NANDHA ENGINEERING COLLEGE

ERODE – 638052

(Autonomous)

(Affiliated to Anna University, Chennai)

DEPARTMENT

OF

COMPUTER SCIENCEAND ENGINEERING

NUMBER GUESSING GAME

PBL REPORT

(17ITP01 – OOPS USING JAVA)

Submitted by

Pranav S	**(21CS068)**
Praveen N	**(21CS069)**
Sehshan surya G	**(21CS081)**
Vignesh V	**(21CS111)**

in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

BONAFIDE CERTIFICATE

Certified that this Report titled “NUMBER GUESSING GAME” is the bonafide work of **PRANAV S (21CS068), PRAVEEN N (21CS069), SEHSHAN SURYA G (21CS081),** and **VIGNESH V (21CS111)** who carried out the work under my supervision.

Signature of the HOD
Dr. D. VANATHI M.E., Ph.D.,
Associate Professor & Head
Department of CSE
Nandha Engineering College
Erode– 638052.

Signature of the Supervisor
Ms. S. KAVIN PRIYA M.E.,
Assistant Professor
Department of CSE
Nandha Engineering College
Erode– 638052.

Submitted for End Semester PBL Review Examination held on _______________

TABLE OF CONTENTS

ABSTRACT

One of the simplest two-player games is “Guess the number”. The first player thinks of a secret number in some known range while the second player attempts to guess the number. After each guess, the first player answers either “Higher”, “Lower” or “Correct!” depending on whether the secret number is higher, lower or equal to the guess. In this project, you will build a simple interactive program in JavaScript where the computer will take the role of the first player while you play as the second player.

You will interact with your program using an input field and several buttons. For this project, we will ignore the canvas and print the computer’s responses in the console. Building an initial version of your project that prints information in the console is a development strategy that you should use in later projects as well. Focusing on getting the logic of the program correct before trying to make it display the information in some “nice” way on the canvas usually saves lots of time since debugging logic errors in graphical output can be tricky.

CHAPTER 1
INTRODUCTION

Our project title is NUMBER GUESSING GAME. The main objective of our project is to create a game which entertains and used for fund collections. We have created our project using JavaScript and still it is development phase. Frontend of our project is done by HTML , Backend of our project is done by JavaScript. We also used CLOUD SERVICES to host static website. We used math.random() function to generate random numbers for this game.

CHAPTER 2

SYSTEM REQUIREMENTS

HARDWARE CONFIGURATION:

System	: HP
Processor	: i3 11th GEN
RAM	: 4GB
Hardware capacity	: 1TB

SOFTWARE REQUIREMENTS:

Operating System	: Windows XP/Windows 7/8/8.1/10/11
Software Required	:

CHAPTER 3

SOFTWARE DESCRIPTION

JavaScript (**JS**) is a lightweight, interpreted, or just-in-time compiled programming language with first-class functions. While it is most well-known as the scripting language for Web pages, many non-browser environments also use it, such as Node.js, Apache CouchDB and Adobe Acrobat. JavaScript is a prototype-based, multi-paradigm, single-threaded, dynamic language, supporting object-oriented, imperative, and declarative (e.g. functional programming) styles.

JavaScript's dynamic capabilities include runtime object construction, variable parameter lists, function variables, dynamic script creation (via eval), object introspection (via for...in and Object utilities), and source-code recovery (JavaScript functions store their source text and can be retrieved through toString()).

This section is dedicated to the JavaScript language itself, and not the parts that are specific to Web pages or other host environments. For information about APIs that are specific to Web pages, please see Web APIs and DOM.

The standards for JavaScript are the ECMAScript Language Specification (ECMA-262) and the ECMAScript Internationalization API specification (ECMA-402). As soon as one browser implements a feature, we try to document it. This means that cases where some proposals for new ECMAScript features have already been implemented in browsers, documentation and examples in MDN articles may use some of those new features. Most of the time, this happens between the stages 3 and 4, and is usually before the spec is officially published.

Do not confuse JavaScript with the Java programming language — **JavaScript is not "Interpreted Java"**. Both "Java" and "JavaScript" are trademarks or registered trademarks of Oracle in the U.S. and other countries. However, the two programming languages have very different syntax, semantics, and use.

Hosting a static website using Amazon S3:

On a static website, individual webpages include static content. They might also contain client-side scripts.

By contrast, a dynamic website relies on server-side processing, including server-side scripts, such as PHP, JSP, or ASP.NET. Amazon S3 does not support server-side scripting, but AWS has other resources for hosting dynamic websites. To learn more about website hosting on AWS, see Web Hosting.

