

CSEE5590/490: Web/Mobile Programming

Report for Lab programming-I



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Introduction

This report is about the Lab 1 which is to create a web pages including all the basic topics like HTML, CSS, JavaScript, Angular JS, Node JS etc.,

Objective:

The main Objective for this Lab is to perform three tasks and those tasks are as described below

1. To create a MOOC web application which consists of various web pages with the below details.
 - i. User Details like logged in User or guest user.
 - ii. Ordered Details like recent Orders, Old Orders.
 - iii. Product Details.
2. To build a Snake game using Angular JS using the keycodes for the direction changing and to print the best score of the games played.
3. To Create an application which will display the description about the notable entities(e.g. people, places, and things) that match certain criteria

Approaches/Methods:

The approaches or tools that are used are

- HTML
- CSS
- JavaScript
- Angular JS
- NodeJS
- WebStorm

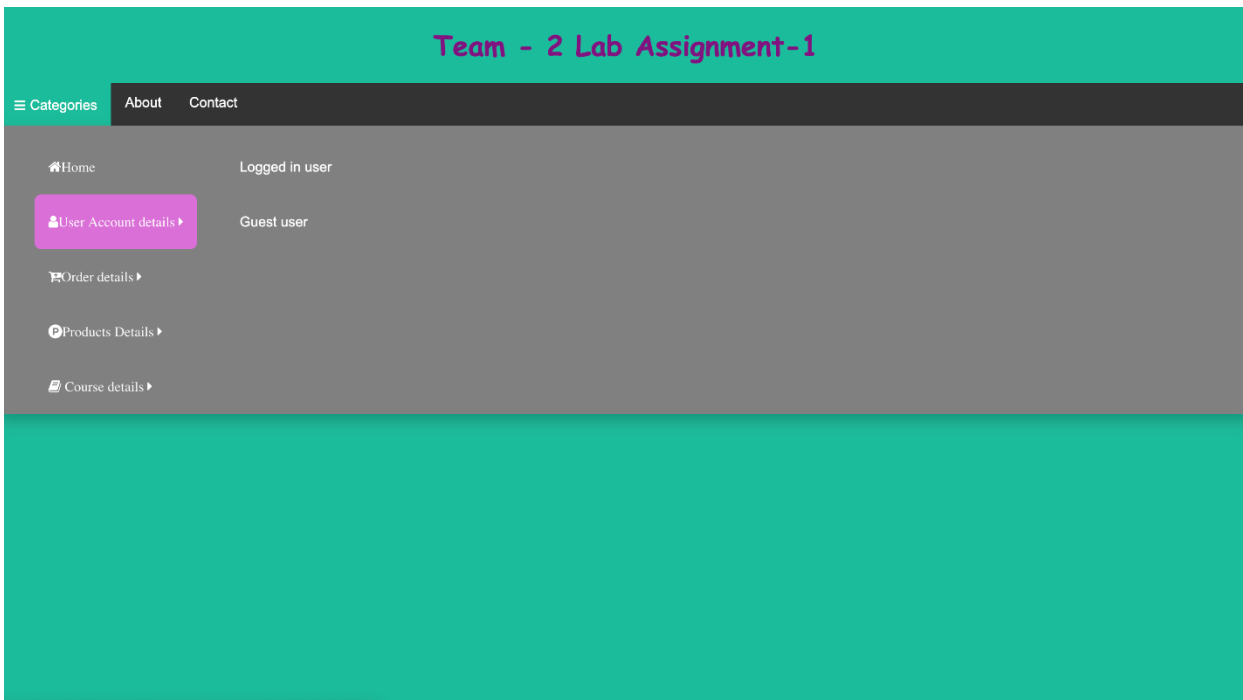
Workflow:

The Workflow is to explain the code snippets and Output images for all the three tasks

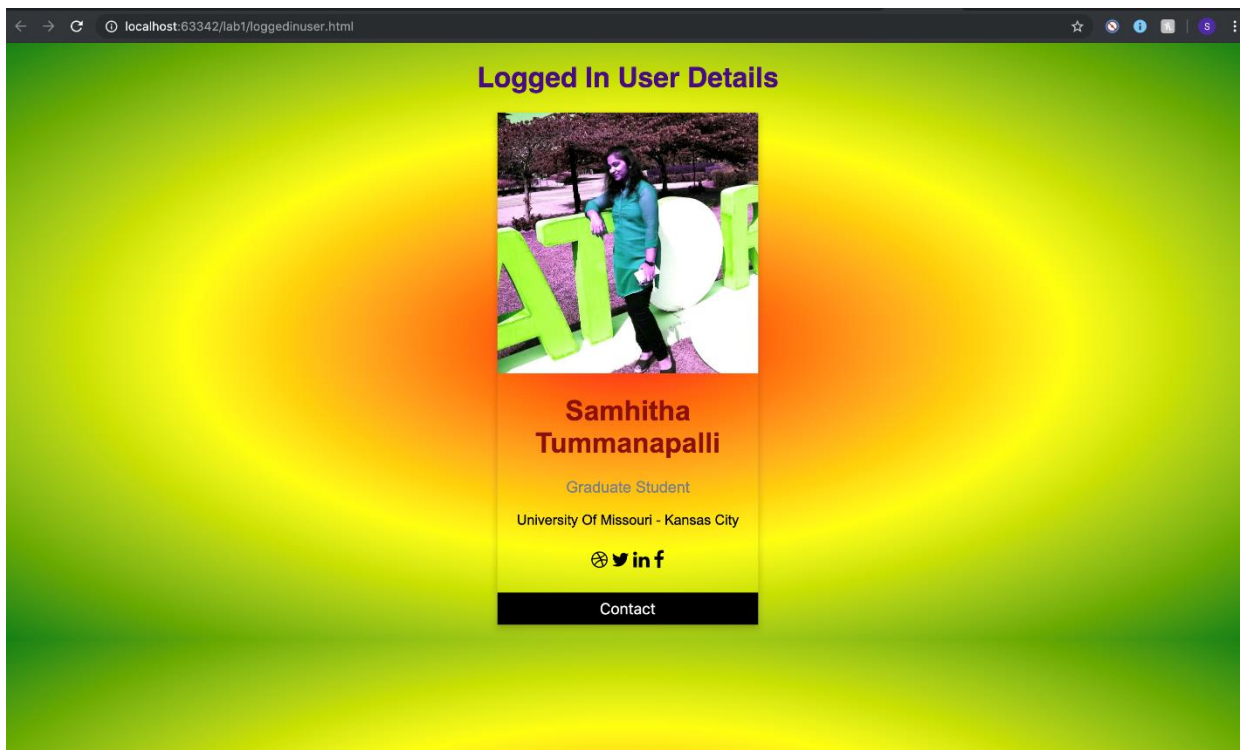
TASK 1

Task 1 is about the MOOC web application which have multiple web pages.

