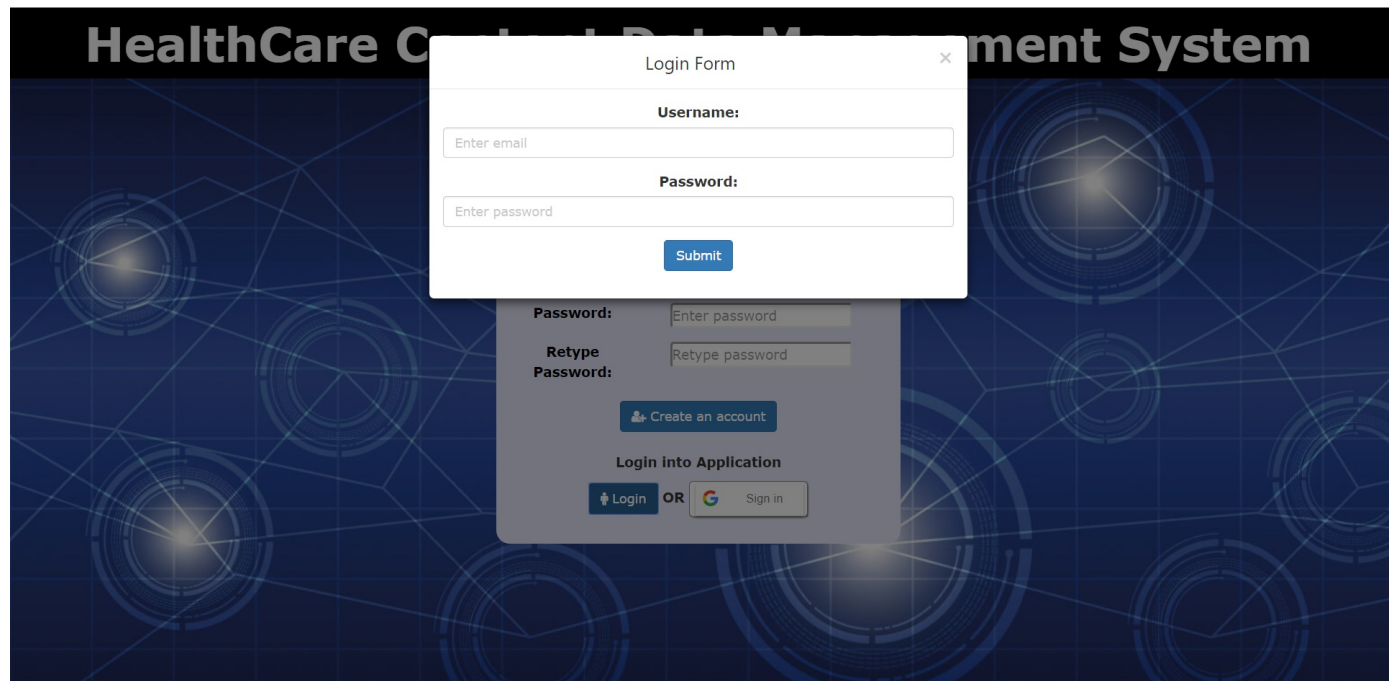
Login into Application

OR



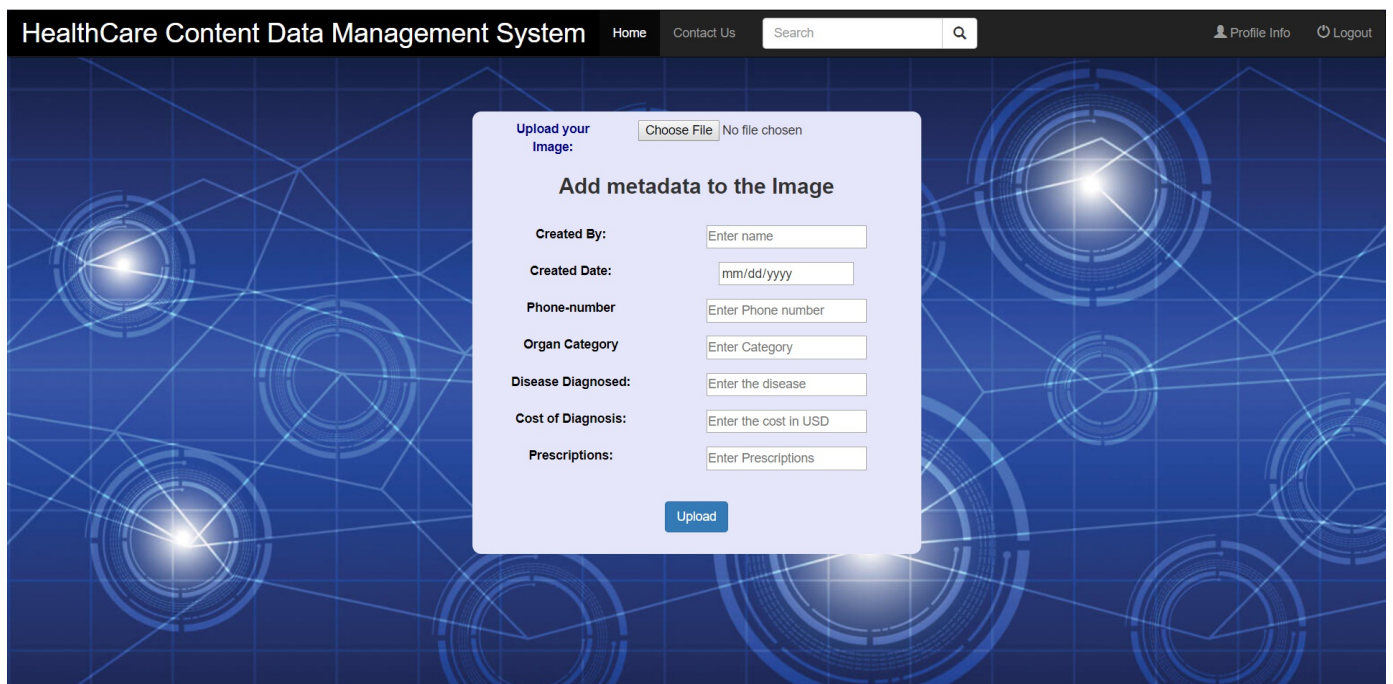
# Login Page:

If user has an account he can login with valid credentials



# Home Page:

After Login user will be redirected to the Home page.



HealthCare Content Data Management System Home Contact Us Search Profile Info Logout

