PROJECT REPORT

on

UNFAIR DRAGON KING

Submitted in partial fulfillment of the requirements for the award of

Degree of Bachelor of Computer Application

SRM
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Submitted by-

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6.1 Conclusion

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1. Introduction to project

Games have become an important part of our culture in a relatively short period of time. The industry is also developing into a major pillar of many modern economies, with game development tax schemes being introduced into many developed countries. These are coinciding with a period of time where it has never been easier to make and release a game into the commercial market. For the last two decades, game development teams have required financial backing and a level of expertise to pass stringent tests by platform holders to be allowed access to their development hardware. Today, anyone with a mobile phone or a tablet and a computer, even a laptop, can build a game and have it for sale with a minimum of time and financial backing. This does not mean that every game is successful: it is still essential to have a good understanding of the technical aspects involved in making games and the considerations involved in designing games which people will want to play.

I. Platform used: -

- Visual Studio Community: - **Visual Studio** is an Integrated Development Environment (IDE) from Microsoft. It is used to develop computer programs including websites, web apps, web services and mobile apps. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Form, Windows Presentation Founder, Windows Store and Microsoft Silverlight. It can produce both native code and Managed code.

  The Community edition was announced, as a new free version, with similar functionality to Visual Studio Professional. Prior to this date, the only free editions of Visual Studio were the feature-limited Express variants. Visual Studio Community supports multiple languages and provides support for extensions. Individual developers have no restrictions on their use of the Community edition. Visual Studio Community is oriented towards individual developers and small teams.

- Firebase: - Firebase provides developers with a comprehensive set of tools to build and deploy applications quickly and efficiently, without having to worry about infrastructure management or server-side coding. The platform offers a robust API, SDKs for several programming languages and platforms, and a user-friendly console for easy management of projects.

One of the key advantages of Firebase is its real-time database, which allows developers to create applications that can update and display data in real-time without the need for manual refreshes. The platform also offers easy integration with other Google services, such as Google Analytics and Google Cloud Functions.

Firebase is a cloud-based service, which means that developers can take advantage of its scalable infrastructure to handle traffic spikes and ensure reliable performance. The platform is also designed to be highly secure, with features such as data encryption, user authentication, and server-side validation.

II. Programming Languages used: -

- HTML
- CSS
- JavaScript

2. Literature Survey

2.1 Summary of paper studied: -

Languages and software learned: -

- ✓ HTML: - HTML (Hypertext Markup Language) is the standard markup language used for creating web pages and web applications. It provides a structure for organizing content and elements within a web page. HTML documents consist of a series of tags that define different elements and their relationships.

  HTML tags are enclosed in angle brackets ("<>" symbols) and are used to markup different parts of a web page. Each tag serves a specific purpose and defines the structure or function of the content it wraps. For example, **<h1>** tags indicate a heading, **<p>** tags define paragraphs, **<a>** tags create links, and **<img>** tags display images.

  HTML documents typically have a structure that includes a **<head>** section and a **<body>** section. The **<head>** section contains metadata about the page, such as the title, character encoding, and links to external resources like stylesheets and scripts. The **<body>** section contains the visible content of the web page, including text, images, links, and other elements.

  HTML is a markup language, meaning it describes the structure of content rather than specifying how it should be presented visually. The presentation of HTML elements, such as colours, fonts, and layout, is controlled using CSS (Cascading Style Sheets) or other styling methods.

- ✓ CSS: - CSS (Cascading Style Sheets) is a style sheet language used to describe the presentation of a document written in HTML (Hypertext Markup Language). It is used to control the visual

appearance of web pages, including layout, colours, fonts, and other design elements.

CSS separates the content of a web page from its presentation, allowing web developers to define the style and layout of multiple pages using a single CSS file. This separation of concerns makes it easier to maintain and update the design of a website.

CSS works by selecting HTML elements and applying styles to them. Styles can be defined inline within HTML tags, within the HTML head section using **<style>** tags, or in an external CSS file that is linked to the HTML document using the **<link>** tag.

- ✓ JavaScript: - JavaScript is a high-level programming language that is widely used to create interactive and dynamic websites. It is a client-side scripting language that runs in the user's web browser and can be used to create interactive effects, validate form inputs, and manipulate web page content in real-time.