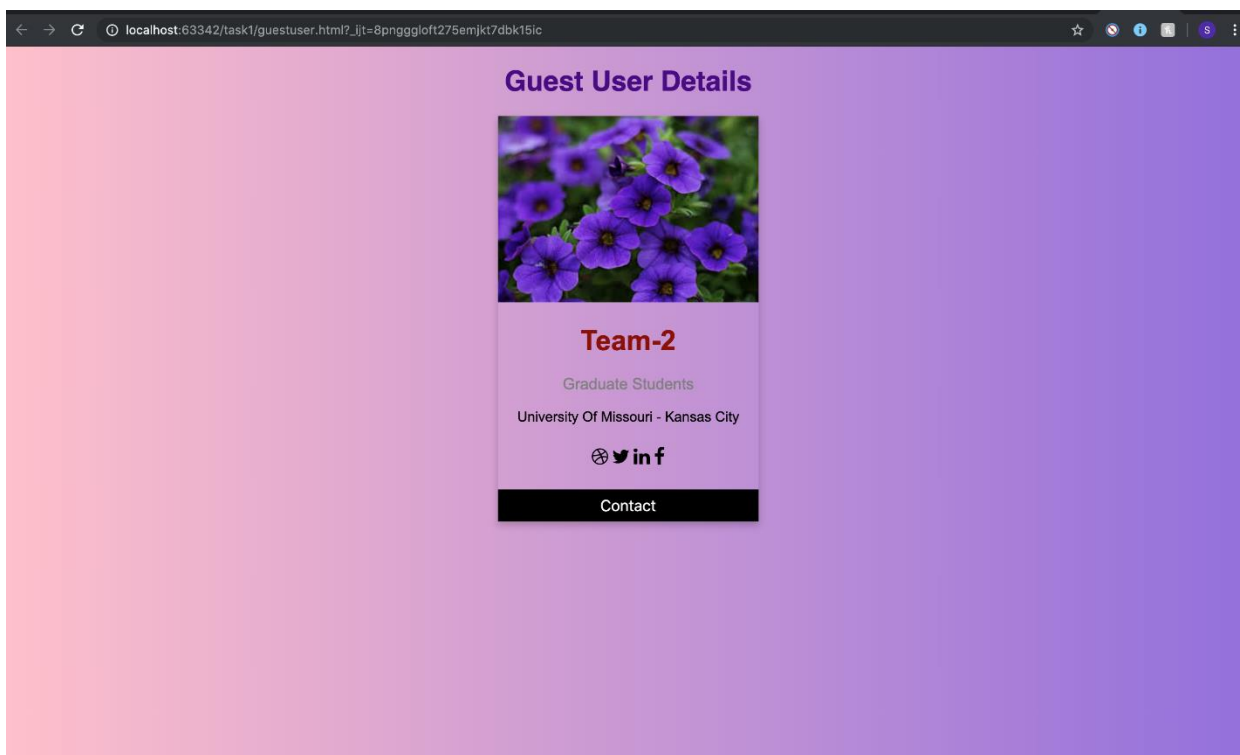
This Output image is the Home page which contains User Details, Order Details, Product Details, Course Details inside Categories, About and Contact



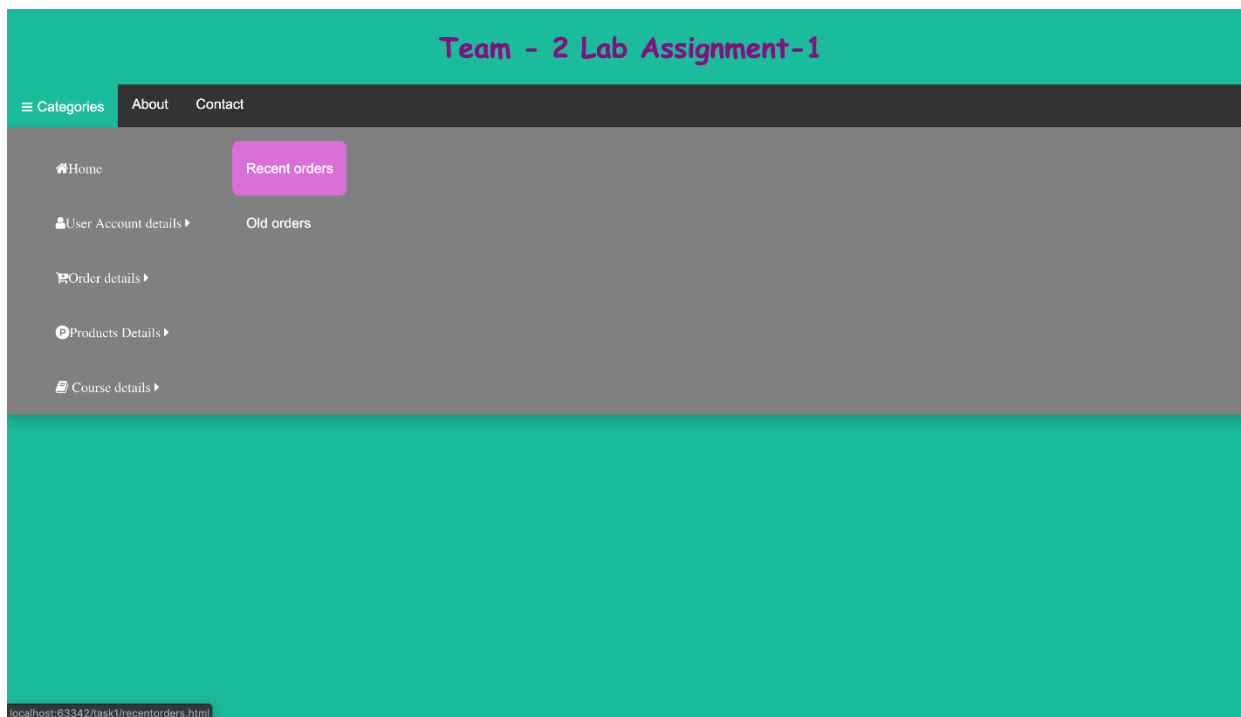
This Output image is to display the Logged In User details.



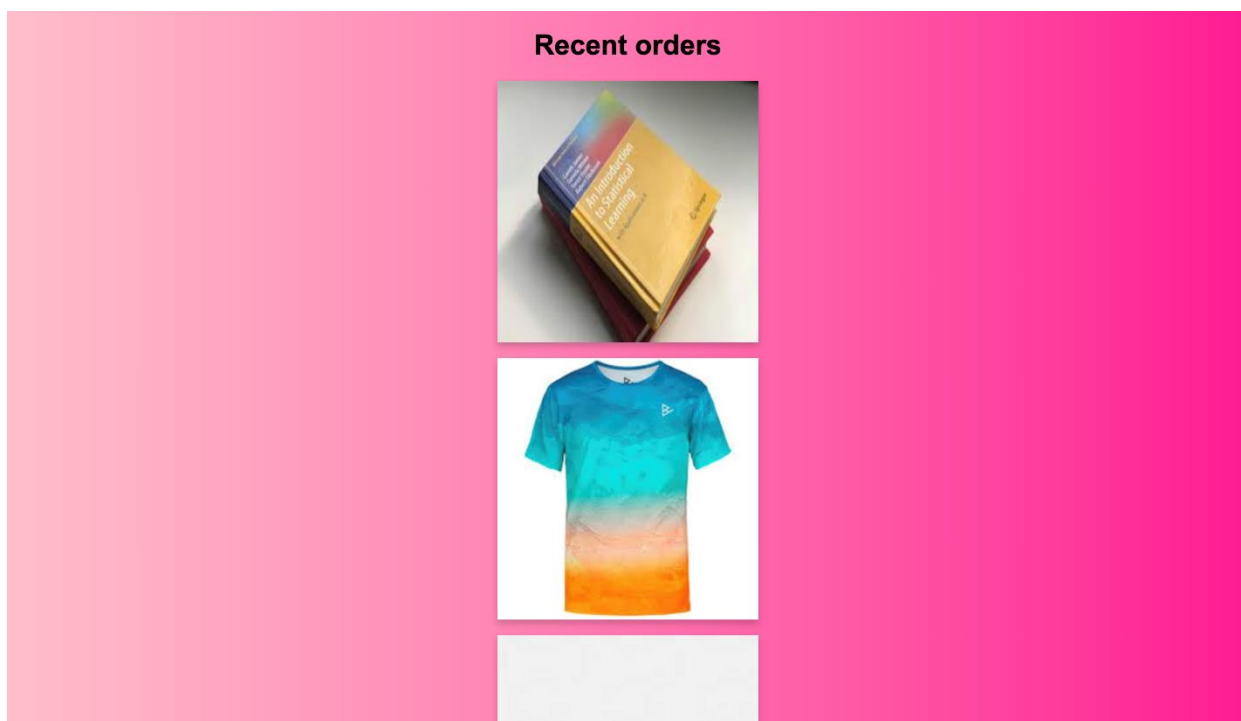
This image is to show the Guest User details.