Upload your Image: Choose File No file chosen

**Add metadata to the Image**

Created By: Enter name

Created Date: mm/dd/yyyy

Phone-number: Enter Phone number

Organ Category: Enter Category

Disease Diagnosed: Enter the disease

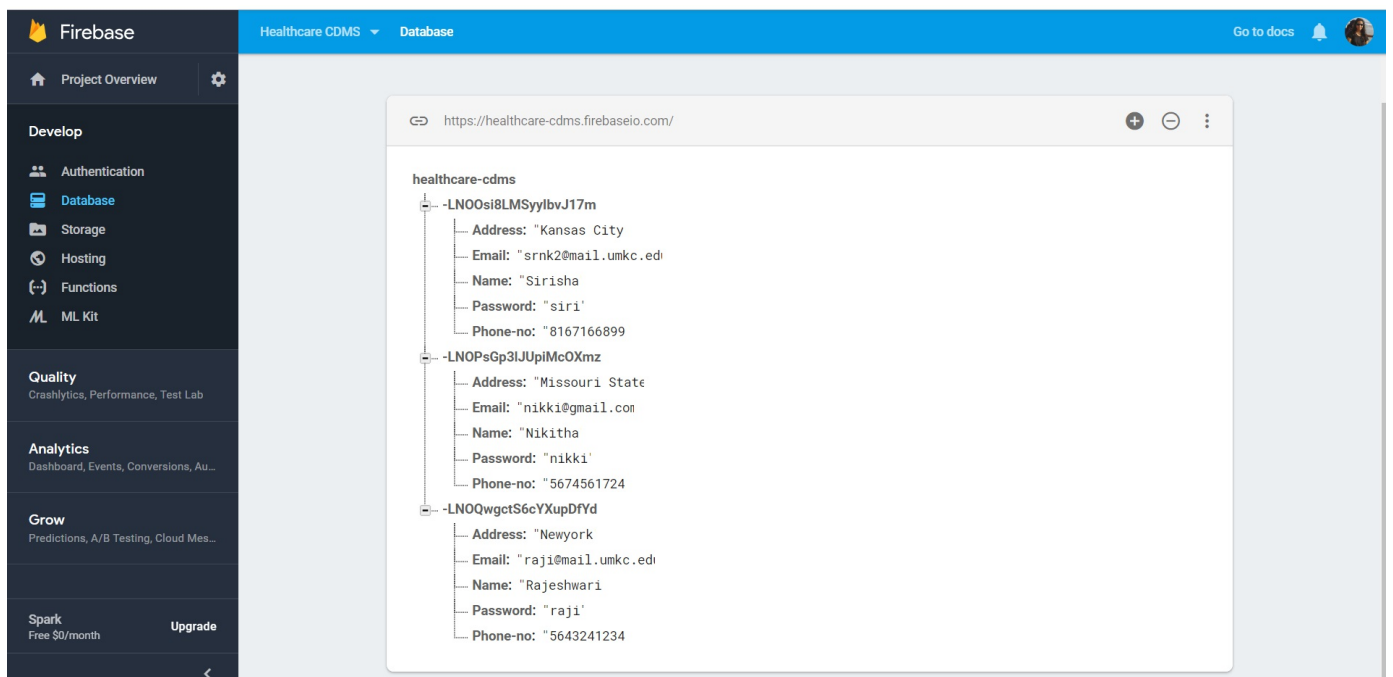
Cost of Diagnosis: Enter the cost in USD