JavaScript was created in the mid-1990s by Brendan Eich, initially as a scripting language for the Netscape Navigator web browser. Since then, it has become one of the most popular programming languages, thanks to its versatility and widespread use.

JavaScript can be used to add interactivity to web pages, such as handling user interactions, form validations, and animations. It can also be used to create complex web applications, such as single-page applications (SPAs) and progressive web applications (PWAs).

JavaScript has a vast and growing ecosystem of libraries and frameworks, such as jQuery, React, Angular, and Vue.js, that can simplify the process of building web applications. It is also used on the server-side with Node.js, which allows developers to write server-side JavaScript applications.

- ✓ Firebase: - It is a cloud-based platform developed by Google that provides a comprehensive set of tools and services for building and managing web and mobile applications. It offers a wide range of features, including authentication, real-time database, hosting, storage, cloud functions, and more.

Here's a brief description of some key features of Firebase:

- Authentication: Firebase Authentication provides an easy-to-use authentication system that allows users to sign up, sign in, and manage user accounts using various authentication providers such as email/password, Google, Facebook, Twitter, and more.
- Real-time Database: Firebase Realtime Database is a NoSQL cloud-hosted database that allows you to store and synchronize data in real-time. It enables you to build real-time applications where changes to the data are immediately reflected across all connected clients.
- Cloud Fire store: Cloud Fire store is a flexible and scalable NoSQL document database. It offers powerful querying capabilities, real-time updates, and offline support. Fire store allows you to structure and retrieve data in a more flexible and scalable way compared to the Realtime Database.
- Hosting: Firebase Hosting provides a simple and secure way to host web applications, static content, and dynamic content. It offers fast content delivery with CDN integration, automatic SSL certificates, and easy deployment through the Firebase command-line interface.
- Storage: Firebase Storage is a cloud storage service for storing and serving user-generated content such as images, videos, and files. It provides secure and scalable storage with easy integration into Firebase applications.
- Cloud Functions: Firebase Cloud Functions allows you to run server-side code in a serverless environment. You can write custom functions that respond to events triggered by Firebase services or HTTP requests. It enables you to add server-side logic to your application without the need to manage servers or infrastructure.
- Analytics: Firebase Analytics provides insights into user behaviour and engagement with your app. It allows you to track events, measure user retention, and gain valuable insights into how users interact with your application.
- Performance Monitoring: Firebase Performance Monitoring helps you track and analyse the performance of your app. It provides data on app startup time, network requests, and other performance-related metrics to identify and resolve performance bottlenecks.

2.2 Comparison of Firebase with others: -

Features	Localytics	AppsFlyer	mixpanel	Firebase	Analytics
Platform Support - Android, iOS	✓	✓	✓	✓	✓
Messaging	✓	✗	✓	✓	✗
Funnel Visualization	✓	✓	✓	✓	✓
Cohort Analysis	✗	✗	✓	✓	✓
Real Time Analytics	✓	✓	✓	✓	✓
Prediction	✓	Data Unavailable	✓	✓	Data Unavailable
Multi Channel - Multi Touch Attribution	✗	✓	✗	✗	✓
A/B Testing	✓	✗	✓	✓	✗
LTV (Life Time Value) Insight	✓	✗	✓	✗	✓
Platform support - Web	✓	Data Unavailable	✓	✗	✓
Google Analytics Integration Support	Data Unavailable	✓	Data Unavailable	Partially	Data Unavailable
Other Integrations	Appsflyer, Salesforce Marketing Cloud, Apptimize, Branch Metrics, Optimizely	Facebook Ads, Google Adwords, Snapchat	Appsflyer, Microsoft Power BI, Segment	Cloud reporting, Big query, Ad mob	Data Unavailable
Demo Account	✓	✗	✗	✓	✓
App Installs tracking	Partially	✓	✗	✓	✓
Tag Management Support in Apps	✗	Data Unavailable	✗	✓	✗

2.3 Integrated Summary of Literature Studied: -

HTML (Hyper Text Markup Language): - is used to create a basic architecture of the website. It focuses on organizing content and defining the elements of a webpage such as headings, paragraphs, lists, images, and more. It uses a series of tags to markup these elements and give them meaning. However, HTML has limited capabilities when it comes to styling and visual presentation.

