



EduFun

# 1. Introduction

The most popular method of learning in current scenario is learning through books, kids always find pictures in books very attractive and probably remember the content in the pages with pictures better than those with none. This is the proof that some kind of visual markers or pictures help remember much more easily. The current generation of kids spend more time on tablets or laptops rather than spend their spare time reading story books or on coloring books. They show much more interest in interactive gaming and fun, hence they remember the story of Frozen or Zootopia rather than remember the chapters in their English textbook.

The Y-Generation of kids have constant access to digital media hence it is easier to teach them through gaming and interactive media than through books. This change from conventional books to non-conventional digital interactive media is a drastic change and will help in revolutionizing the education system in the future.

Taking this into consideration we aim to create a learning platform for school going kids to help them in tasks like counting numbers and understanding simple concepts. The idea is to combine education and gaming, so as to give them a medium to learn and spend their spare time on. One more motivation is to let them explore subjects on their own rather than being spoon fed by teachers or parents. Thus, we came up with this idea to provide kids an interactive platform where they can learn stuff with a dash of fun.

## **2. Project Goal and Objectives**

### **2.1 Overall Goal:**

The goal of EduFun is to mix fun and education together in such a way so as to make the process of learning a fun filled process, hence the name EduFun. EduFun is a platform of educational games on which kids can learn while having fun and playing games, never getting bored in the process of learning. With games like counting objects, balancing and mass estimation, the projects aims at teaching kids various concepts of physics and math making it easy for them to making learning easy. With different concepts applied in various ways EduFun aims at teaching kids to apply the concepts in real life rather than just learn it. For example, let's take the concept of a see-saw which can also be used to teach the concept of fulcrum. Taking this example EduFun tries to integrate difficult concepts into easy examples.

### **2.2 Specific Objective:**

The Specific objective of the project is to teach kids simple math and physics concepts and make it easy for them to learn and apply.

### **2.3 Specific Features:**

2.3.1 Interactive Digital Media

2.3.2 Simple Games to Understand Concepts

2.3.3 Quizzes – Scoring and timed

2.3.4 Scoreboard

2.3.5 Puzzles

## **2.4 Significance:**

The apps currently available in the market are either an educational quiz or games for entertainment. In this application, we aim to combine both games interaction and animation to make the process of learning an entertainment filled pastime. The availability of such games encourages children to learn more efficiently and make it a fun filled experience. The app includes various subjects and levels to encourage them to understand the concept and apply it with ease.

### **3.Features:**

EduFun includes education with interactive media. Education involves Mathematics, Physics, Astrology. Each Subject gives the basic knowledge of the subject and also tests the user what he learned so far. This is achieved by conducting the Quiz and showing the score to user. User should answer in limited amount of time.

- Interactive Gaming: User can enjoy these types of games instead of studying the books and can also grasp the subject knowledge easily in less span of time. This saves a lot of time.
- Mathematics: Most of the children feel hard to handle with numbers and to understand the basic concepts in school-level as this is the most important. EduFun makes this easy by showing how to understand them.
- Physics: Physics give the most trivial laws in our daily life which plays a key role in the natural world. This is explained by giving the most basic information to them. So, that they can go on easily in school.
- Chemistry: Chemistry is one of the branch of physical science which deals with the structures, composition and properties of matter. The interaction between atoms and chemical compounds with the help of intermolecular forces.
- Astrology: Children are interested about galaxy, stars, moon and sun. They want to know about them but the information is not included in curriculum, here we show the live satellite transmission how earth revolves around sun.

#### **Challenges Faced in 2<sup>nd</sup> Increment:**

- How to store the registration details data with validation
- Menu Page includes Quiz, Game.
- Quizzes in Mathematics, Physics and Chemistry
- Live transmission from ISS satellite in YouTube video.
- Three API's Implementation, they are Combination of YouTube API, ISS API and also Mongo DB API for storage of data.

#### **Total Feature implemented so far:**

- Quizzes.
- Live Satellite transmission.
- Log In and Register Pages.

#### **Features to be Implemented:**

- Statistical Data of User to be Displayed.
- Leaderboard.
- Separate Login for Parent and User.
- Unity Game

## Improvements:

All the modules have been Improved

## 4.Existing Services:

We used an existing Login template and changed it according to the convenience to our app like including the Facebook Oauth 2.0. To store the register details, we used Mongo DB database which can be used to store the data using API key and providing access to it. Implementing quizzes on basic concepts. Web service we used here is International Space Station(ISS) Live streaming video API using YouTube API key.

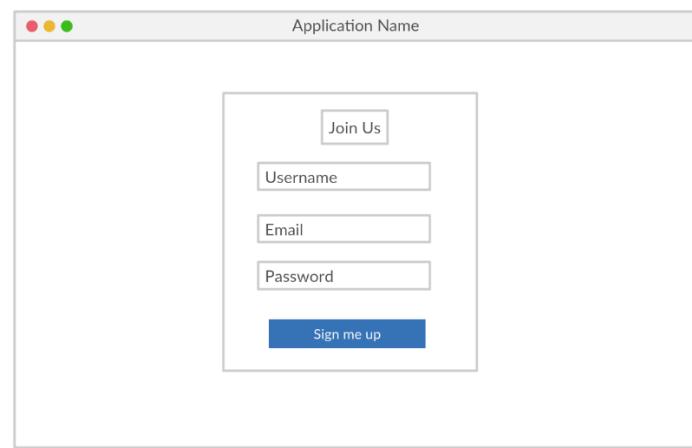
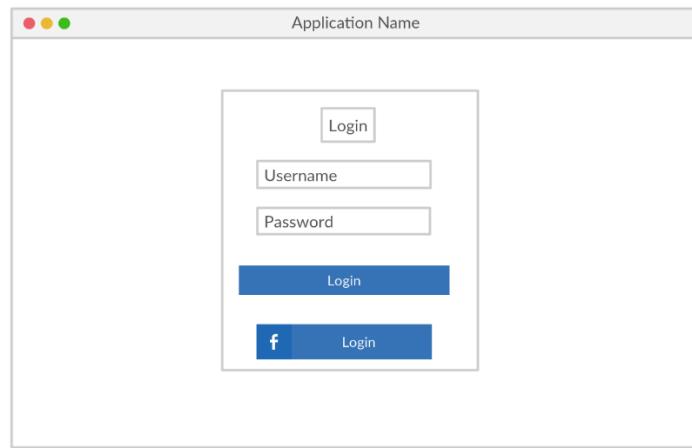
### List of API's Used:

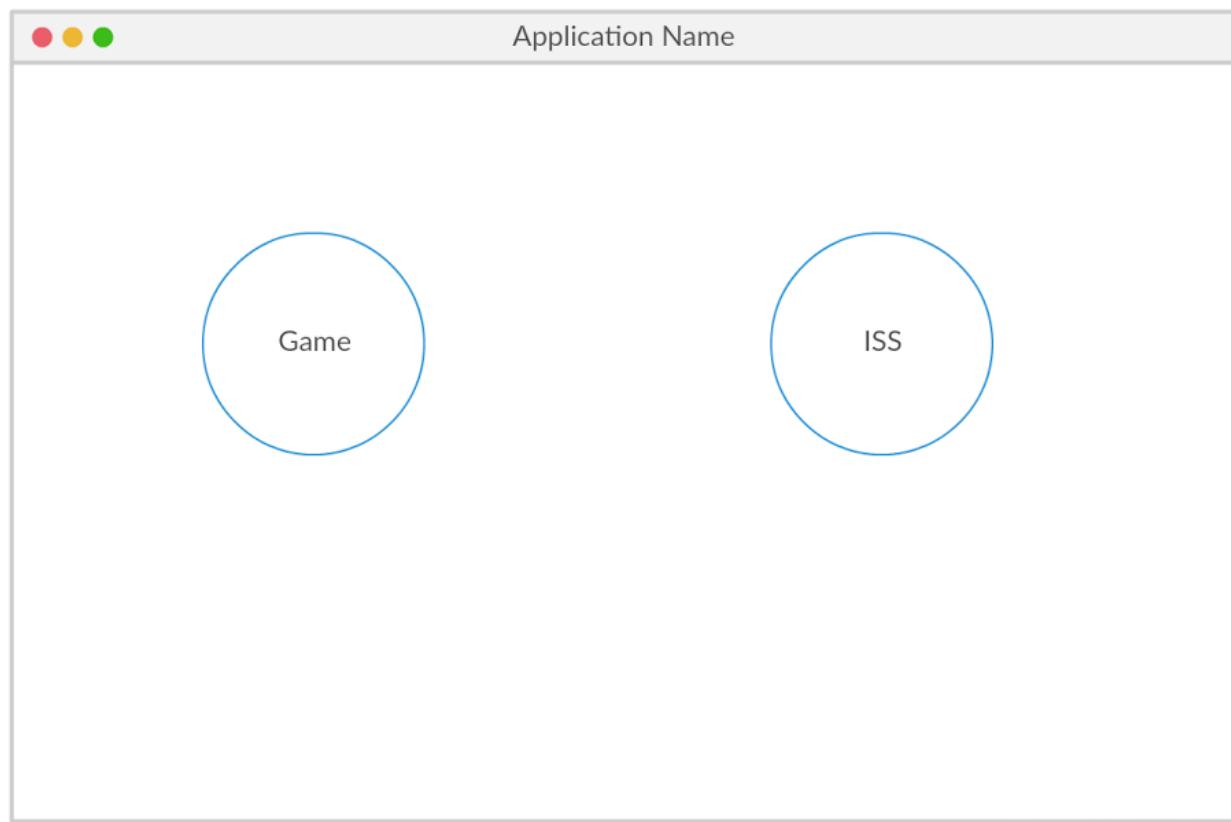
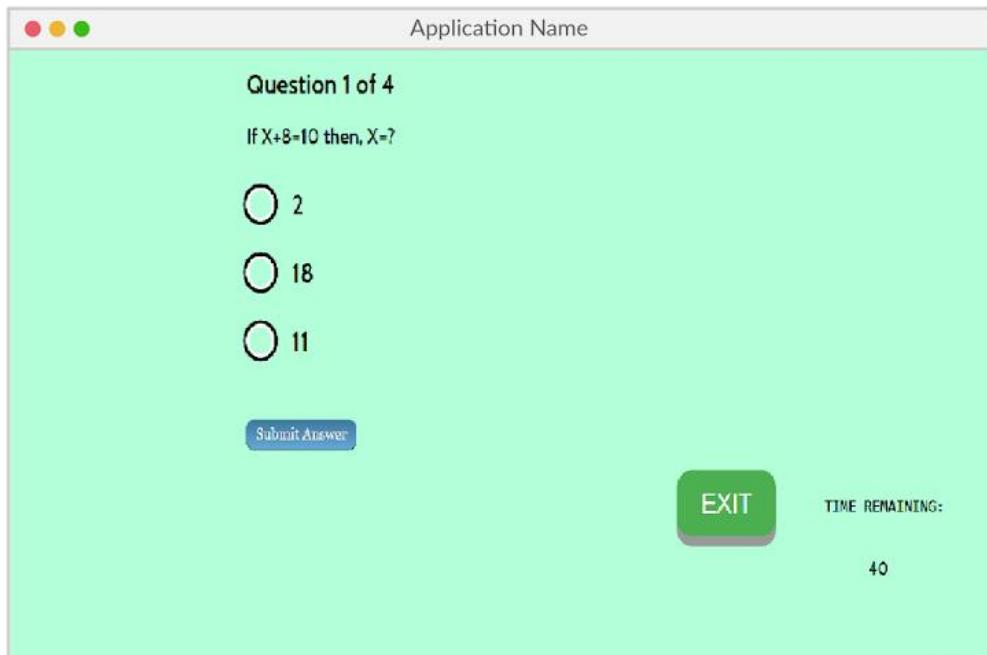
- ISS API key
- YouTube API key
- Facebook API Key

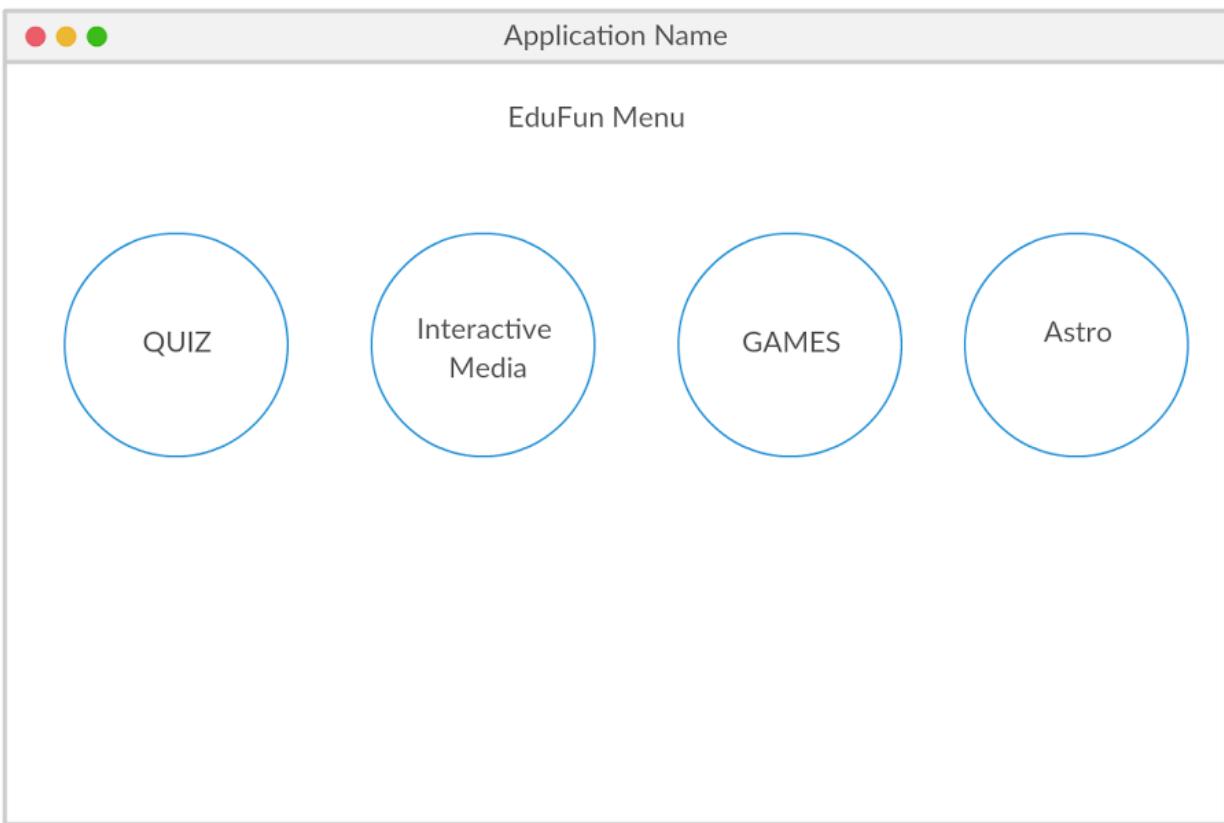
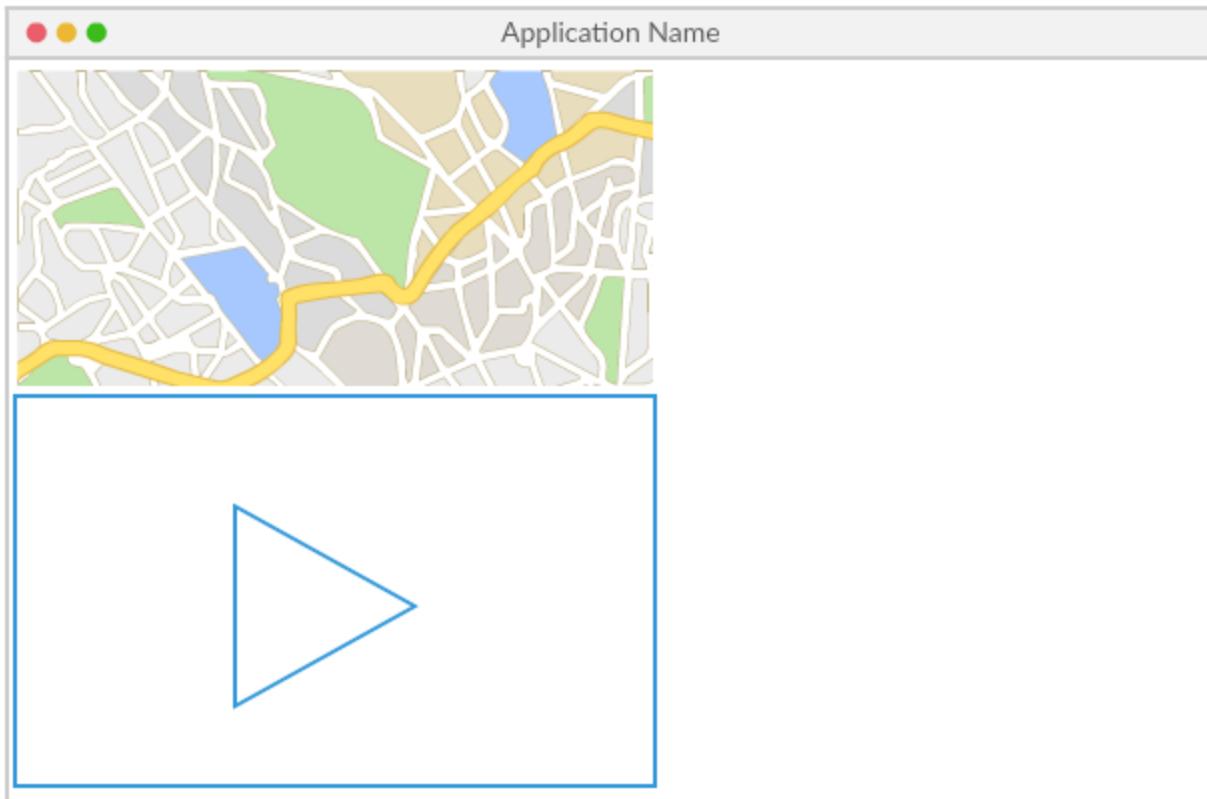
## **5.Detail Design of features:**

### **5.1 Detail Design of Features**

#### **5.1.1 Wireframes and Mockups**





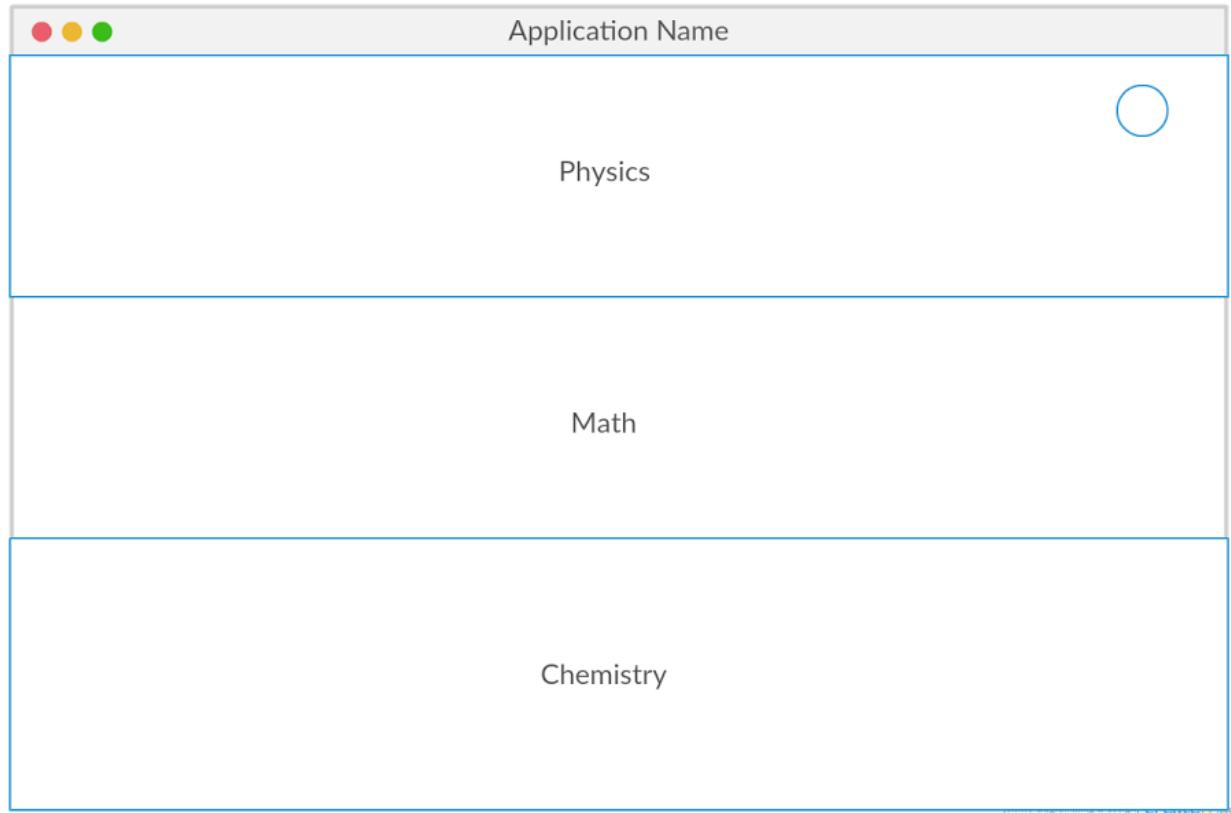


The screenshot shows a digital application window with a light gray header bar. In the top-left corner of the header are three small colored circles (red, yellow, green). To the right of these is the text "Application Name" and below it, the word "Physics". On the far right of the header is a blue circular icon. The main content area of the window has a white background and contains the following text:

Force of Attraction between Bodies

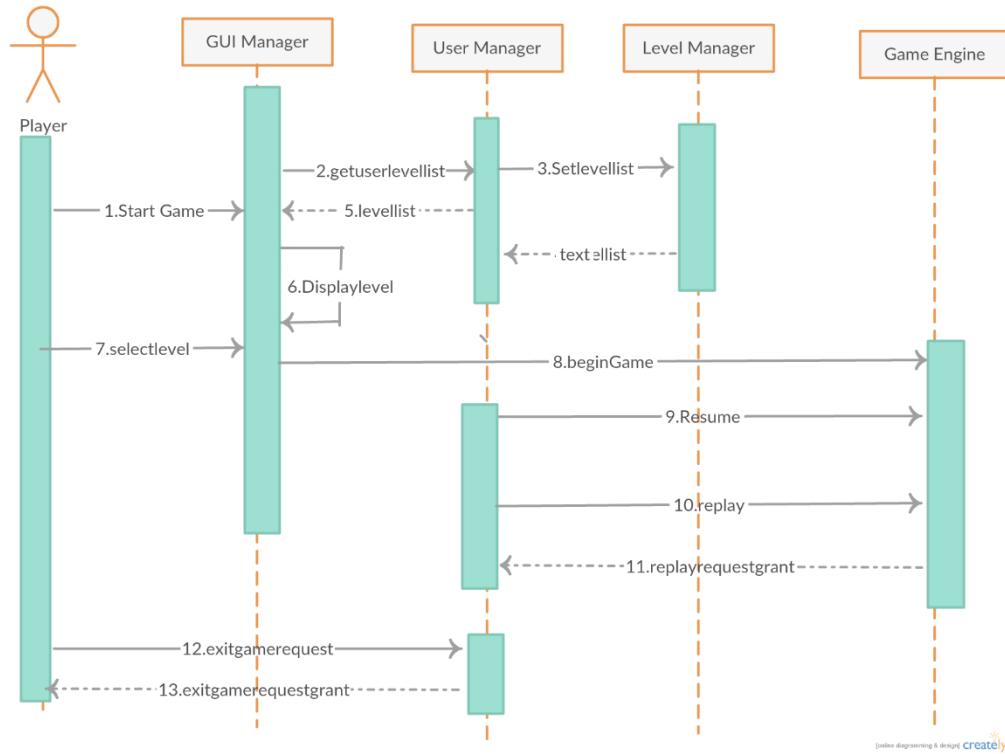
A force of attraction is any type of force that causes objects to come together, even if those objects are not close to or touching each other. The first force that causes attraction is the gravitational force. According to Newton's Universal Law of Gravitation every object in the universe attracts every other object in the universe. Gravity is an attractive force since any object with mass will experience a force of attraction from other objects with mass. Gravity is the reason for the statement 'What goes up must come down.' The second force that can cause attraction is the electric force, also known as the electrostatic force. While gravity affects objects with mass, electrostatic forces affect objects that have charge. Charge is determined by the number of electrons and protons in an object. Most objects are electrically neutral, which means they have an equal amount of electrons, whic