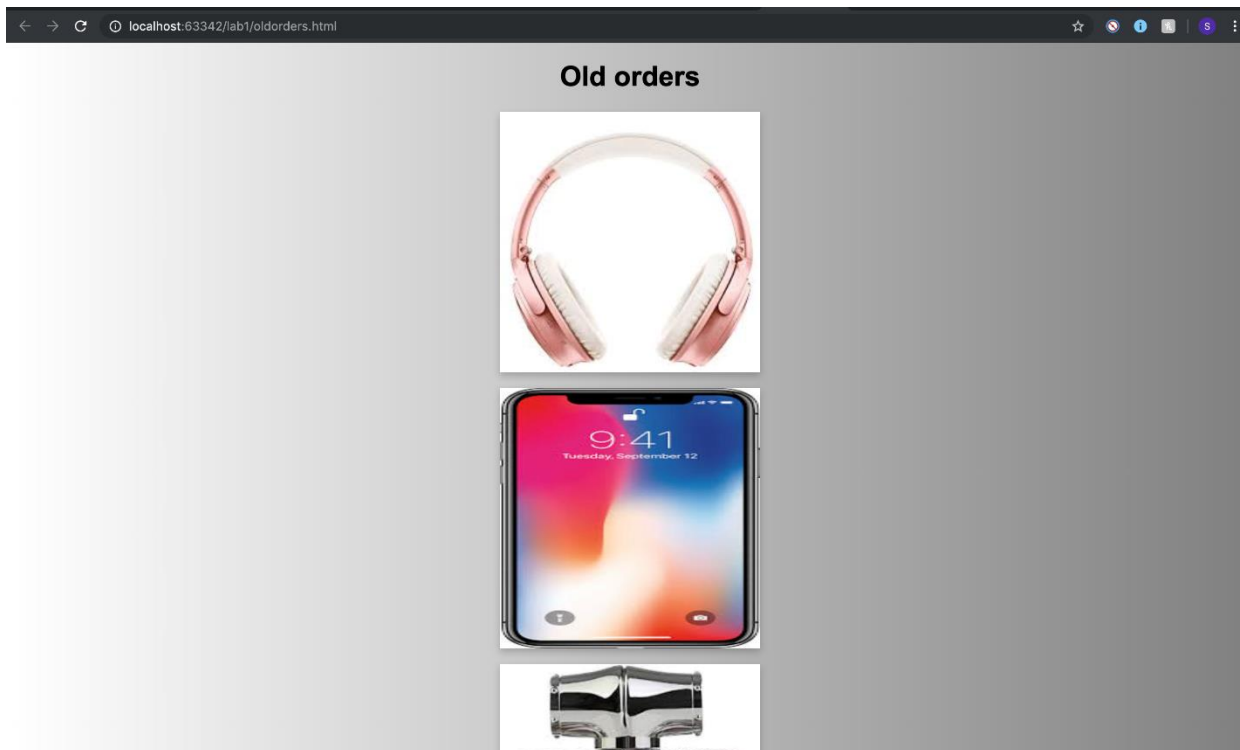
This image is to show that whether the order details should be the Older details or the recent ones when the Order Details is chosen.



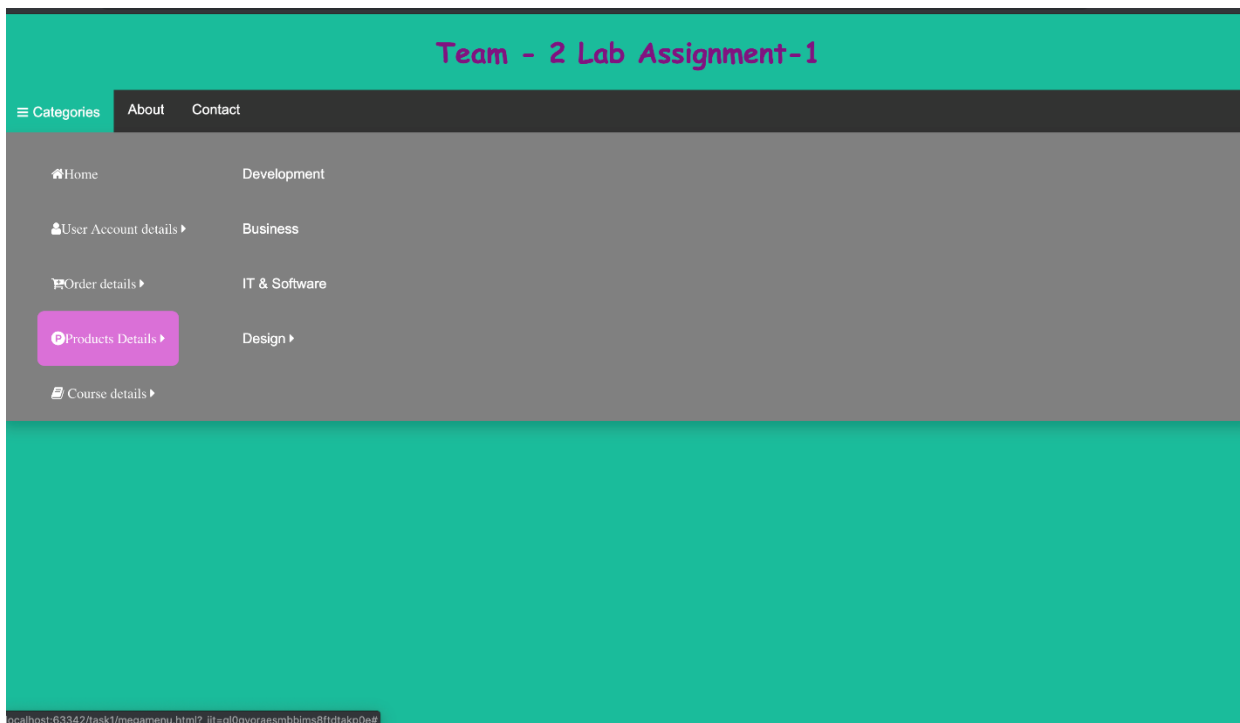
This image is to display about the webpage which shows the Recent Orders when the Recent Orders is chosen.



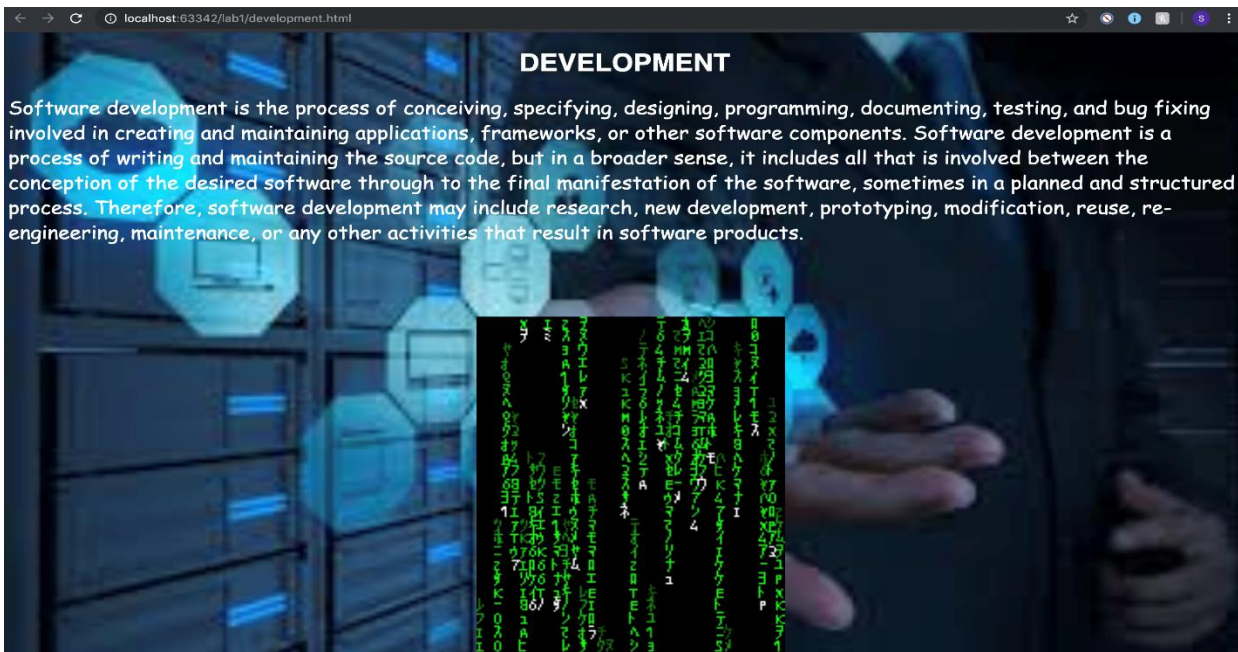
This image is to display the Older Orders.