CSS (Cascading Style Sheets): - CSS, on the other hand, is specifically designed to handle the visual aspects of web pages. It allows you to define the styles, layout, and design properties of HTML elements. By using CSS, you can specify colors, fonts, sizes, margins, padding, positioning, backgrounds, and more.

To link CSS stylesheets with HTML documents, you can use the <link> tag within the HTML document's <head> section. The <link> tag specifies the location of the CSS file using the href attribute.

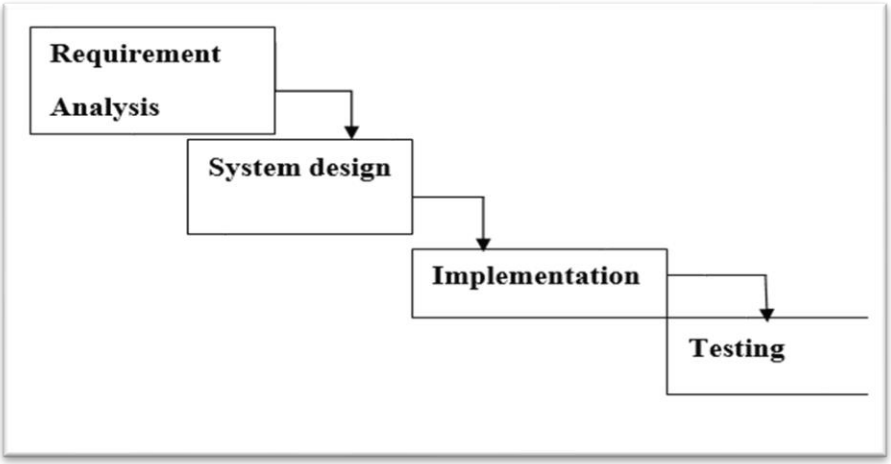
JavaScript is a programming language that allows you to add interactivity and dynamic behavior to web pages. It is widely used in web development for client-side scripting, which means it runs in the user's web browser rather than on the server

3. System Design

3.1. PROCESS MODEL USED

Waterfall model

The waterfall model shows the software development process in a linear sequential flow. Thismeans each phase must be completed before the next phase and also the phases do not overlap. The various are shown below-



- **Requirement analysis-** All the possible requirements of the system are gatheredand documented in a requirement specification document.

- **System design-**The requirements from the first phase are studied and then the systemdesign is prepared. It helps in specifying hardware and software requirements and helps in defining the overall architecture.
- **Implementation-** With inputs from system design, the system is developed in smallprograms called units which are integrated. Each unit is developed and tested for functionality.

- **Testing-** The entire system is tested for any faults or failures.

- All these phases are linked to each other in which progress is seen as flowing steadily downwards (like a waterfall) through the phases. The next phase is started only when theprevious phase is completed.

- In our project, we use this model because it can serve as a useful process model in situationswhere requirements are fixed, and work is to proceed to completion in an easy and usable manner.

3.2. Algorithms: -

(Code Snippets)

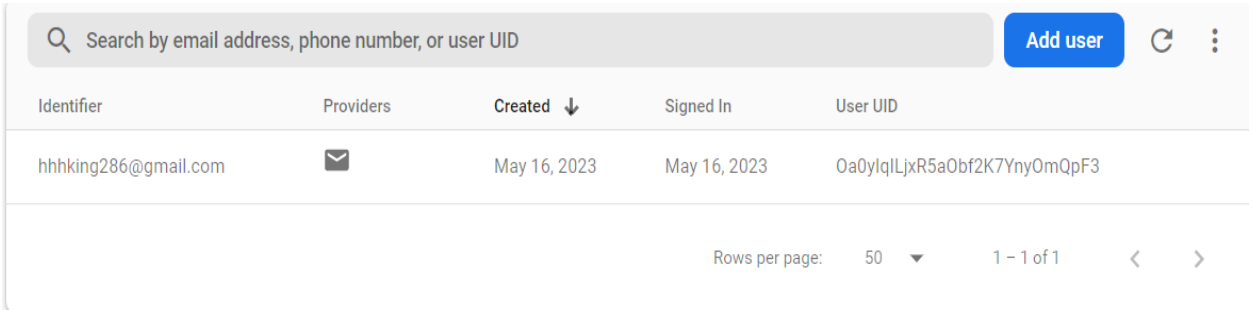
1. Index page (Home page)

```
index.html > ...
<!DOCTYPE html>
<html>
<head>
    <title>UNFAIR DRAGON KING</title>
    <style>
        *{
    margin:0;
    padding:0;
    font-family: Century Gothic;

}

header{
    background-image: linear-gradient(rgba(0,0,0,0.5),rgba(0,0,0,0.5)),url(../bgi.jp
    height: 100vh;
    background-size:cover;
    background-position: center;
}
ul{
    float:right;
    list-style-type: none;
    margin-top: 25px;
}

ul li{
    display: inline-block;
```