[Take a Quiz](#)

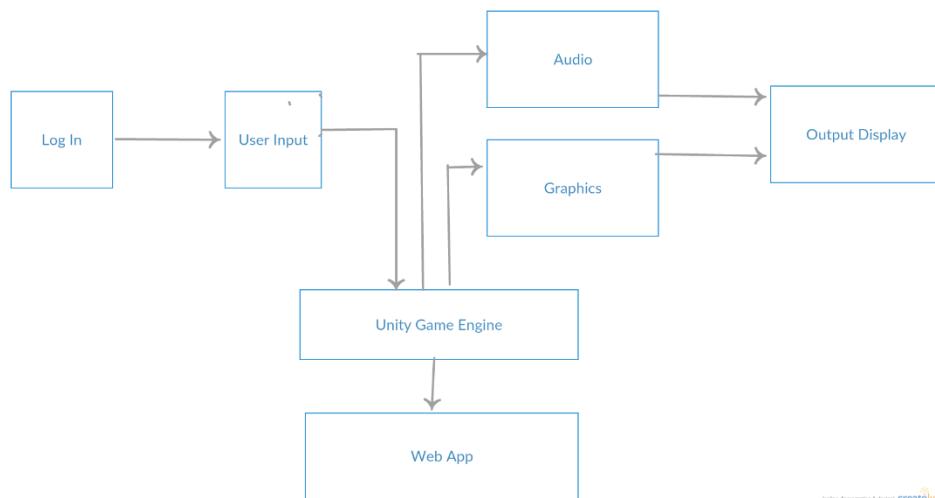


## 5.2 Architecture diagram/Sequence diagram/Class diagram

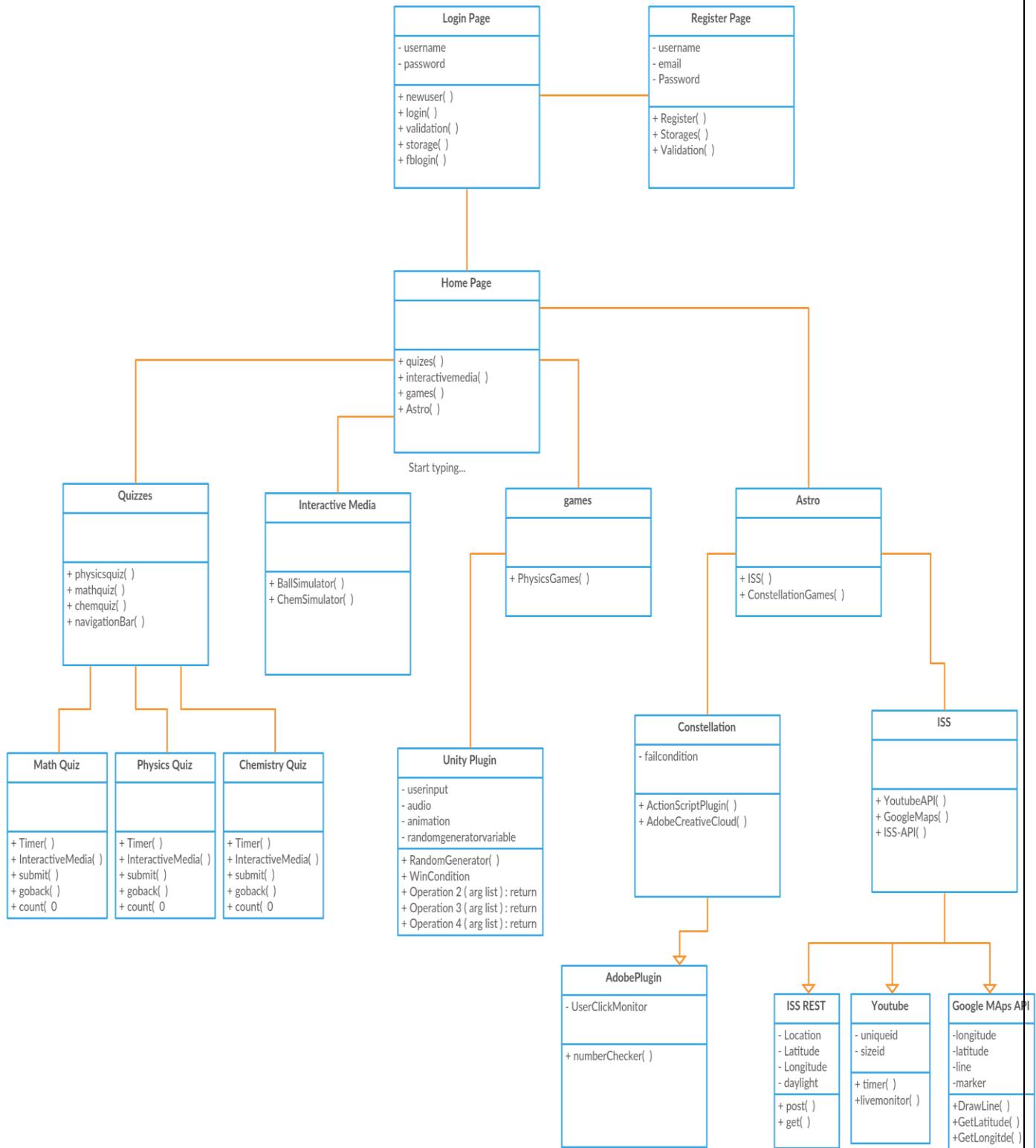
### Sequence Diagram



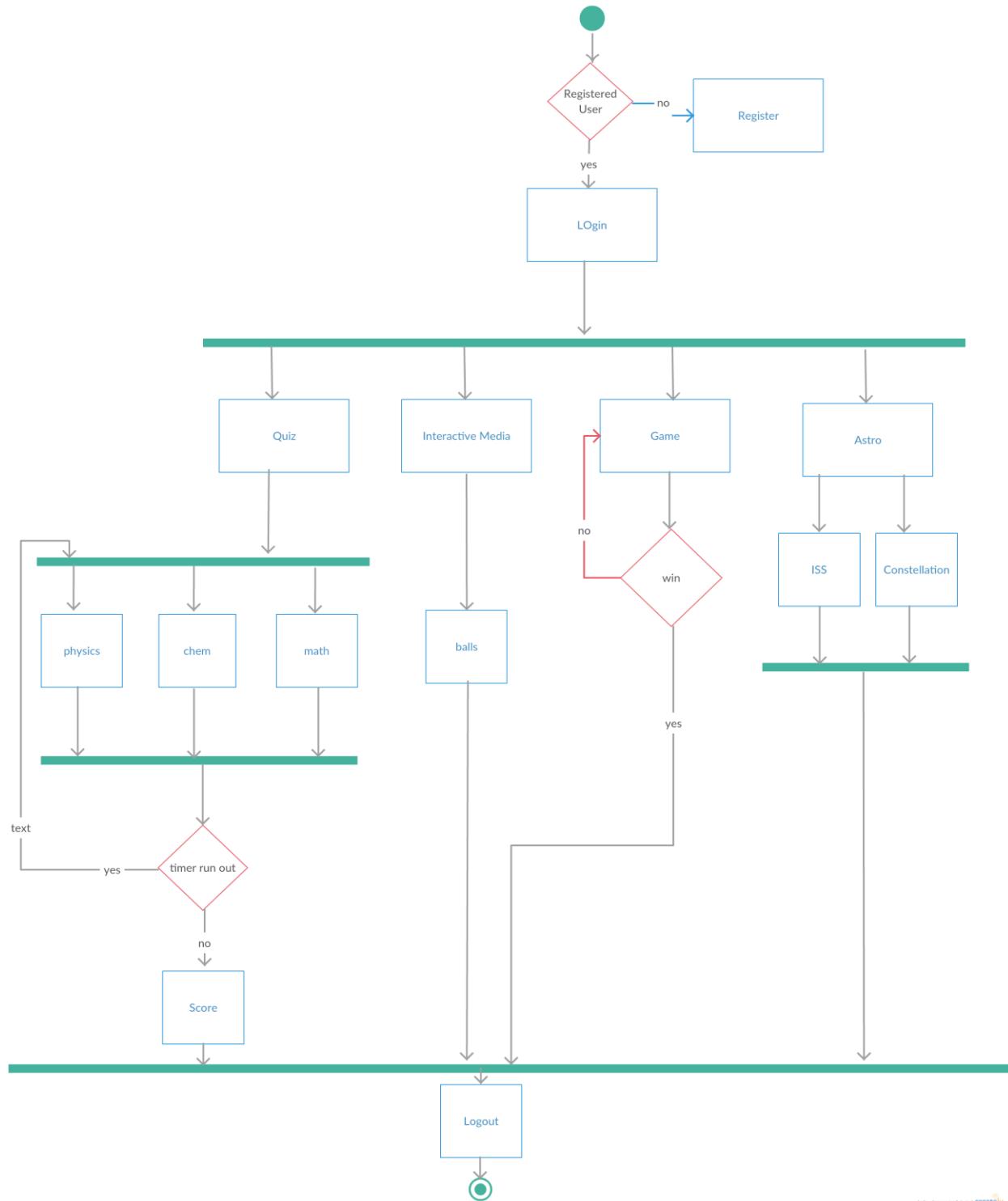
### Architecture Diagram



## Class Diagram:

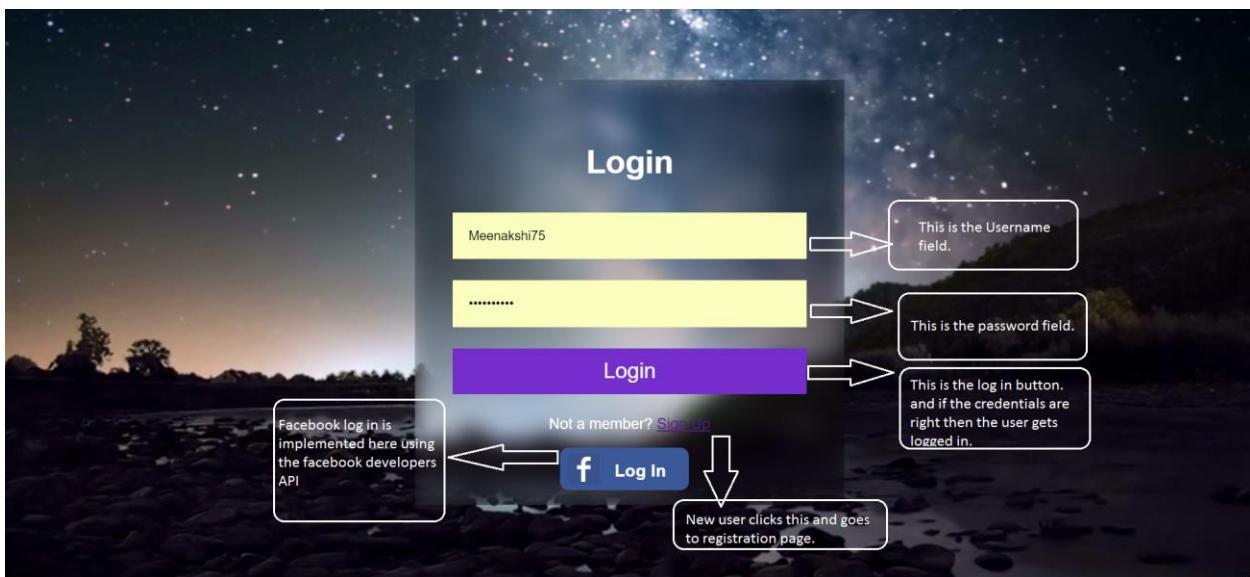
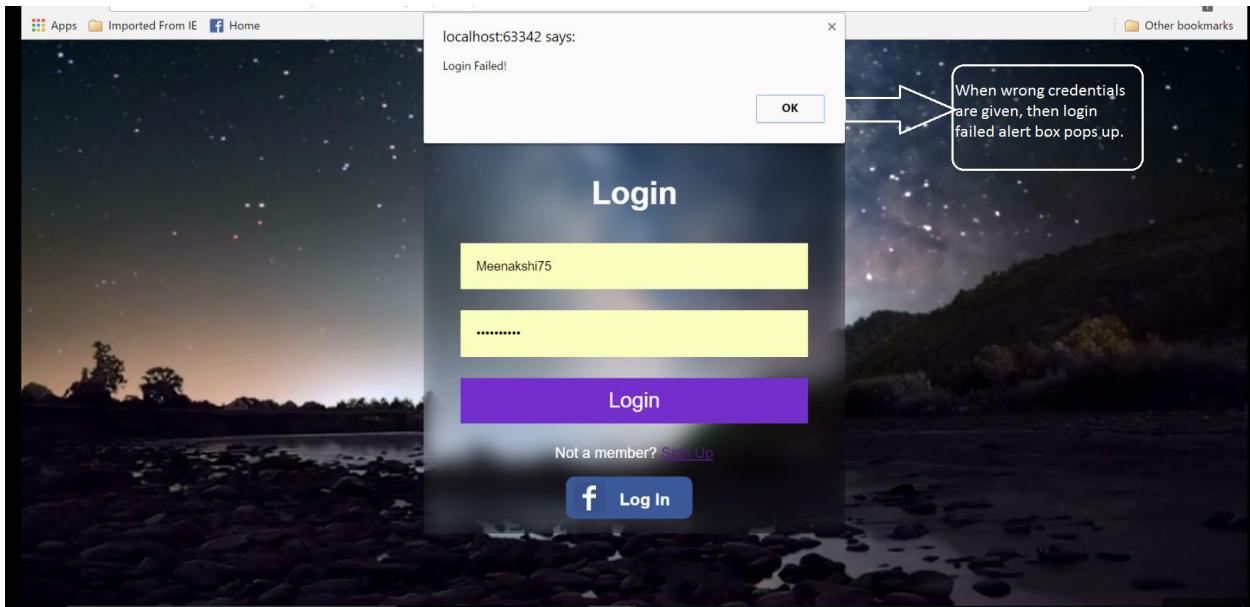


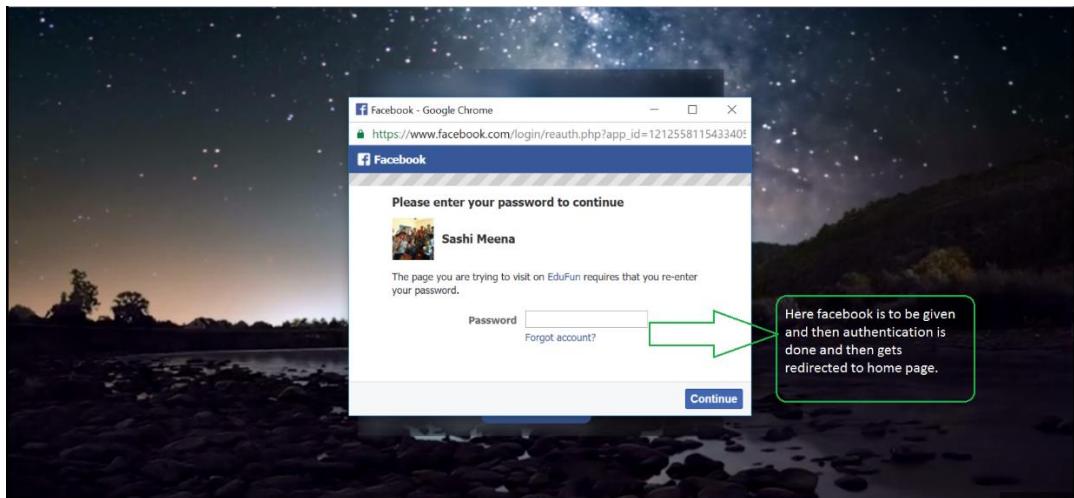
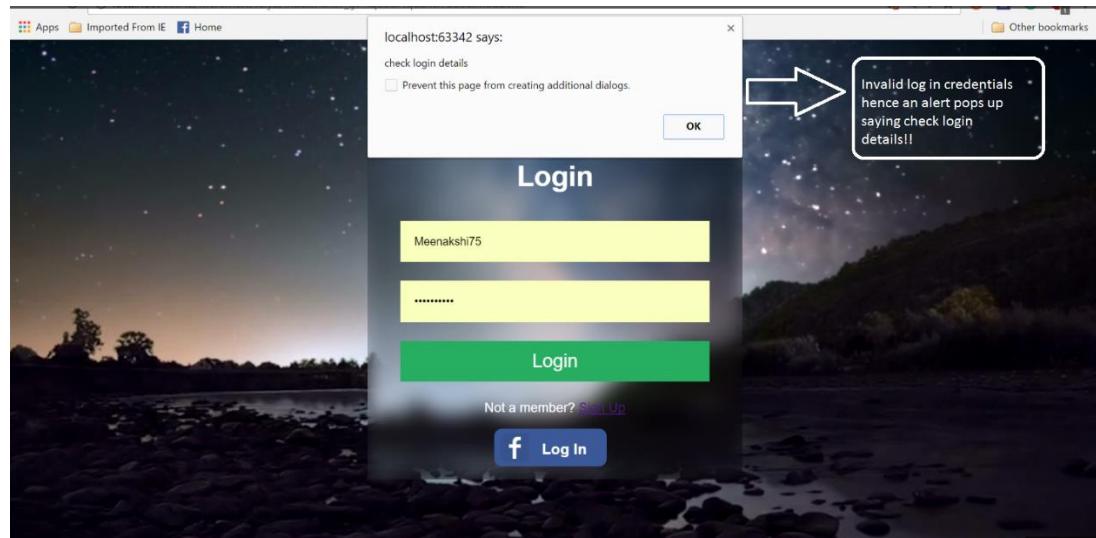
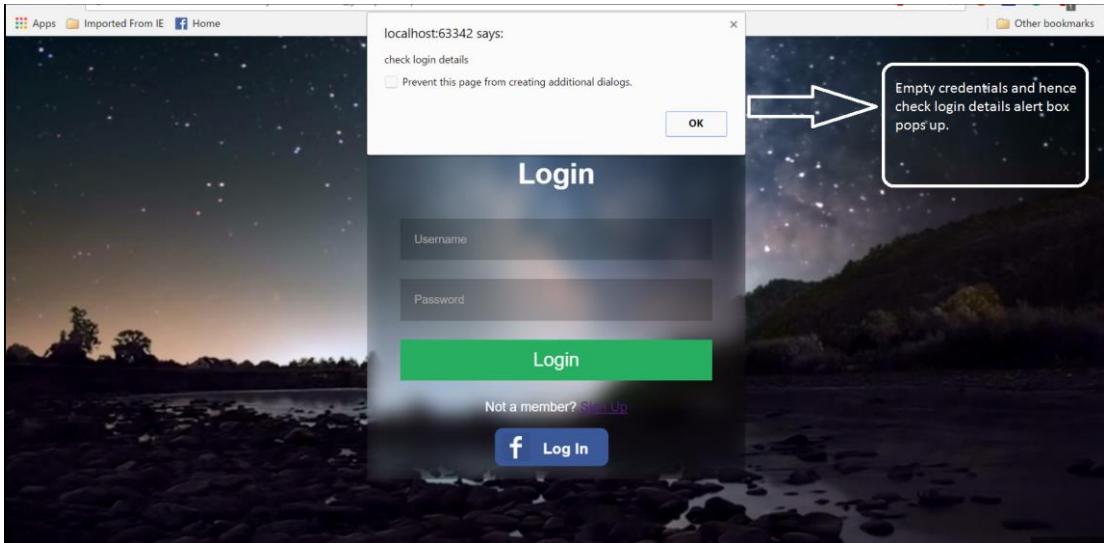
## Activity Diagram:



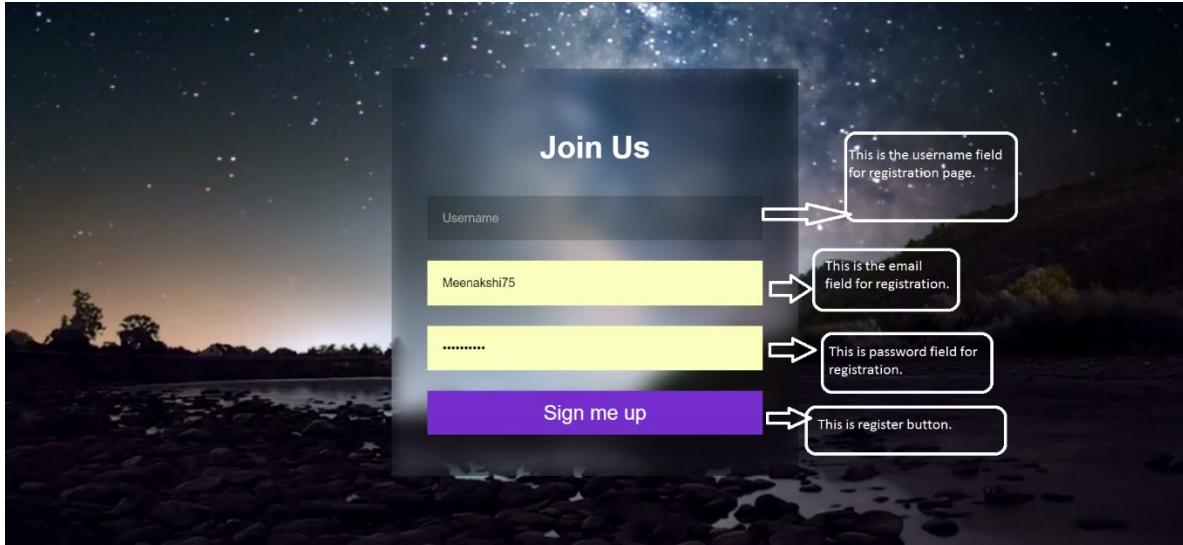
### 5.3.User Stories:

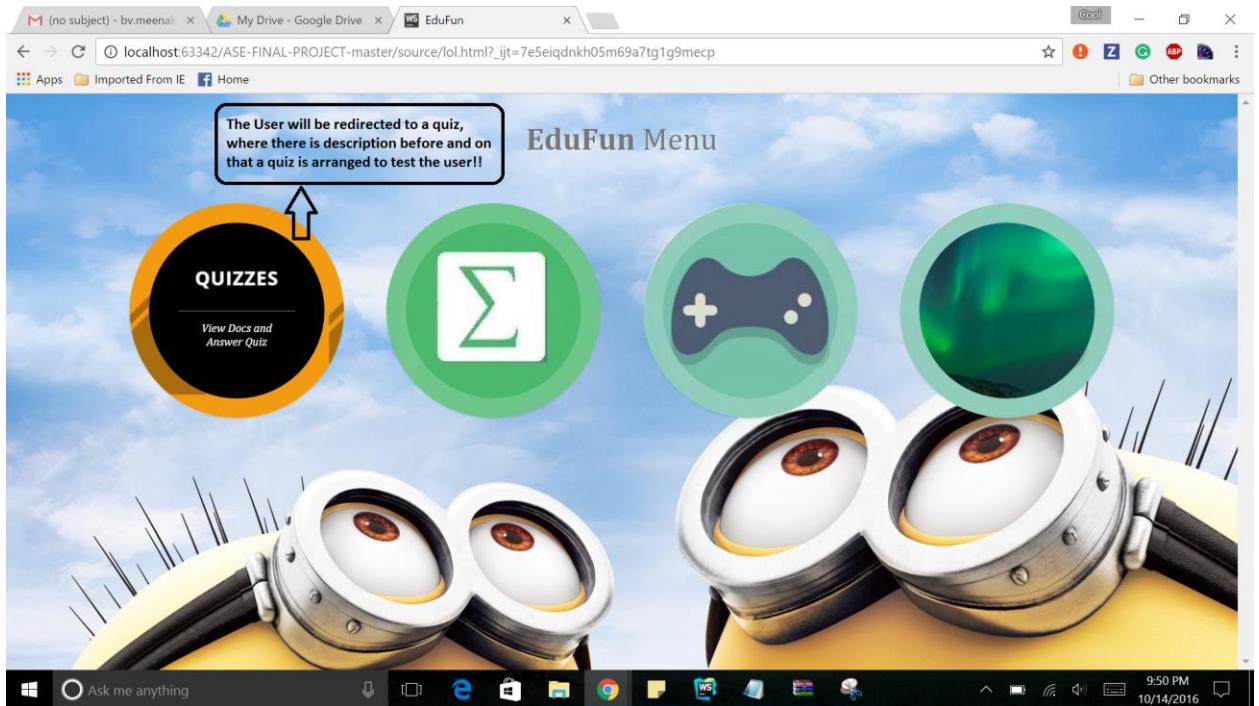
#### Login Page

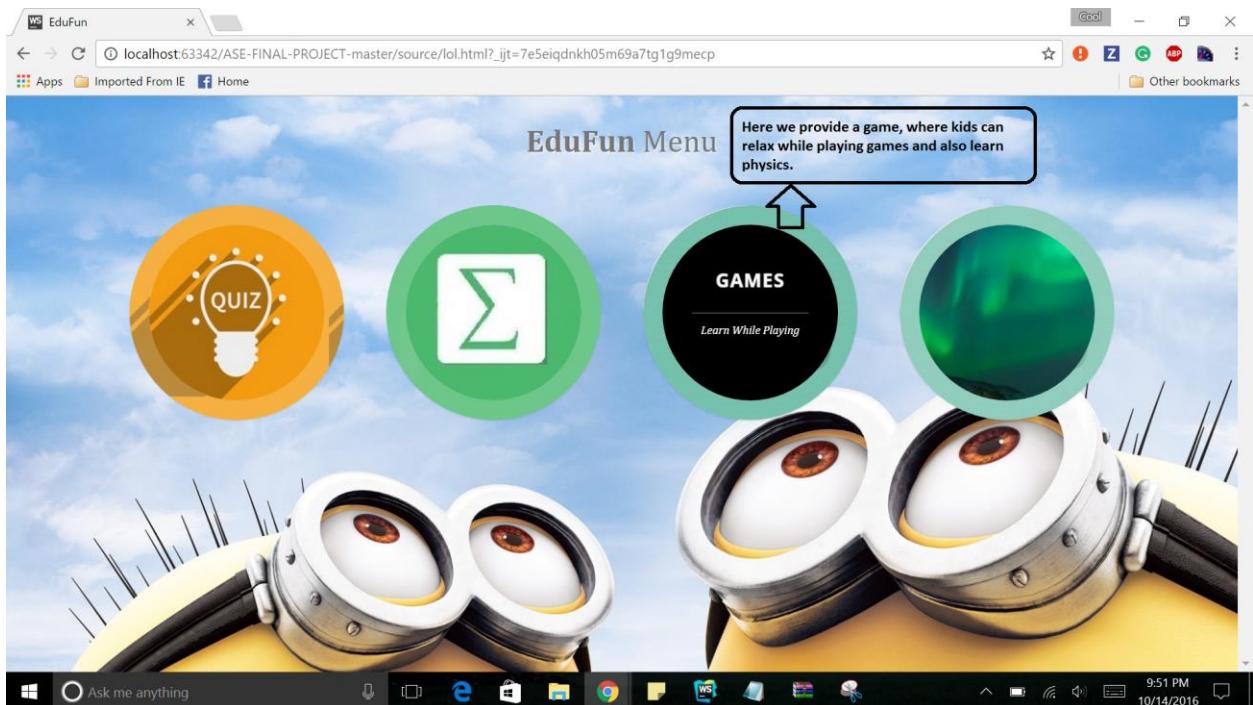
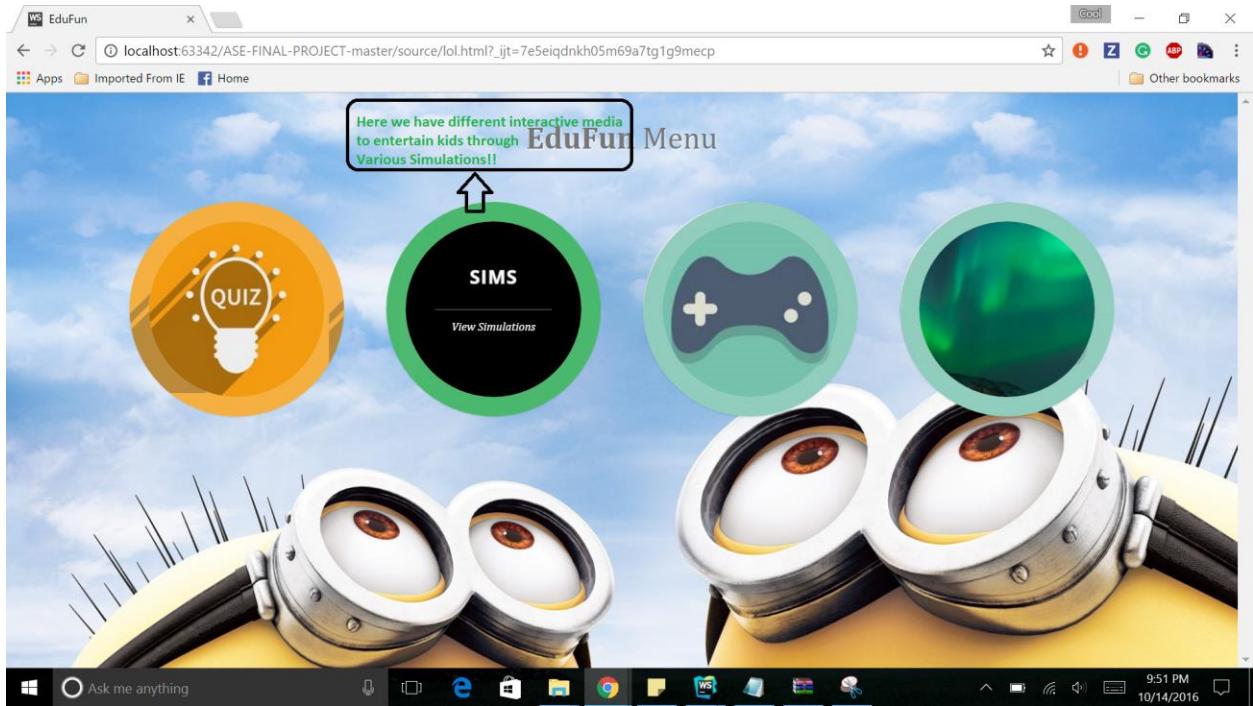


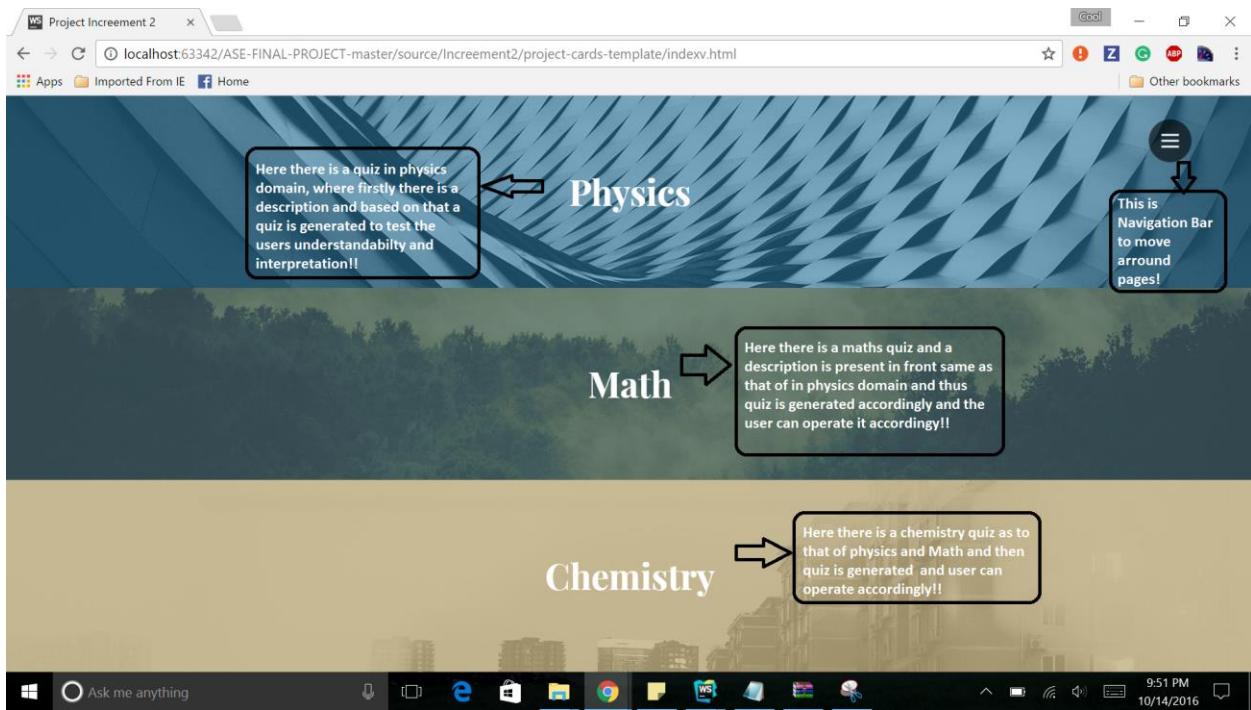
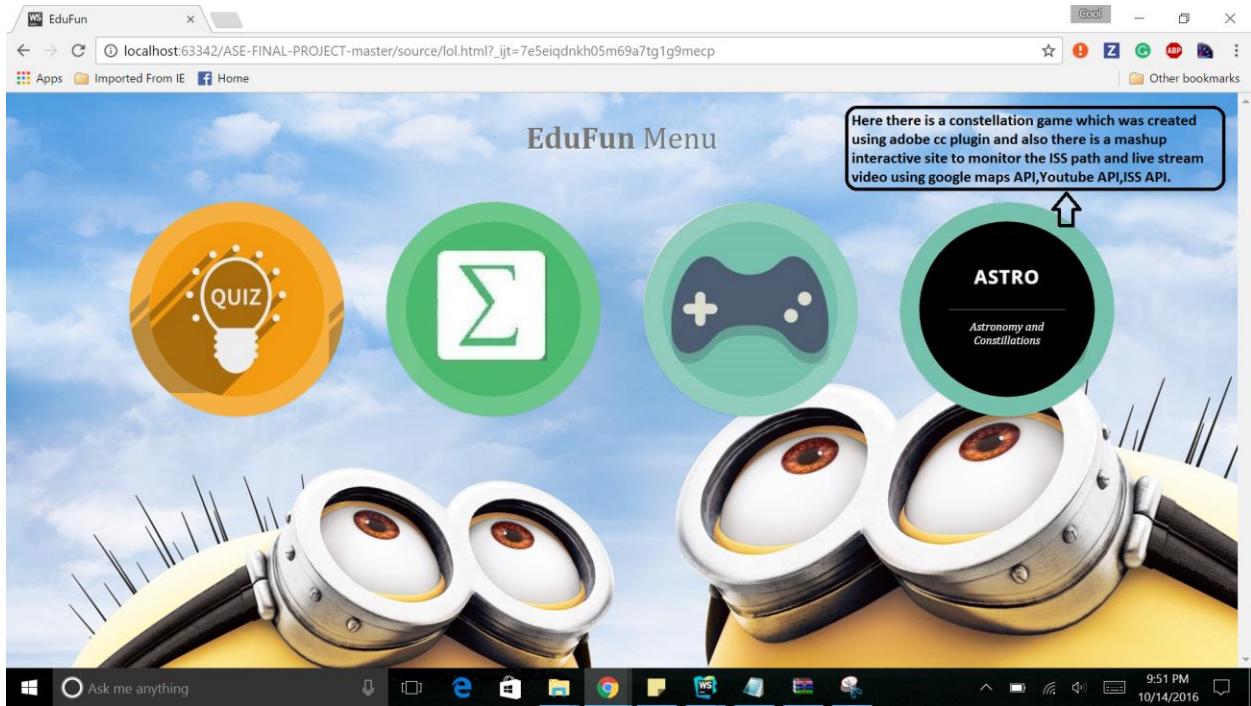


## Register Page







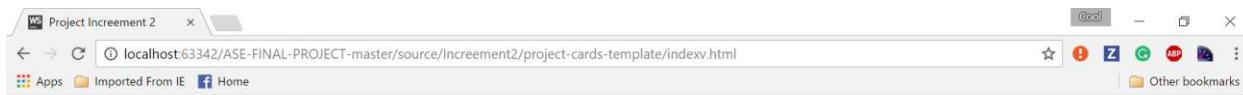




## Force of Attraction between Bodies

A force of attraction is any type of force that causes objects to come together, even if those objects are not close to or touching each other. The first force that causes attraction is the gravitational force. According to Newton's Universal Law of Gravitation every object in the universe attracts every other object in the universe. Gravity is an attractive force since any object with mass will experience a force of attraction from other objects with mass. Gravity is the reason for the statement 'What goes up must come down.' The second force that can cause attraction is the electric force, also known as the electrostatic force. While gravity affects objects with mass, electrostatic forces affect objects that have charge. Charge is determined by the number of electrons and protons in an object. Most objects are electrically neutral, which means they have an equal amount of electrons, which carry a negative charge, and protons, which carry a positive charge. But sometimes, objects can lose electrons and be positively charged, or gain electrons and become negatively charged. The

This is a Physics quiz and there is description firstly and then quiz is generated for the user to take it!!



objects are electrically neutral, which means they have an equal amount of electrons, which carry a negative charge, and protons, which carry a positive charge. But sometimes, objects can lose electrons and be positively charged, or gain electrons and become negatively charged. The attraction occurs when two objects of opposite charge are in close proximity, and the electrical force causes these objects to attract. Therefore, positive and negative charges will attract each other. Hence the saying 'Opposites attract.' The third force that may cause attraction is the magnetic force. The magnetic force attracts objects that have magnetic properties. A magnet will attract metals rich in iron, like steel, as well as nickel and cobalt. But when an object is magnetized, the magnetic force is attractive when a north magnetic pole is brought into close proximity to a south magnetic force. The main source of magnetism is electric currents. When charges move, there is an electric current. So charges that don't move are affected by the electric force and charges that move are affected by the magnetic force. Magnetic attraction can also be the reason behind the saying 'Opposites attract.'

Take a Quiz

When the user clicks on this button the user gets redirected to the quiz interaction page!!



localhost:63342/ASE-FIN

Question 1 of 4

Which one of the following forces is purely attractive?

This is the choice from where user can select

Gravitational force  
Electrostatic force  
Magnetic force

When user clicks on this button user either goes to next question or gets the final score.

Submit Answer

When the user presses this button the user goes back!!

EXIT

TIME REMAINING: 40

This is a timer where when the time is over the user will be redirected out of page

Ask me anything

9:52 PM  
10/14/2016

localhost:63342/ASE-FIN

Question 4 of 4

Who Observed Gravity first?

Einstein  
Stephen  
Newton

Using these radio buttons the user can decide what option to choose for the given question.

Submit Answer

EXIT

TIME REMAINING: 13

Ask me anything

9:52 PM  
10/14/2016

localhost:63342/ASE-FIN

localhost:63342/ASE-FINAL-PROJECT-master/source/Incremnet2/quiz.html?\_jtt=v6aepspr353m91o406d5ch86up

Feedback

Who Observed Gravity first?

Einstein

Stephen

Newton

Submit Answer

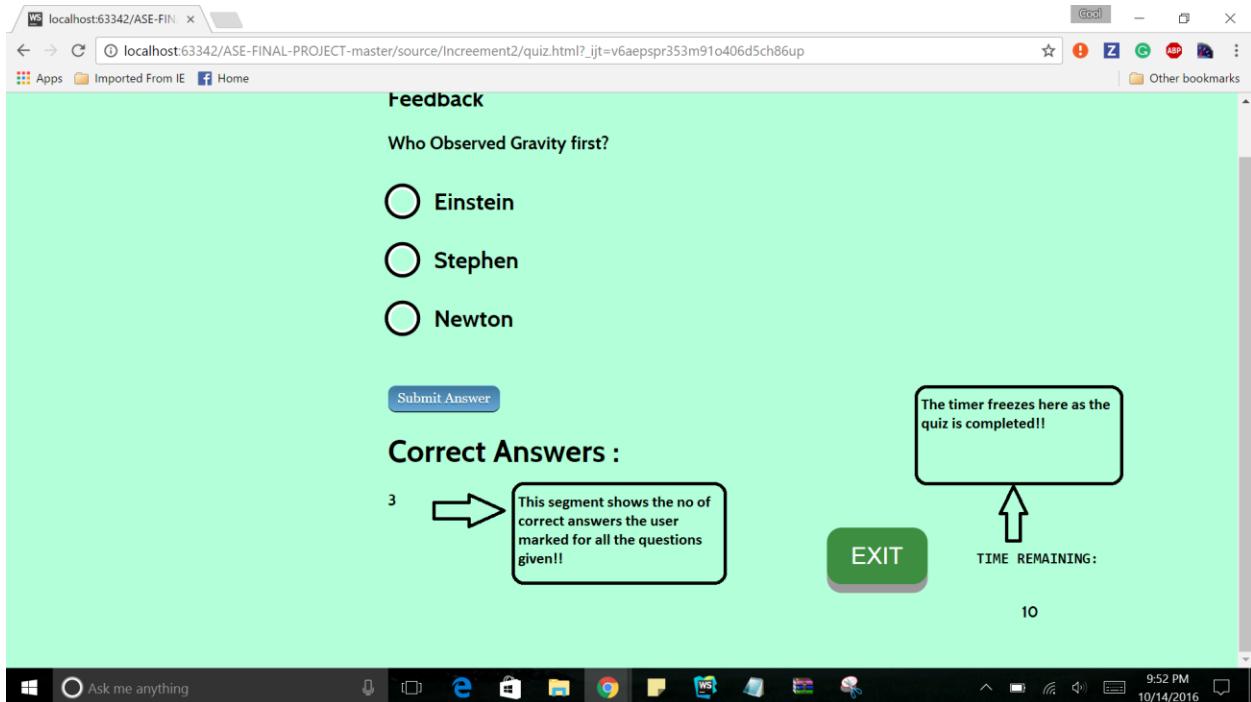
The timer freezes here as the quiz is completed!!

TIME REMAINING: 10

Correct Answers :

3 → This segment shows the no of correct answers the user marked for all the questions given!!

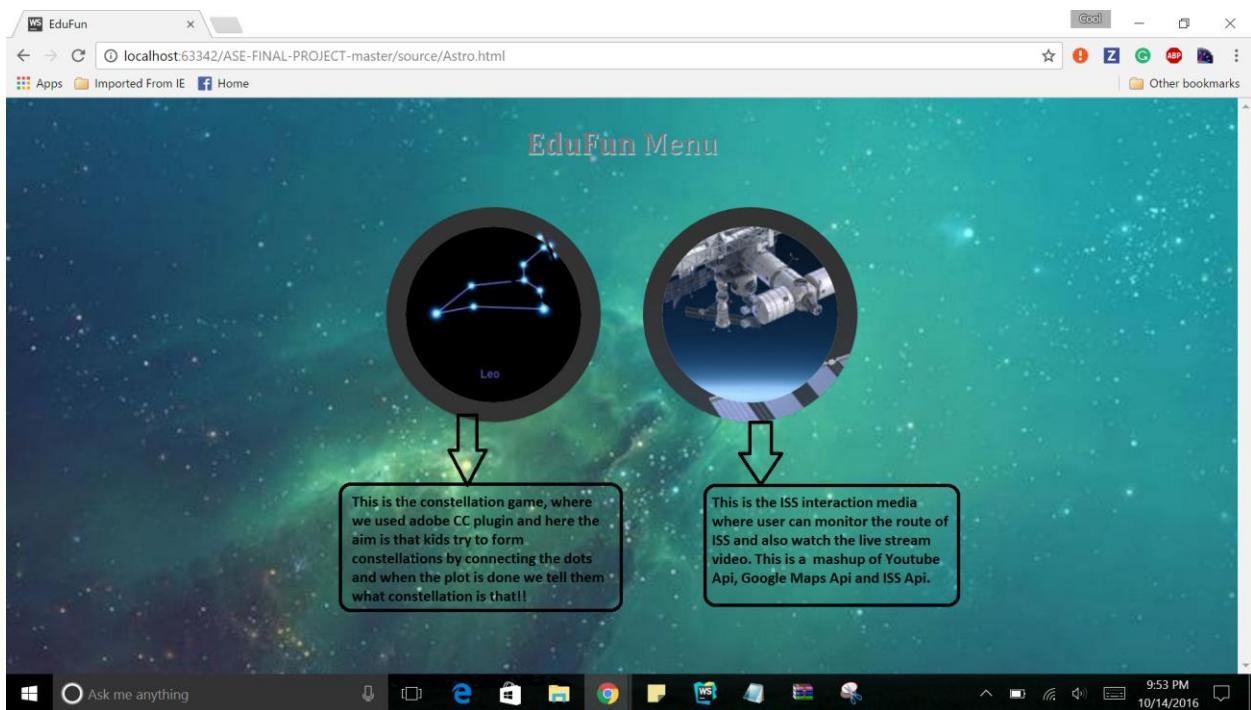
EXIT



EduFun

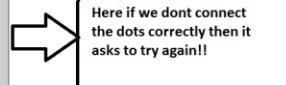
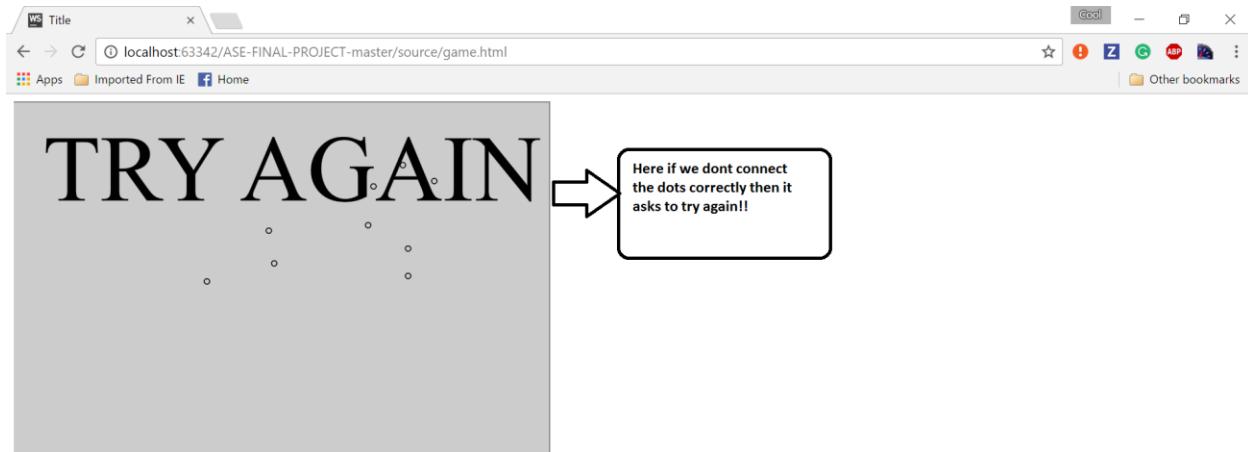
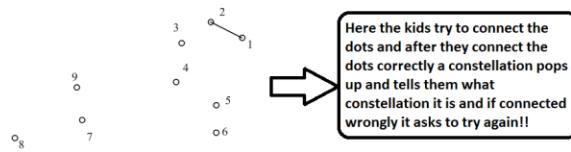
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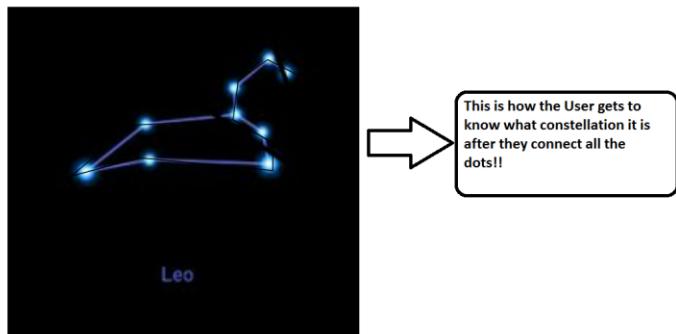
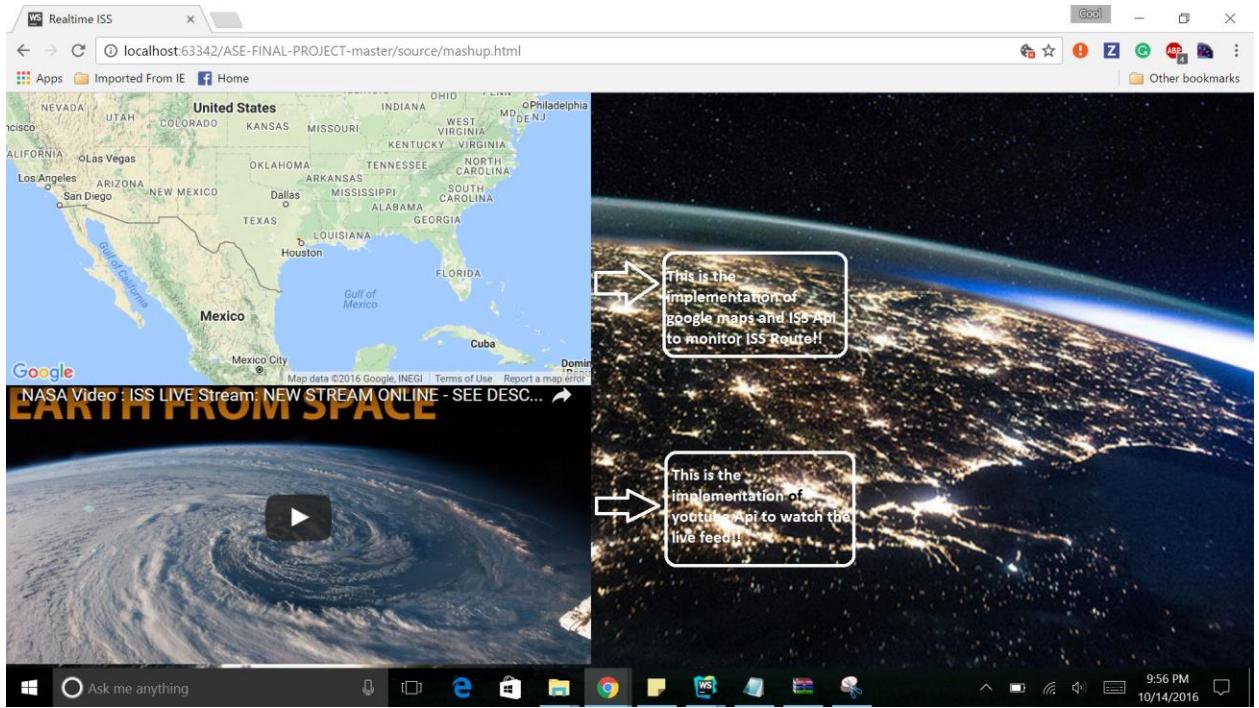
### EduFun Menu

