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Technical partner Details:

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Contribution:

Jyoshi Harish Chandra: Webservice 1(Clarifai API),Karma and Jasmine Test Cases and UI(50%),

Sai Nagarjuna Kolla: Webservice(Uclassify API),Login and register pages,YSlow.(50%)

Plugins used : 1.Clarifai plugin 2.Camera Plugin 3.Firebase plugin

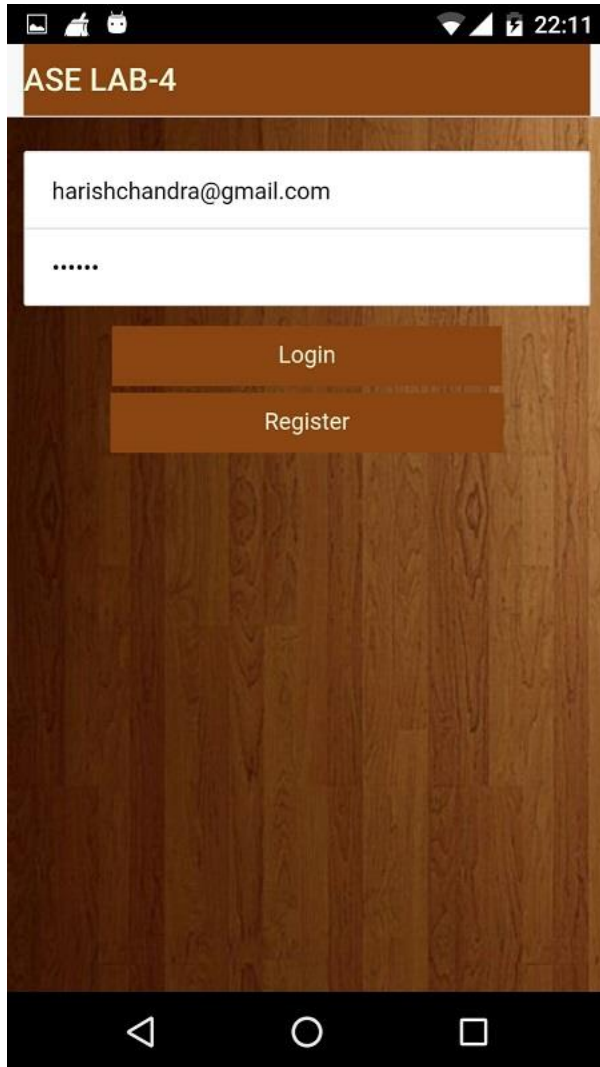
For this Lab Assignment we created an ionic application which have below features.

A. Login/Registration using Firebase Authentication.

- 1.Created an ionic application with blank template.
- 2.Created a login and register page with email and password as the inputs.
- 3.Created a project in the Firebase and authenticate with the login and register page created in ionic.
- 4.User can register with the email and password that will be stored in the firebase cloud.
- 5.After registering, the user can login with the email and password created and navigate to the Home Screen

LAB ASSIGNMENT-4

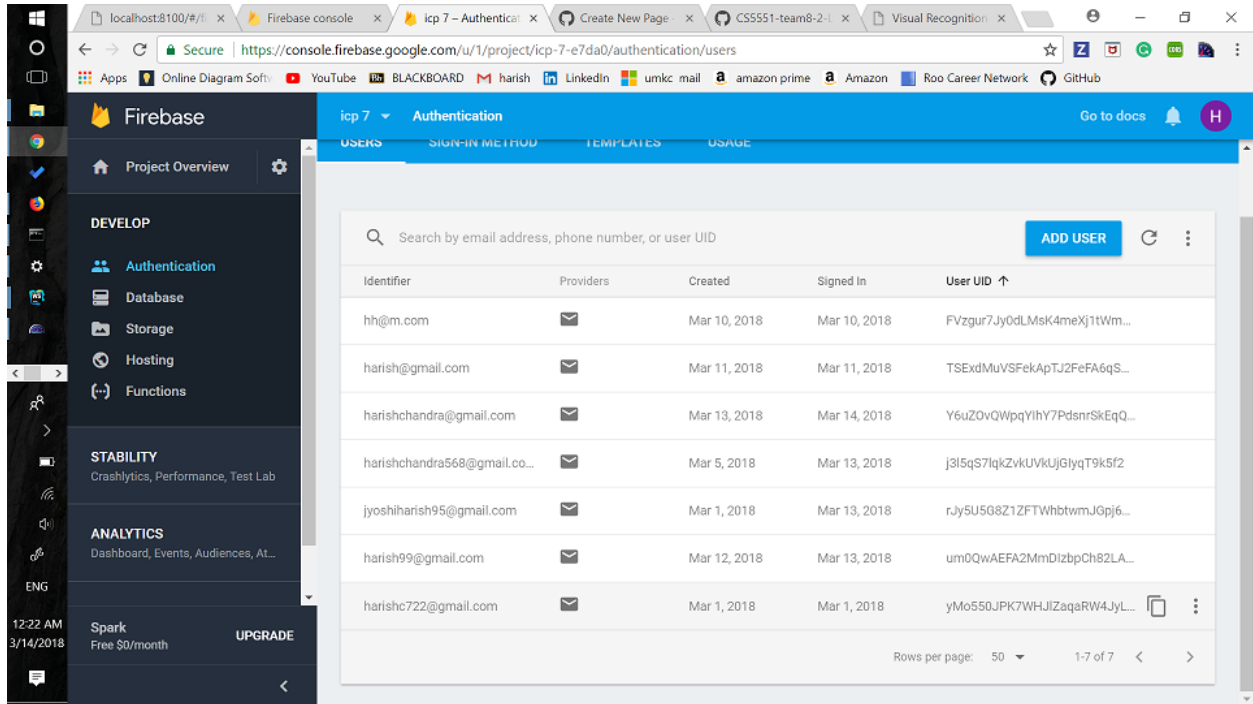
Login page



The screenshot shows a mobile application interface for a login page. At the top, there is a black status bar with icons for signal, Wi-Fi, and battery, and the time 22:11. Below this is a brown header bar with the text "ASE LAB-4". The main background is a wood-grain texture. A white login form is centered, containing two input fields: the first for the email address "harishchandra@gmail.com" and the second for a password, represented by six dots. Below the form are two brown buttons: "Login" and "Register". At the bottom is a black navigation bar with three white icons: a back arrow, a circle, and a square.