2. Login/Signup page

```
login.html > ...
<div class="box">
    <img src="images/udk_CHARACTER.png" class="udk_CHARACTER">
</div>
<div class="card">
    <div class="card-header">
        <center><h3>Login/SignUp Form</h3></center>
    </div>
    <form onsubmit="login()" id="loginForm" class="card-body px-5 py-4">
        <center><small><span id="error" style="color: red"></span></small></ce
        <center><label class="custom-field">
            <input id="email" type="text" class="input" required />
            <span class="placeholder">Email Id</span>
        </label><br />
        <label class="custom-field">
            <input id="password" type="password" class="input" required />
            <span class="placeholder">Password</span>
        </label></center><br /><br/>
        <a href="#" onclick="forgotPass()">Forgot Password</a>
```

3. Database



4. Contact us

```
contactus.html > ...
    <link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
<link href="https://fonts.googleapis.com/css2?family=Poppins:ital,wght@0,300;0,500;1,300&display=
</head>
<body>
    <div class="container">
        <h1>Connect With Us</h1>
        <p>We would love to respond to your probelms. <br> Get in touch with us.</p>
        <div class="contact-box">
            <div class="contact-left">
                <h3>Send your request</h3>
                <form >
                        <div class="input-row">
                          <div class="input-group">
                              <label>Name</label>
                              <input type="text" placeholder="Abc Xyz">
                          </div>
                          <div class="input-group">
                              <label>Phone</label>
                              <input type="text" placeholder="+91 93735 27777">
                          </div>
```

5. Welcome Page (After Login)

```
welcome.h  relative.
    href="https://fonts.googleapis.com/css?family=Roboto:300,400,500,700&display=swap
    rel="stylesheet"
    />
    <link
    href="https://cdnjs.cloudflare.com/ajax/libs/mdb-ui-kit/3.5.0/mdb.min.css"
    rel="stylesheet"
    />
    <script
    type="text/javascript"
    src="https://cdnjs.cloudflare.com/ajax/libs/mdb-ui-kit/3.5.0/mdb.min.js"
    ></script>
</head>
<body>
    <center><div style="margin:100px">
        <span id="user" class="message">Hello, < email-id ></Email-id></span>
        <div class="success"><span>Welcome to auth starter, You are successfully loge
        <button class="btn btn-danger" onclick="logout()">Logout</button>
    </div></center>
    <!-- The core Firebase JS SDK is always required and must be listed first -->
    <script src="https://www.gstatic.com/firebasejs/8.6.7/firebase-app.js"></script>

    <!-- TODO: Add SDKs for Firebase products that you want to use
        https://firebase.google.com/docs/web/setup#available-libraries -->
```