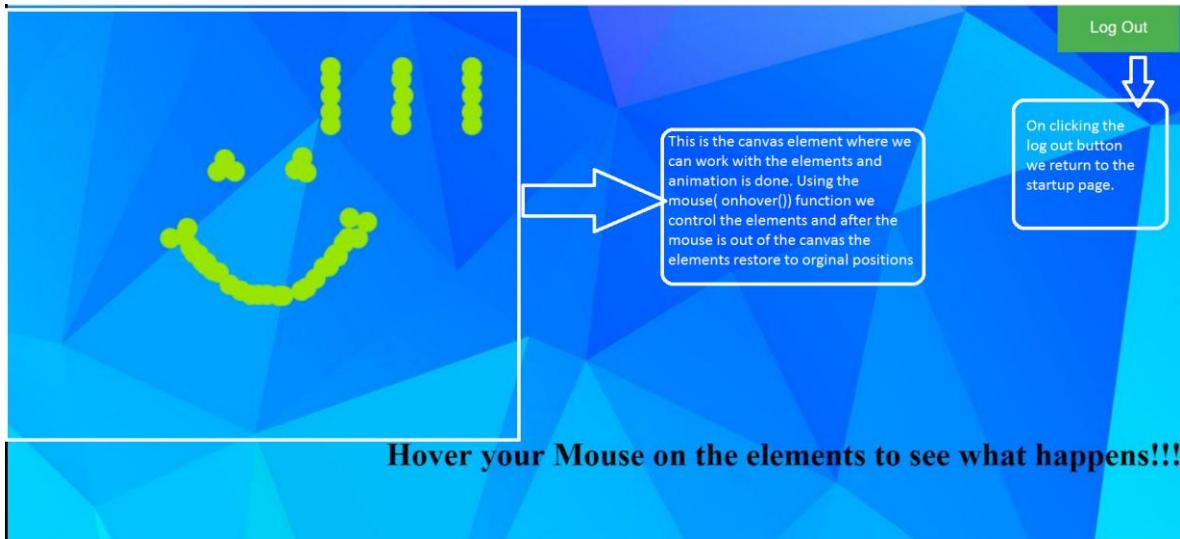


This is the constellation game, where we used adobe CC plugin and here the aim is that kids try to form constellations by connecting the dots and when the plot is done we tell them what constellation is that!!

This is the ISS interaction media where user can monitor the route of ISS and also watch the live stream video. This is a mashup of YouTube API, Google Maps API and ISS API.







## 6. Testing

### 6.1 Unit Testing

S.NO	Test case Title	Description	Expected Outcome	Result
1	Successful User Verification	The user logs in using correct credentials (correct login name and password)	The user credentials must be verified correctly.	Success
2	Unsuccessful User (Invalid Authentication)	Wrong credentials Given so invalid login.	If invalid details given, then authentication must fail.	Success
3	Successful User Login	Given the correct credentials user should be redirected to home page.	If the valid details are given, then authentication is a success and it must be redirected to home page.	Success
4	New user should register	If the user is new, then he should be redirected to register page and get registered.	For a new user a registration page will be displayed and they can add details to be registered.	Success
5	Invalid Email	Email validation must be checked if invalid then it must be return check credentials.	If invalid email is given, then an alert box pops up showing check credentials.	Success
6	Field details required	Every field detail is compulsory nothing must be left empty.	If all the field details are given, then the activity continues if not an alert box pops up saying check credentials.	Success

7	Facebook Login Validation	Facebook validation is checked here.	If Facebook login is valid then it should be redirected to the home page otherwise an alert box pops up showing login failed.	Success
8	Log out Validation	The page must be redirected to the startup page when log out button is pressed.	If the user wants to log out, then by clicking the log out button they will be redirected to startup page.	Success
9	Element Animation 1	Checking for element animation.	If the mouse is hovered upon the elements, then all the elements get scattered and move accordingly to the mouse co-ordinates.	Success
10	Element Animation 2	Checking for element animation.	When the mouse is moved away from the canvas element, then all the elements restore to their normal positions.	Success
11	Constellation game	In Constellation game if the dots are connected correctly	They should all form a constellation and tell what constellation it is	Success
12	Constellation game	In Constellation game if the dots are not connected correctly	They should all form a constellation and tell what constellation it is	Fail
13	ISS Interactive Media	In ISS interactive media during day light satellite image is shown	Satellite image has to be shown and its route is also shown clearly during daylight	Success
14	ISS Interactive Media	In ISS interactive media during night satellite image is not shown	Satellite image has to be shown and its route is also shown clearly during daylight	Fail

15	Quiz Interactive game	In quiz if time expires then the test must be stopped and gets redirected to the home page	Home page must not be present after an alert box pops up.	Fail
16	Quiz Interactive game	If the time expires and user is still taking test	Home page must be present after the alert box pops up	Success
17	Quiz Interactive game	After all the questions are answered the no of correct questions answered must be shown on the screen	Correct questions count must be displayed after the test is completed	Success
18	Quiz Interactive game	After the exit button is pressed and then it must retrace its path back using the history	Previously opened page must be displayed after this button is pressed	Success

## 6.2. Performance testing:

The performance test has been implemented using Yslow Analyser, it will issue the grades according to the code Quality. These has been tested for all HTML files:

The screenshot shows the YSlow Analyser interface with a grade of A. The report highlights several opportunities for optimization, such as combining external stylesheets and reducing HTTP requests. Below the report, a detailed table lists all components loaded by the page, including documents, scripts, stylesheets, images, and a favicon.

**Grade A** Overall performance score 95 Ruleset applied: Small Site or Blog URL: http://localhost:63342/Increement2/project-cards-template/index.html?...

ALL (15) FILTER BY: CONTENT (5) | CSS (5) | IMAGES (2) | JAVASCRIPT (3) | SERVER (2)

A Make fewer HTTP requests

- A Avoid empty src or href
- C Compress components with gzip
- A Put CSS at top
- A Put JavaScript at bottom
- A Avoid CSS expressions
- A Reduce DNS lookups

Grade A on Make fewer HTTP requests

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.

Read More

TYPE	SIZE (KB)	GZIP (KB)	COOKIE RECEIVED (bytes)	COOKIE SENT (bytes)	HEADERS	URL	EXPIRES (Y/M/D)	RESPONSE TIME (ms)	ETAG	ACTION
doc (1)	9.6K									
js (3)	0.4K									
css (3)	2.7K									
cssimage (1)	0.1K									
image (4)	0.5K									
favicon (1)	1.7K									

\* type column indicates the component is loaded after window.onload event  
† denotes 1x1 pixels image that may be image beacon

chrome-extension://ninejcohidippngpapilmkgilmakh/yslow.html#1446

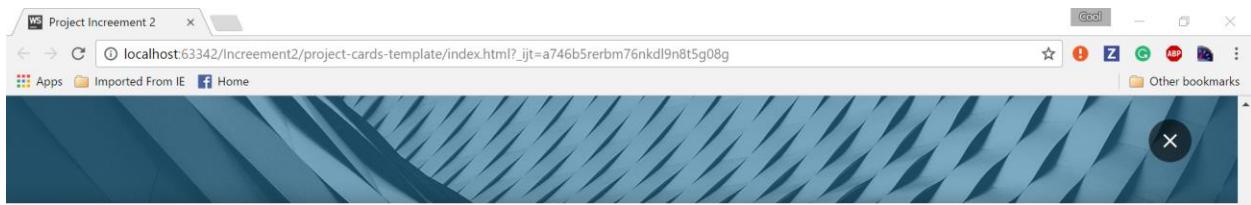
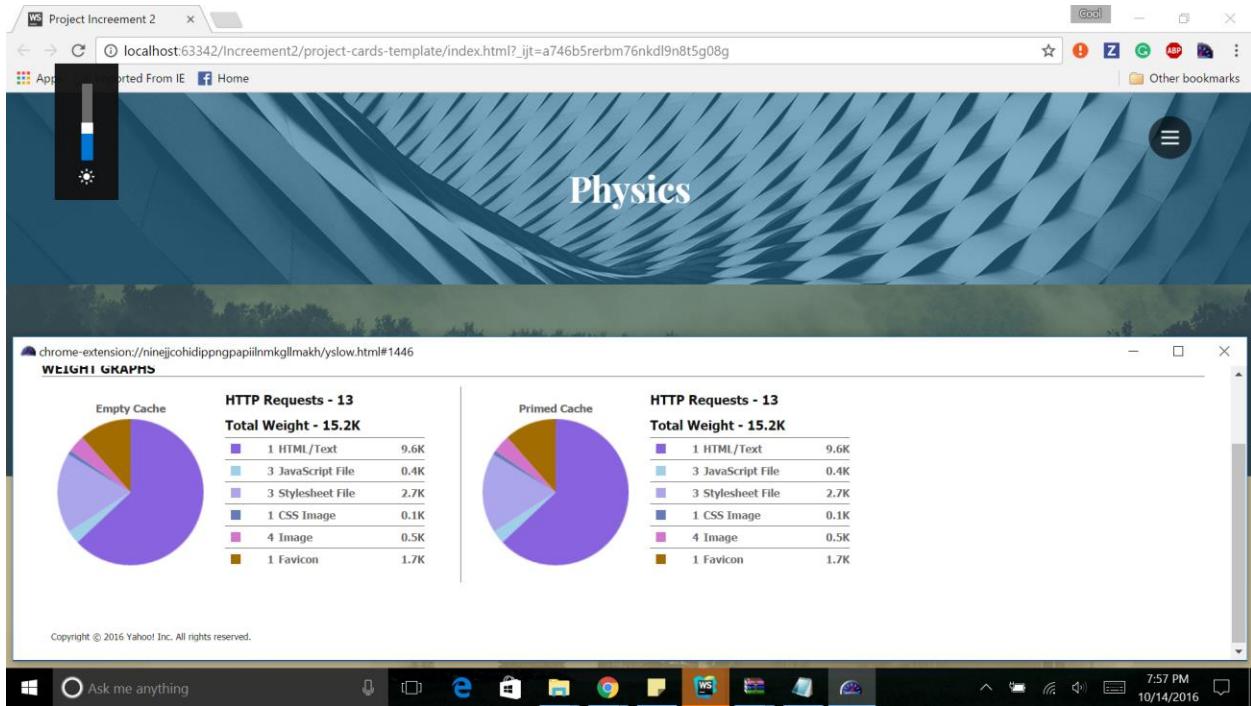
Project Increment 2

localhost:63342/Increement2/project-cards-template/index.html?\_jtt=a746b5rerbm76nkdl9n8t5g08g

Other bookmarks

Ask me anything

7:57 PM 10/14/2016



## Force of Attraction between Bodies



## Force of Attraction between Bodies

A Make fewer HTTP requests

- A Avoid empty src or href
- B Compress components with gzip
- A Put CSS at top
- A Put JavaScript at bottom
- A Avoid CSS expressions
- A Reduce DNS lookups
- A Minify JavaScript and CSS
- A Avoid URL redirects
- A Remove duplicate JavaScript and CSS
- A Reduce the number of DOM elements
- E Avoid HTTP 404 (Not Found) problems

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

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## Force of Attraction between Bodies

chrome-extension://ninejcohidippngpapilnmkgllmakh/yslow.html#1446

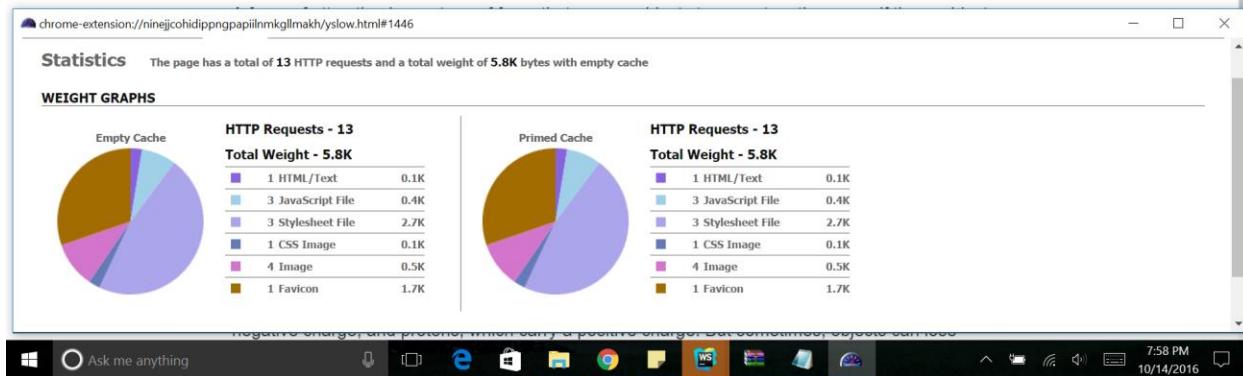
COMPONENTS The page has a total of 13 components and a total weight of 5.8K bytes

TYPE	SIZE (KB)	GZIP (KB)	COOKIE RECEIVED (bytes)	COOKIE SENT (bytes)	HEADERS	URL	EXPIRES (Y/M/D)	RESPONSE TIME (ms)	ETAG	ACTION
doc (1)	0.1K									
js (3)	0.4K									
css (3)	2.7K									
cssimage (1)	0.1K									
image (4)	0.5K									
favicon (1)	1.7K									

\* type column indicates the component is loaded after window.onload event



## Force of Attraction between Bodies





## Mathematics - Algebra

Algebra (from Arabic "al-jabr" meaning "reunion of broken parts"[1]) is one of the broad parts of

chrome-extension://ninejcohidippngpapilnmkgllmakh/yslow.html#1446

Home Grade Components Statistics | Rulesets Small Site or Blog Edit Help

**Grade A** Overall performance score 96 Rule set applied: Small Site or Blog URL: http://localhost:63342/Increement2/project-cards-template/index.html?...

**ALL (15)** FILTER BY: [CONTENT \(5\)](#) | [CSS \(5\)](#) | [IMAGES \(2\)](#) | [JAVASCRIPT \(3\)](#) | [SERVER \(2\)](#)

**A Make fewer HTTP requests**

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- A Put CSS at top**
- A Put JavaScript at bottom**
- A Avoid CSS expressions**
- A Reduce DNS lookups**

Grade A on Make fewer HTTP requests

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[»Read More](#)

Ask me anything 7:59 PM 10/14/2016



## Mathematics - Algebra

Algebra (from Arabic "al-jabr" meaning "reunion of broken parts"[1]) is one of the broad parts of

chrome-extension://ninejcohidippngpapilnmkgllmakh/yslow.html#1446

TYPE	SIZE (KB)	GZIP (KB)	COOKIE RECEIVED (bytes)	COOKIE SENT (bytes)	HEADERS	URL	EXPIRES (Y/M/D)	RESPONSE TIME (ms)	ETAG	ACTION
<a href="#">doc (1)</a>	0.1K									
<a href="#">js (3)</a>	0.4K									
<a href="#">css (3)</a>	2.7K									
<a href="#">cssimage (1)</a>	0.1K									
<a href="#">image (4)</a>	0.5K									
<a href="#">favicon (1)</a>	1.7K									

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Ask me anything 7:59 PM 10/14/2016

Project Increment 2

localhost:63342/Increement2/project-cards-template/index.html?\_jt=a746b5rerbm76nkdl9n8t5g08g

Apps Imported From IE Home Other bookmarks

Mathematics - Algebra

Algebra (from Arabic "al-jabr" meaning "reunion of broken parts"[1]) is one of the broad parts of

**STATISTICS** The page has a total of 13 HTTP requests and a total weight of 5.8K bytes with empty cache

**WEIGHT GRAPHS**

**HTTP Requests - 13**

**Total Weight - 5.8K**

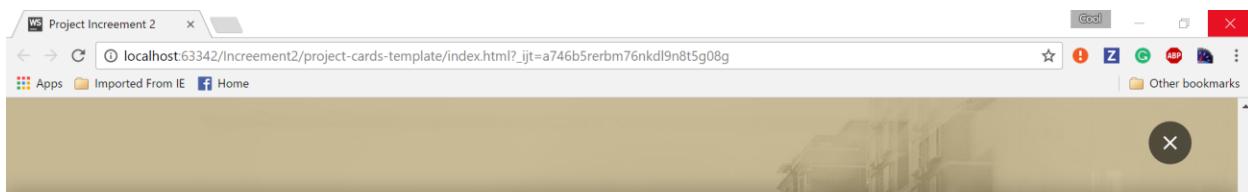
1 HTML/Text	0.1K
3 JavaScript File	0.4K
3 Stylesheet File	2.7K
1 CSS Image	0.1K
4 Image	0.5K
1 Favicon	1.7K

**HTTP Requests - 13**

**Total Weight - 5.8K**

1 HTML/Text	0.1K
3 JavaScript File	0.4K
3 Stylesheet File	2.7K
1 CSS Image	0.1K
4 Image	0.5K
1 Favicon	1.7K

Ask me anything 7:59 PM 10/14/2016



In physics, a state of matter is one of the distinct forms that matter takes on. Four states of matter

**Components** The page has a total of 13 components and a total weight of 5.8K bytes

Type	Size (KB)	GZIP (KB)	Cookie Received (bytes)	Cookie Sent (bytes)	Headers	URL	Expires (Y/M/D)	Response Time (ms)	Etag	Action
doc (1)	0.1K									
js (3)	0.4K									
css (3)	2.7K									
cssimage (1)	0.1K									
image (4)	0.5K									
favicon (1)	1.7K									

In physics, a state of matter is one of the distinct forms that matter takes on. Four states of matter

**Statistics** The page has a total of 13 HTTP requests and a total weight of 5.8K bytes with empty cache

**WEIGHT GRAPHS**

HTTP Requests - 13	Total Weight - 5.8K
Empty Cache <ul style="list-style-type: none"> <li>1 HTML/Text 0.1K</li> <li>3 JavaScript File 0.4K</li> <li>3 Stylesheet File 2.7K</li> <li>1 CSS Image 0.1K</li> <li>4 Image 0.5K</li> <li>1 Favicon 1.7K</li> </ul>	Primed Cache <ul style="list-style-type: none"> <li>1 HTML/Text 0.1K</li> <li>3 JavaScript File 0.4K</li> <li>3 Stylesheet File 2.7K</li> <li>1 CSS Image 0.1K</li> <li>4 Image 0.5K</li> <li>1 Favicon 1.7K</li> </ul>

In physics, a state of matter is one of the distinct forms that matter takes on. Four states of matter

**Statistics** The page has a total of 13 HTTP requests and a total weight of 5.8K bytes with empty cache

**WEIGHT GRAPHS**

HTTP Requests - 13	Total Weight - 5.8K
Empty Cache <ul style="list-style-type: none"> <li>1 HTML/Text 0.1K</li> <li>3 JavaScript File 0.4K</li> <li>3 Stylesheet File 2.7K</li> <li>1 CSS Image 0.1K</li> <li>4 Image 0.5K</li> <li>1 Favicon 1.7K</li> </ul>	Primed Cache <ul style="list-style-type: none"> <li>1 HTML/Text 0.1K</li> <li>3 JavaScript File 0.4K</li> <li>3 Stylesheet File 2.7K</li> <li>1 CSS Image 0.1K</li> <li>4 Image 0.5K</li> <li>1 Favicon 1.7K</li> </ul>

localhost:63342/Increement2/quiz.html?\_jtt=fl5tgr48dv2ooo2v0u8kbe7q35

Question 1 of 4

Which one of the following forces is purely attractive?

Gravitational force

Electrostatic force

chrome-extension://ninejcohidippngpapilnmkgilmakh/yslow.html#1530

Home Grade Components Statistics | Rulesets Small Site or Blog Edit Help

**Grade A** Overall performance score 99 Ruleset applied: Small Site or Blog URL: http://localhost:63342/Increement2/quiz.html?... ALL (15) FILTER BY: CONTENT (5) | CSS (5) | IMAGES (2) | JAVASCRIPT (3) | SERVER (2)

A Make fewer HTTP requests

A Avoid empty src or href

A Compress components with gzip

A Put CSS at top

A Put JavaScript at bottom

A Avoid CSS expressions

A Reduce DNS lookups

Grade A on Make fewer HTTP requests

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.

>Read More

Ask me anything 8:03 PM 10/14/2016

localhost:63342/Increement2/quiz.html?\_jtt=fl5tgr48dv2ooo2v0u8kbe7q35

Question 1 of 4

Which one of the following forces is purely attractive?

