

(Multi Games)

Submitted in partial fulfilment of the requirements of the degree of

BACHELOR OF COMPUTER ENGINEERING

by

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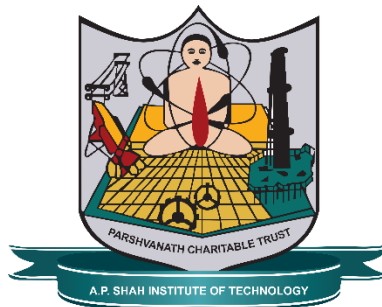
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Department of Computer Engineering

A. P. SHAH INSTITUTE OF TECHNOLOGY, THANE

(2022-2023)



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CERTIFICATE

This is to certify that the project entitled “MULTI GAMES” is a bonafide work of **Gautam Pandey (21102117), Pratik Patil (21102099), Sanket Nehe (21102119), Vivek Mohite (21102088)** submitted to the University of Mumbai in fulfilment of the requirement for the Mini Project 2A of **Bachelor of Engineering in Computer Engineering**

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Project Report Approval for Mini Project-2A

This project report entitled (***MULTI GAMES***) by (**Gautam Pandey, Pratik Patil, Sanket Nehe, Vivek Mohite**) is approved for the degree of ***Bachelor of Engineering in Computer Engineering, 2022-23.***

Examiner Name

Signature

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2. _____

Date:

Place:

Declaration

We declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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ABSTRACT

This project aims to develop an internet web browser based fun and knowledge games. Fun and knowledge games engage the player for a long time and improve cognitive and mental skills. This gaming web is divided into five games. First is Bouncy Ball, then Bouncy ball is also having three levels. Second is Color Game, third is Tic Tac Toe And last one is Snake Rush. To develop this web games we are using internet programming languages i.e. HTML, CSS and JavaScript. The main aim of the game is to enhance users knowledge and thinking skills along with providing entertainment. Various web platform games are available on the internet, and our game is also inspired from them. We have tried to keep the user interaction simple and easy to understand as one has not to go many steps to accomplish a task in the game. A thorough study has been done and results from various paper related to web game user interaction has been included in our game. This is just the first model of the games, various possibilities exist for the future where we can add more games in our website. This game will also be integrated with various social networking websites such as Facebook, so that we can amass a large number of players across the world. The main purpose of the game is to provide entertainment along with improving different cognitive skills. Such games attract a lot of consumers, who are eager to test their knowledge and decision based skills. Target users of the game are mainly school and college students along with interested adults.

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INTRODUCTION:

Our project aims to make a community of gamers come together and take a step forward in increasing the gaming passion among the new generation. Now the question that might come in your mind is how it would be possible. So the simple answer to this question is, today's generation want to invest their money more wisely and save as much as possible. And the ones who are passionate about gaming are often in search or downloading of new games or multiple games in one. And downloading the games every-time is not a very economic way to invest or spend the time. Some games are just one time play, i.e. once play, if not interested then the craze of that game is over. And now just keeping that games in your device doesn't make any sense. So at such times few may prefer giving their interest of particular to some other curious and passionate gamers like them, so that he/she can too enjoy the features of that fabulous game. But it is by default that the gamer would want some output from giving the game to someone else. Video game development is the process of creating a video game development is undertaken by a game developer, which may range from one person to large business. Traditional Commercial PC and console games is normally funded by a publisher and takes years to develop. Web-games can take less time and can produced cheaply by individual and small developers.

LITERATURE SURVEY:

We started the project by referring to various online games and research papers on interaction design and game development. The results of the study is discussed as below.

[1] Earliest online gaming started around 1969, but started to become popular around late 1970s and 1980s when Dial up bulletin boards became popular which was used by players to play online games. Commercial online service was introduced in 1980s and interactive online games were introduced after that. In the 1990s, with the introduction of Java and Flash technology, several online games were introduced based on these technologies. This gave a great boom to the online games. Game Analytics and Multi-player Online games are not new themes. Analytics has been widely used to support Business Intelligence. The goal of Analytics is to detect patterns in data that can be used in decision making processes. The evolution of computing platforms and the rise of big data opened a lot of opportunities to apply Analytics in several areas. Its application to games, in the beginning, was hindered by the difficulty in obtaining a large amount of user data.