Prescriptions: Enter Prescriptions

Upload

## Firebase Database:

It is used to store the user information to validate the login Credentials.



Firebase Healthcare CDMS Database Go to docs

Project Overview

Develop

- Authentication
- Database
- Storage
- Hosting
- Functions
- ML Kit

Quality

Crashlytics, Performance, Test Lab

Analytics

Dashboard, Events, Conversions, Au...

Grow

Predictions, A/B Testing, Cloud Mes...

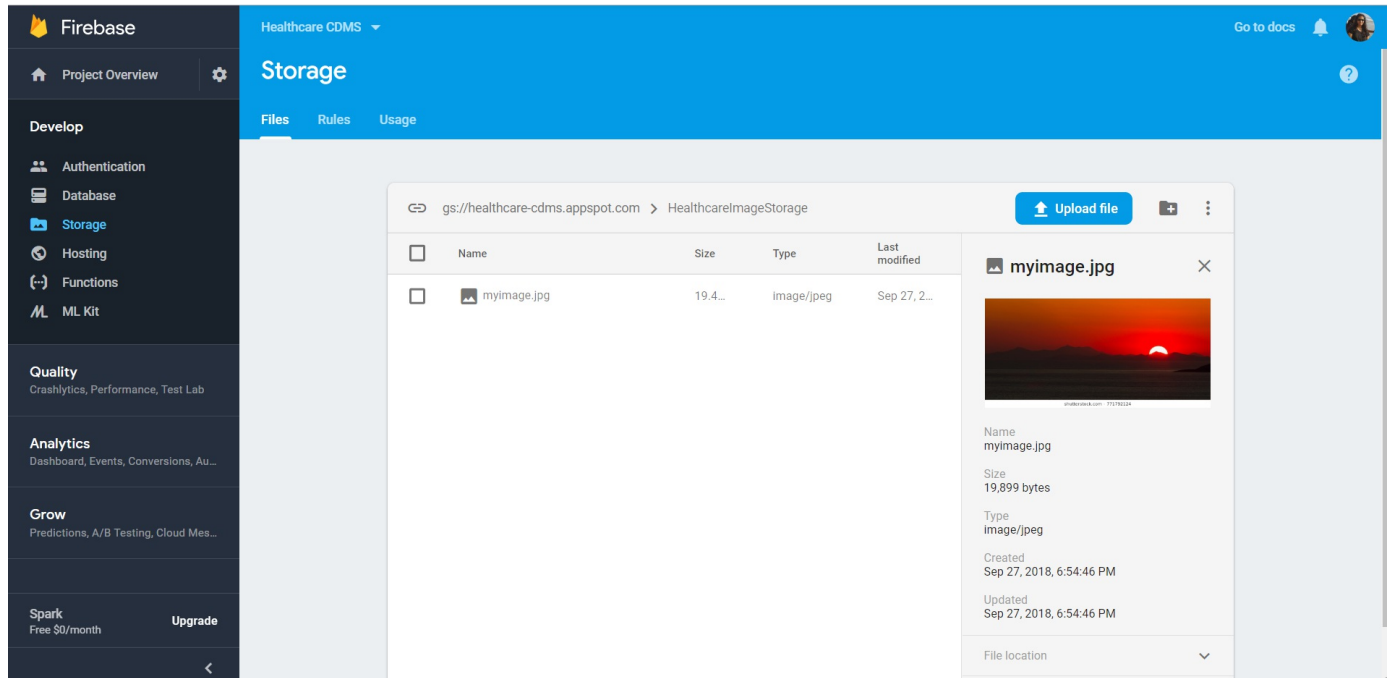
Spark Free \$0/month Upgrade

healthcare-cdms

- LN00si8LMSyylbvJ17m
  - Address: "Kansas City"
  - Email: "srnk2@mail.umkc.edu"
  - Name: "Sirisha"
  - Password: "siri"
  - Phone-no: "8167166899"
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  - Password: "nikki"
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  - Password: "raji"
  - Phone-no: "5643241234"

# Firestore Storage:

It is used to store the images.