Gravitational force

Electrostatic force

chrome-extension://ninejcohidippngpapilnmkgilmakh/yslow.html#1530

Home Grade Components Statistics | Rulesets Small Site or Blog Edit Help

**Components** The page has a total of 3 components and a total weight of 2.3K bytes

>Expand All

TYPE	SIZE (KB)	GZIP (KB)	COOKIE RECEIVED (bytes)	COOKIE SENT (bytes)	HEADERS	URL	EXPIRES (Y/M/D)	RESPONSE TIME (ms)	ETAG	ACTION
doc (1)	0.1K									
css (1)	0.3K									
favicon (1)	1.7K									

\* type column indicates the component is loaded after window onload event  
† denotes 1x1 pixels image that may be image beacon

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Ask me anything 8:03 PM 10/14/2016

localhost:63342/Incremen... x

localhost:63342/Inrement2/quiz.html?\_jtt=fl5gr48dv2ooo2v0u8kbe7q35

Apps Imported From IE Home Other bookmarks

**Question 1 of 4**

Which one of the following forces is purely attractive?

Gravitational force

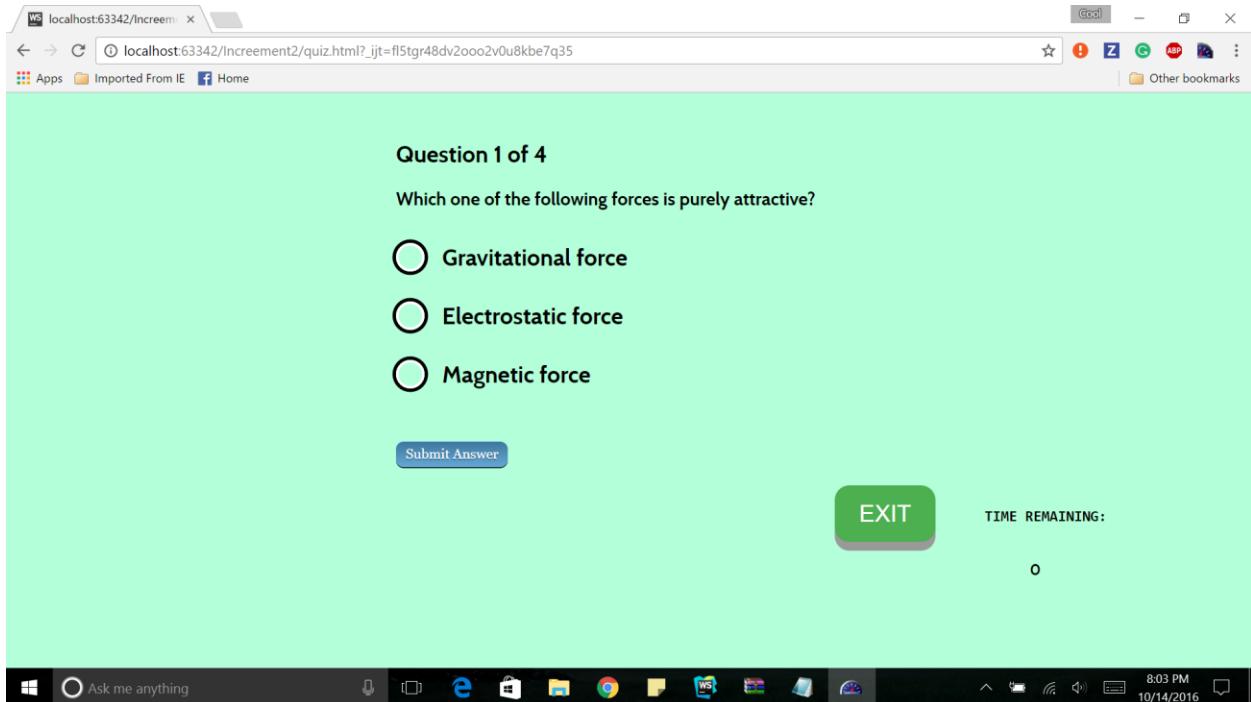
Electrostatic force

Magnetic force

Submit Answer

TIME REMAINING: 0

EXIT



localhost:63342/Incremen... x

localhost:63342/Inrement2/quiz.html?\_jtt=fl5gr48dv2ooo2v0u8kbe7q35

Apps Imported From IE Home Other bookmarks

**Question 1 of 4**

Which one of the following forces is purely attractive?

Gravitational force

Electrostatic force

chrome-extension://ninejcohidippngpapillnmkgilmakh/yslow.html#1530

**Statistics** The page has a total of 3 HTTP requests and a total weight of 2.3K bytes with empty cache

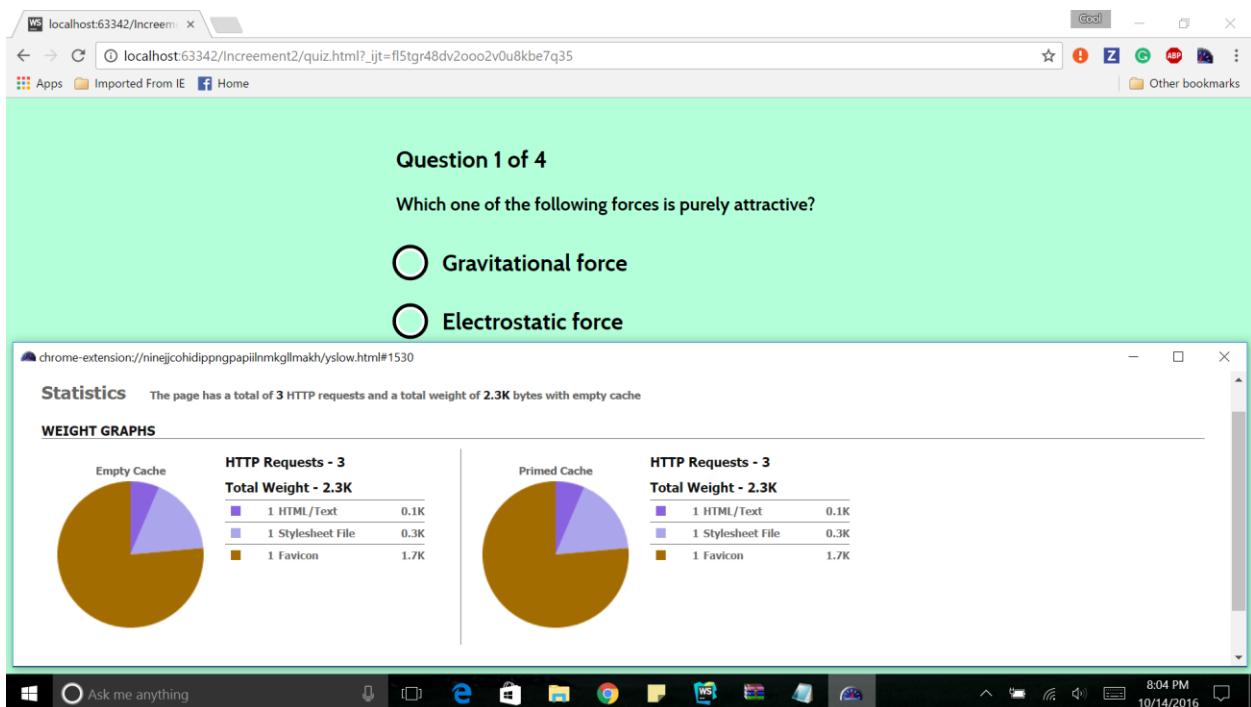
**WEIGHT GRAPHS**

**HTTP Requests - 3**  
Total Weight - 2.3K

Type	Weight
1 HTML/Text	0.1K
1 Stylesheet File	0.3K
1 Favicon	1.7K

**HTTP Requests - 3**  
Total Weight - 2.3K

Type	Weight
1 HTML/Text	0.1K
1 Stylesheet File	0.3K
1 Favicon	1.7K



chrome-extension://ninejcohidippngpapilmkgllmakh/yslow.html#1

Home Grade Components Statistics |

**Grade A** Overall performance score 96 Ruleset applied: Small Site or Blog URL: http://localhost:63342/ASE-FINAL-PROJECT-master/source/lo.html?...

**ALL (15)** FILTER BY: [CONTENT \(5\)](#) | [CSS \(5\)](#) | [IMAGES \(2\)](#) | [JAVASCRIPT \(3\)](#) | [SERVER \(2\)](#)

**B Make fewer HTTP requests**

A Avoid empty src or href  
A Compress components with gzip  
A Put CSS at top  
A Put JavaScript at bottom  
A Avoid CSS expressions  
A Reduce DNS lookups

Grade B on Make fewer HTTP requests

This page has 5 external stylesheets. Try combining them into one.  
This page has 7 external background images. Try combining them with CSS sprites.

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.

[»Read More](#)

[Tweet](#) [Share](#)

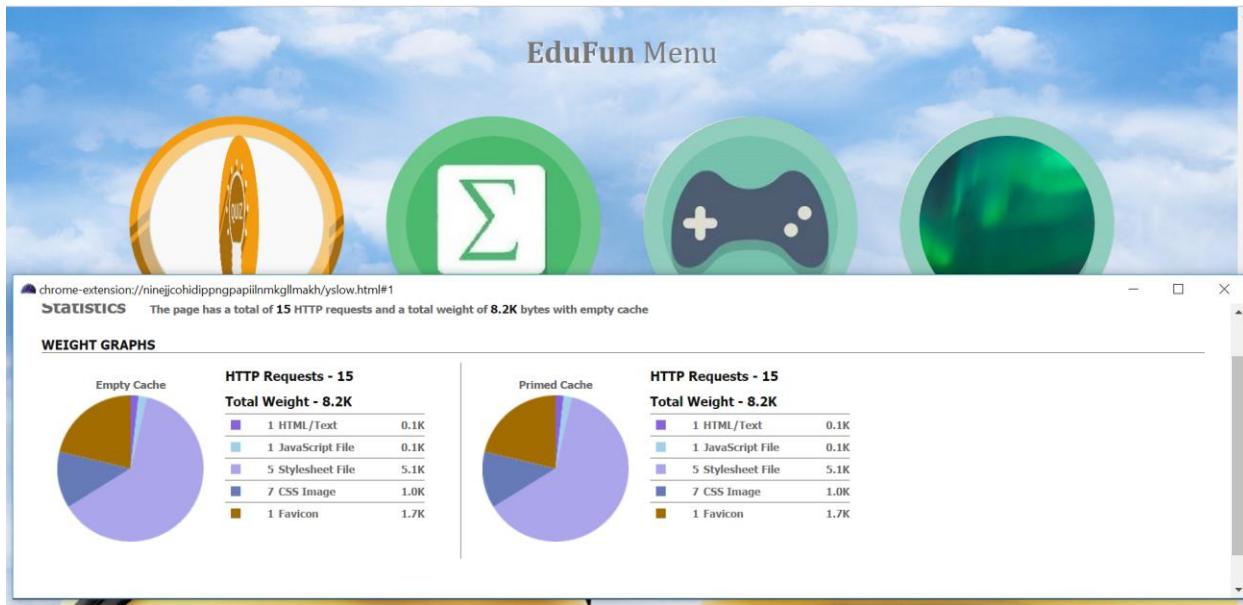
chrome-extension://ninejcohidippngpapilmkgllmakh/yslow.html#1

**Components** The page has a total of **15** components and a total weight of **8.2K** bytes

[»Expand All](#)

TYPE	SIZE (KB)	GZIP (KB)	COOKIE RECEIVED (bytes)	COOKIE SENT (bytes)	HEADERS	URL	EXPIRES (Y/M/D)	RESPONSE TIME (ms)	ETAG	ACTION
<input type="checkbox"/> doc (1)	0.1K									
<input type="checkbox"/> js (1)	0.1K									
<input type="checkbox"/> css (5)	5.1K									
<input type="checkbox"/> cssimage (2)	1.0K									
<input type="checkbox"/> favicon (1)	1.7K									

\* type column indicates the component is loaded after window onload event  
† denotes 1x1 pixels image that may be image beacon



chrome-extension://ninejjcohidippngpapiilmkgllmakh/yslow.html#1

Home Grade Components Statistics | Rulesets Small Site or Blog ▾ Edit Help ↗

**Components** The page has a total of 3 components and a total weight of 2.0K bytes

TYPE	SIZE (KB)	GZIP (KB)	COOKIE RECEIVED (bytes)	COOKIE SENT (bytes)	HEADERS	URL	EXPIRES (Y/M/D)	RESPONSE TIME (ms)	ETAG	ACTION
doc (1)	0.1K									
cssimage (1)	0.1K									
favicon (1)	1.7K									

\* type column indicates the component is loaded after window onload event  
† denotes 1x1 pixels image that may be image beacon

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EduFun Menu

chrome-extension://ninejcohidippngpapiilmkgilmakh/yslow.html#1

Home Grade Components Statistics |

**Grade A** Overall performance score 97 Ruleset applied: Small Site or Blog URL: http://localhost:63342/ASE-FINAL-PROJECT-master/source/Astro.html

**ALL (15)** FILTER BY: [CONTENT \(5\)](#) | [CSS \(5\)](#) | [IMAGES \(2\)](#) | [JAVASCRIPT \(3\)](#) | [SERVER \(2\)](#)

**B Make fewer HTTP requests**

- A Avoid empty src or href
- A Compress components with gzip
- A Put CSS at top
- A Put JavaScript at bottom
- A Avoid CSS expressions
- A Reduce DNS lookups

Grade B on Make fewer HTTP requests

This page has 5 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.

[»Read More](#)

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EduFun Menu

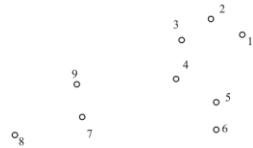
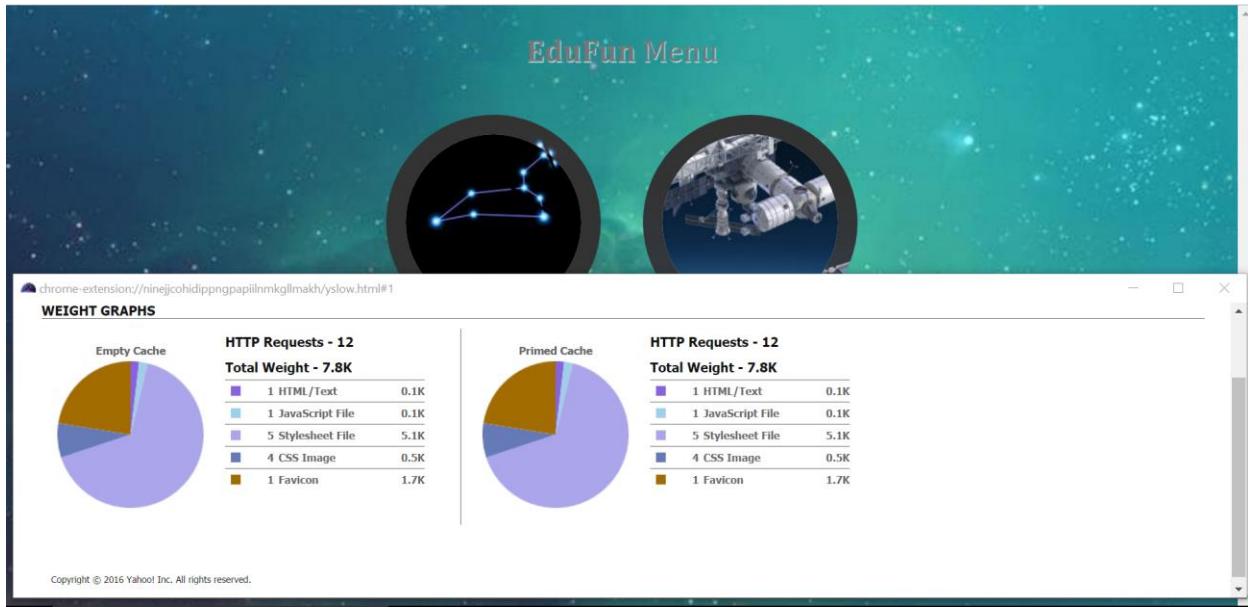
chrome-extension://ninejcohidippngpapiilmkgilmakh/yslow.html#1

Home Grade Components Statistics |

**Components** The page has a total of **12** components and a total weight of **7.8K** bytes

[»Expand All](#)

Type	Size (KB)	GZIP (KB)	Cookie Received (bytes)	Cookie Sent (bytes)	Headers	URL	Expires (Y/M/D)	Response Time (ms)	ETag	Action
doc (1)	0.1K									
js (1)	0.1K									
css (5)	5.1K									
cssimage (4)	0.5K									
favicon (1)	1.7K									



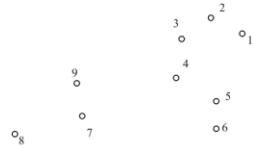
**Grade A** Overall performance score 100 Ruleset applied: Small Site or Blog URL: http://localhost:63342/ASE-FINAL-PROJECT-master/source/game.html

**ALL (15) FILTER BY:** [CONTENT \(5\)](#) | [CSS \(5\)](#) | [IMAGES \(2\)](#) | [JAVASCRIPT \(3\)](#) | [SERVER \(2\)](#)

**Grade A on Make fewer HTTP requests**

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.

[»Read More](#)



chrome-extension://ninejcohidippngpapilnmkgilmakh/yslow.html#1

Home Grade Components Statistics | Rulesets Small Site or Blog Edit | Help ↴

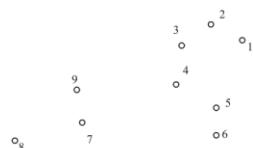
**Components** The page has a total of 3 components and a total weight of 2.0K bytes

Expand All

†TYPE	SIZE (KB)	GZIP (KB)	COOKIE RECEIVED (bytes)	COOKIE SENT (bytes)	HEADERS	URL	EXPIRES (Y/M/D)	RESPONSE TIME (ms)	ETAG	ACTION
doc (1)	0.1K									
flash (1)	0.1K									
favicon (1)	1.7K									

\* type column indicates the component is loaded after window onload event  
† denotes 1x1 pixels image that may be image beacon

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chrome-extension://ninejcohidippngpapilnmkgilmakh/yslow.html#1

**WEIGHT GRAPHS**

**HTTP Requests - 3**  
Total Weight - 2.0K

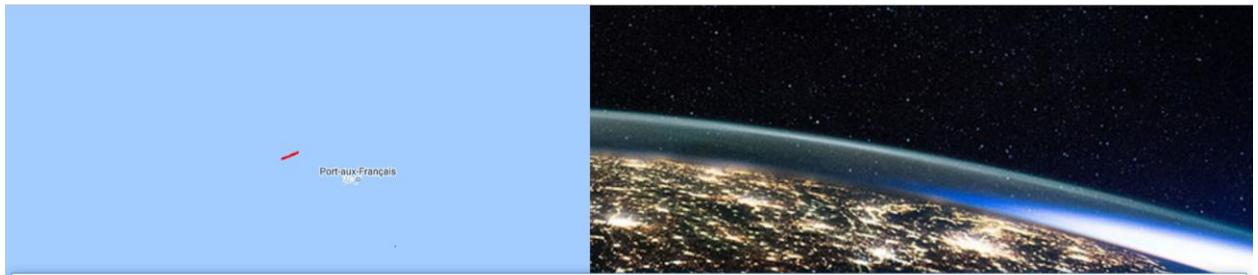
1 HTML/Text	0.1K
1 Flash Object	0.1K
1 Favicon	1.7K

Empty Cache

**HTTP Requests - 3**  
Total Weight - 2.0K

1 HTML/Text	0.1K
1 Flash Object	0.1K
1 Favicon	1.7K

Primed Cache



chrome-extension://ninejcohidippngpapiilmkgilmakh/yslow.html#1

Home Grade Components Statistics | Rulesets Small Site or Blog Edit Help

**Grade A** Overall performance score 91 Ruleset applied: Small Site or Blog URL: http://localhost:63342/ASE-FINAL-PROJECT-master/source/mashup.html

**ALL (15) FILTER BY: CONTENT (5) | CSS (5) | IMAGES (2) | JAVASCRIPT (3) | SERVER (2)**

**F Make fewer HTTP requests**

A Avoid empty src or href  
B Compress components with gzip  
A Put CSS at top  
A Put JavaScript at bottom  
A Avoid CSS expressions  
A Reduce DNS lookups

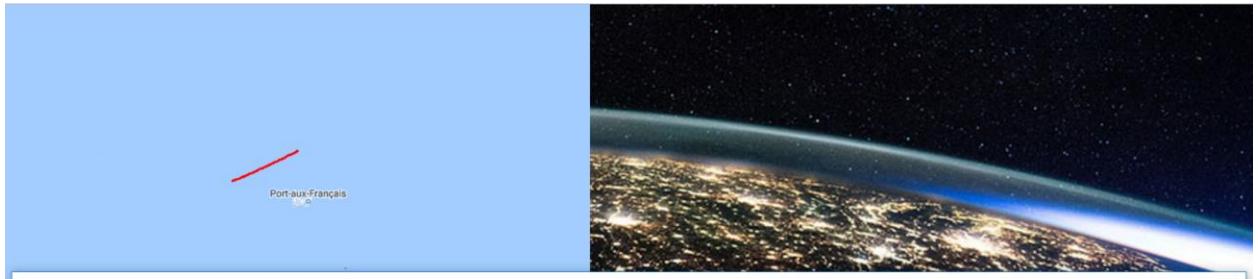
Grade F on Make fewer HTTP requests

This page has 17 external Javascript scripts. 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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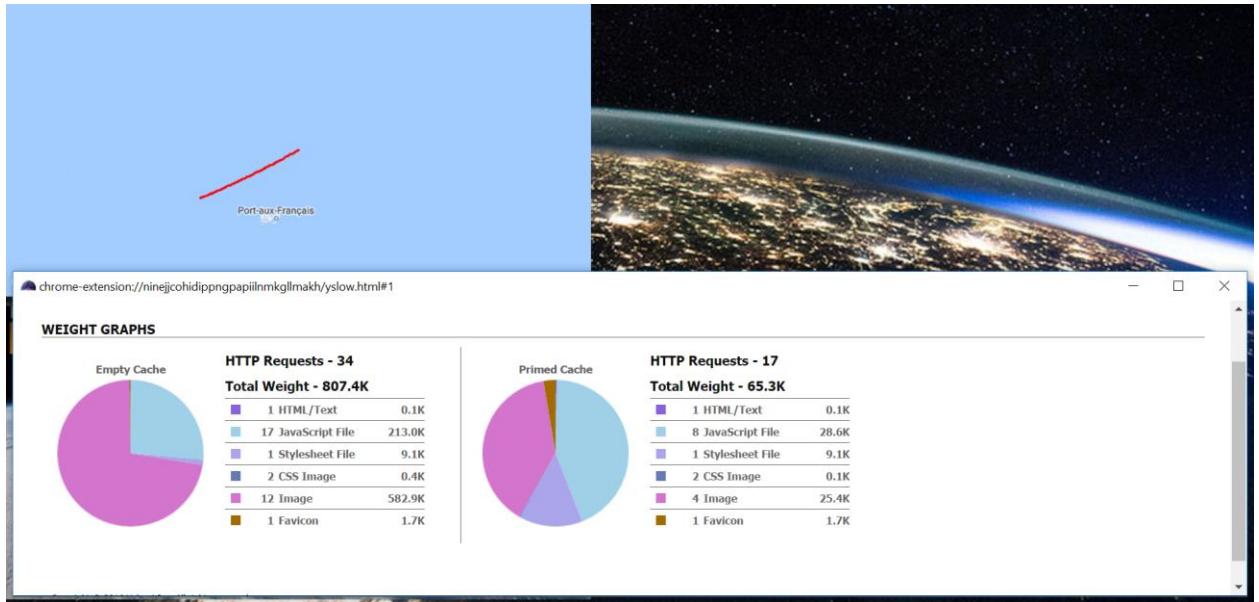
chrome-extension://ninejcohidippngpapiilmkgilmakh/yslow.html#1

Home Grade Components Statistics | Rulesets Small Site or Blog Edit Help

**Components** The page has a total of 34 components and a total weight of 807.4K bytes

[»Expand All](#)

TYPE	SIZE (KB)	GZIP (KB)	COOKIE RECEIVED (bytes)	COOKIE SENT (bytes)	HEADERS	URL	EXPIRES (Y/M/D)	RESPONSE TIME (ms)	ETAG	ACTION
doc (1)	0.1K									
js (12)	624.6K									
css (1)	9.1K									
cssimage (2)	0.4K									
Image (12)	582.9K									



## **7.Implementation (using Webstorm and Adobe CC):**

### **Server Implementation:**

#### **Database:**

Here we are using the Mongo Db for the registration details of user for their username, Email-Id and password with the help of API key and enabling it.