LAB ASSIGNMENT-4

Firebase Authentication



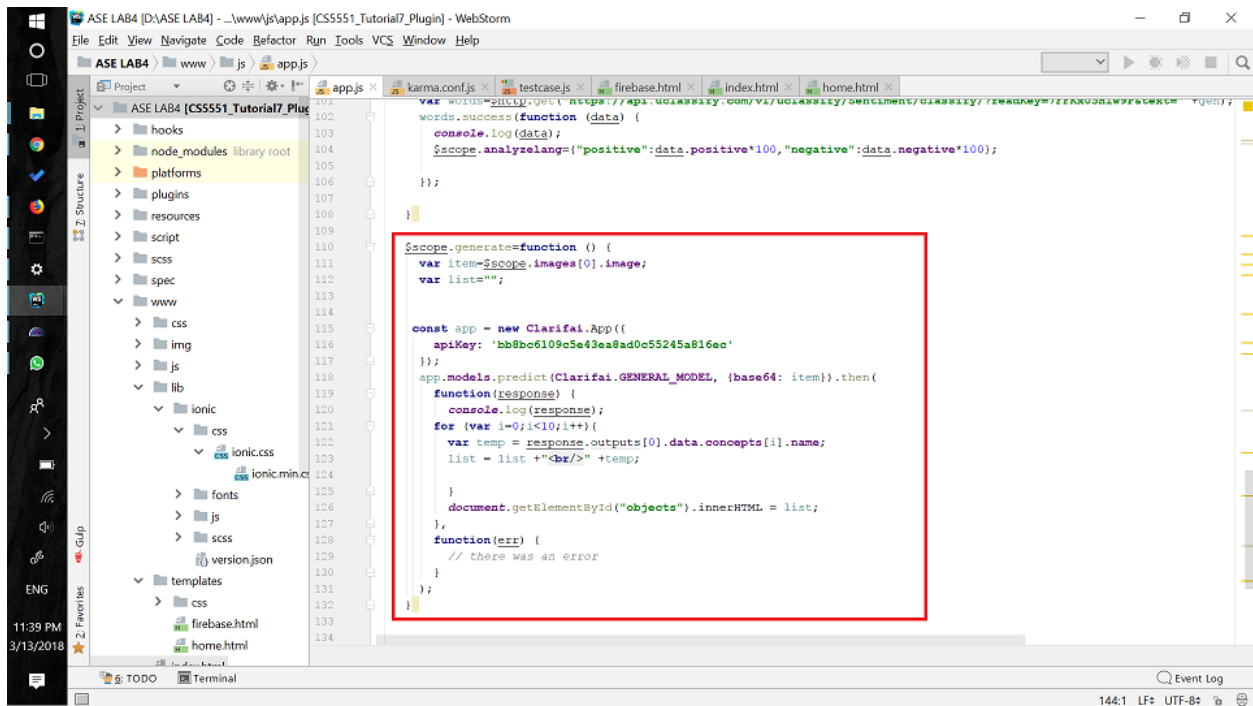
The screenshot displays the Firebase Authentication console interface. The left sidebar contains navigation options for Project Overview, DEVELOP (Authentication, Database, Storage, Hosting, Functions), STABILITY (Crashlytics, Performance, Test Lab), and ANALYTICS (Dashboard, Events, Audiences, At...). The main content area shows the 'Authentication' tab with a 'USERS' sub-tab selected. A search bar at the top of the user list allows searching by email address, phone number, or user UID. Below the search bar is a table listing users with columns for Identifier, Providers, Created, Signed In, and User UID. The table contains 7 rows of user data. At the bottom right of the table, it indicates 'Rows per page: 50' and '1-7 of 7'.

Identifier	Providers	Created	Signed In	User UID ↑
hh@m.com	📧	Mar 10, 2018	Mar 10, 2018	FVzgur7Jy0dLMsK4meXj1tWm...
harish@gmail.com	📧	Mar 11, 2018	Mar 11, 2018	TSExdMuVSFekApTJ2FeFA6qS...
harishchandra@gmail.com	📧	Mar 13, 2018	Mar 14, 2018	Y6uZ0vQWpqYihY7PdsnrSkEqQ...
harishchandra568@gmail.co...	📧	Mar 5, 2018	Mar 13, 2018	j3l5qS7lqkZvkUVkUjGlyqT9k5f2
jyoshiharish95@gmail.com	📧	Mar 1, 2018	Mar 13, 2018	rJy5U508Z1ZFTWhbtwmJGpj6...
harish99@gmail.com	📧	Mar 12, 2018	Mar 13, 2018	um0QwAEFA2MmDizbpCh82LA...
harishc722@gmail.com	📧	Mar 1, 2018	Mar 1, 2018	yMo550JPK7WHJlZaqRW4JyL...

B. Web service 1 using Clarifai API

- 1.This web service is used to visualize the images requested to API.
- 2.User can uplaod a image using the camera in the mobile.
- 3.Once image is uploaded, we can see the image on the home screen
- 4.We can get the prediction of the image by requesting the base64 format of the image to the Clarifai Rest API
- 5.Once the request has made, the API returns top 10 results in the form of JSON