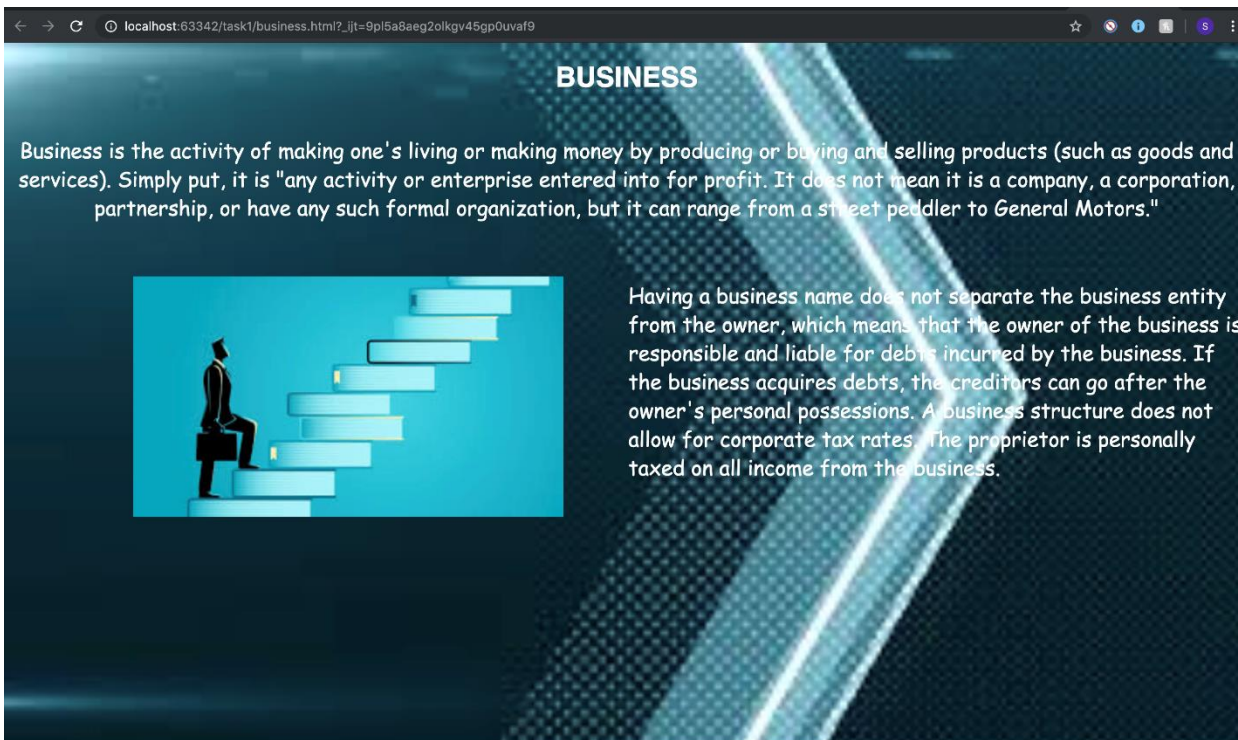
This image is to show the details, when the Product Details is chosen the sub elements like Development, Business, IT& Software and Design will be displayed.



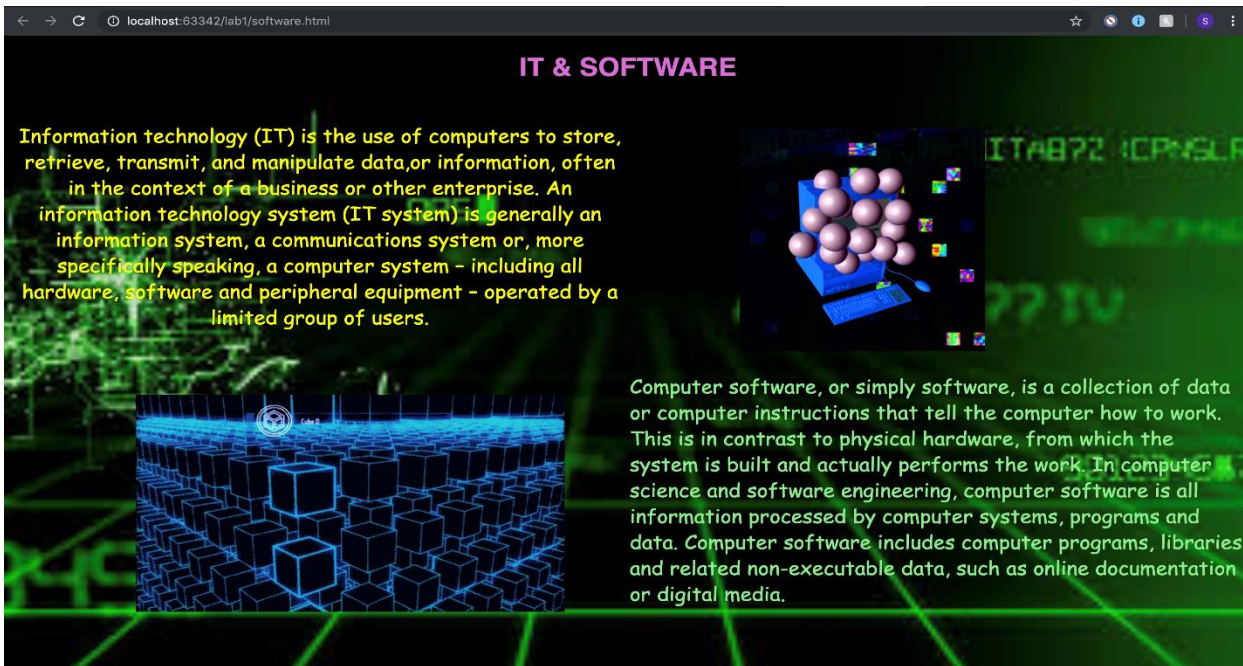
When the Development is chosen it will redirect us to a separate web page and the image below will display the details about the Development page.