INTRODUCTION TO WEB HOSTING

Web hosting is a service that provides storage for the files that make up your website and the software, physical hardware, and network infrastructure that makes your website available to others on the internet.

Web hosting service providers offer a variety of hosting options, ranging from expensive to inexpensive. The cost is essentially determined by the following:

- The amount of storage space and computing capacity allocated specifically for your site.

- The degree to which your site shares computing resources with other sites or is isolated from the impact of other sites sharing the same resources.

- The additional capabilities and services offered (e.g., number of email inboxes with your domain name, blogging capabilities, etc.).

- The degree of control and flexibility you have (e.g., which operating system (OS) and/or content management system (CMS) you can use, support for special web applications

COMMON HOSTING OPTIONS

These are the three most common hosting options, ranging from least to most expensive:

Shared hosting

In shared hosting, the hosting provider hosts your website and several others (co-tenants) on a single computer—you share the CPU, memory, storage space, and the web server software (the software that delivers web content to browsers that request it).

Because you're sharing these resources with owners of other web sites, you pay less for them. However, even though the single shared computer is usually very powerful, unexpectedly high traffic to one of the hosted sites can rob the others of resources and slow them down dramatically. Additionally, if one site is victimized by a virus or security attack, the other sites on the server could be vulnerable.

Shared hosting is a good choice for personal web sites, personal blogs, small non-transactional business sites (e.g., a creative portfolio) or non-business sites. For more information about shared hosting, see "What is Cloud Hosting?"

Virtual private server (VPS) hosting or cloud-based VPS

In VPS hosting, your site gets its own dedicated virtual server. As with shared hosting, you do share the hardware resources of a single computer (in most cases), but you share them with far fewer co-tenants, and their problems—security breaches, crashes —are much less likely to impact your site.

With a VPS you typically have complete control over your OS, CMS, and other software, which makes it a better choice for hosting custom web applications or web-based software (Software-as-a-Service, or SaaS). As you might have guessed, VPS is more expensive than shared hosting.

While VPS hosting shares resources among fewer websites, as each site grows and attracts more traffic, they can strain the resources of a single computer. For this reason, many hosting providers offer cloud-based VPS hosting, in which each site shares the combined resources of multiple computers in a single data center (or even in different geographical locations). This makes it easier to scale computing power, storage capacity, and bandwidth as needed and provides additional resiliency in the event of hardware problems or natural/man-made disasters.

VPS or cloud-based VPS hosting is ideal for the majority of business web sites.

Learn more about virtual private server (VPS) hosting.

Dedicated hosting

Dedicated hosting gives you exclusive access to your own web server hardware. You get the same control over system and application software that you get with a VPS, but because yours is the only site using the hardware, your site runs faster. You are also completely immune to performance or security issues on other web sites.

Dedicated hosting does have some drawbacks, however—it's the most expensive option because yours is the only site using the hardware. If you don't have the talent on staff to manage the server yourself, you'll need to pay additional fees for the provider to manage it for you. Dedicated hosting also can't scale on the fly because someone has to physically upgrade the server with more RAM, storage, etc. when needed. As a result, dedicated hosting is typically worthwhile only when performance and security considerations justify the additional cost.

The term "bare metal servers" is sometimes used interchangeably with "dedicated servers," but bare metal servers typically add cloud-like benefits like provisioning in minutes (vs. hours), billing in hourly increments (instead of monthly billing), and higher-end hardware.

Learn more about dedicated hosting and bare metal servers.

CHAPTER 4

PROJECT DESCRIPTION

The game is to guess a random number generated by computer in range 1 – 10 in minimum number of Guesses.

Functions to be used:

1. **document.getElementById("id given"):** document.getElementById() is used to fetch an element from the HTML page having the id as provided (specified) by the user
   ".value" is used to access the value of the HTML element accessed.

2. **Math.random() :** The random() function is used to generate a random number between 0 (inclusive) and 1 (exclusive). This generated number is then multiplied with 10 and added 1 to generate numbers from 1 – 50.

3. **Math.floor() :** The floor() function is used to return the number to the nearest integer (downwards). The value will not be rounded, if the passed argument is an integer.

CHAPTER 5

SCOPE FOR FUTURE ENHANCEMENT

We can enlarge implementation of the code from small rewarding game to large entry contest games. We can also interchange the numbers by names, movies, musics,etc… We can also implement popular things according to the region by conducting these type of small games we can collect the entry amount and can use it for fund and further uses.