Code snippet of Clarifai API

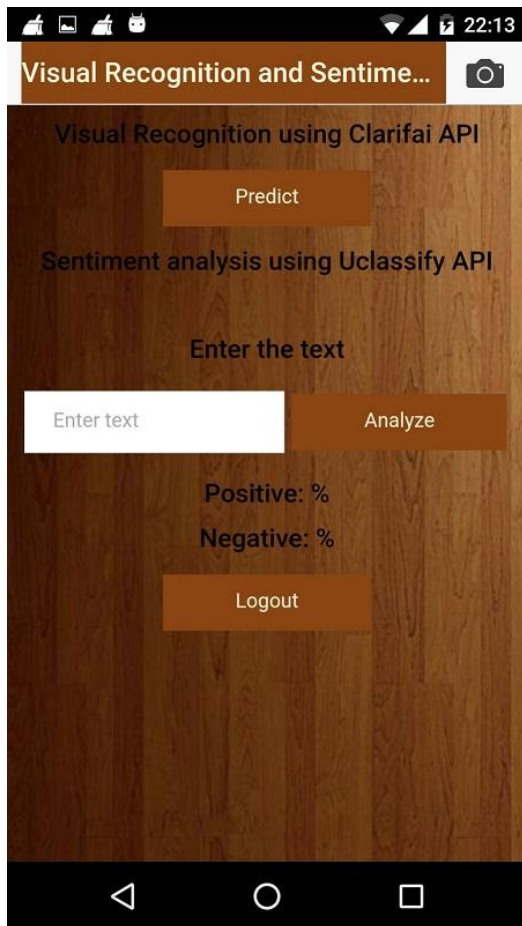


```

102 var words = "Clarifai API";
103
104 words.success(function (data) {
105   console.log(data);
106   $scope.analyzelang={positive:"data.positive*100",negative:"data.negative*100"};
107 });
108
109
110
111 $scope.generate=function () {
112   var item=$scope.images[0].image;
113   var list="";
114
115   const app = new Clarifai.App({
116     apiKey: 'bb8bc6109c5e43ea8ad0c55245a816ec'
117   });
118   app.models.predict(Clarifai.GENERAL_MODEL, {base64: item}).then(
119     function(response) {
120       console.log(response);
121       for (var i=0;i<10;i++){
122         var temp = response.outputs[0].data.concepts[i].name;
123         list = list + "<br/>" + temp;
124       }
125       document.getElementById("objects").innerHTML = list;
126     },
127     function(err) {
128       // there was an error
129     }
130   );
131
132
133
134

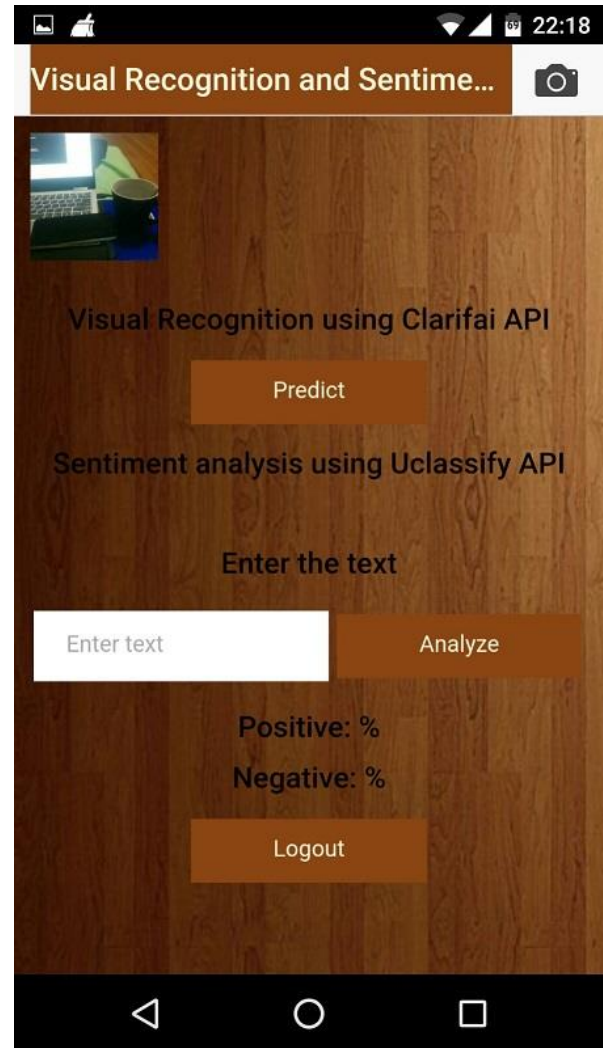
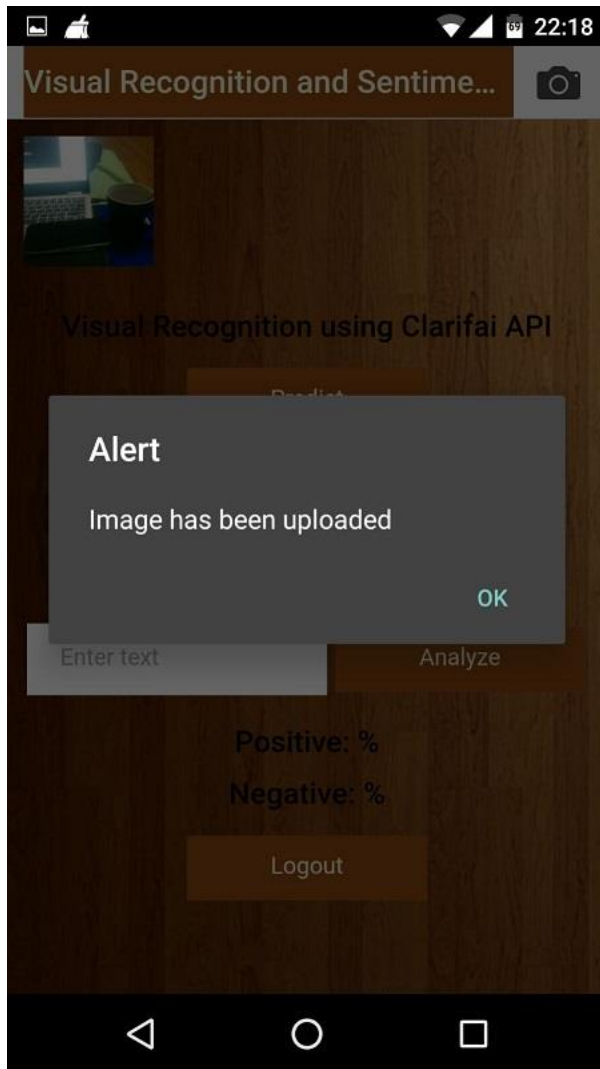
```