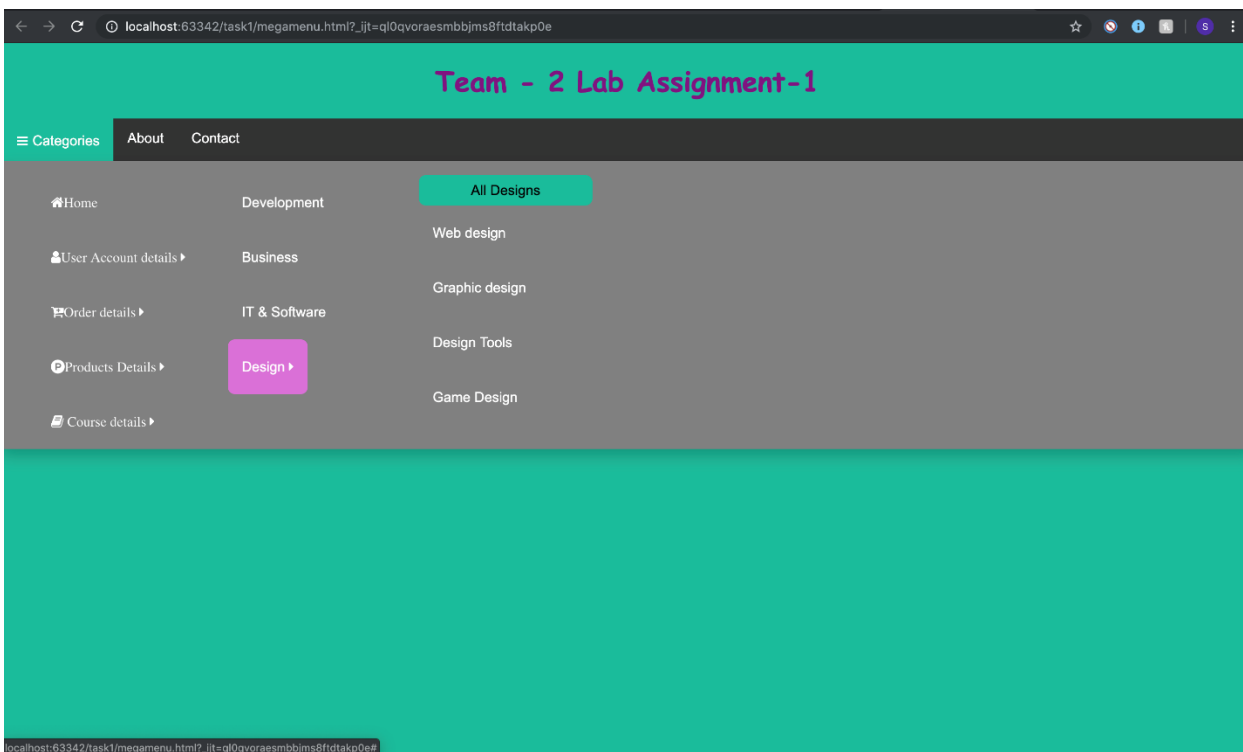
This image is to explain the details about the Business page that will appear when the Business is chosen.



This image is to display the details about the IT & Software page when we click on the IT& Software



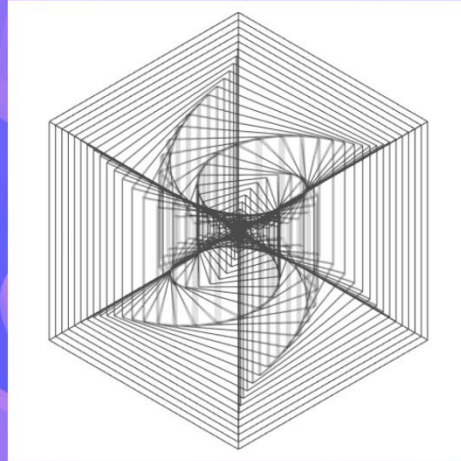
This image is to show the Design element. When the Design element is chosen then all the designs like web design, Graphic design, Designs Tools, Game design will be displayed.



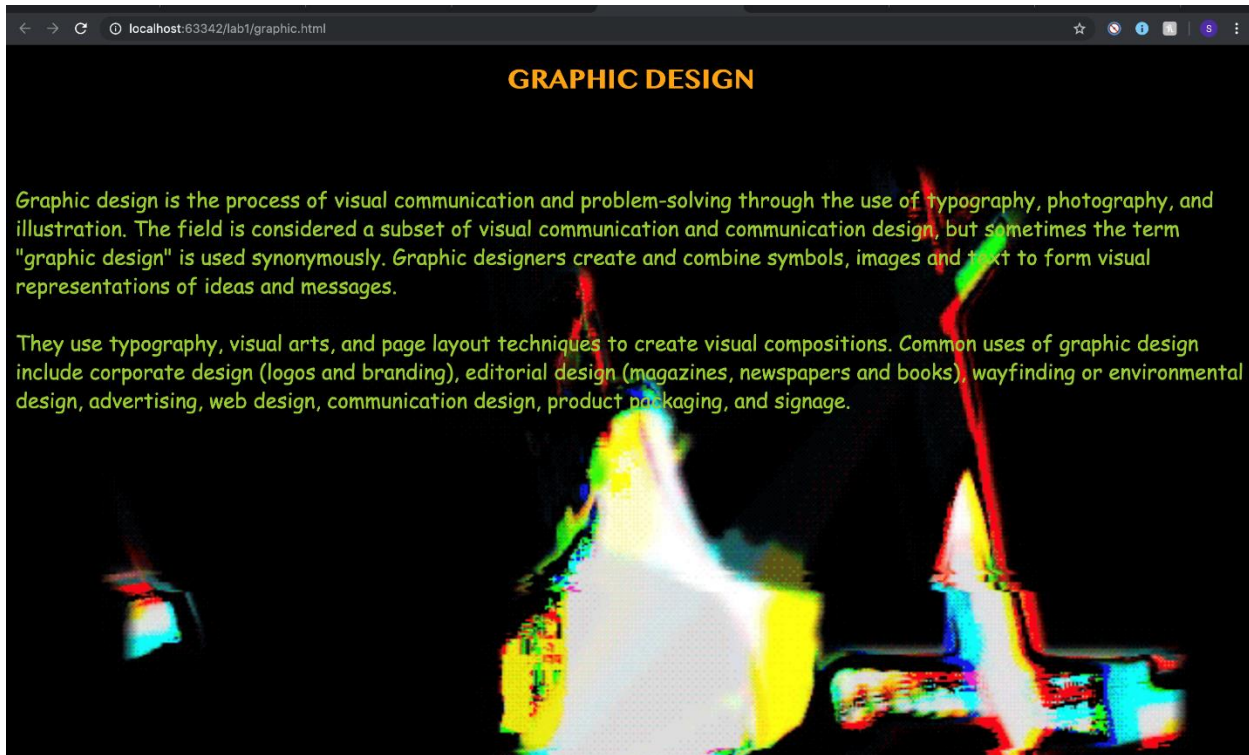
This image is for the Web Design page.