CHAPTER 6

CONCLUSION

For sudden random selection over any events can be done by these type of games. It will be purely random… the probability of randomness cant be determined. Small fund collections can be done by playing these types of mini games.

CHAPTER 7

APPENDIX

7.1 SOURCE CODE

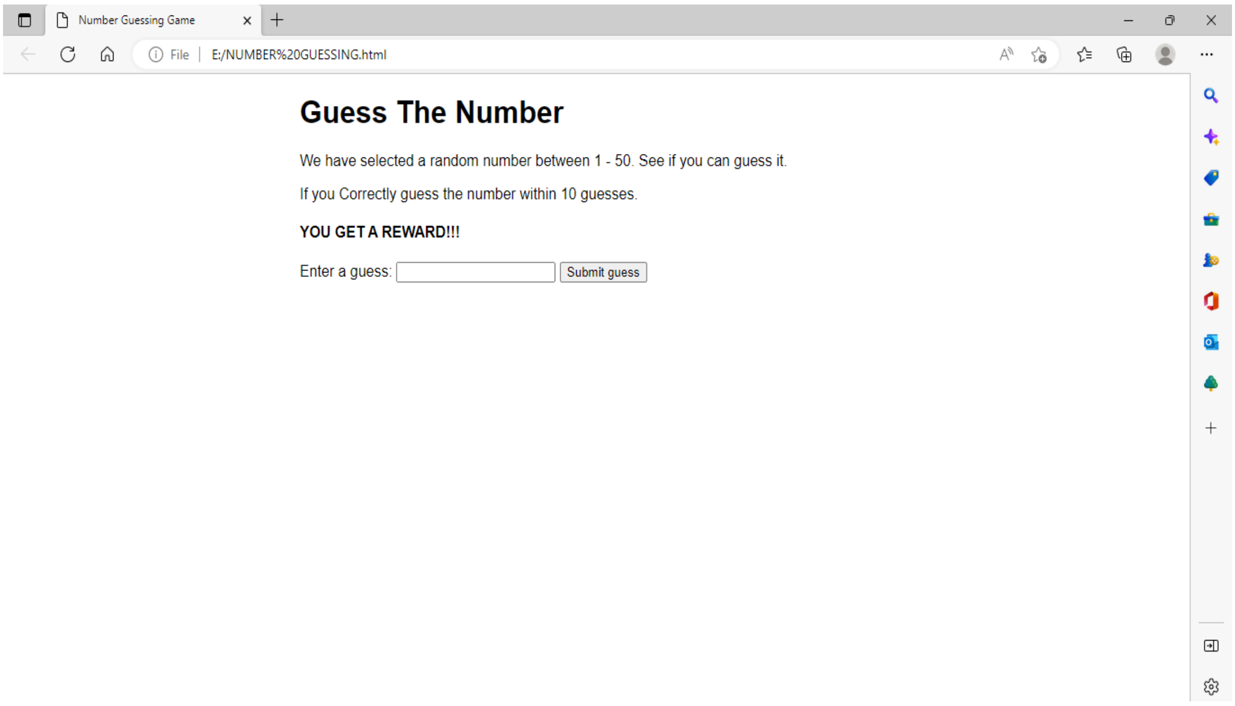
```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Number Guessing Game</title>

<style>
html {
    font-family: sans-serif;
    }

    body {
        width: 50%;
        max-width: 800px;
        min-width: 480px;
        margin: 0 auto;
```

```
		}
</style>
</head>

<body>
<h1>Guess The Number</h1>

<p>We have selected a random number between 1 - 50.
See if you can guess it.</p>
<p>If you Correctly guess the number within 10 guesses.</p>
<h4>YOU GET A REWARD!!!</h4>

<div class="form">
<label for="guessField">Enter a guess: </label>
<input type = "text" id = "guessField" class = "guessField">
<input type = "submit" value = "Submit guess"
	class = "guessSubmit" id = "submitguess">
</div>
```

```
<script type = "text/javascript">

        // random value generated
        var y = Math.floor(Math.random() * 50 + 1);

        // counting the number of guesses
        // made for correct Guess
        var guess = 1;

        document.getElementById("submitguess").onclick =
function(){

// number guessed by user
var x = document.getElementById("guessField").value;

if(x == y)
{
        alert("CONGRATULATIONS!!! YOU GUESSED
IT RIGHT IN "
                        + guess + " GUESS ");
}
else if(x > y) /* if guessed number is greater
                        than actual number*/
{
      guess++;
      alert("OOPS SORRY!! TRY A SMALLER
NUMBER");
}
else
{
      guess++;
      alert("OOPS SORRY!! TRY A GREATER
NUMBER");
}
}

</script>
</body>
</html>
```