Home page and Camera access



LAB ASSIGNMENT-4

Image upload alert and Image uploaded



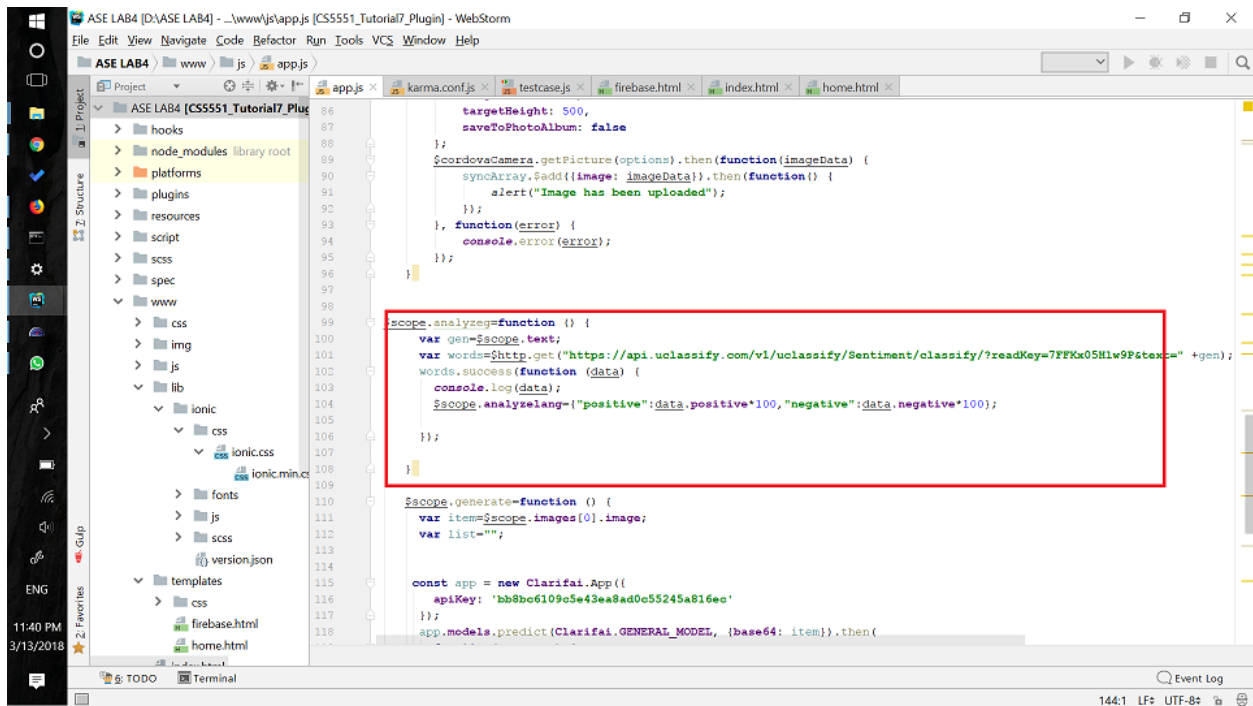
Clarifai prediction



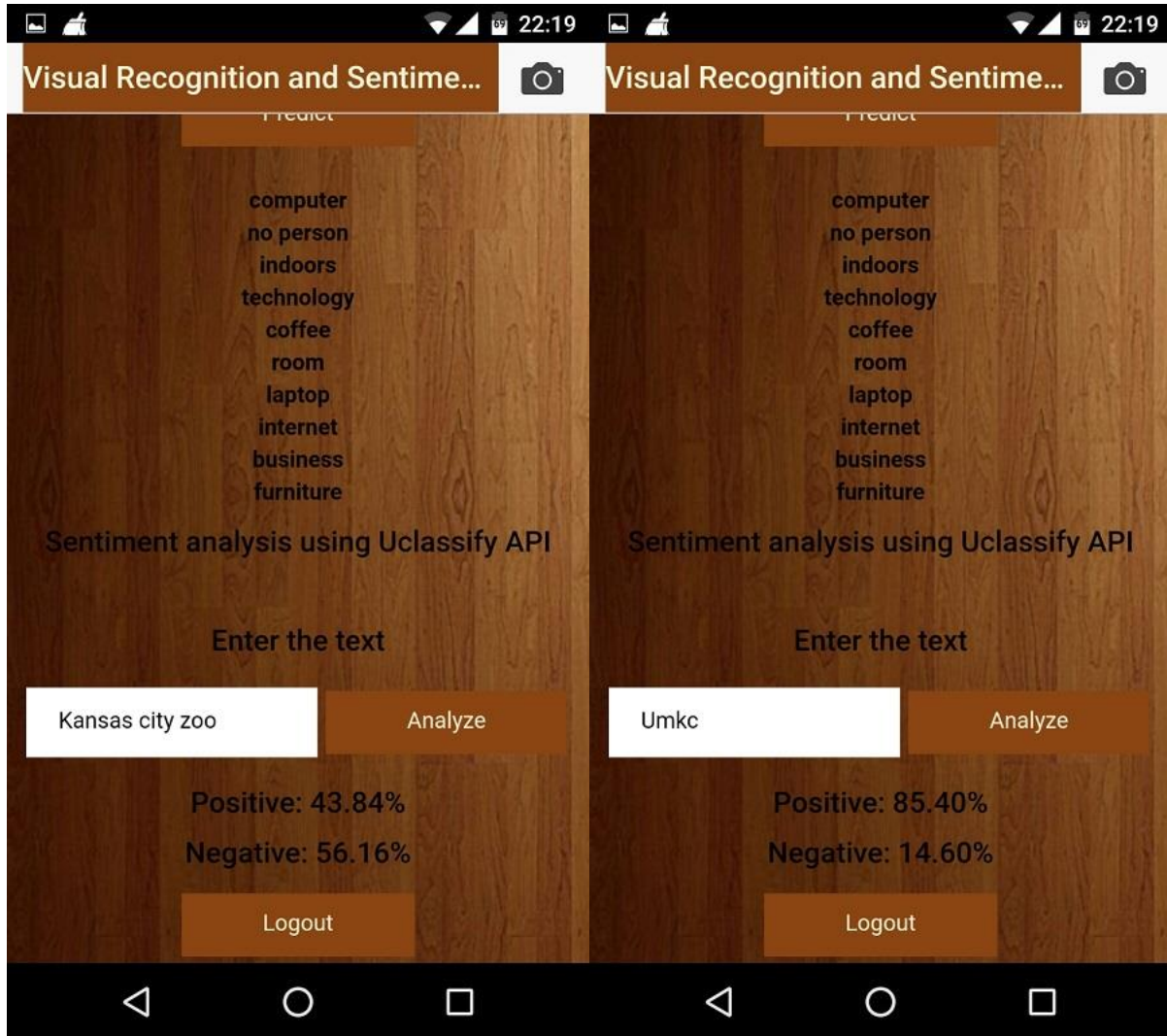
C.Web service 2 using Uclasssify API

- 1.This web service is used to get the sentiment analysis.
- 2.User enters the text in the text field and clicks on the analyze button.
- 3.Once the request is made, the API returns the postive and negative percentage of the text entered.

Code snippet of Uclasssify API



Results when various inputs are entered



D.Plugins Used:

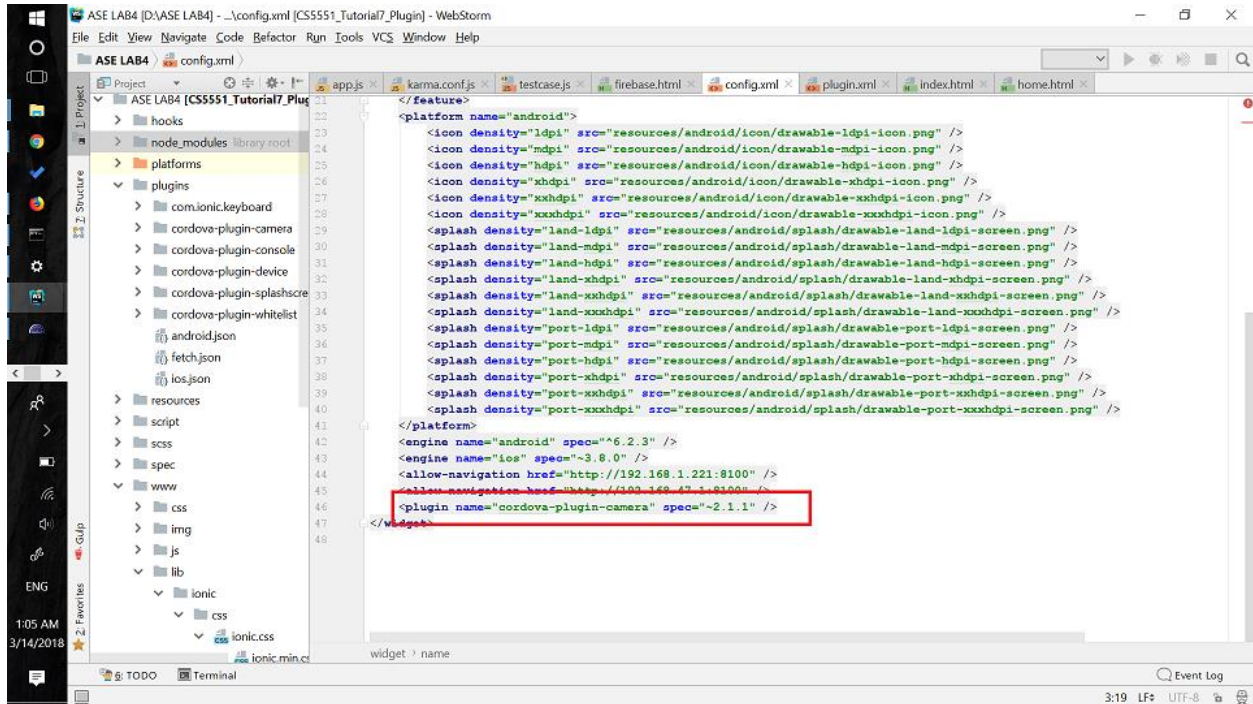
1.Clarifai plugin is installed via npm using npm install clarifai command

The first screenshot shows a terminal window in an IDE (ASE LAB4) where the command `npm install clarifai` has been executed. The output shows that the `clarifai@2.6.0` package was successfully installed, updating 1 package in 12.554s. The terminal also displays warnings about missing peer dependencies for `@ionic-native/camera@4.5.3` and `imageapp@1.0.0`.