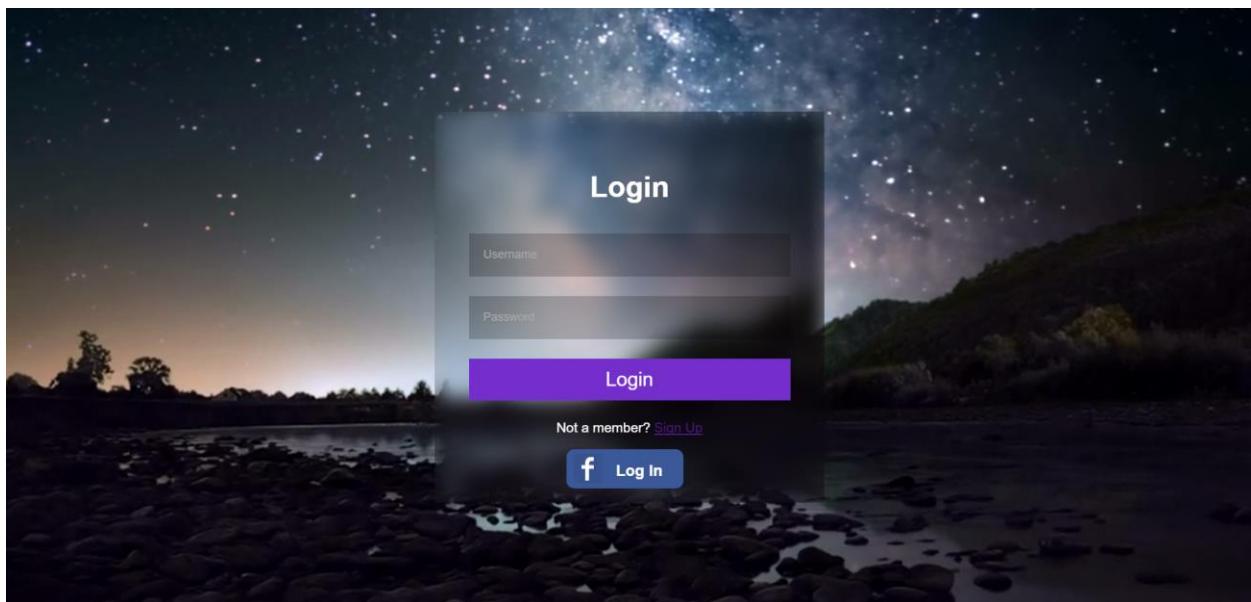
## **8.Deployment :**

**Github url:** The below link is given for Second Increment Report which includes Source and Documentation.

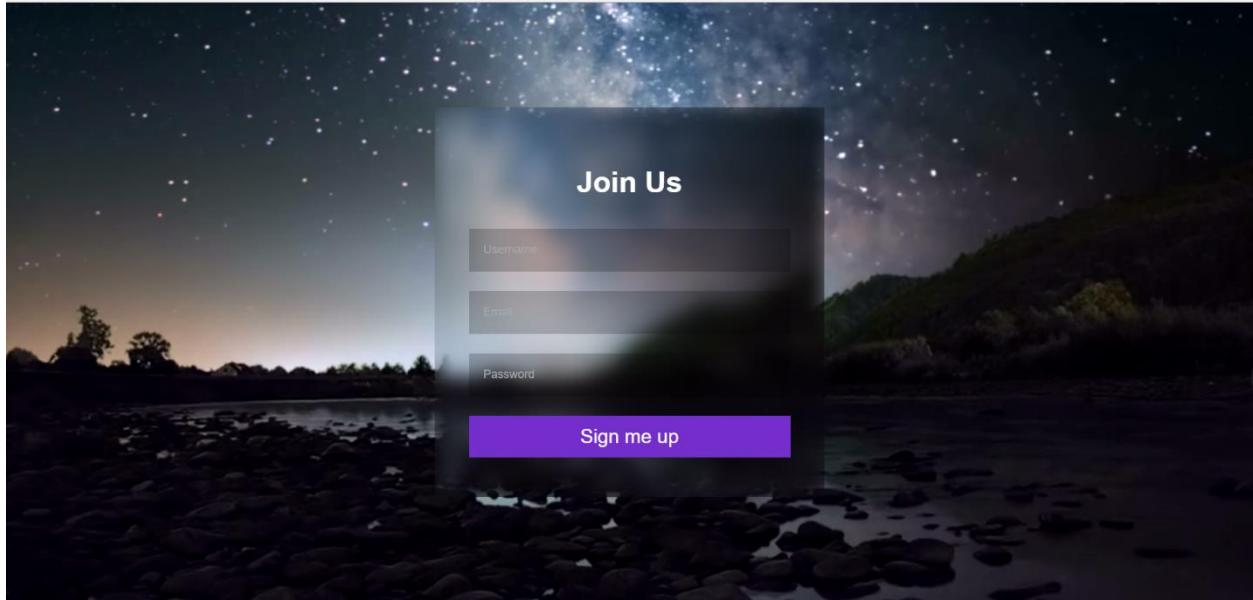
### **Github Wiki:**

### **Screenshots:**

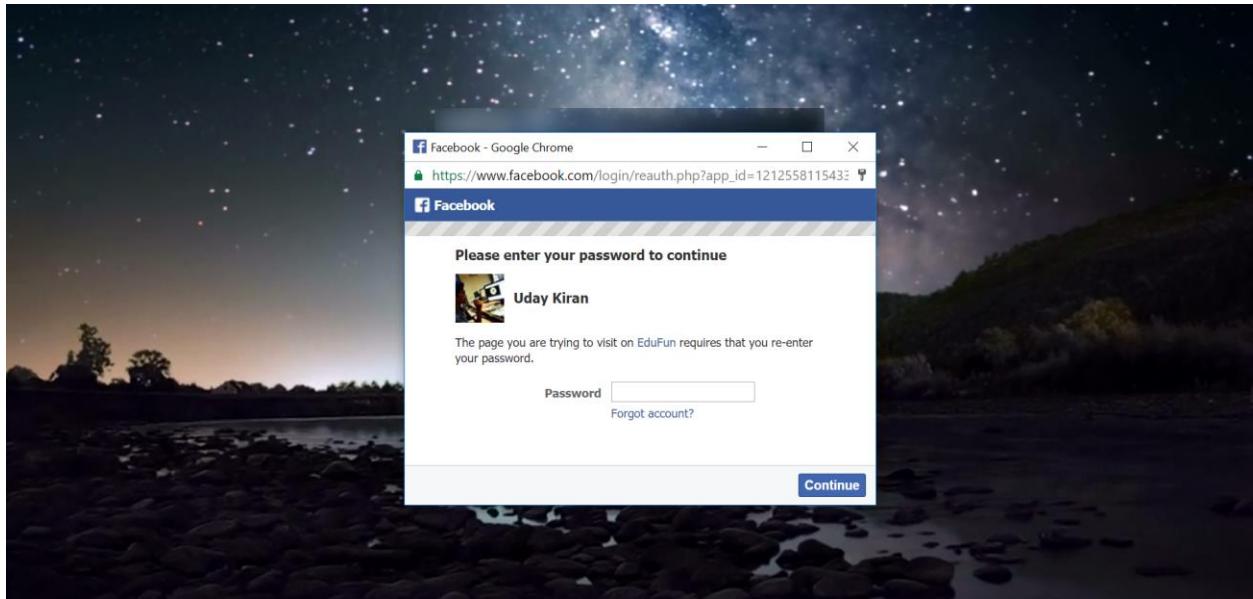
**Login Page**



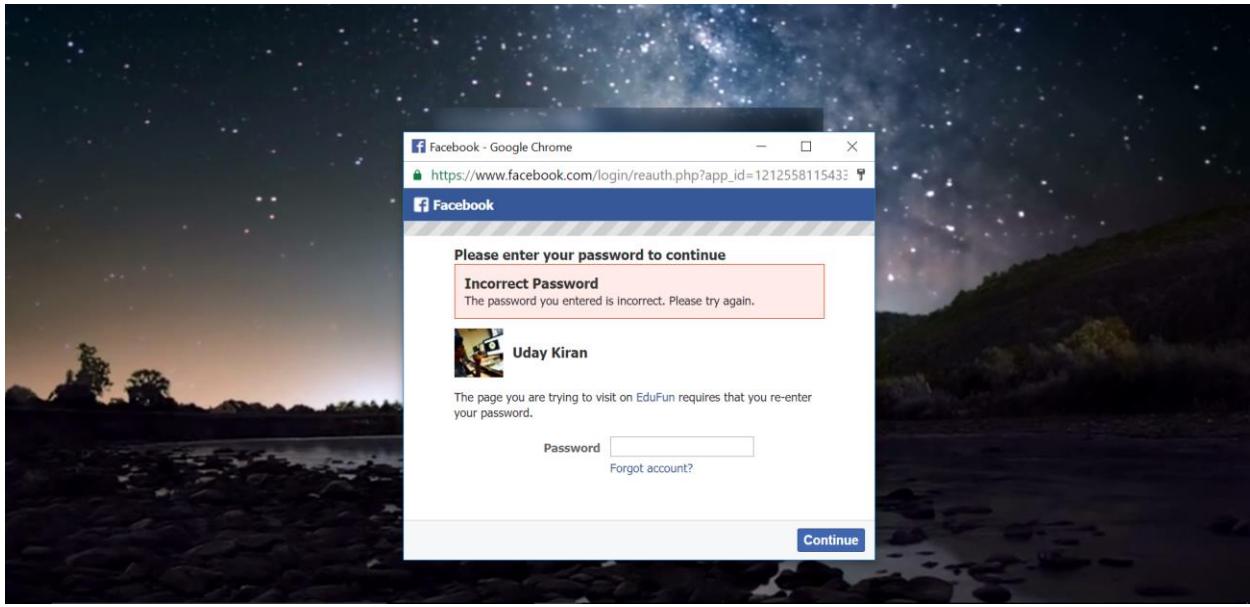
## Registration Page



## Facebook Login



## Facebook Login Fail



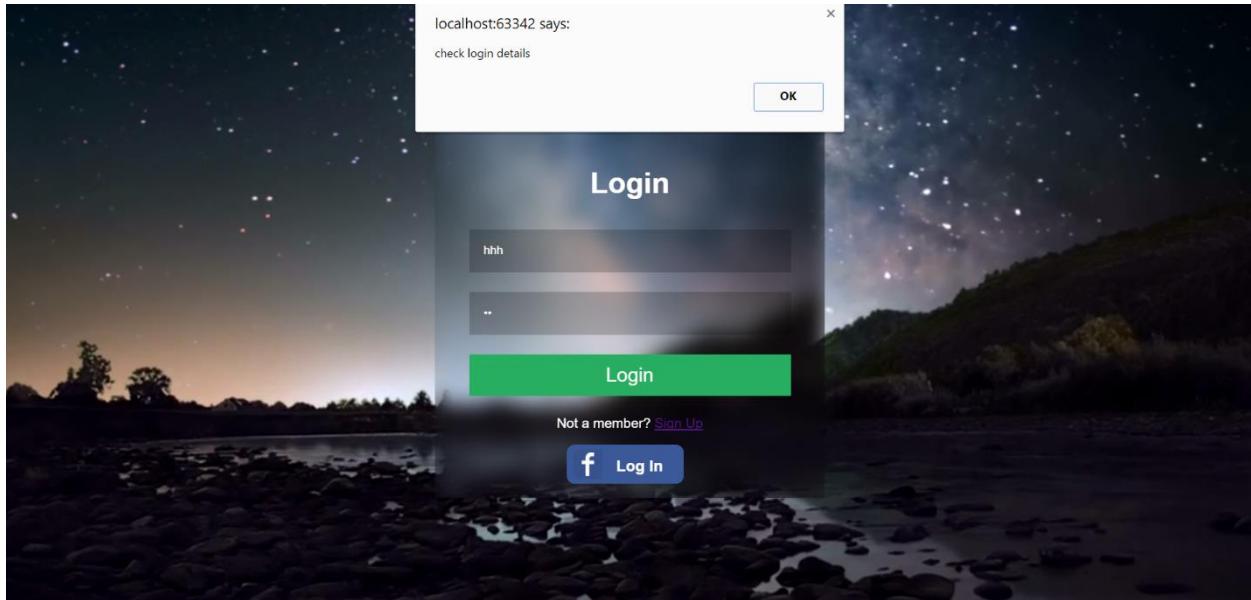
## Local Storage for Login

Key	Value
accessToken	QLjB1TORwf5DjfP6IK4ML9Cc2bjm9C
lname	hello
pname	1473902252
tokenTimestamp	HelloWorld
urn	HelloWorld
xname	HelloWorld

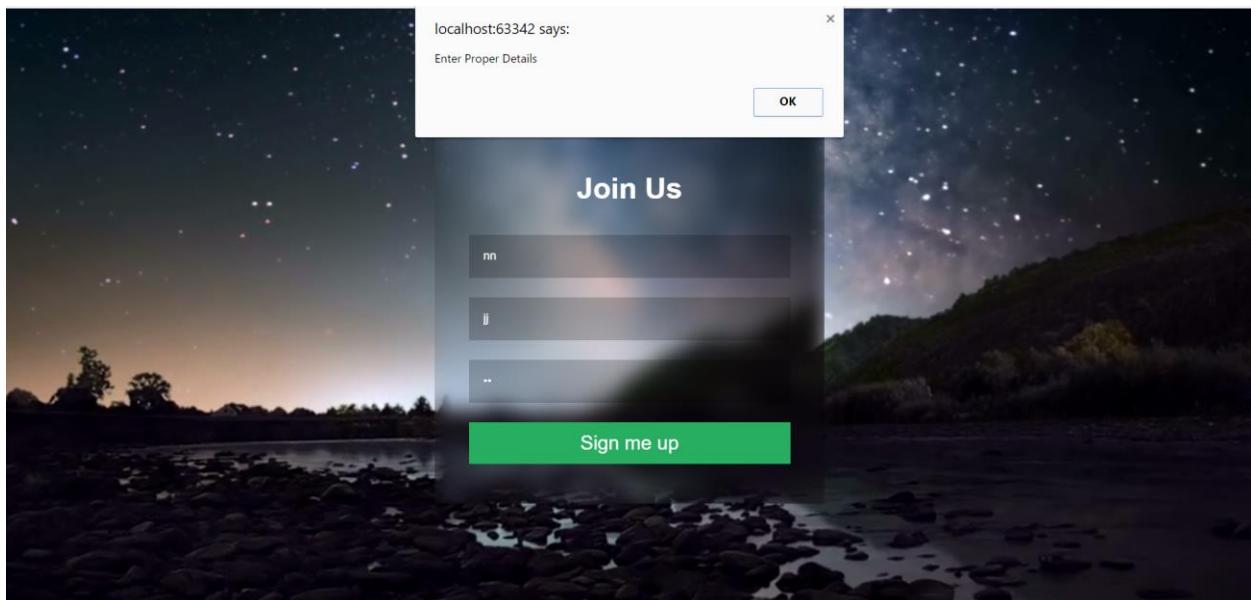
Console output:

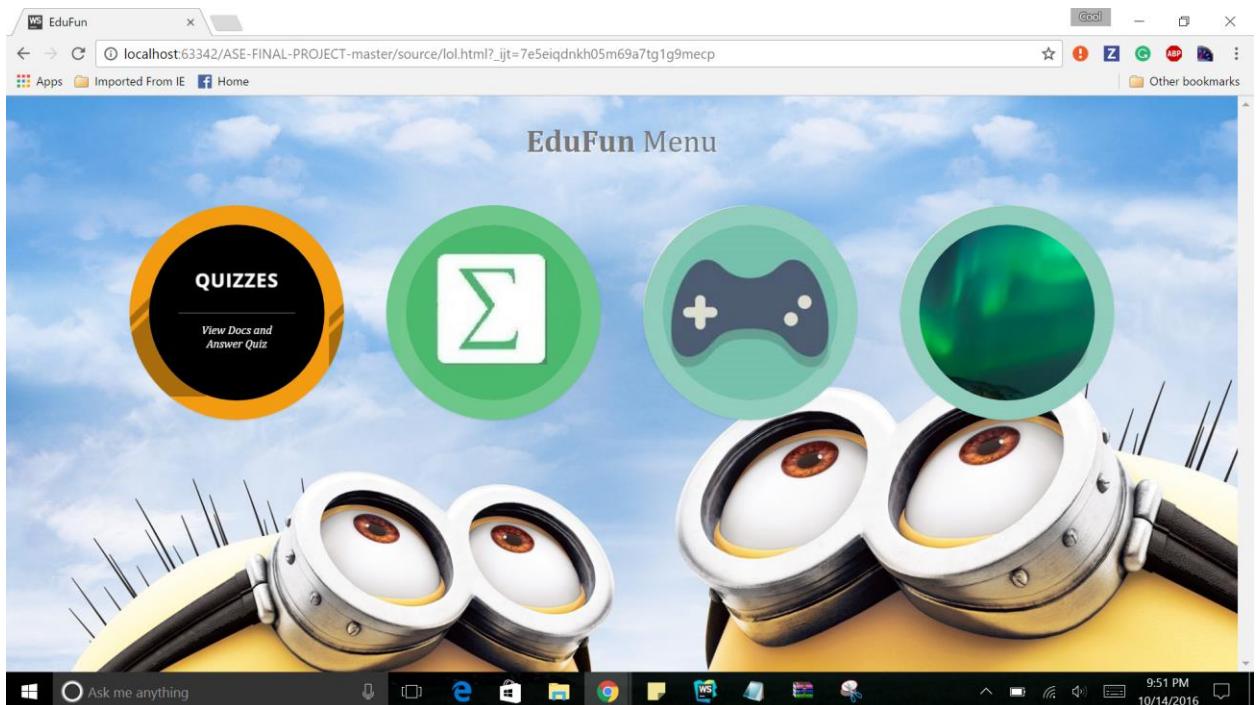
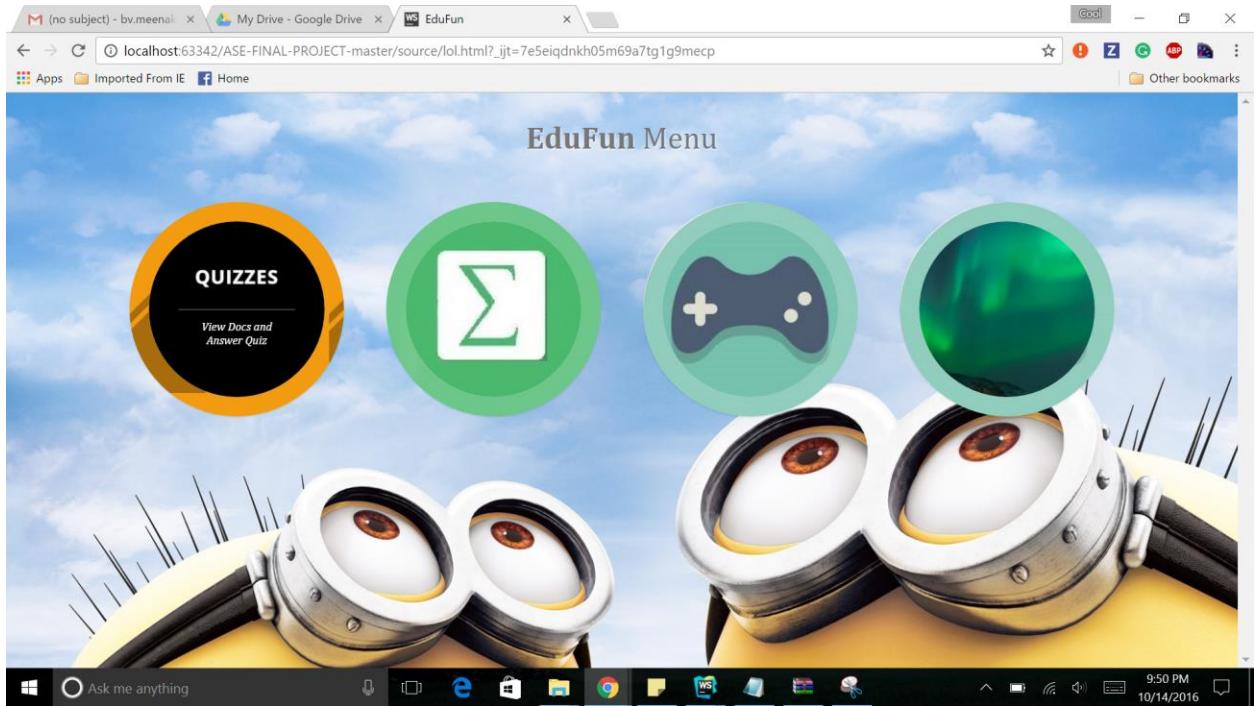
```
statusChangeCallback
> Object {authResponse: Object, status: "connected"}
Welcome! Fetching your information...
Successful login for: Uday Kiran
```

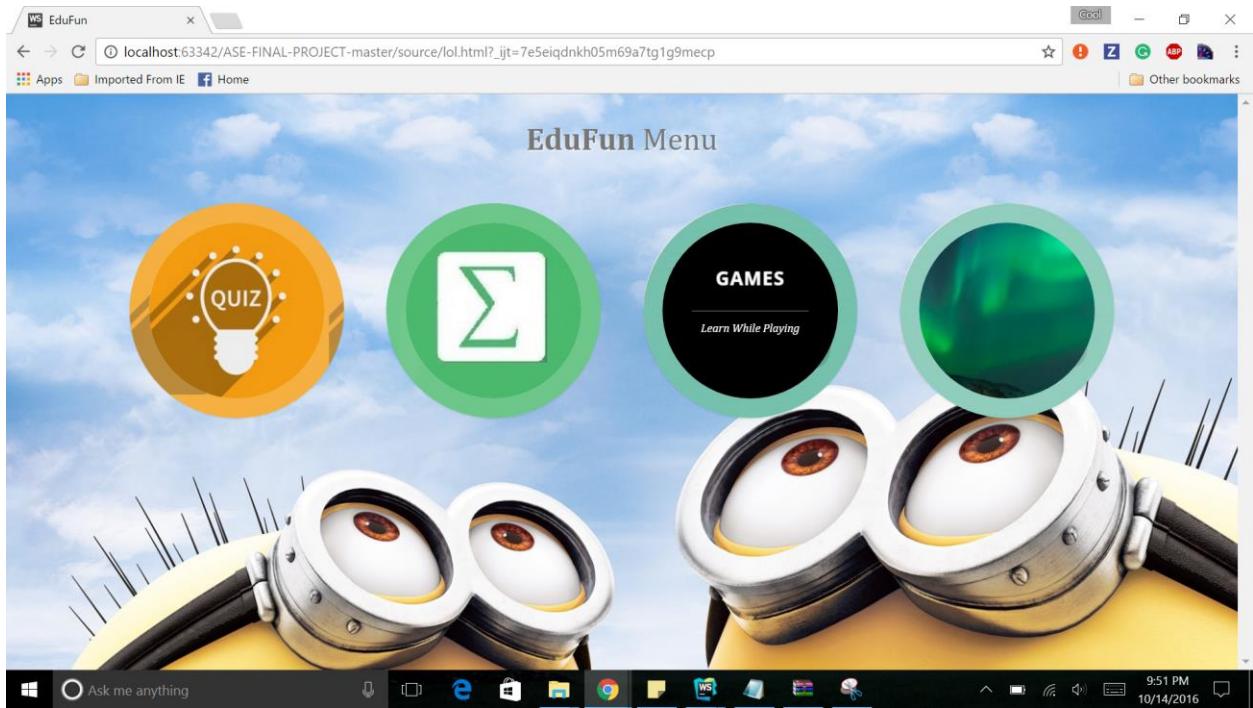
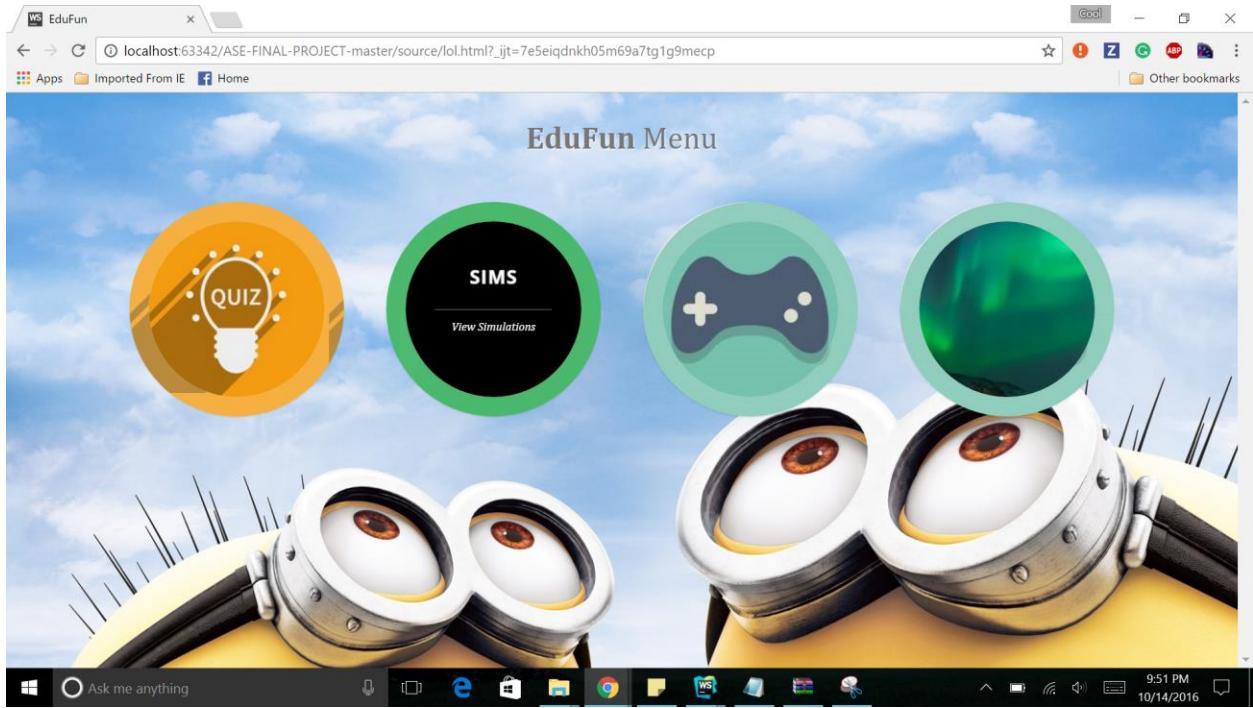
## Login Validation