## Project Management: Implementation Status Report: Work Completed:

Login Page is where user will be able to login with his username and password and if the user is new to the application he can register with registration page or he can login using Google.

The data of the user is stored in the Fire base database. The images which are uploaded by the user are stored in the Fire base Storage.

## Work Completed:

Implemented Registration and Login Page.

Fire base database to store user data

Fire base Storage to store images.

## **Responsibility and Time Taken:**

- Sirisha - Front End Design, Uploading user details in to Fire base database, (3 days)
- Nikitha - Uploading Images in Fire base Storage (3 days)
- Rajeshwari - oAuth Login and Design Documentation ,Research on APIs(3 days)
- Vineeth -Registration,Home Page and Login(3 days)

## **Work To be Completed:**

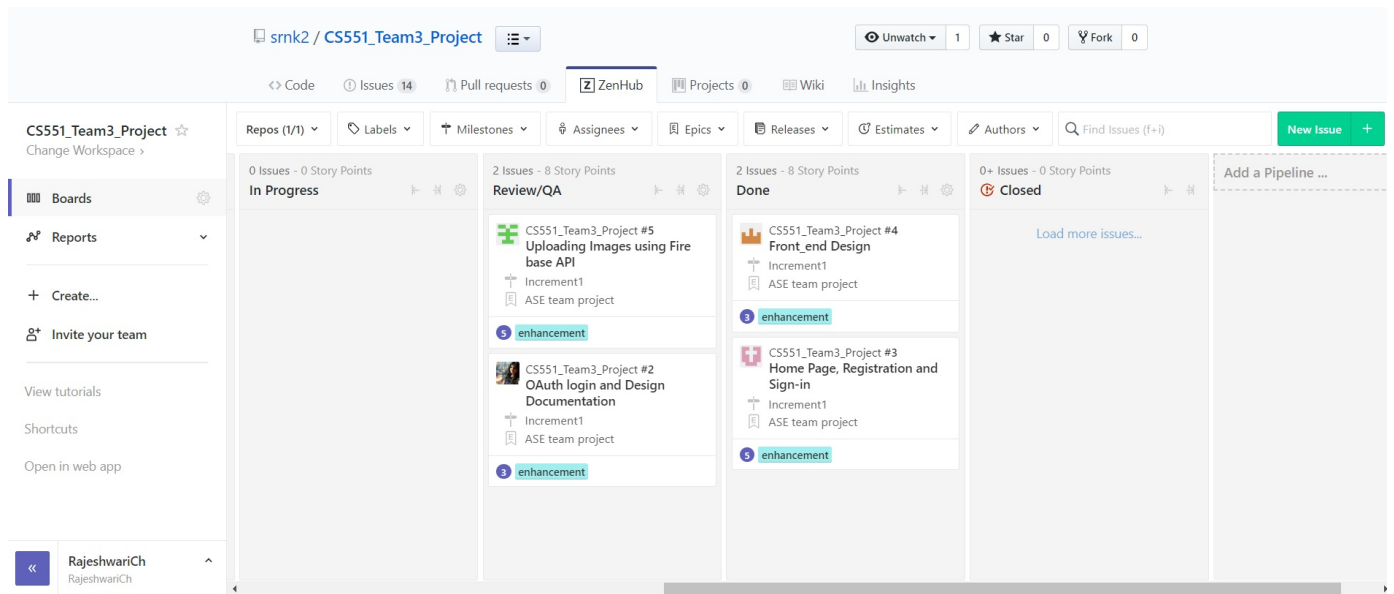
Meta data should be added to the uploaded images.