WEB DESIGN

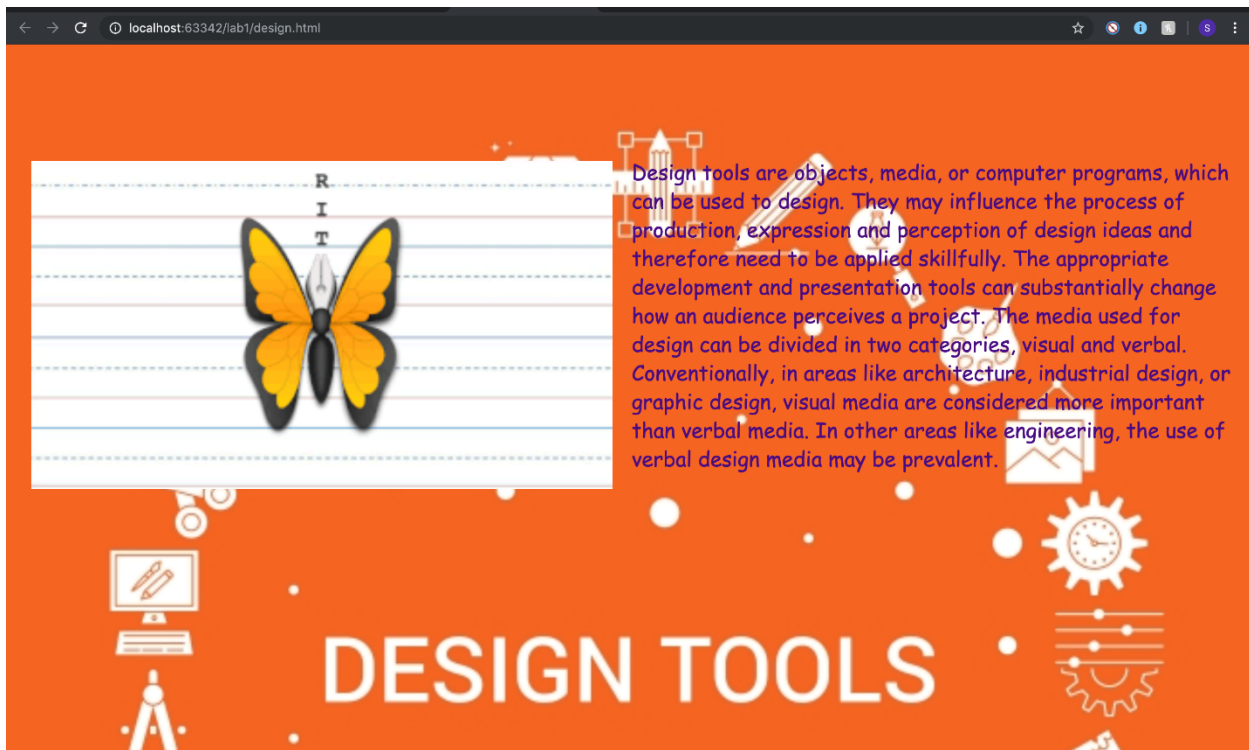
Web design encompasses many different skills and disciplines in the production and maintenance of websites. The different areas of web design include web graphic design; interface design; authoring, including standardised code and proprietary software; user experience design; and search engine optimization. Often many individuals will work in teams covering different aspects of the design process, although some designers will cover them all. The term web design is normally used to describe the design process relating to the front-end (client side) design of a website including writing markup. Web design partially overlaps web engineering in the broader scope of web development. Web designers are expected to have an awareness of usability and if their role involves creating markup then they are also expected to be up to date with web accessibility guidelines.



This image is for the Graphic Design page.



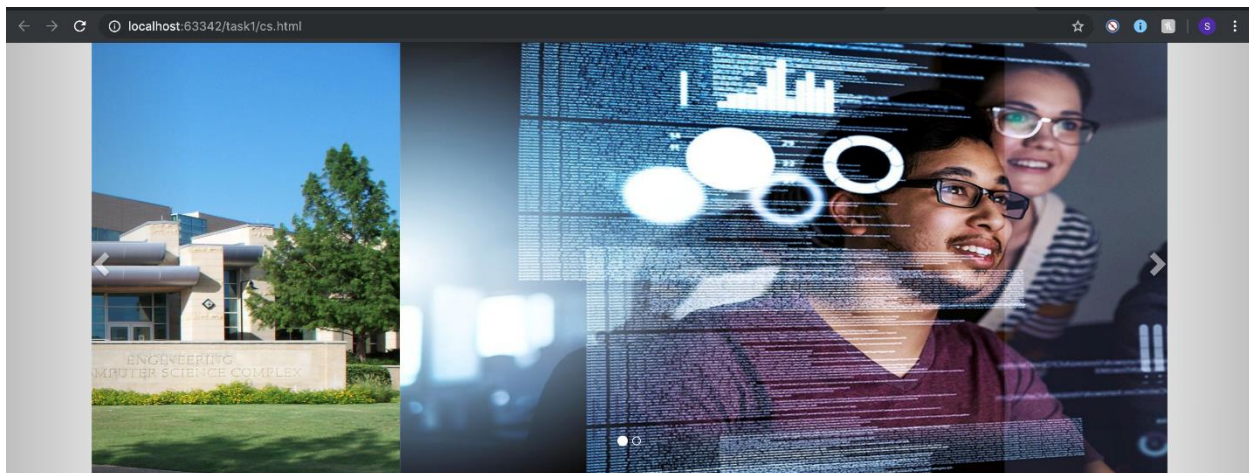
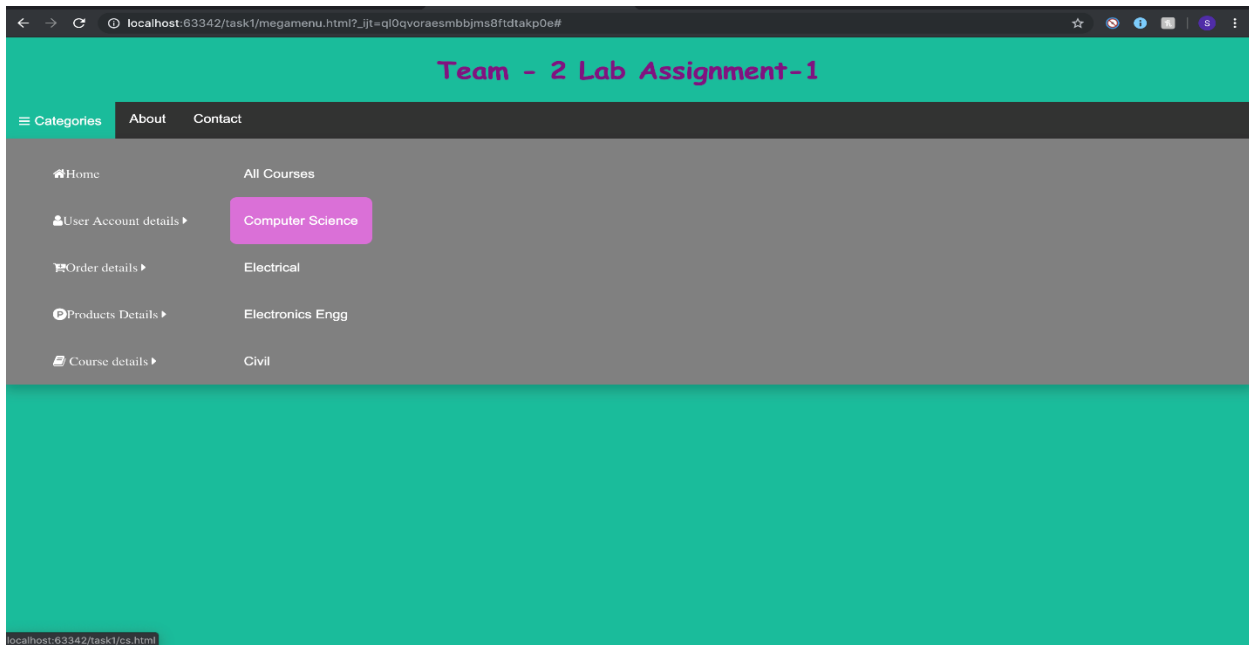
This image is to explain the Design tools page.



This image is to show the Game Design Page.



This image is to depict the details about the Course details element which displays all the courses like computer Science, Civil, Electrical and Electronics courses.