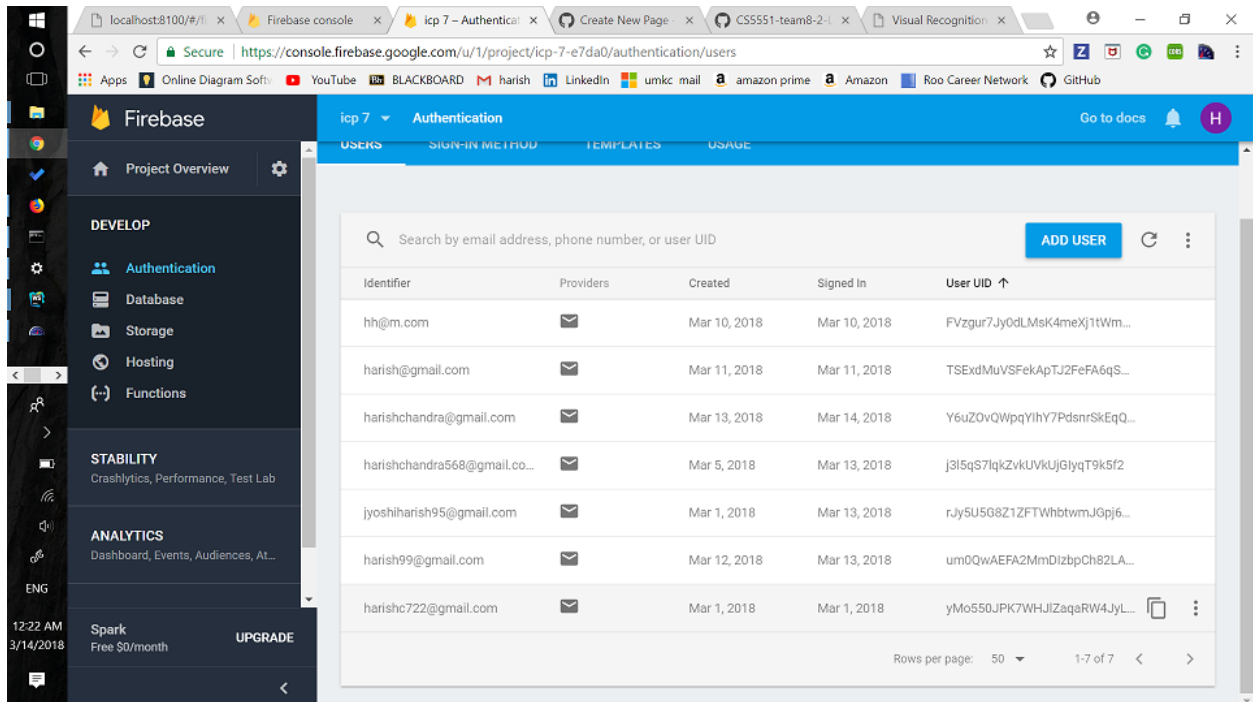
The second screenshot shows the `plugin.xml` file in the IDE, which is part of the `clarifai` plugin. The file contains configuration for the `Device` feature, including source files for `Device.java`, `Device.h`, `Device.cpp`, and `DeviceProxy.js`. The configuration is organized into platform-specific sections for `ubuntu`, `ios`, and `blackberry10`.

LAB ASSIGNMENT-4

2.Camera Plugin is used in this assignment which we are going to use in our project



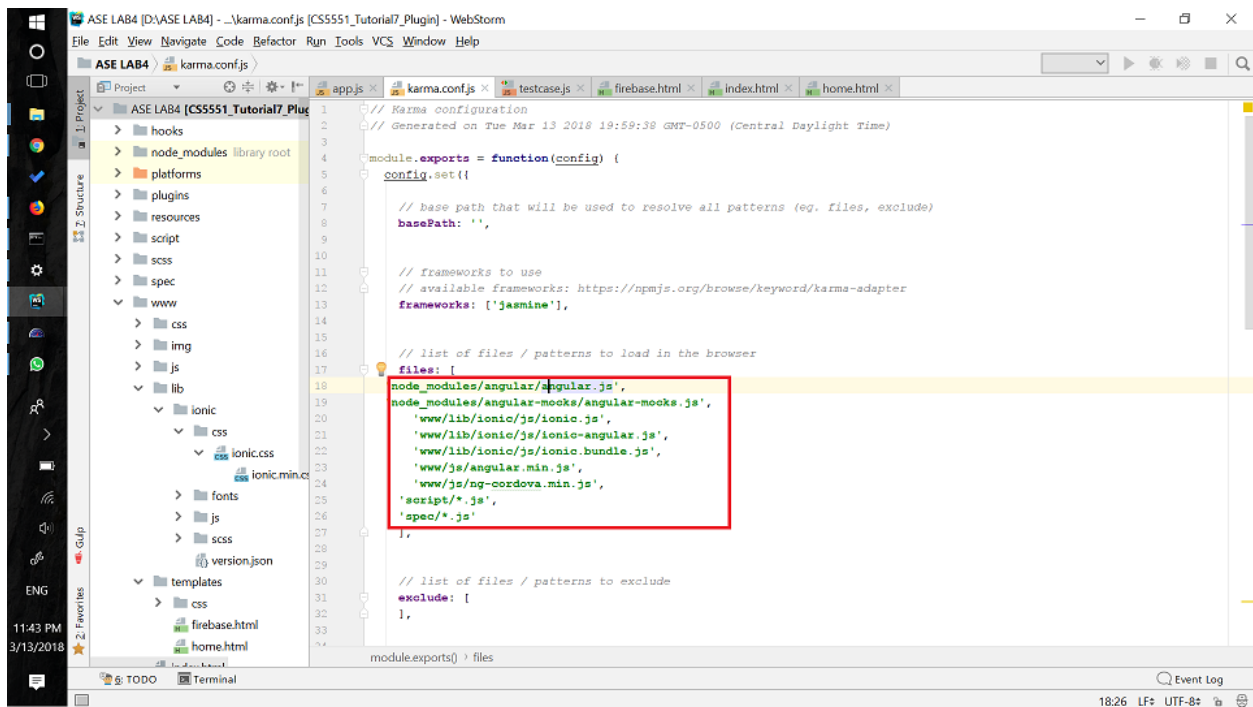
3. Firebase plugin is used in this assignment which we are going to use in our project