7.2 SCREENSHOTS

While clicking the generated link



Guess The Number

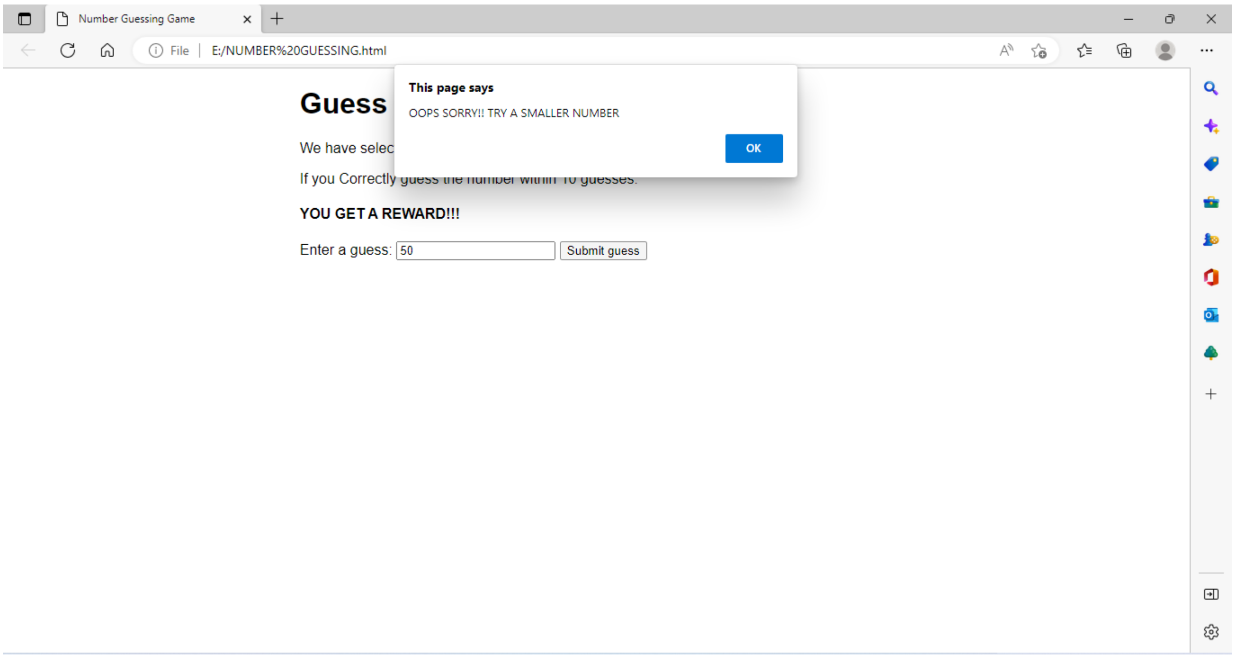
We have selected a random number between 1 - 50. See if you can guess it.

If you Correctly guess the number within 10 guesses.

YOU GET A REWARD!!!