[2] The development of networked games or simply games that communicate through the Internet circumvented that limitation. On the other side, Multiple Online Games had an extraordinary development in last decade, boosted by the technological advances in computer processing and communications. Since their business model is based on player subscriptions, keeping an engaged user base is fundamental for the game success. Game Analytics in this context, is explored to better understand the game performance and define new directions for its evolution. Before developing the game, we looked into the history of online games. Online games trace their origin from year 1969 and are being updated till dated with various new concepts. Here is a brief time line of the online games. Apart from the entertainment purpose that games are intended to provide. There are other benefits also which such games serve. Few such benefits are described below.

[3] Realistic gaming experience In many online games, user plays against humans, rather than a computer, which provides more realistic gaming experience. Educational benefits Several online games are there which focus on education. Playing this game provides pleasure as well as user learns in a fun way. e.g. Snake Rush, Tic Tac Toe games, Color guess games.

Relaxation Games are a great source of entertainment. People when stressed usually play their favorite games in order to escape from stress and to keep them relaxed. There is a large variation present in online games. But most of these games are developed by foreign countries' developers. So there is a lack of Indian theme based games in online game sector which lead us to take this project of developing an Indian theme game. Games to which users can relate, are more attractive and people like to play such games often. This project aims to fulfill such gap by developing an Indian theme based online game. A good online game is one which engages users for a long time without boredom. Built-in player-game matching service, Accessibility, Developer support of player feedback, Challenge A good game should pose a challenge to the users to think or react spontaneously.

[4] Application development methodologies are promoted as a means of improving the management and control of the application development process, structuring and simplifying the process, and standardizing the development process and product by specifying activities to be done and techniques to be used. Using application development methodologies benefit the application to be developed in following ways. Complete and clear set of requirements - Many techniques for requirement gathering and analysis have been described in various development techniques prescribed by chosen development methodology, using those, helps in getting clear idea of what to do and what is needed for developing the application. If one starts coding the application without having the clear objectives, Methodologies provide a way for this according to what we want to develop and what will be its running environment. Minimal risk with optimal benefit - Methodologies do not only provide ways for efficient development of project but also guides after the development in terms of deployment and maintenance plan.

[5] Html: Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page.

[6] CSS: Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate css file, and reduce complexity and repetition in the structural content. Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as onscreen, in print, by voice (via speech-based) browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

Server: We have primarily used local host for our website. A local host is a server that is running in a local or a mounted folder and whose document root is not the parent of the project root. We did our development, then copied the sources to the server.

PROBLEM STATEMENT:

- In this era of information technology, internet has become an important aspect of human life. Day by day, number of internet users is increasing. Users like to gain knowledge off the internet as well like to keep them entertained by playing online games, etc. There are number of online games with lots of varieties available in them. Much of these games are not Indian games. To fulfill this gap, we are trying to develop the web. So we arrived to the problem statement of this project as to develop an interactive web based multiple games in one website targeting users' decision making , planning skills and knowledge.

OBJECTIVE:

- To make gamer a passion by making it more interesting.
- Easy access to the website that are not like time consuming via downloading.
- So it will save the time the gamer as he or she is getting the multiple games in one website only.
- Making the community develop in different ways by playing multiple games at one time.

SCOPE:

This is the first version of the game. Various possibilities exist which we will implement and improve the game with time. Following are the future plans that we have currently for the game:

- We are working on adding more levels and will come back with some more games for making more entertaining and interesting website.
- Apart from current games, we plan to include various other games like Pool game, Chess, Racing games etc. in our gaming section.
- We plan to establish an online gaming company if we get, good response from the users.

PROPOSED SYSTEM:

Our project is based on a web application. So in order to make a web application, we have selected 3 languages keeping front-end work in mind. They are:

HTML, CSS & Java Script.

HTML is a language that is used to just put the elements that we want in our web page without keeping in mind the design or presentation of that particular element. So in order to design and beautify our web page =, we use style kits like CSS and JS, through which we can take our website presentation to some different level.

But also in order to execute these code, we need an IDE (integrated development environment). So for this purpose we have used VSCode. Here various extensions are available to make our execution and debugging very much easy and quick.

To display the output of our code, we have used Google Chrome as the default web browser.

EXPERIMENTAL SETUP:

HARDWARE REQUIREMENT:

CPU: 2.8 GHz or faster 64-bit processor; Quad-core or better recommended.