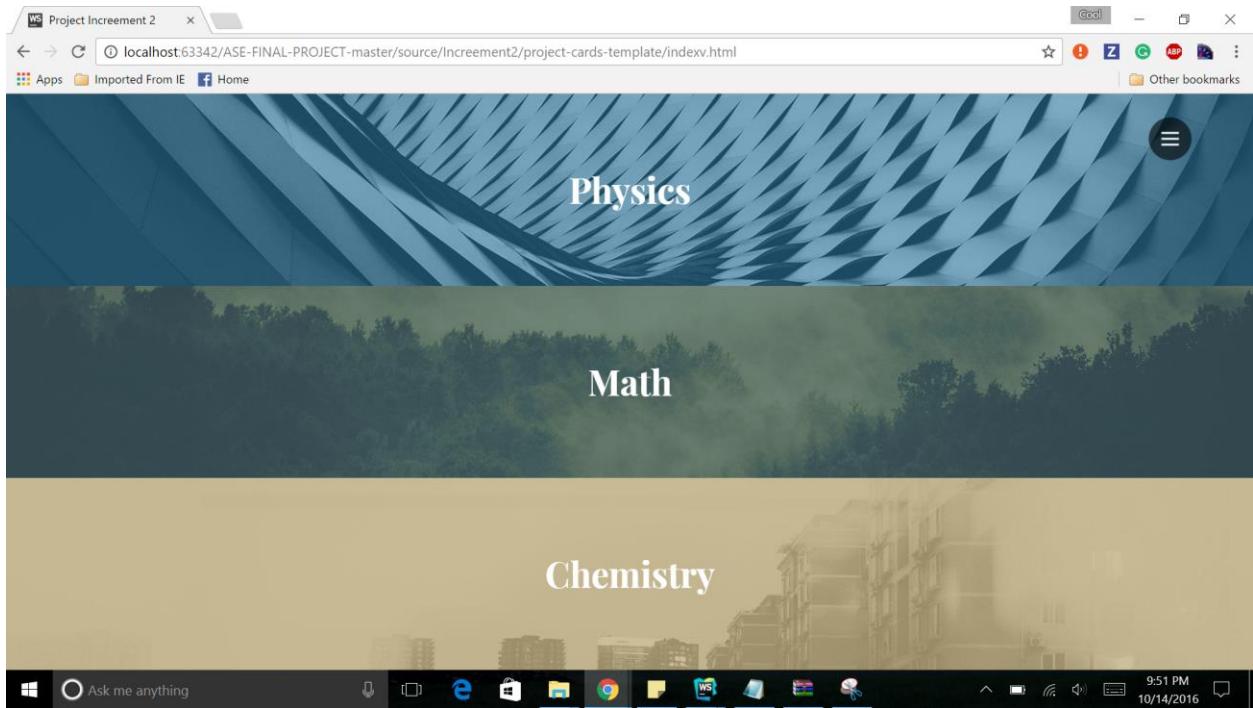
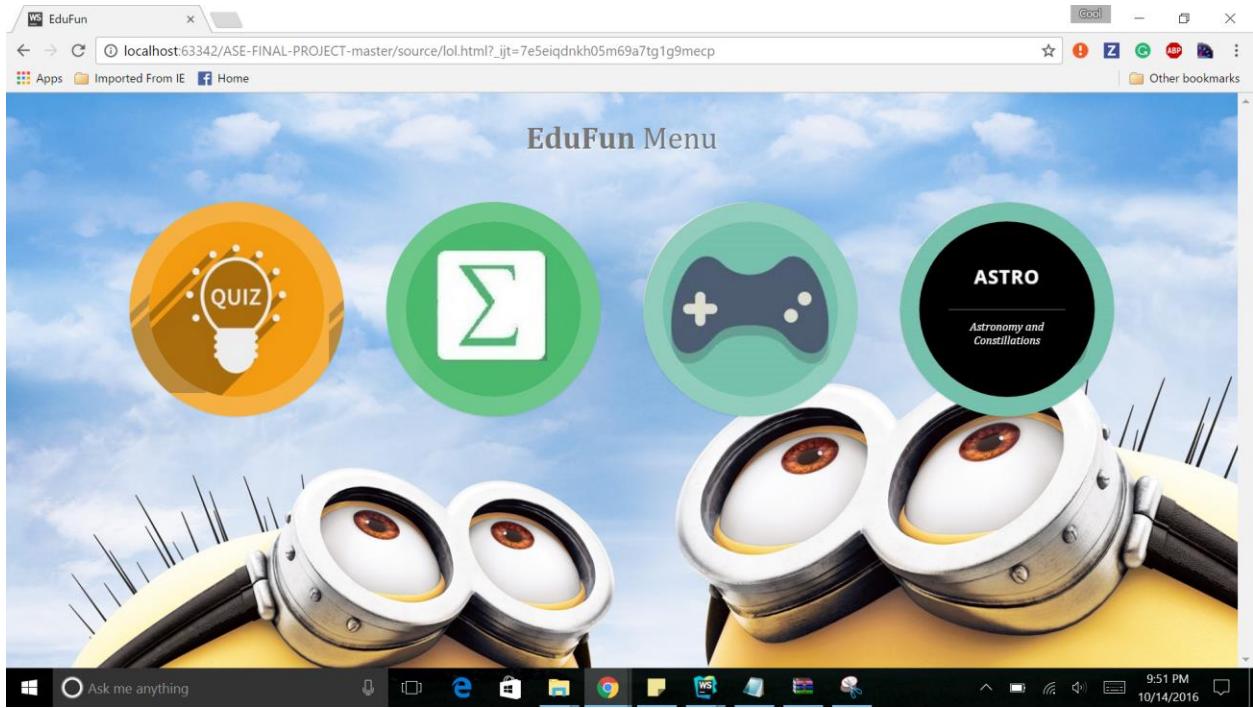


## Registration Validation











## Force of Attraction between Bodies

A force of attraction is any type of force that causes objects to come together, even if those objects are not close to or touching each other. The first force that causes attraction is the gravitational force. According to Newton's Universal Law of Gravitation every object in the universe attracts every other object in the universe. Gravity is an attractive force since any object with mass will experience a force of attraction from other objects with mass. Gravity is the reason for the statement 'What goes up must come down.' The second force that can cause attraction is the electric force, also known as the electrostatic force. While gravity affects objects with mass, electrostatic forces affect objects that have charge. Charge is determined by the number of electrons and protons in an object. Most objects are electrically neutral, which means they have an equal amount of electrons, which carry a negative charge, and protons, which carry a positive charge. But sometimes, objects can lose electrons and be positively charged, or gain electrons and become negatively charged. The



objects are electrically neutral, which means they have an equal amount of electrons, which carry a negative charge, and protons, which carry a positive charge. But sometimes, objects can lose electrons and be positively charged, or gain electrons and become negatively charged. The attraction occurs when two objects of opposite charge are in close proximity, and the electrical force causes these objects to attract. Therefore, positive and negative charges will attract each other. Hence the saying 'Opposites attract.' The third force that may cause attraction is the magnetic force. The magnetic force attracts objects that have magnetic properties. A magnet will attract metals rich in iron, like steel, as well as nickel and cobalt. But when an object is magnetized, the magnetic force is attractive when a north magnetic pole is brought into close proximity to a south magnetic force. The main source of magnetism is electric currents. When charges move, there is an electric current. So charges that don't move are affected by the electric force and charges that move are affected by the magnetic force. Magnetic attraction can also be the reason behind the saying 'Opposites attract.'

Take a Quiz



localhost:63342/ASE-FIN

localhost:63342/ASE-FINAL-PROJECT-master/source/Increement2/quiz.html?\_jst=v6aepspr353m91o406d5ch86up

Question 1 of 4

Which one of the following forces is purely attractive?

- Gravitational force
- Electrostatic force
- Magnetic force

Submit Answer

EXIT

TIME REMAINING:

40



localhost:63342/ASE-FIN

localhost:63342/ASE-FINAL-PROJECT-master/source/Increement2/quiz.html?\_jst=v6aepspr353m91o406d5ch86up

Question 1 of 4

Which one of the following forces is purely attractive?

- Gravitational force
- Electrostatic force
- Magnetic force

Submit Answer

EXIT

TIME REMAINING:

37



localhost:63342/ASE-FIN

Question 1 of 4

Which one of the following forces is purely attractive?

Gravitational force ←

Electrostatic force

Magnetic force

Submit Answer

EXIT

TIME REMAINING:

29



localhost:63342/ASE-FIN

Question 2 of 4

Which one of the following forces depends on moving charges?

Magnetic Force

Electric Force ←

Gravitational Force

Submit Answer

EXIT

TIME REMAINING:

23



localhost:63342/ASE-FIN

Question 3 of 4

What is the main source of Magnetic Force?

Magnetic Currents

Attraction force

Poles Strength ←

Submit Answer

EXIT

TIME REMAINING: 18



localhost:63342/ASE-FIN

Question 4 of 4

Who Observed Gravity first?

Einstein

Stephen

Newton ←

Submit Answer

EXIT

TIME REMAINING: 13



localhost:63342/ASE-FIN

Feedback

Who Observed Gravity first?

Einstein

Stephen

Newton

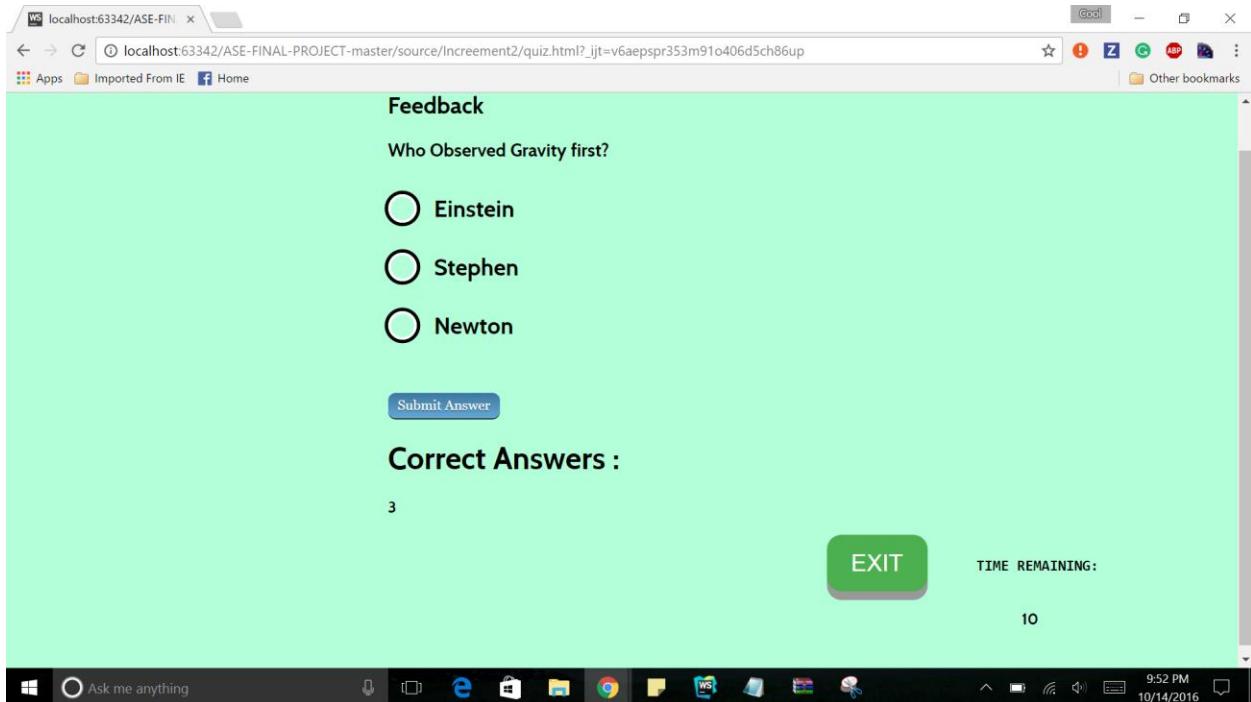
Submit Answer

Correct Answers :

3

TIME REMAINING:

10



localhost:63342/ASE-FIN

Feedback

Who Observed Gravity first?

Einstein

Stephen

Newton

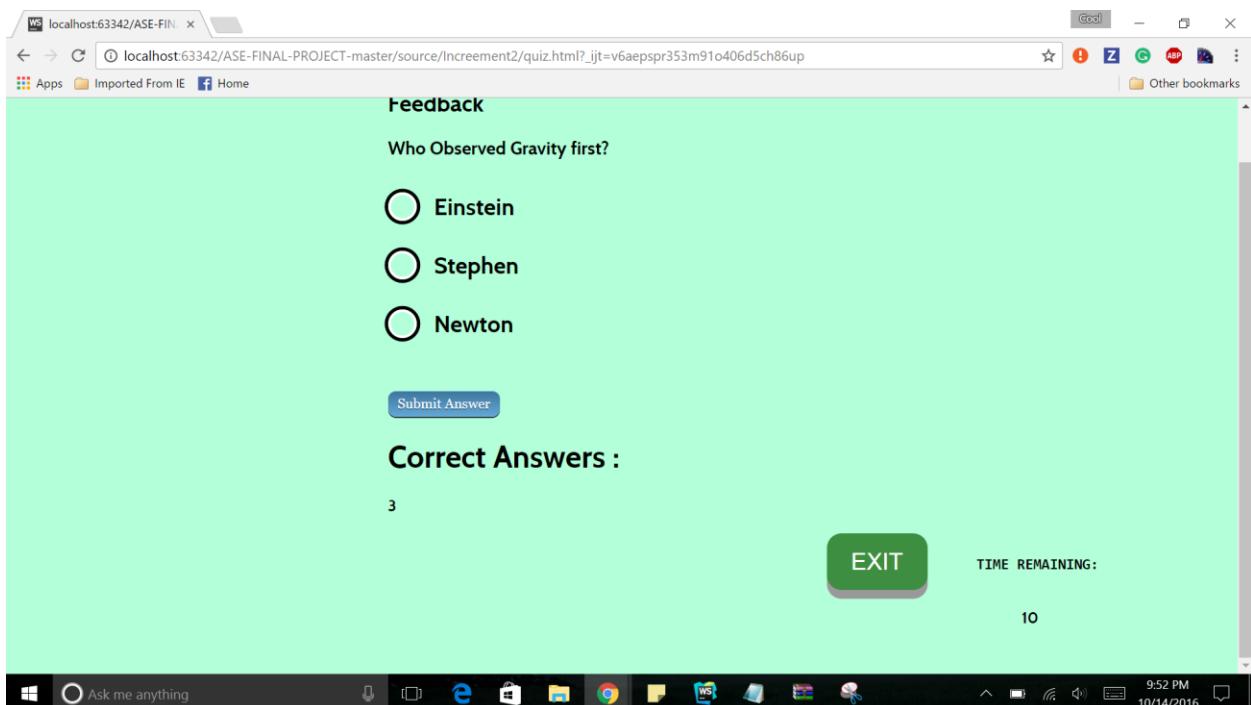
Submit Answer

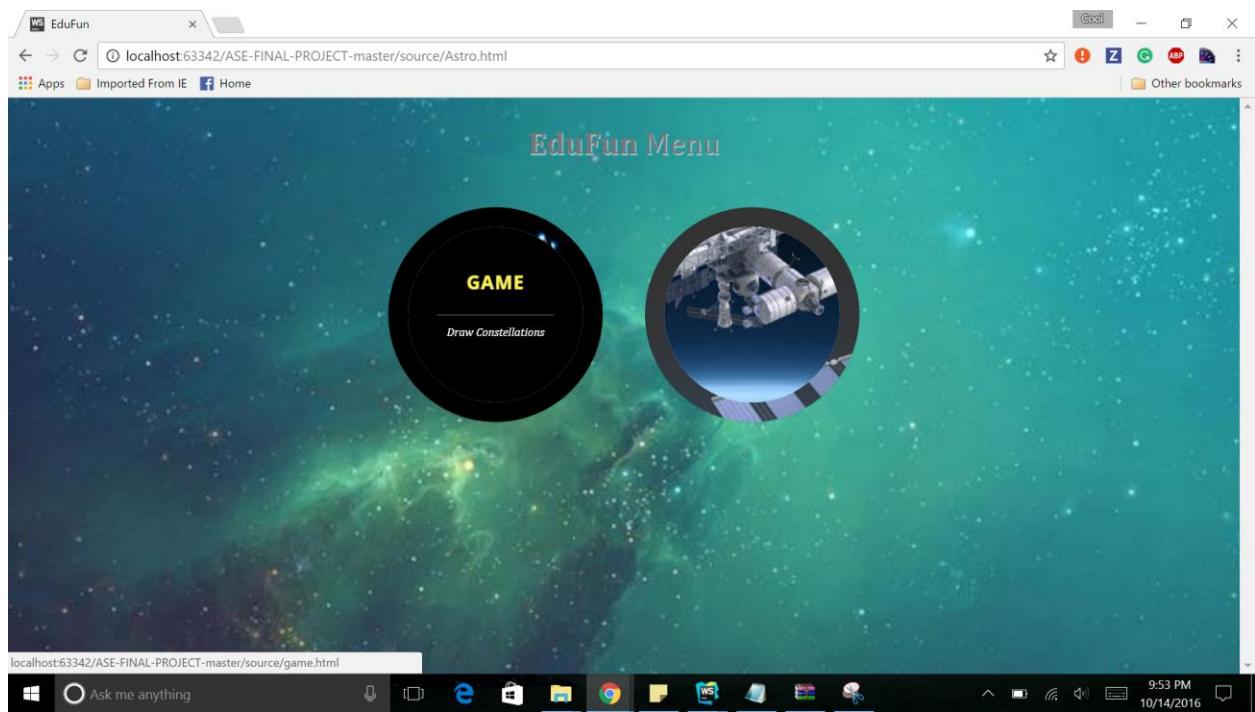
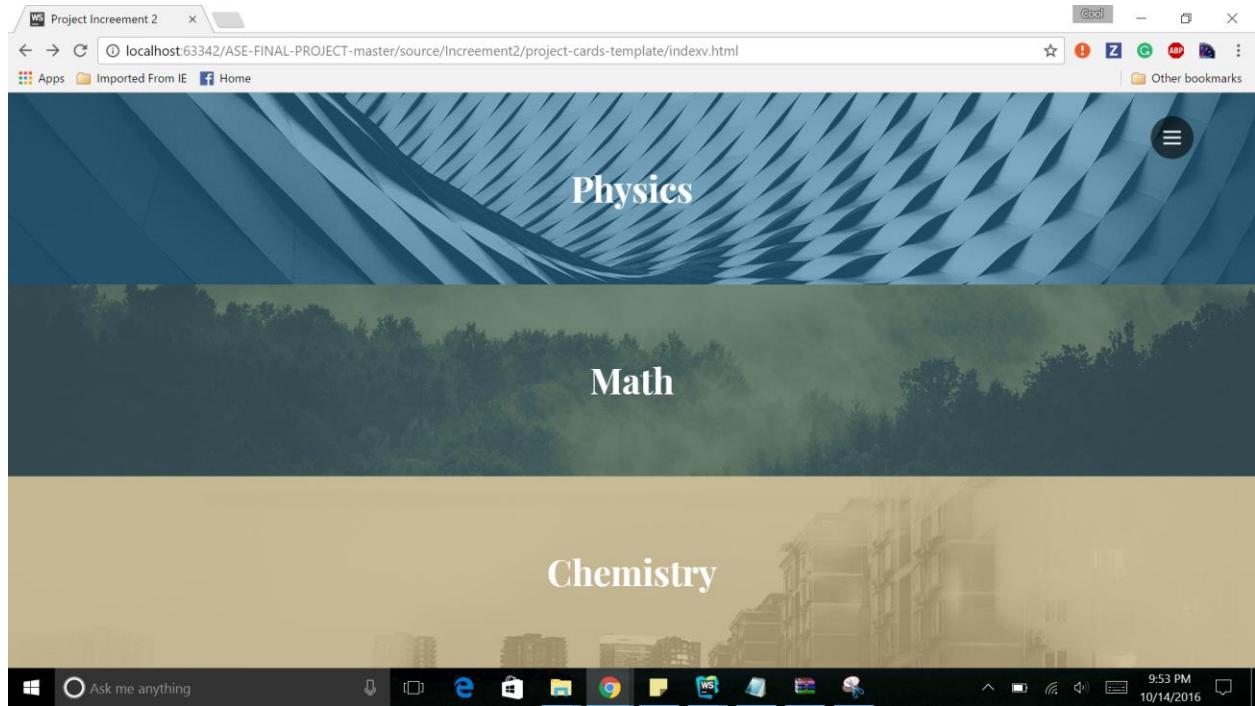
Correct Answers :