4. Testing

4.1 HARDWARE & SOFTWARE USED

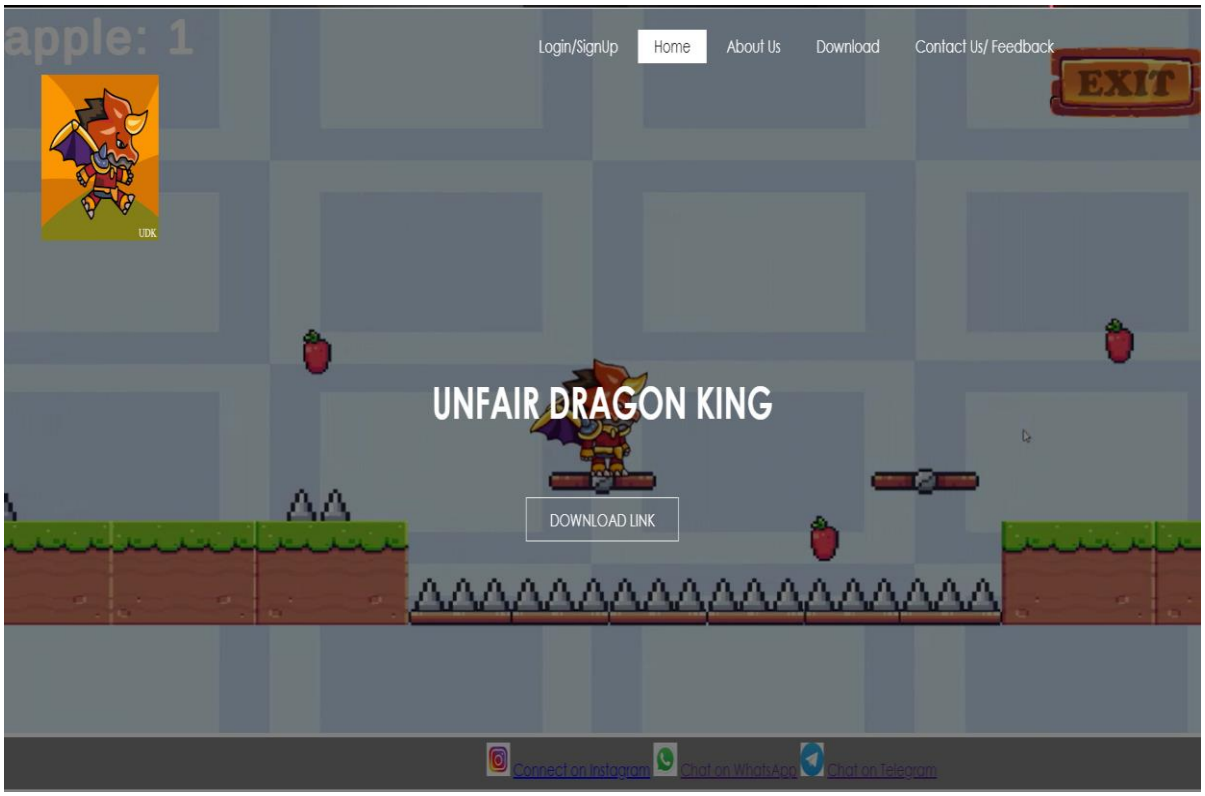
(Hardware and software used for testing)

- ✓ HARDWARE USED
  - Processor - Intel core i5
  - System bus - 64 bits
  - RAM - 8GB of RAM
  - HDD - 512GB

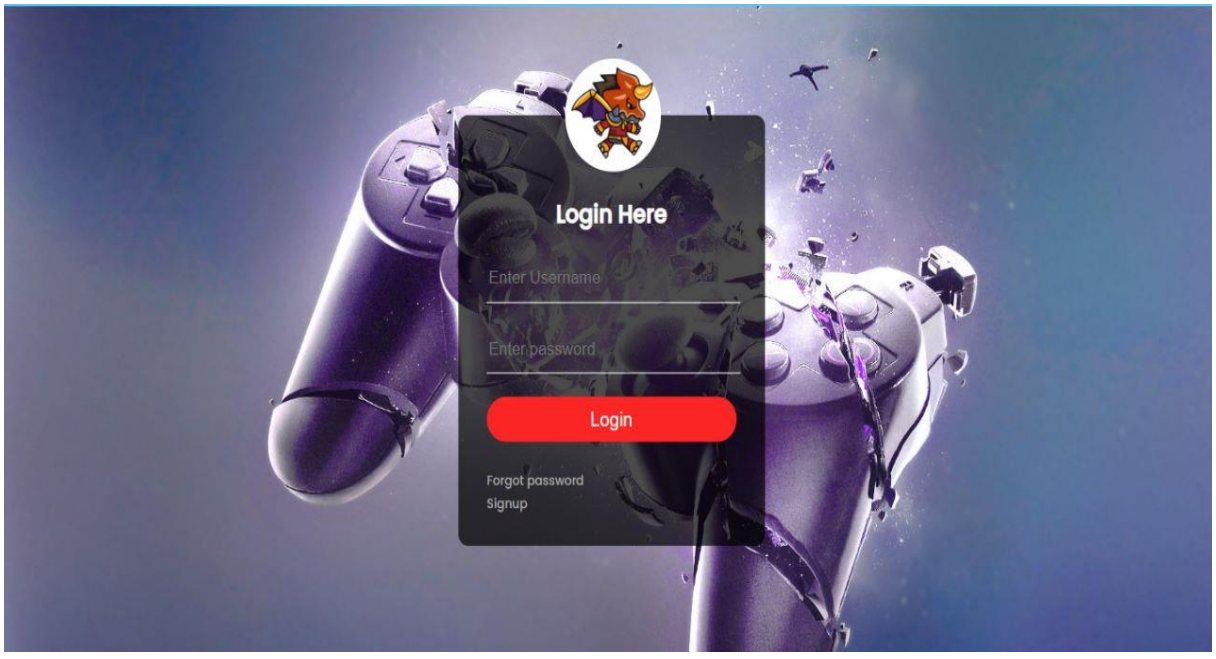
- ✓ SOFTWARE USED
  - OS - MS Windows7
  - Front End - HTML, CSS, JavaScript
  - Database - Firebase
  - Development platform - Visual Studio Code