RAM: Minimum of 4GB

Storage: 4GB of free hard disk space

SOFTWARE REQUIREMENT:

HTML:

It is one of the most basic building blocks of every website, so it's crucial to learn if you want to have a career in web development.

CSS:

CSS stands for Cascading Style Sheets. It describes how HTML elements are to be displayed on screen, paper, or in other media. It saves a lot of work. It can control the layout of multiple web pages all at once. External stylesheets are stored in CSS files

JS:

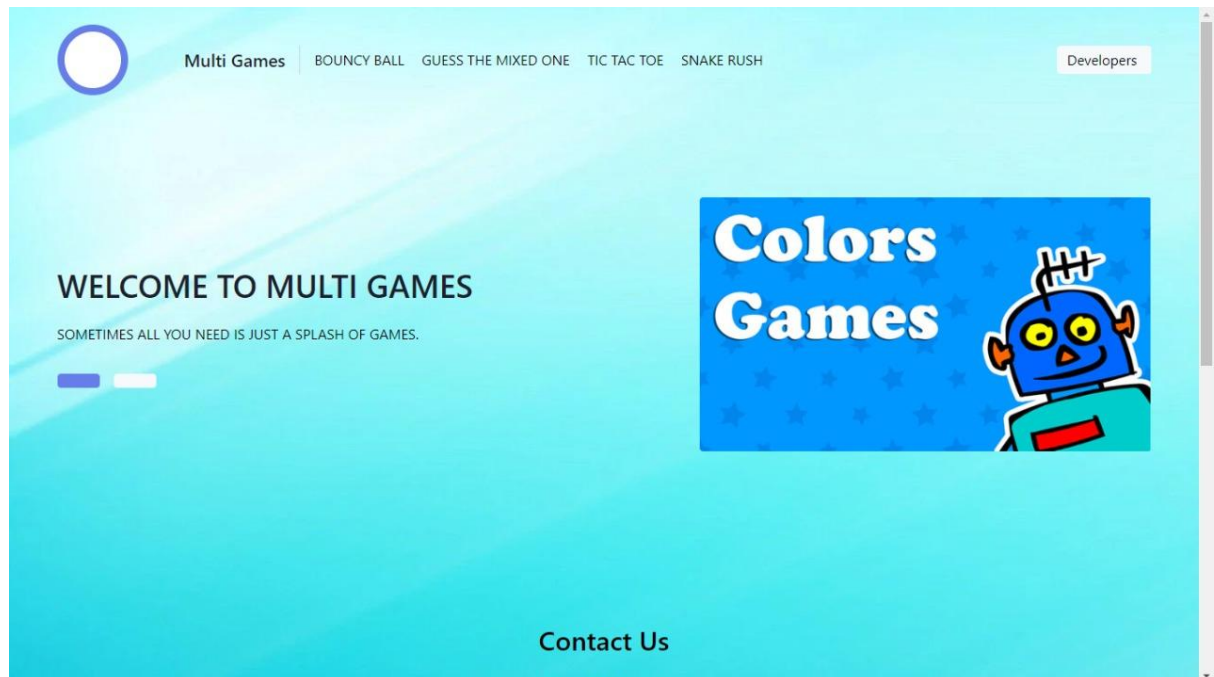
JavaScript is a dynamic programming language that's used for web development, in web applications, for game development, and lots more. It allows you to implement dynamic features on web pages that cannot be done with only HTML and CSS.

VsCode:

Visual Studio Code (famously known as VS Code) is a free open source text editor by Microsoft. VS Code is available for Windows, Linux, and macOS.

RESULT:

1) HOME PAGE:

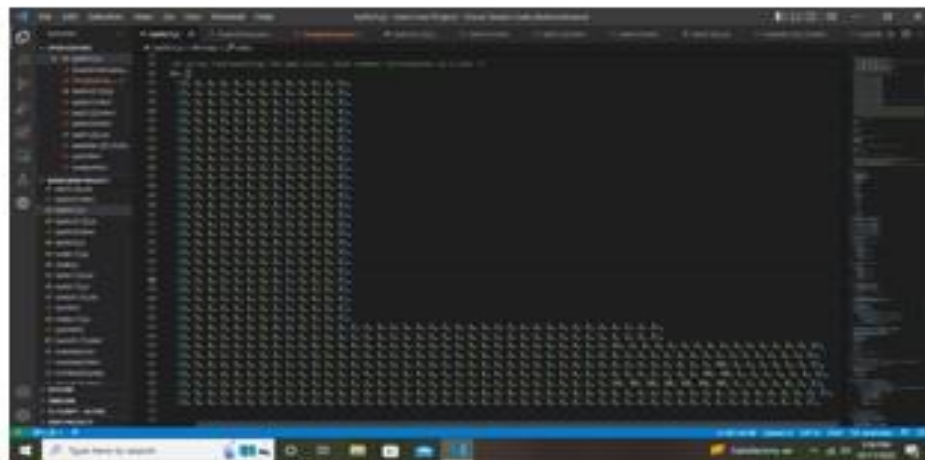


This is how the home page of our website looks. The user can access various section of the website. There are multiple games links which the helps of which the user can directly continue with the games of their wish. We have added exit button in each so that because of that user can return to the home page when they are done with one game. And lastly there is a button given named Developers which consists of information of developer or web maker name, contact number, etc.

1. Bouncy Ball

Level 1:

CODE:

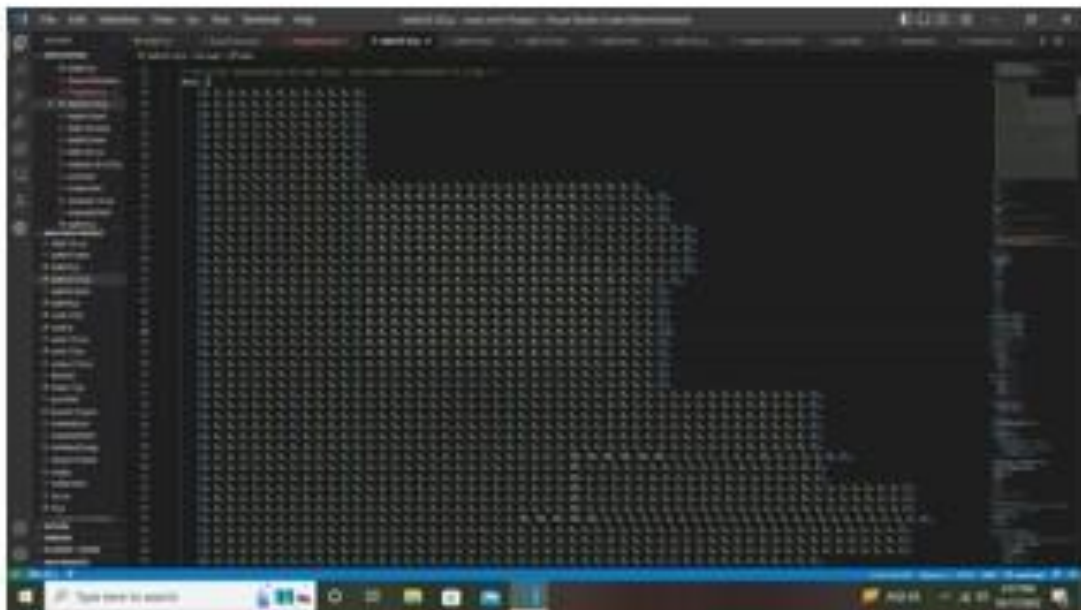


OutPut:



Level 2:

Code:

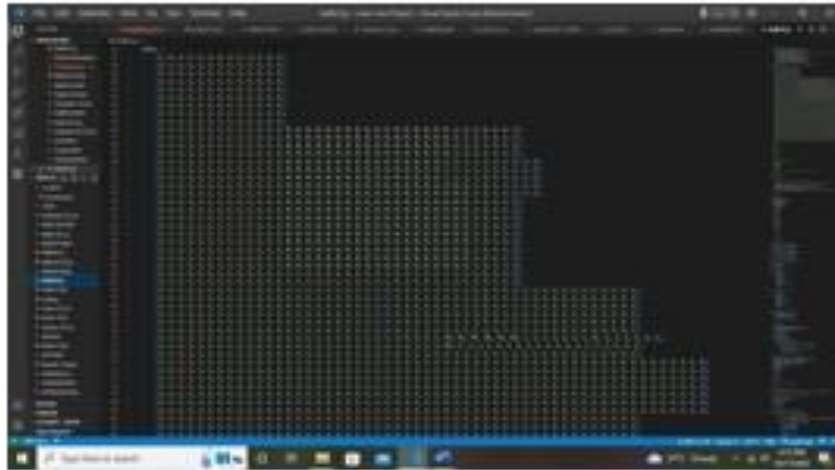


Output:



Level 3:

Code:



Output:



Bouncy ball is our game on the website and consists of a ball to which the user has to move using the up, down, left, right arrow keys, and three levels are there this levels indicates the difficulty of the game. it has the green background and there are certain rules means if the player is getting the ball into that green filled pond then the game will end there itself.