Enter a guess: Submit guess

If we entered the smaller number,

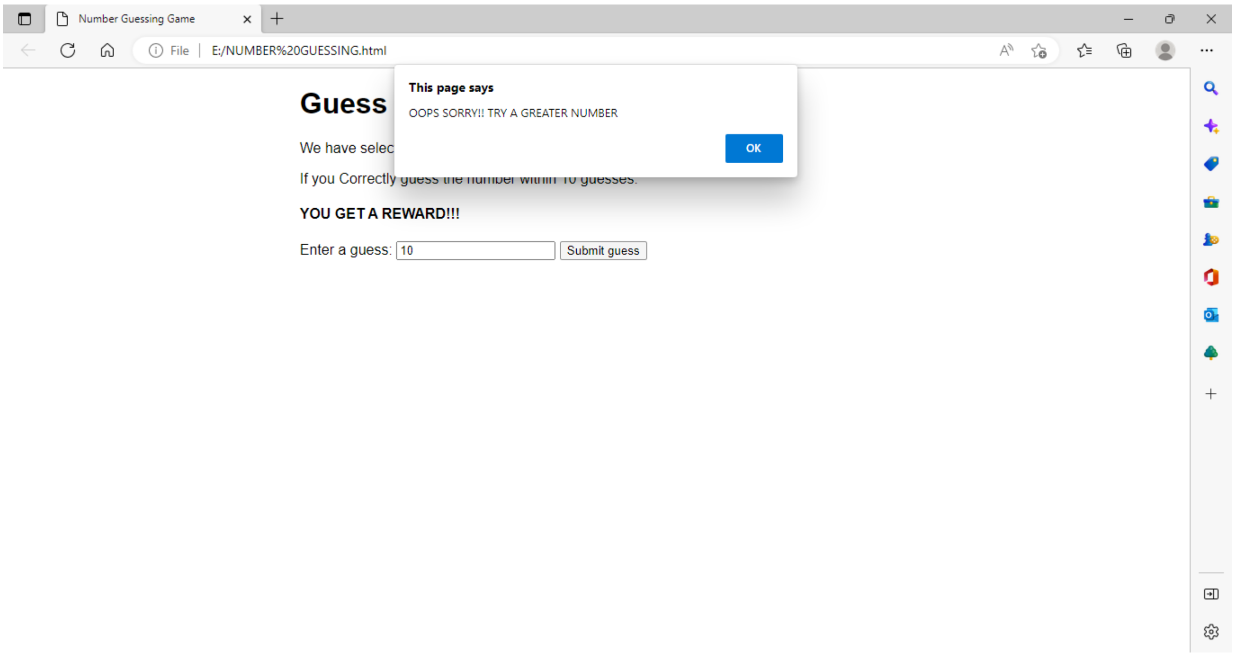

Number Guessing Game
File
E:/NUMBER%20GUESSING.html
Guess
We have selec
If you Correctly guess the number within 10 guesses.
YOU GET A REWARD!!!
Submit guess
OK

This page says

OOPS SORRY!! TRY A SMALLER NUMBER

Enter a guess: 50

If we entered the smaller number,



Guess

We have selec

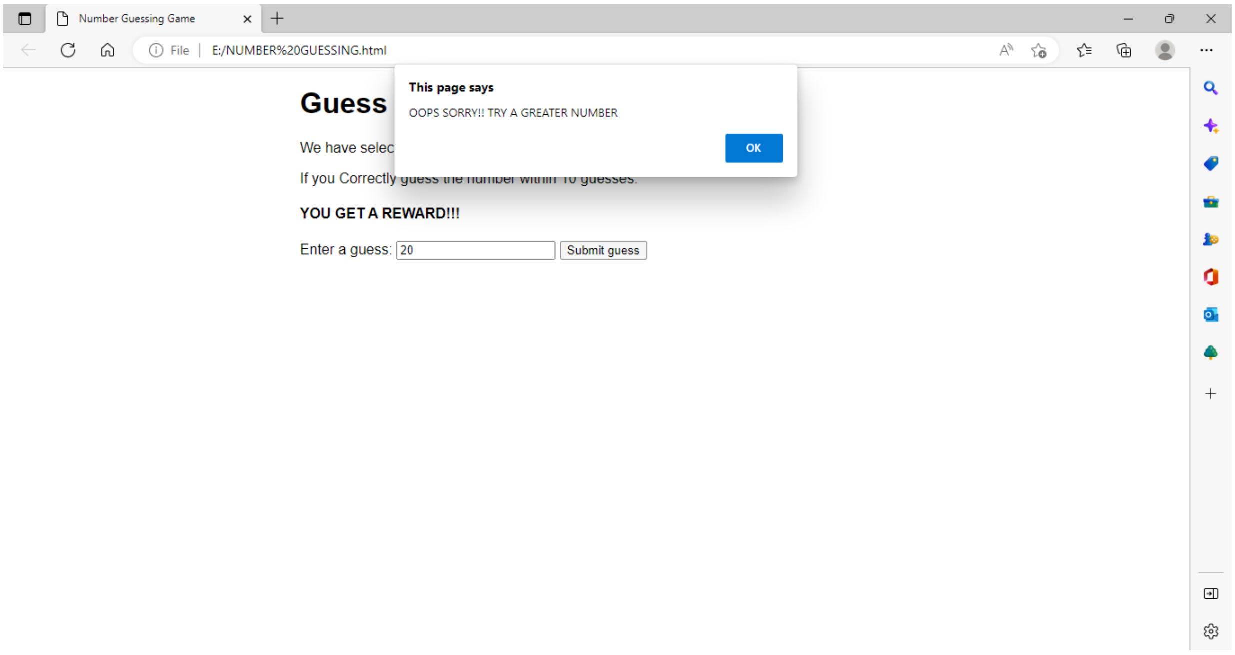
If you Correctly guess the number within 10 guesses.