5. Results

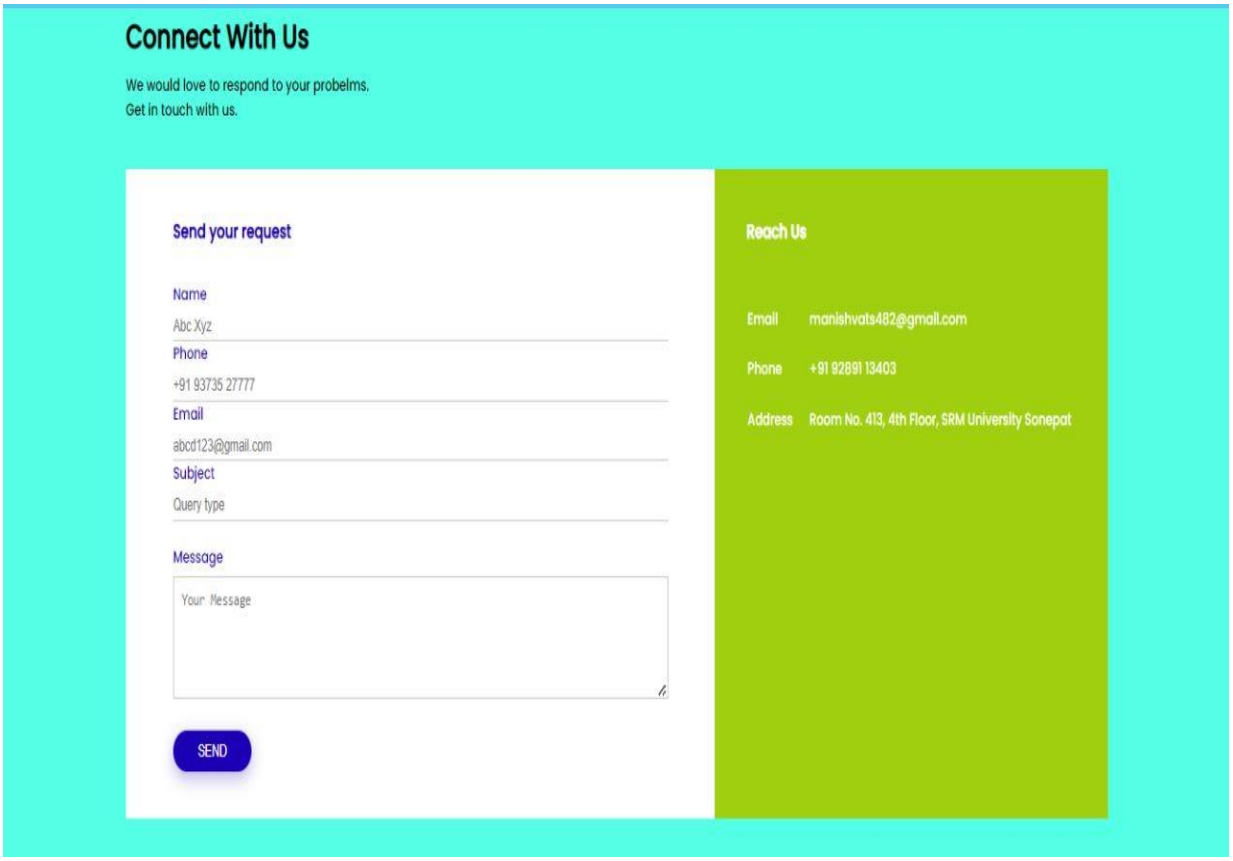
a. Index page (Home page)