API that pulls details from the images(prescription).

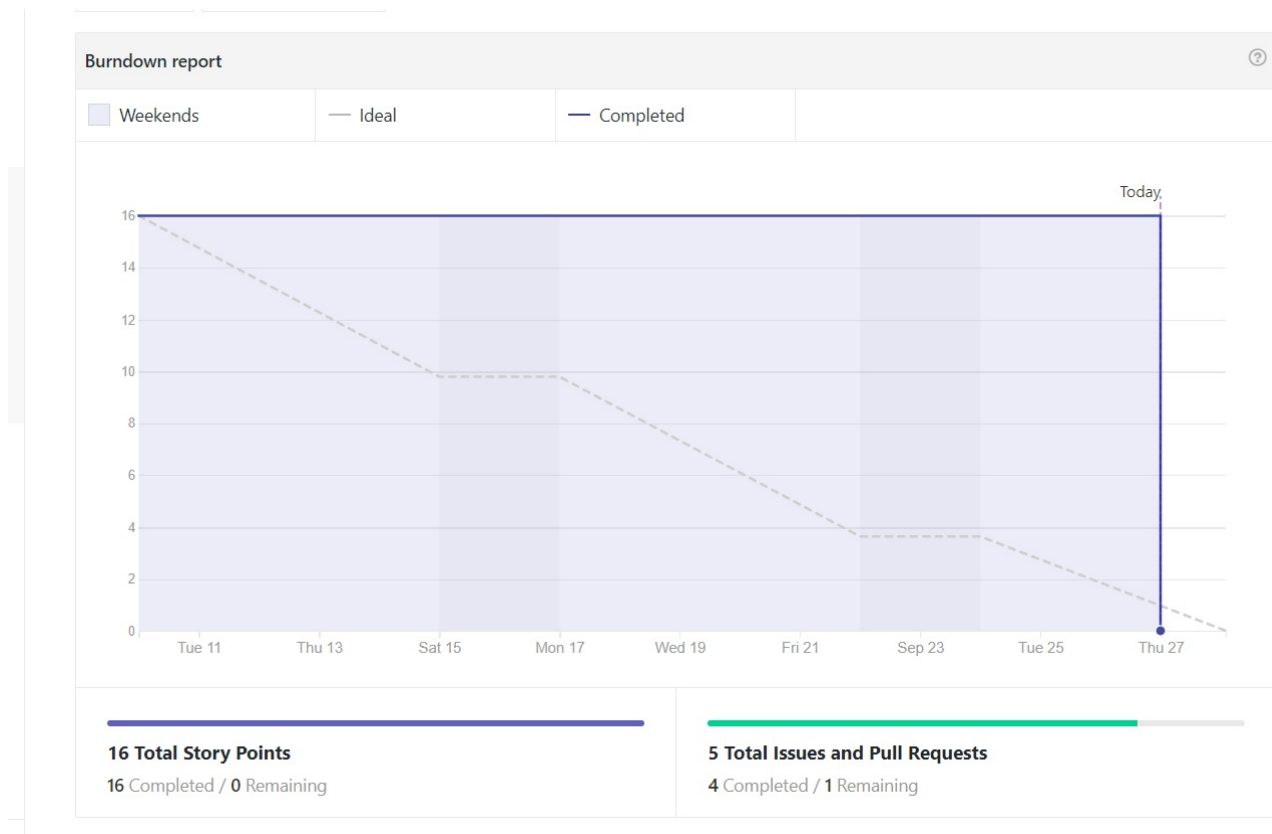
Search functionality that displays images based on the search criteria.

## **Zen Hub:**

**Story Board:**



# Sprint Burndown Chart



## Reference:

- <https://www.youtube.com/watch?v=F6UWb9FNnj4>

- <https://firebase.google.com/docs/web/setup?authuser=0>
- <https://www.w3schools.com/>