E.Karma and Jasmine Unit test cases

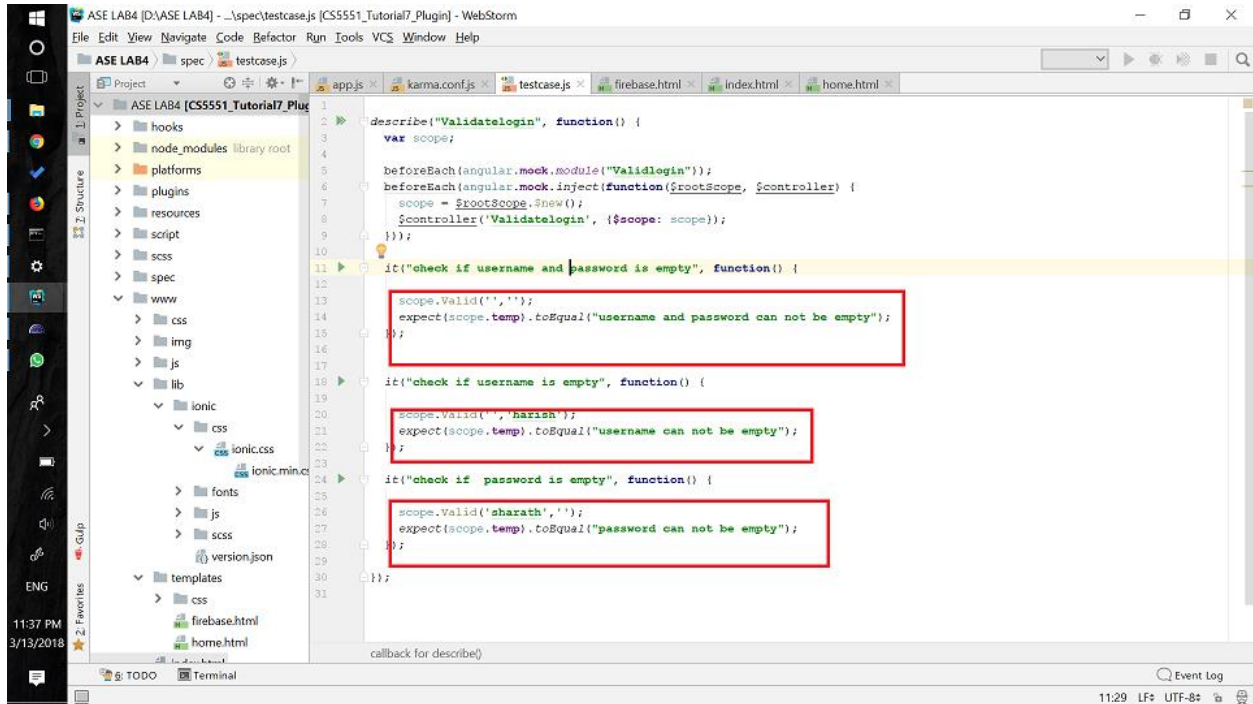
- 1.We have written 3 unit test cases for the login page using karma and jasmine framework.
- 2.Navigate to the Ionic project and go to the node_modules folder.
- 3.Install the karma and jasmine modules.
- 4.Now create karma.conf JS file using.
- 5.Add the files of source and test cases into the karma config file.
- 6.Now create three test cases in angular js file.
- 7.We have created test cases for username and password to check if the username is empty, password is empty and both username , password is empty.
- 8.Test cases are executed through the karma.conf.js file and results are executed in the console.

karma.config page

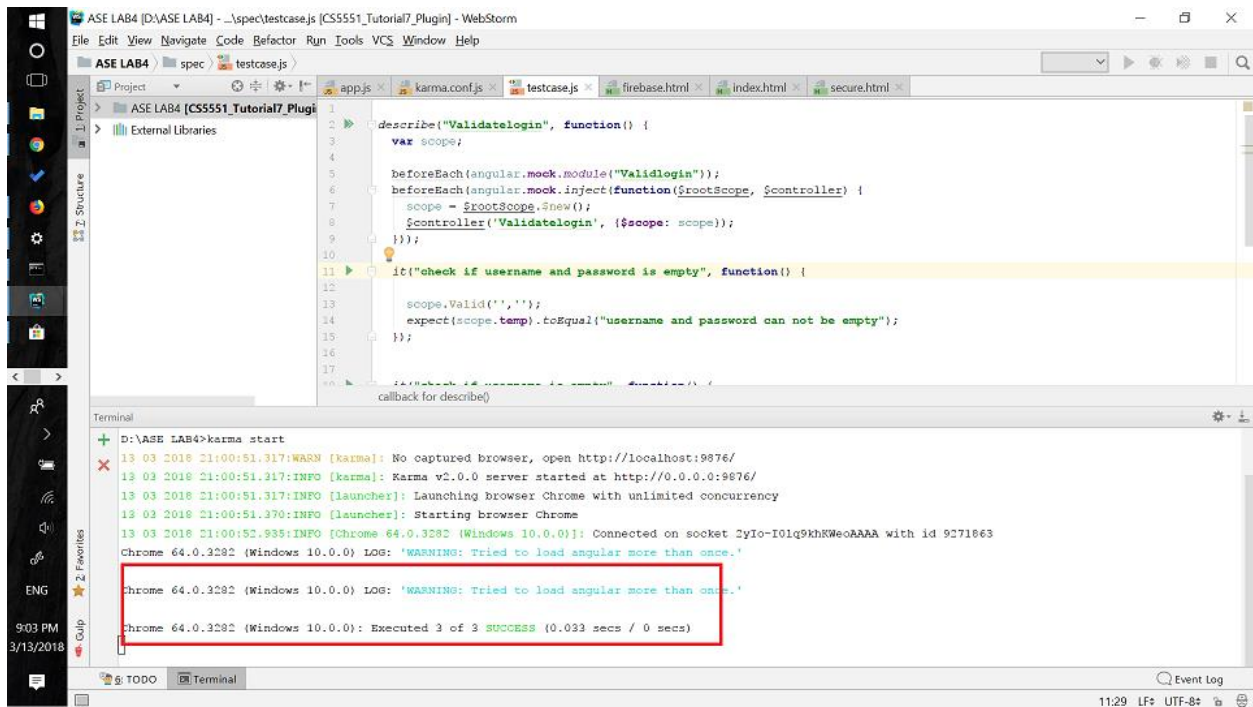


LAB ASSIGNMENT-4

Test cases js page



Execution of test cases



F.Performance Testing using YSlow

1.Installed the YSlow extension for chrome browser and started the application.

2.We can see the results, grades and statistics of the application from the Yslow.