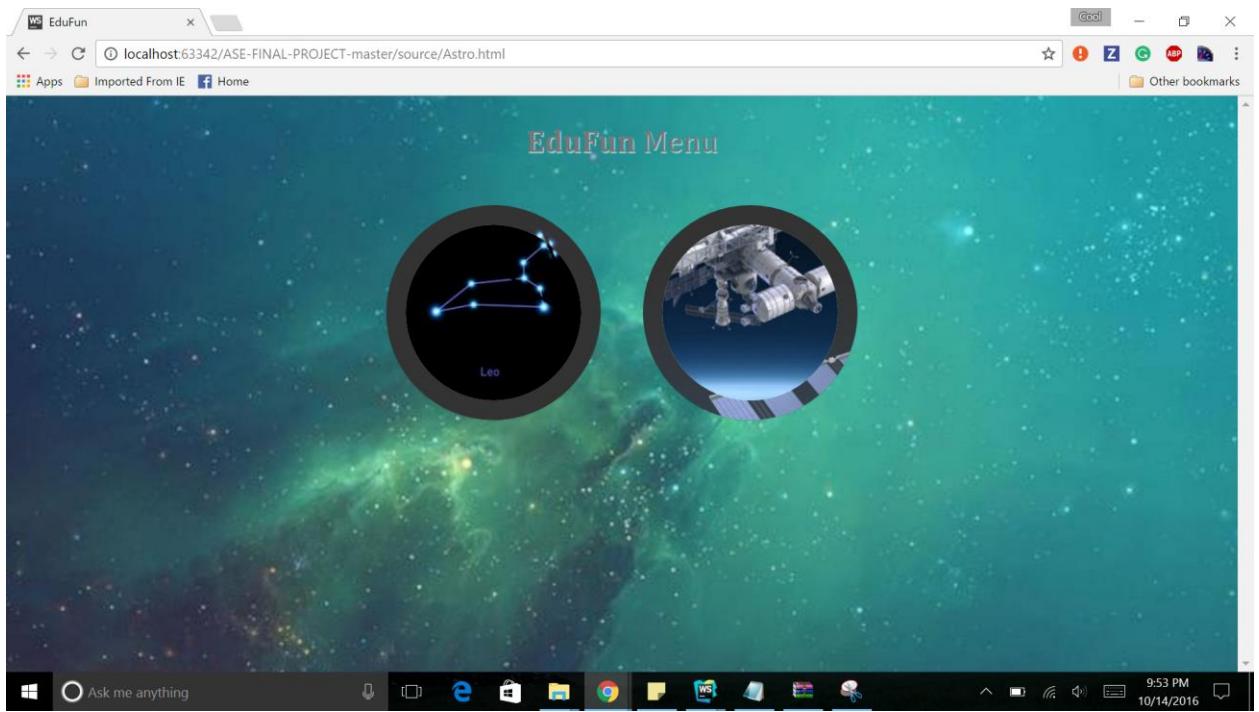
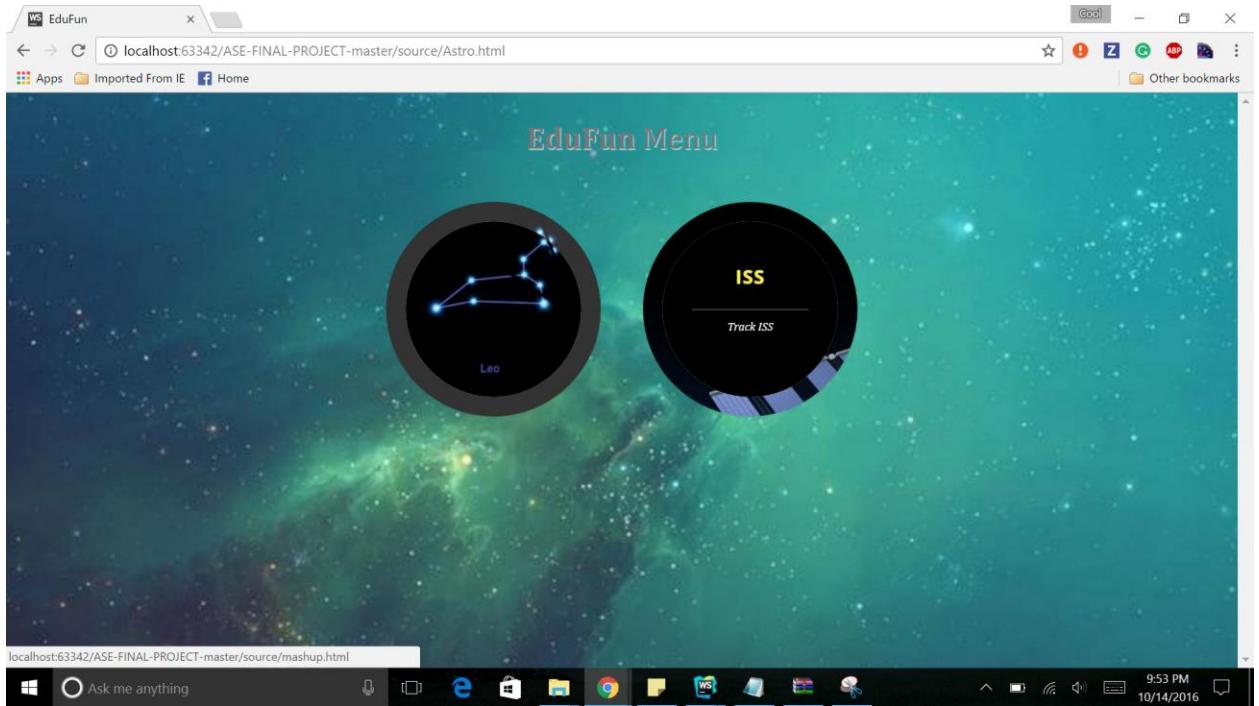
3

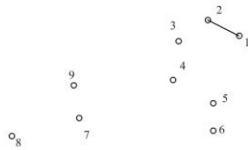
TIME REMAINING:

10



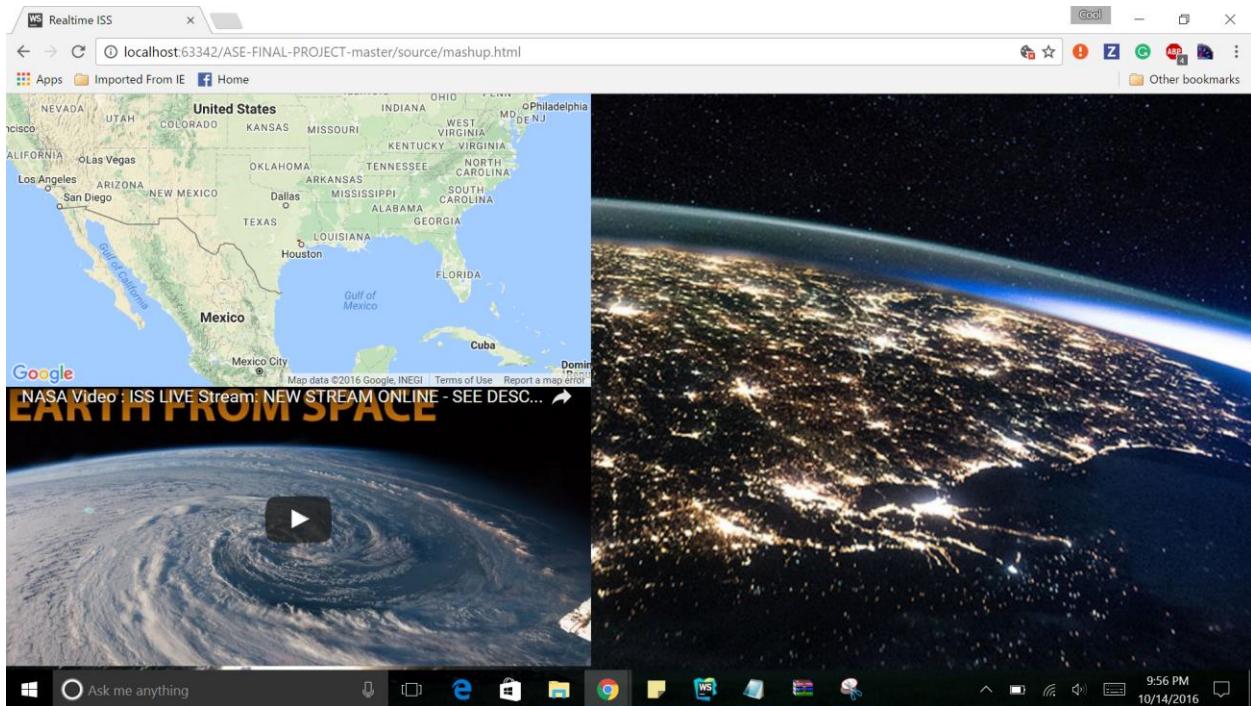


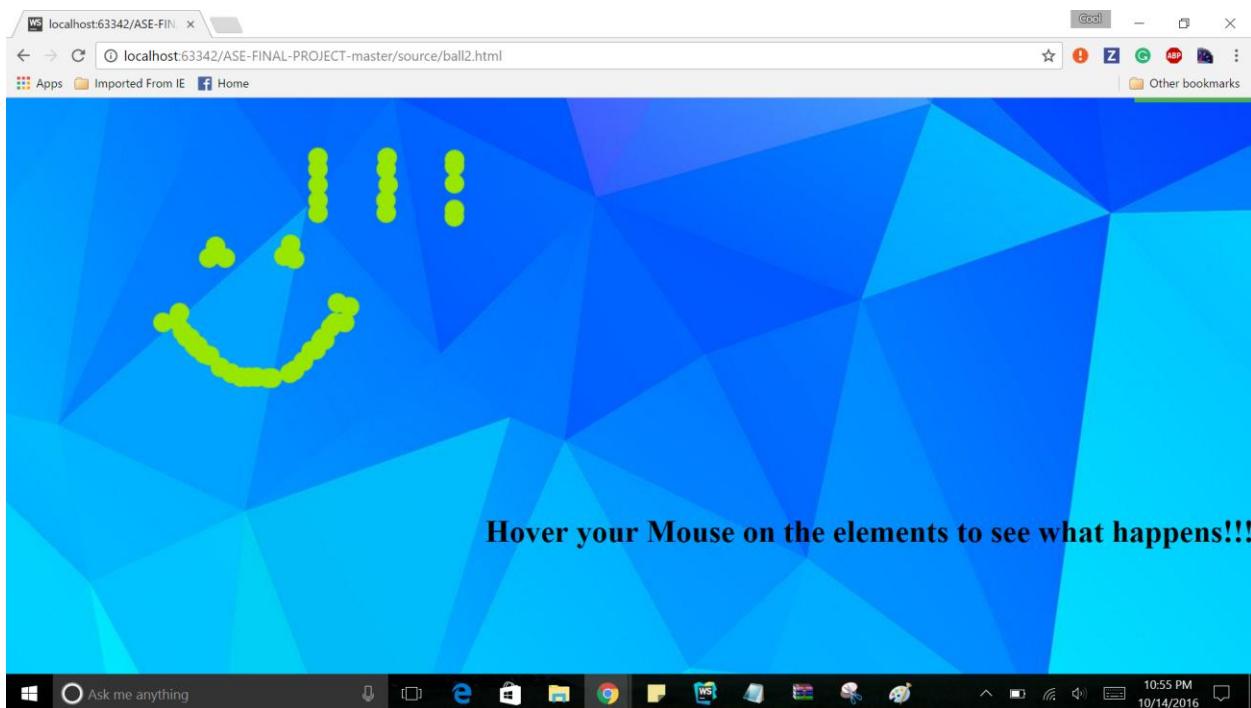
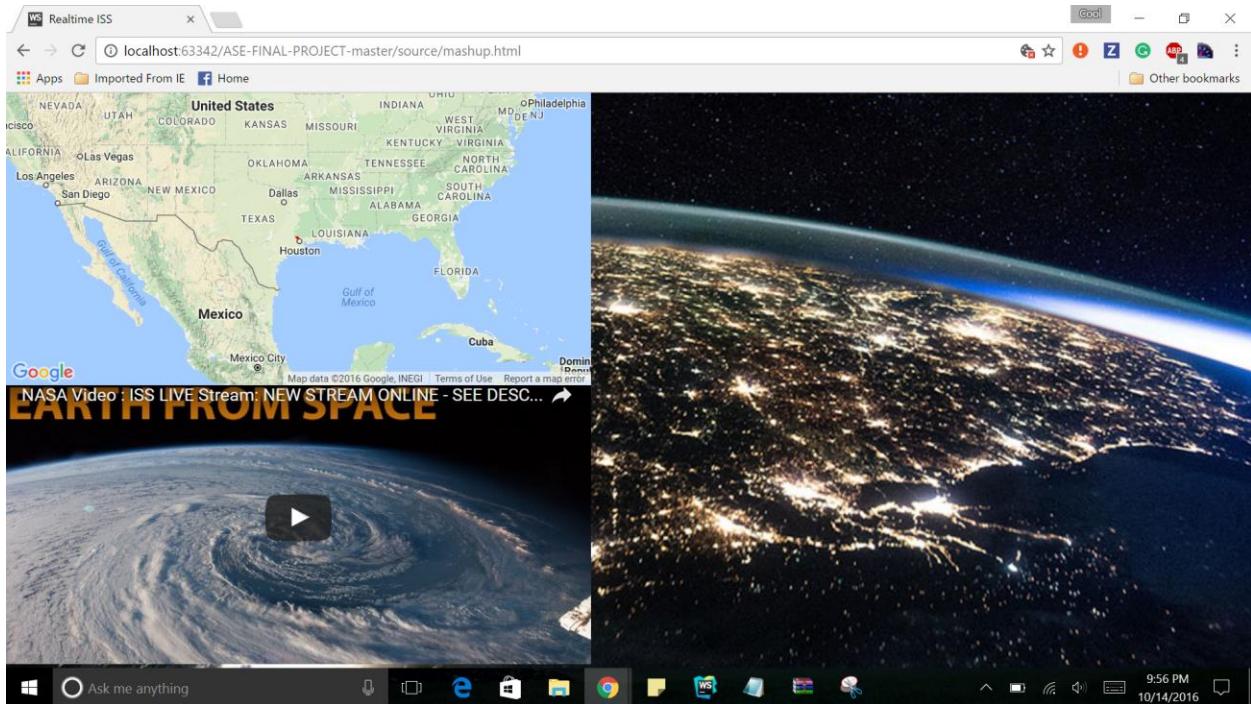




TRY AGAIN







## **9.Project Management:**

### **9.1 Second Increment Report:**

For the Second Increment Report we added the login, register and home page which is an interactive web page containing Menu page for different Icons with different topics. It contains Quizzes, Game, Simulations, Reviews. Quizzes includes from different subjects they are Mathematics, Physics, Chemistry.

These Quizzes are conducted to get the basic knowledge on each subject, these questions are having limited amount of time and also shows the score displaying number of questions answered correctly. This has been done in all topics such as Mathematics, Physics and Chemistry. Each subject also includes some basic information and then it will redirect to Quiz.

Astrology topic has been included which contains number games and constellation. It also includes live streaming from ISS (International Space Station) which will be shown on the map with the help of latitudes and Longitudes. The rare view vision from the camera has been streamed lively with the help of YouTube Video API. This is the live telecast from NASA. This video helps kids to gain some knowledge about space. Number game of constellations gives the information about the shape of constellations.

### **9.1.1 Project Timelines, Members, Task Responsibility:**

**Project Timelines:** The Project is submitted in 4 increments and the aim is to achieve the said goals and tasks reported in the project.

#### **Members:**

- Uday Kiran Dora
- Meenakshi Borusu
- Rakesh Reddy
- Ramana Kumar

#### **Task Responsibility:**

Team includes four members. Each member has done their own part of work related to the project.

### **9.2 Work Completed:**

- Changes in the main page which show the Grid view of topics.
- Quizzes on each topic has been implemented.
- Astrology topic has been added.
- Number Game has been implemented for the shape of constellations.

## Description:

## Stories(Issues):

These are the issues created during the project to enhance the project regarding various issues.

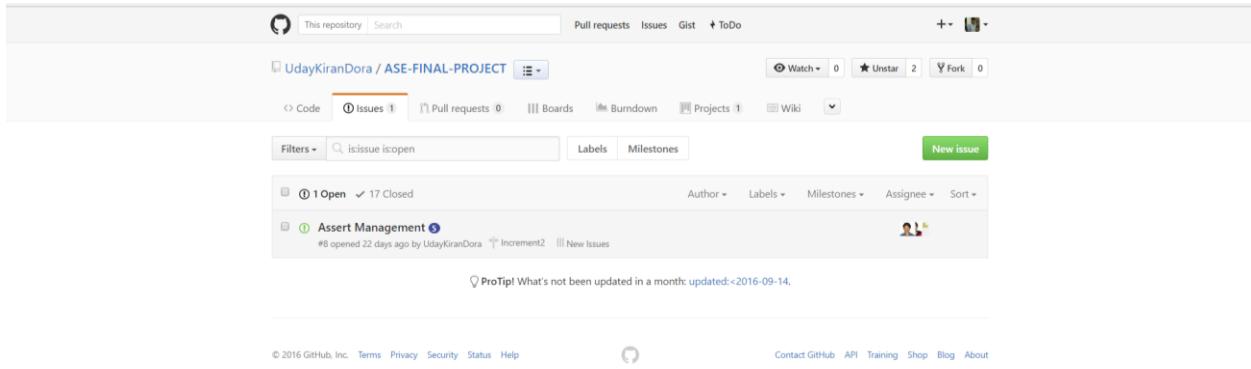
The open issues and closed issues describe the various stages in the github. Those are labelled with level of difficulty and also milestone with the type of functionality to it

The closed Issues are as follows and this has gone through the several stages:

The screenshot shows a GitHub issue list with the following details:

Issue #	Title	Type	Milestone	Status
#19	Constellation Game	enhancement	Increment2	Closed
#18	refine login page	enhancement	Increment2	Closed
#17	chemistry arrangement	enhancement	Increment2	Closed
#16	Quiz	enhancement	Increment2	Closed
#15	Graphicalcontent	enhancement	Increment2	Closed
#14	icons and theme	question	Increment2	Closed
#13	mainlogic	help wanted	Increment2	Closed
#12	DesignImprovement	enhancement	Increment2	Closed
#11	Balls	enhancement	Increment1	Closed
#10	Project Increment Report	help wanted	Increment1	Closed
#9	Game And Quiz	enhancement	Increment2	Closed

The open issues are as follows and these issue need further enhancement in the future.



A screenshot of a GitHub repository page for 'UdayKiranDora / ASE-FINAL-PROJECT'. The 'Issues' tab is selected, showing 1 open issue and 17 closed issues. The open issue is titled 'Assert Management' (#8) and was opened 22 days ago by UdayKiranDora. A 'ProTip!' message at the bottom left suggests checking for updates in a month. The GitHub footer includes links for Contact GitHub, API, Training, Shop, Blog, and About.

## **Service Design:**

## **Service Implementation:**

## **Responsibility(Task and Person):**

Meenakshi- Quiz(4 hrs)

Meenakshi - Userstories(1/2 hr)

Meenakshi- UnitTesting(1/2 hr)

Uday-ISS(5 hrs)

Uday-Constellation Game(2 hrs)

Rakesh- HomePage Styling(4 hrs)

Rakesh-UI Design(2 hrs)

Rakesh-Class Diagram(1 hr)

Ramana-Activity Diagram(1/2 hr)

Ramana-Documentation(2 hrs)

- Contribution

- Everyone had equal contribution.

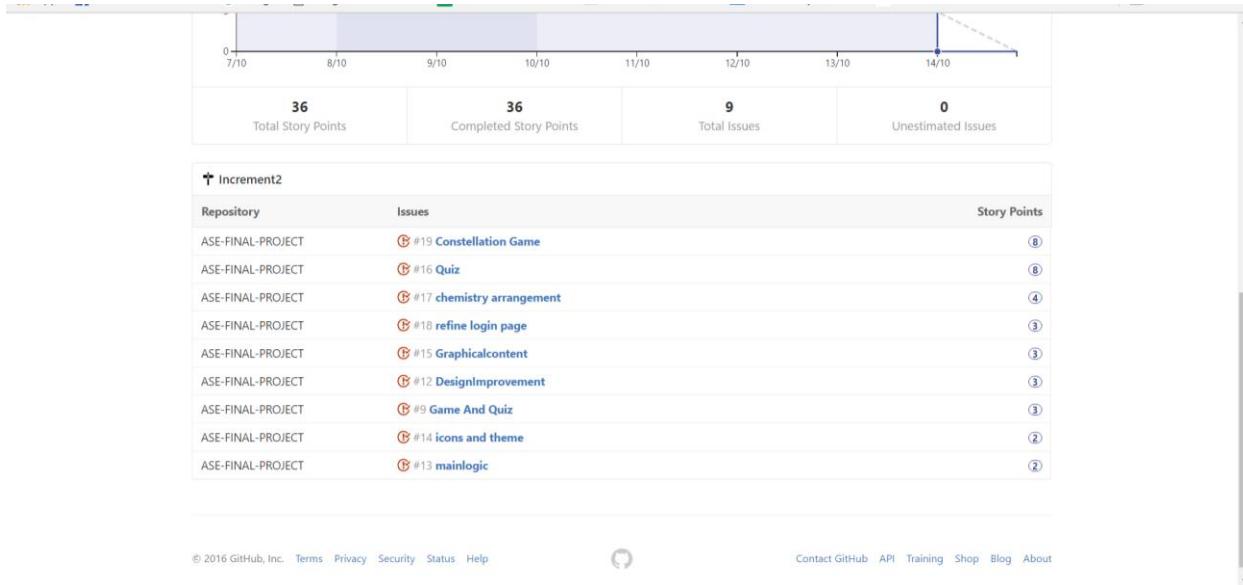
### 9.3 Work to be Completed:

Description:

- Statistical Data to be displayed
- Leaderboard
- Separate login for user and parent
- Unity game

### Burndown Chart:





The above burndown chart shows how the issues are resolved in the span of time.

This screenshot shows a GitHub project board for the repository "UdayKiranDora / ASE-FINAL-PROJECT". The board is divided into five columns: "New Issues", "In Progress", "Review/QA", "Done", and "Closed".

- New Issues:** Contains one item: "ASE-FINAL-PROJECT #8 Assert Management Increment3".
- In Progress:** Contains one item: "ASE-FINAL-PROJECT #19 Constellation Game Increment2".
- Review/QA:** Contains one item: "ASE-FINAL-PROJECT #15 Graphicalcontent Increment2".
- Done:** Contains one item: "ASE-FINAL-PROJECT #12 DesignImprovement Increment2".
- Closed:** Contains several items, including:
  - "ASE-FINAL-PROJECT #19 Constellation Game Increment2"
  - "ASE-FINAL-PROJECT #15 Graphicalcontent Increment2"
  - "ASE-FINAL-PROJECT #12 DesignImprovement Increment2"
  - "ASE-FINAL-PROJECT #16 Quiz Increment2"
  - "ASE-FINAL-PROJECT #14 icons and theme Increment2"
  - "ASE-FINAL-PROJECT #17 chemistry arrangement Increment2"
  - "ASE-FINAL-PROJECT #18 mainlogic Increment2"
  - "ASE-FINAL-PROJECT #19 refine login page Increment2"
  - "ASE-FINAL-PROJECT #10 Project Improvement Report Increment1"
  - "ASE-FINAL-PROJECT #11 Balloons Increment1"
  - "ASE-FINAL-PROJECT #7 Integrating project Increment1"
  - "ASE-FINAL-PROJECT #3 Design Elements Increment1"

This screenshot shows a GitHub project board for the repository "UdayKiranDora / ASE-FINAL-PROJECT". The board is divided into four columns: "In Progress", "Review/QA", "Done", and "Closed".

- In Progress:** Contains one item: "ASE-FINAL-PROJECT #19 Constellation Game Increment2".
- Review/QA:** Contains one item: "ASE-FINAL-PROJECT #15 Graphicalcontent Increment2".
- Done:** Contains one item: "ASE-FINAL-PROJECT #12 DesignImprovement Increment2".
- Closed:** Contains several items, including:
  - "ASE-FINAL-PROJECT #19 Constellation Game Increment2"
  - "ASE-FINAL-PROJECT #15 Graphicalcontent Increment2"
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  - "ASE-FINAL-PROJECT #19 refine login page Increment2"
  - "ASE-FINAL-PROJECT #10 Project Improvement Report Increment1"
  - "ASE-FINAL-PROJECT #11 Balloons Increment1"
  - "ASE-FINAL-PROJECT #7 Integrating project Increment1"
  - "ASE-FINAL-PROJECT #3 Design Elements Increment1"

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