Subjects offered



Subjects offered

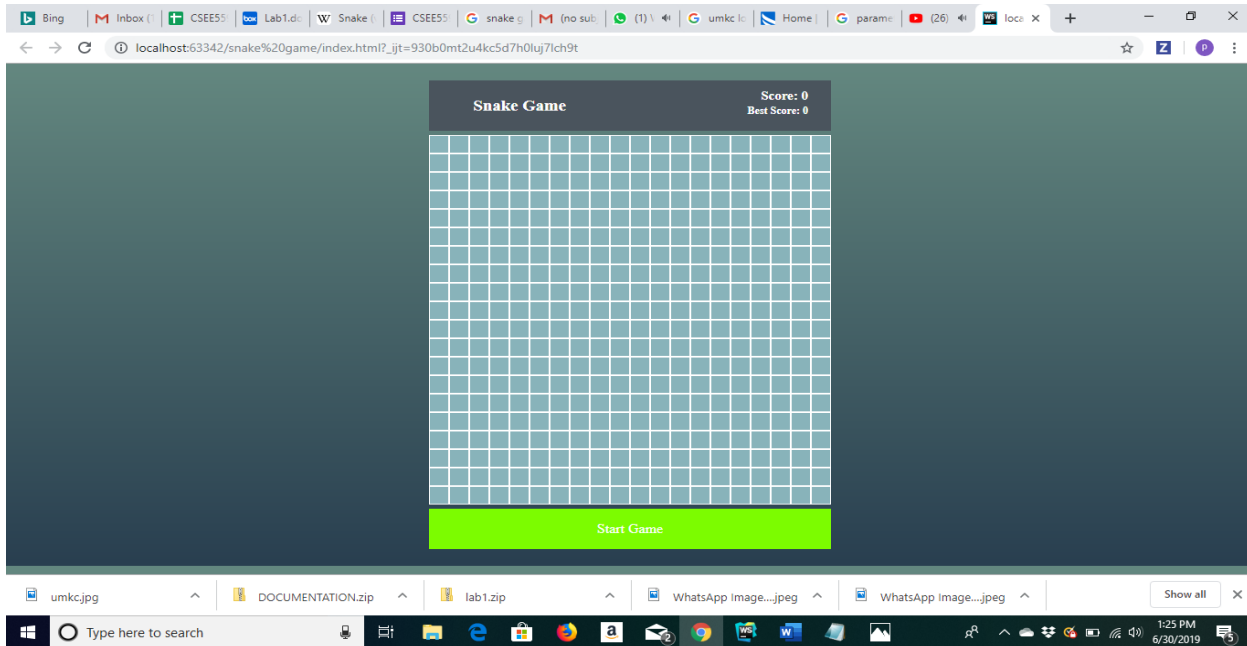
CS 4120 - Advanced Applications Programming in Java
CS 4130 - Server Side Web Programming
CS 4510 - Introduction to Distributed Systems
CS 4600 - Database Theory and Applications
CS 4610 - Introduction to Cloud Computing
CS 4630 - Data Mining
CS 4700 - Artificial Intelligence
CS 4710 - Machine Learning
CS 4810 - Computer Graphics
CS 5000 - Special Topics in Computer Science

Faculty details

TASK 2

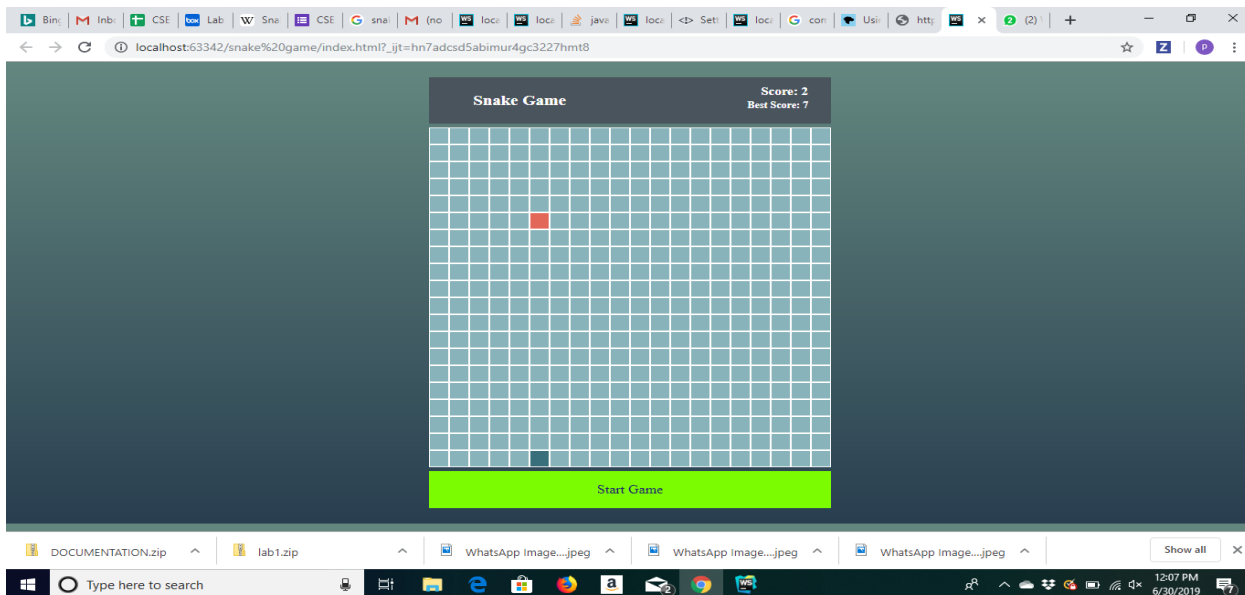
Task 2 is to develop a Snake game using HTML, CSS, Angular JS.

This image is to display the snake game page before starting the game. It displays the Score and the Best Score at the right corner.

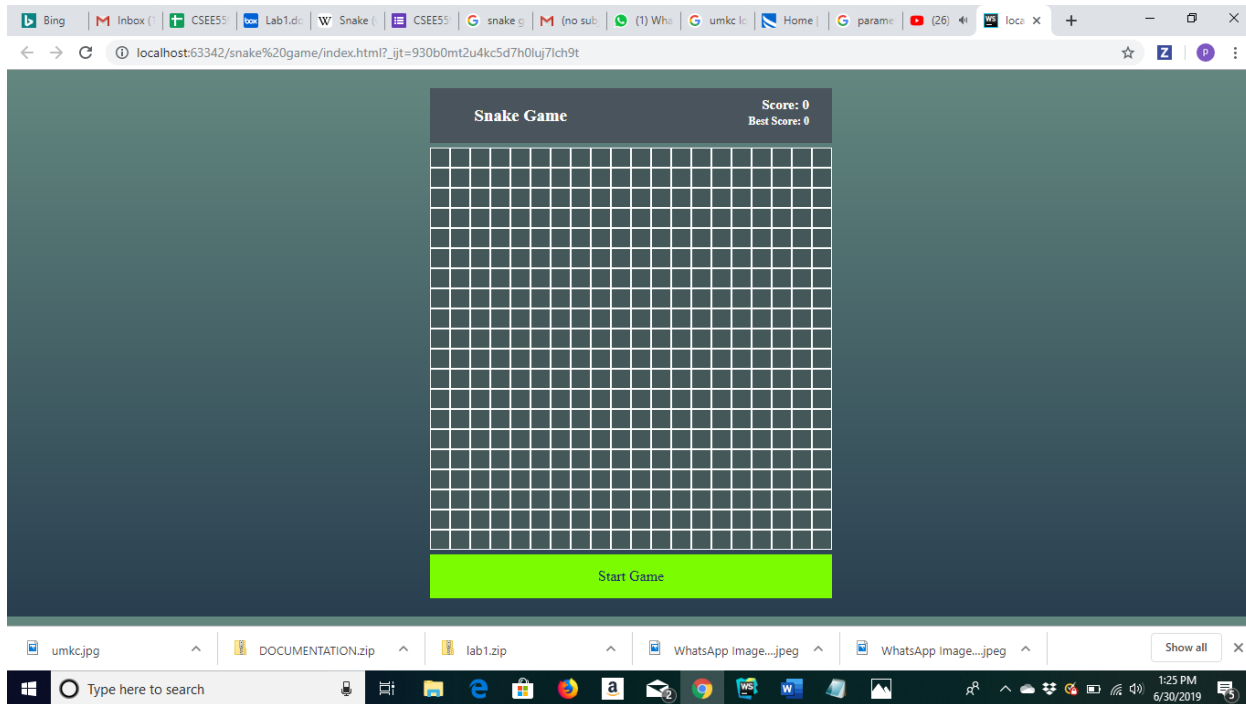


S

This image is to display the score and the highest score. Here the highest score for the previous game is 7 and hence it displayed the current score and the highest score of the previous game.



This image is to display when the game is over the color of the board will change.