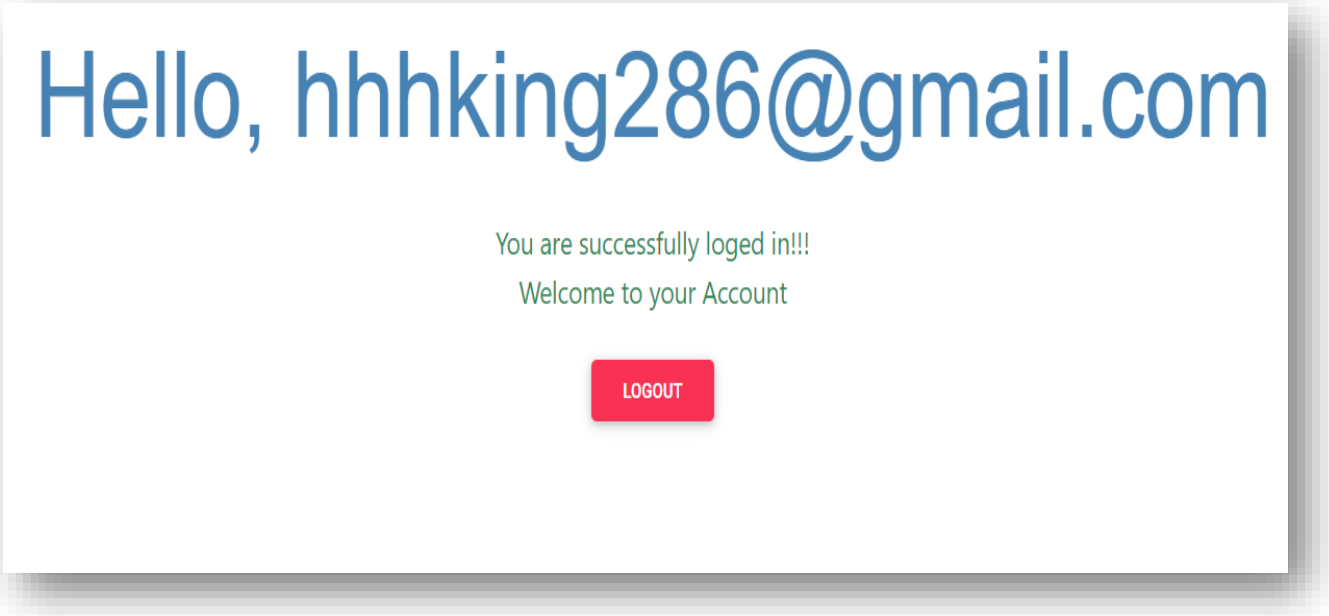
b. Login page



c. Contact Us page



d. Welcome page (After Login)



6. Conclusion

We were successful in designing and making a game website using visual studios and other platforms. While creating the website, we learned several project management techniques used by professionals to develop the projects. The experience of working in a team and integration of website is developed independently.

Our system provides different services like easy access to users, efficient management, less time consuming, records data, etc. In our software, task is not done manually. The most admirable feature founded was its simplicity in terms of website to the user but its highly beneficial outputs can’t be ignored.

7. References

✓HTML

YouTube: - https://www.youtube.com/@ApnaCollegeOfficial
https://www.youtube.com/@CodeWithHarry

✓CSS

YouTube: - https://www.youtube.com/@CodeWithHarry

✓JAVASCRIPT

YouTube: - https://www.youtube.com/playlist?list=PLWKjhJtqVAbleDe3_ZA8h3AO2rXar-q2V

✓FIREBASE

Google: - https://firebase.google.com/docs/web/

YouTube: - https://www.youtube.com/playlist?list=PLnHVLqBXnoWXttdeU2M_53HAWGs3takKN