YOU GET A REWARD!!!

Enter a guess: 10 Submit guess

This page says

OOPS SORRY!! TRY A GREATER NUMBER



Guess

We have selec

If you Correctly guess the number within 10 guesses.

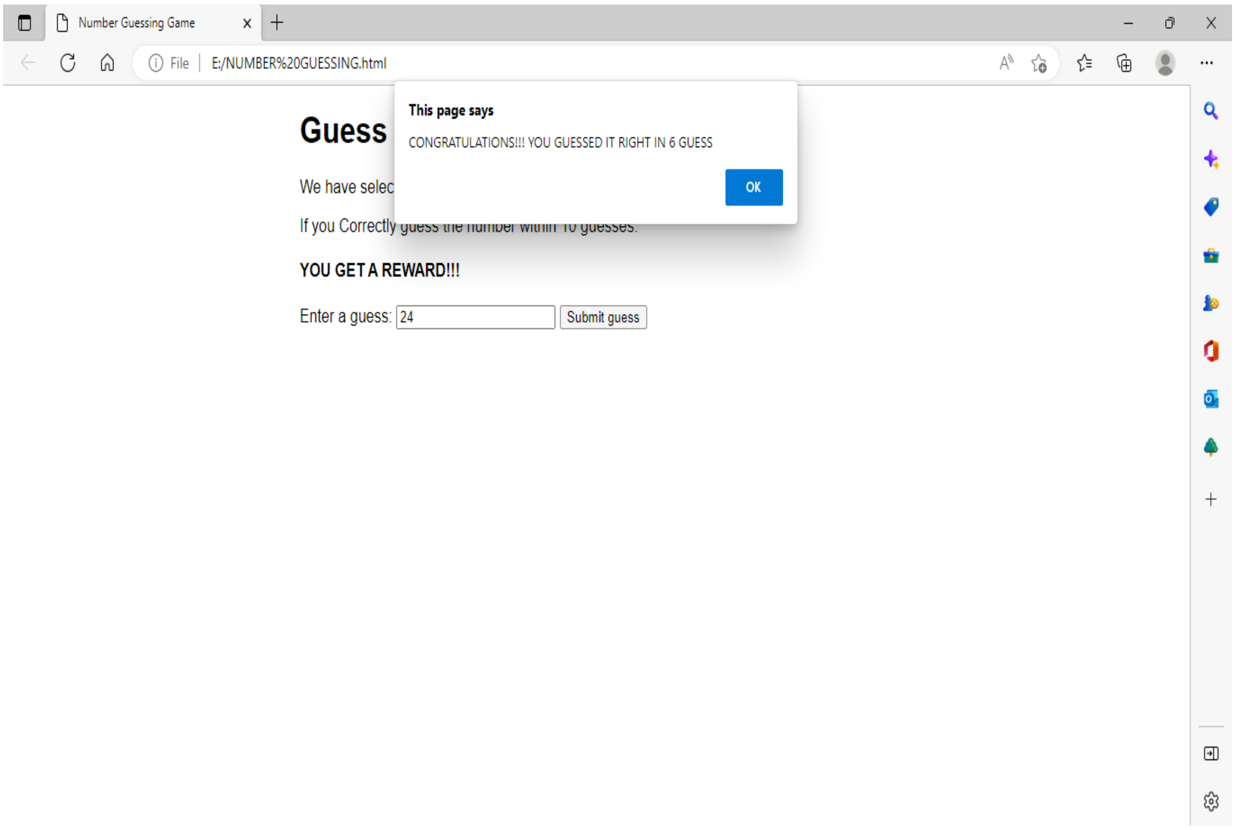
YOU GET A REWARD!!!

Enter a guess: 20 Submit guess

This page says

OOPS SORRY!! TRY A GREATER NUMBER

If we entered the guessed number,



This page says

CONGRATULATIONS!!! YOU GUESSED IT RIGHT IN 6 GUESS

Guess

We have selec

If you Correctly guess the number within 10 guesses.

YOU GET A REWARD!!!

Enter a guess: 24

CHAPTER 8

REFERENCES

1. JavaScript: The Definitive Guide.

- David Flanagan

2. Hosting a static website

https://docs.aws.amazon.com/AmazonS3/latest/userguide/WebsiteHosting.html

3. Introduction to HTML

https://www.w3schools.com/html/html_intro.asp