This is the code snippet for the game using angular JS, we have created a module named Snake and the buttons for directions

```
angular.module('Snake', [])  
  .controller('snakeCtrl', function($scope, $timeout, $window) {  
    const BOARD_SIZE = 20;  
  
    const DIRECTIONS = {  
      LEFT: 37,  
      UP: 38,  
      RIGHT: 39,  
      DOWN: 40  
    };  
  });
```

This image is for updating when the snake eats the fruit it calls the new head and if there is a board collision gameOver() will be called.

```
function update() {  
  const newHead = getNewHead();  
  
  if (boardCollision(newHead) || selfCollision(newHead)) {  
    return gameOver();  
  } else if (fruitCollision(newHead)) {  
    eatFruit();  
  }  
}
```

This image is to add an Event Listener which is to show some limitations for the directions

```
$window.addEventListener("keyup", function(e) {  
    if (e.keyCode === DIRECTIONS.LEFT && snake.direction !== DIRECTIONS.RIGHT) {  
        tempDirection = DIRECTIONS.LEFT;  
    } else if (e.keyCode === DIRECTIONS.UP && snake.direction !== DIRECTIONS.DOWN) {  
        tempDirection = DIRECTIONS.UP;  
    } else if (e.keyCode === DIRECTIONS.RIGHT && snake.direction !== DIRECTIONS.LEFT) {  
        tempDirection = DIRECTIONS.RIGHT;  
    } else if (e.keyCode === DIRECTIONS.DOWN && snake.direction !== DIRECTIONS.UP) {  
        tempDirection = DIRECTIONS.DOWN;  
    }  
});
```

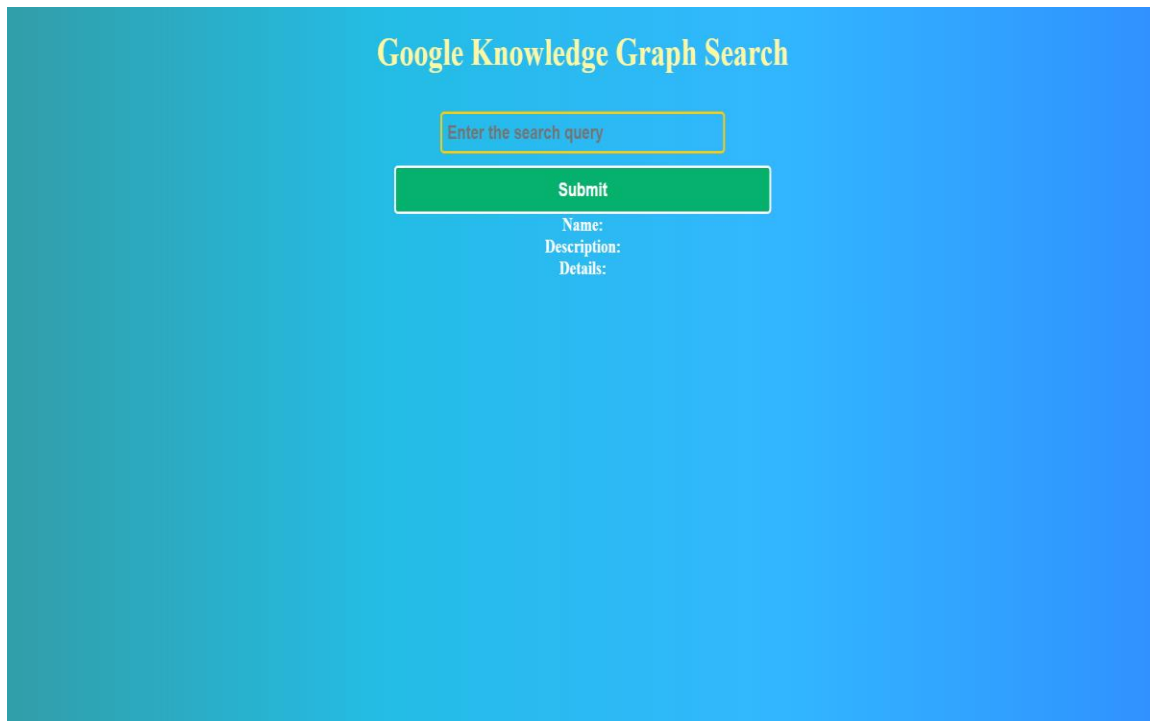

TASK 3

Aim: To Create a Web Application using Google Knowledge Graph API.

Technologies used: Angular JS, HTML,CSS.

Approach:

1. I have generated an api key for google knowledge Graph using Credentials.



Google Knowledge Graph Search

Enter the search query

Submit

Name:
Description:
Details:

2. Created A Web Application that takes any key word as an Input and generates the Output As Follows.

Google Knowledge Graph Search

Mahendra Singh Dhoni

Submit

Name:MS Dhoni

Description:Indian cricketer

Details:Mahendra Singh Dhoni, commonly known as MS Dhoni, is an Indian international cricketer who captained the Indian national team in limited-overs formats from 2007 to 2016 and in Test cricket from 2008 to 2014.



Features:

1. Google Knowledge Graph serves as a Mini Search Engine.
2. It is an internal knowledge base of linked data that draws a wide range of sources for its data.

For Example: If we consider the query as follows

<https://kgsearch.googleapis.com/v1/entities/search?query=virat+kohli&key=AlzaSyBrlutnkp8J86H2F86mvm2fW7lqu63R6Xw>

This is the resultant output of the query. It shows many notable entities that all linked to the query like Name, type, Image, description etc.,

```
{
  "@context": {
    "@vocab": "http://schema.org/",
    "goog": "http://schema.googleapis.com/",
    "EntitySearchResult": "goog:EntitySearchResult",
    "detailedDescription": "goog:detailedDescription",
    "resultScore": "goog:resultScore",
    "kg": "http://g.co/kg"
  },
  "@type": "ItemList",
  "itemListElement": [
    {
      "@type": "EntitySearchResult",
      "result": {
        "@id": "kg:/m/03qkvyf",
        "name": "Virat Kohli",
        "@type": [
          "Person",
          "Thing"
        ],
        "description": "Indian cricketer",
        "detailedDescription": {
          "articleBody": "Virat Kohli is an Indian cricketer who currently captains the India national team. A right-handed top-order batsman, Kohli is regarded as one of the best batsmen in the world. ",
          "url": "https://en.wikipedia.org/wiki/Virat_Kohli",
          "license": "https://en.wikipedia.org/wiki/Wikipedia:Text_of_Creative_Commons_Attribution-ShareAlike_3.0_Unported_License"
        },
        "image": {
          "contentUrl": "http://t3.gstatic.com/images?q=tbn:ANd9GcQppa1HFOkhvnhg_PA_8mu39KshnUinVGws19wOqEZICbV-cK5i",
          "url": "https://commons.wikimedia.org/wiki/File:VIRAT_KOHLI_JAN_2015_(cropped).jpg"
        },
        "url": "http://www.viratkohli.club/"
      },
      "resultScore": 780.825195
    },
    {
      "@type": "EntitySearchResult",
      "result": {
        "@id": "kg:/g/11c4676fdg",
```

Evaluation & Discussion:

We enclose our YouTube video link of our tasks that we performed successfully.

https://www.youtube.com/watch?v=Z_Ueo6jdEag&feature=youtu.be

Conclusion:

Hereby, It is to conclude that all the three tasks are performed successfully and we gained handful of knowledge on the basic topics of the web programming of how to create a web pages using many features like responsive web pages and attractive UI and API calling.

References:

- https://kgsearch.googleapis.com/v1/entities:search?query=taylor+swift&key=API_KEY&limit=1&indent=True
- <https://developers.google.com/knowledge-graph/>
- <https://www.w3schools.com/>

Contribution:

Task1- Samhitha Tummanapalli (15)

Task2- Praneeth (18)

Task3-Navya Pillala (13)