Graded C in Login page

chrome-extension://ninejcohidippngpapiilnmkgllmakh/yslow.html#12

Home Grade Components Statistics

Rulesets YSlow(V2) Edit Help

Grade C Overall performance score 71 Ruleset applied: YSlow(V2) URL: http://localhost:8100/#/firebase

ALL (23) FILTER BY: CONTENT (6) | COOKIE (2) | CSS (6) | IMAGES (2) | JAVASCRIPT (4) | SERVER (6)

Tweet Share

Grade	Rule
D	Make fewer HTTP requests
F	Use a Content Delivery Network (CDN)
A	Avoid empty src or href
F	Add Expires headers
F	Compress components with gzip
B	Put CSS at top
E	Put JavaScript at bottom
A	Avoid CSS expressions
n/a	Make JavaScript and CSS external
A	Reduce DNS lookups
E	Minify JavaScript and CSS
A	Avoid URL redirects
A	Remove duplicate JavaScript and CSS
A	Configure entity tags (ETags)
A	Make AJAX cacheable
A	Use GET for AJAX requests
A	Reduce the number of DOM elements
A	Avoid HTTP 404 (Not Found) error
A	Reduce cookie size
F	Use cookie-free domains
A	Avoid AlphaImageLoader filter

Grade D on Make fewer HTTP requests

This page has 11 external Javascript scripts. Try combining them into one.
This page has 3 external stylesheets. Try combining them into one.

Decreasing the number of components on a page reduces the number of HTTP requests required to render the page, resulting in faster page loads. Some ways to reduce the number of components include: combine files, combine multiple scripts into one script, combine multiple CSS files into one style sheet, and use CSS Sprites and image maps.

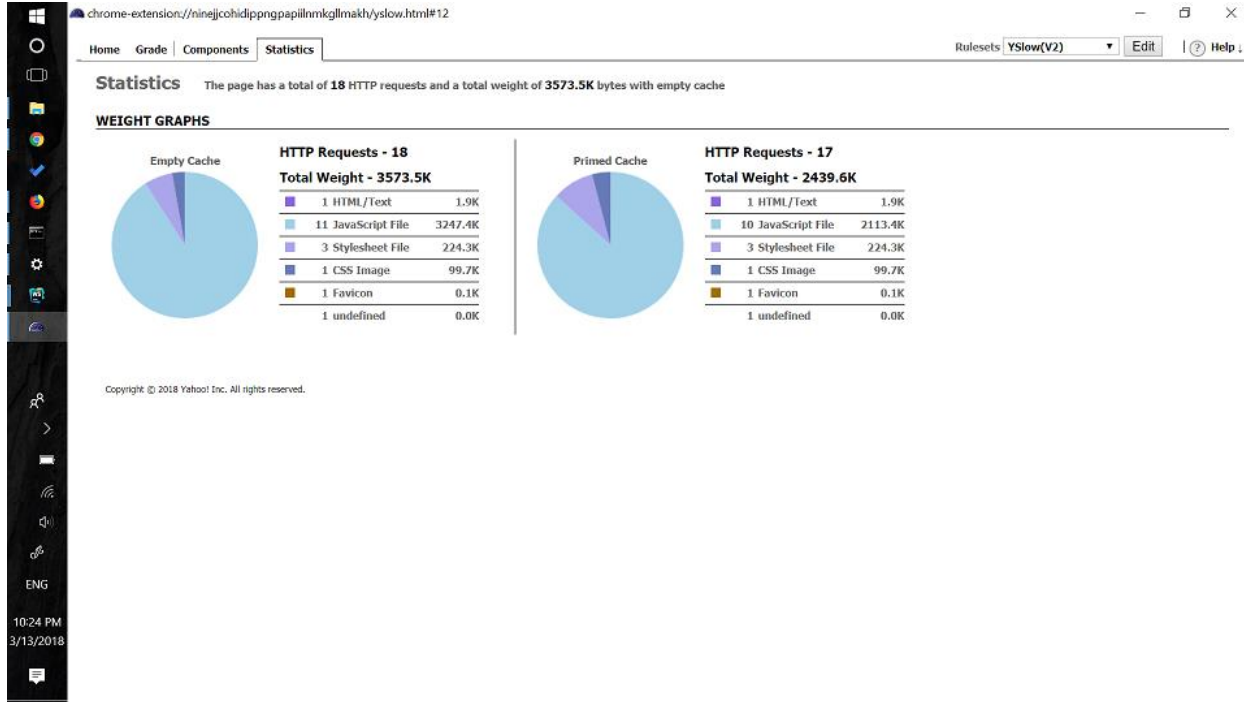
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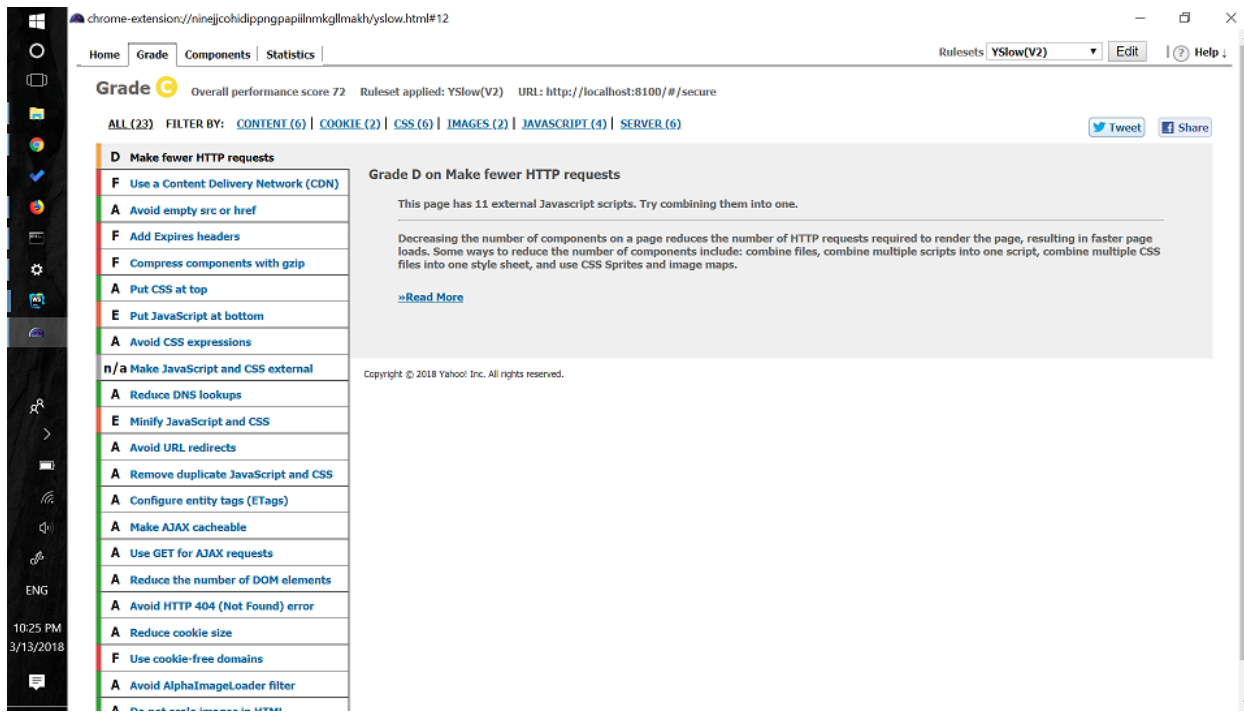
chrome-extension://ninejcohidippngpapiilnmkgllmakh/yslow.html#

LAB ASSIGNMENT-4

Login page statistical report

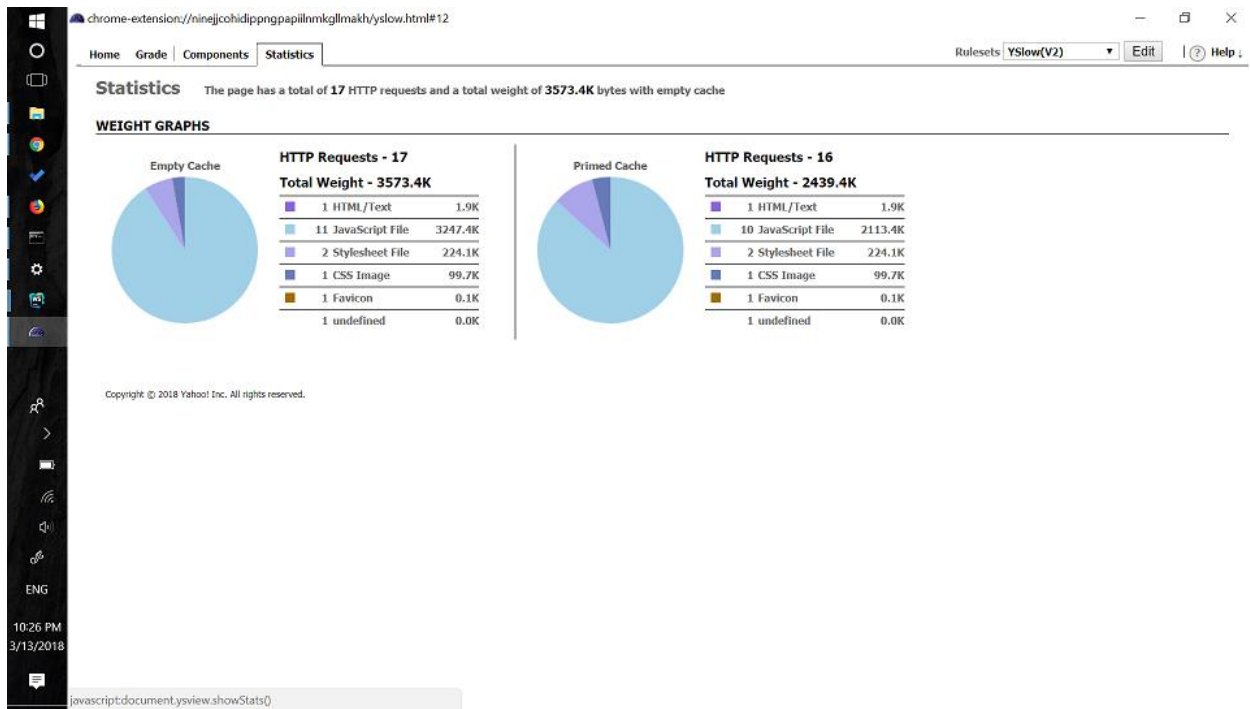


Graded C in home page



LAB ASSIGNMENT-4

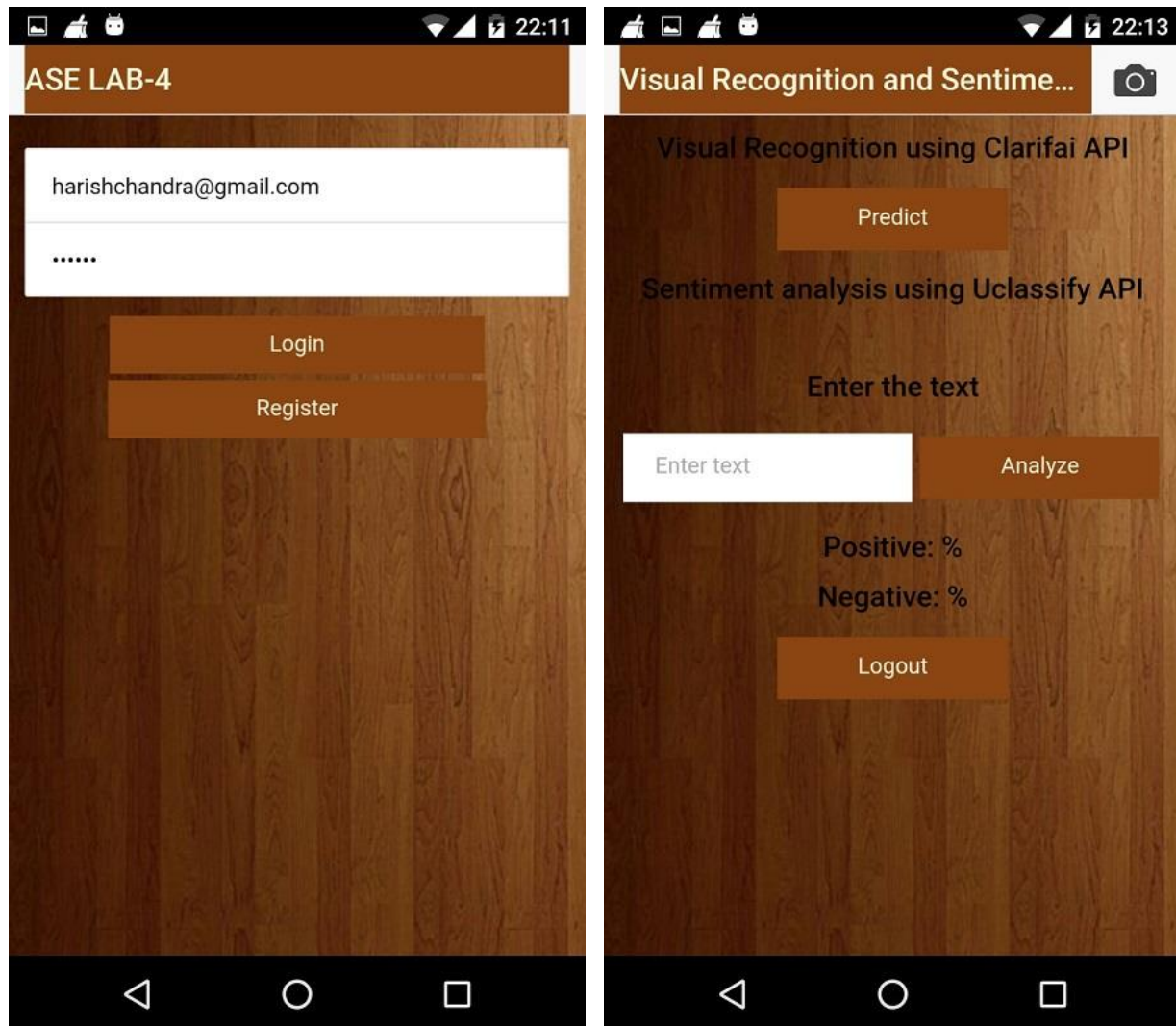
Home page statistical report



G. Application Deployment

1.The application is deployed and tested on both Web application and Android application

Screenshots of application in mobile



LAB ASSIGNMENT-4

Screenshots of application in web