2. Color Game



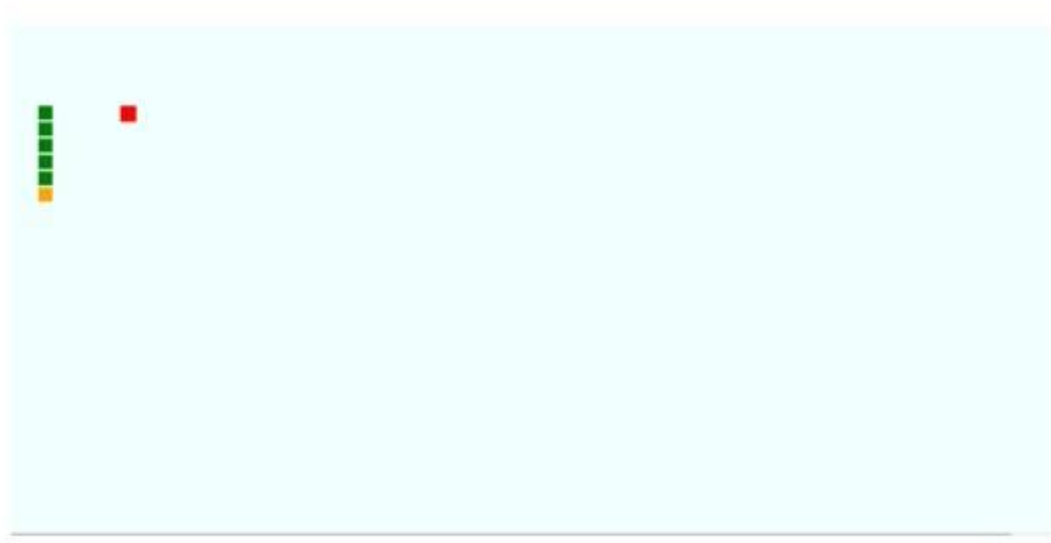
In Color game, The user has to guess the color combination and by clicking on the color the results will be declared. The user have total five no.of chances to guess the correct color from given combination, and if the user is failed to choose within the five chances then game end and message will be pop up right there that is “OHH SHIT!!YOU LOSE”

3. Tic Tac Toe



Tic Tac Toe is a multiplayer game, it can be played by multi-peoples and can played by using the mouse, by clicking inside the box. And if the boxes are filled and no space is there then the game will message that the game is “TIED”, and if a person wins then it will display the winner name for eg, ‘Player 1 won the match’. After the completion of the game the user can reset the game by clicking on the given reset button.

4. Snake Rush



Snake rush can played using the 4 arrows given:- up, down, right, left arrows and can also played by using the 4 keys i.e. W , A ,S , D. When you press W A S D snake goes UP , Left , Down , Right respectively , using these keys user need to eat treat (point). This is endless game . When you hit the boundary then game will over.

References:

1. Michael Weeks "Creating a web based , 2D games in javascript With HTML5 " March 2014 , DOI: 10.1145/2638404.2638466.
2. Kelvin Sung , Jebediah Pavleas, Jason pace " Build Your own 2D game engine and create great web games " BOOK | 2015.
3. Gamespot Staff. QOTW: What Makes an Online Game Successful? [Online]. Accessed on: 20/1/2014.
4. F. V. Escudeiro, N. F. Escudeiro and P. M. de Sa Oliveira, "Exploring HTML Tags and Metadata to Improve the Expressiveness of Web Search Engine's Queries," 2009 Second International Conference on Computer and Electrical Engineering, 2009, pp. 569-573, doi: 10.1109/ICCEE.2009.228.
5. Y. -W. Luo, "The effect of using JavaScript and HTML to implement an E-learning web sites as a remedial teaching aid on English underachievers at universities of science and technology," The 40th International Conference on Computers & Industrial Engineering, 2010, pp. 1-7, doi: 10.1109/ICCIE.2010.5668450.
6. D. S. Blyth, "Web page design for HTML (and friends)," IPCC 96: Communication on the Fast Track. IPCC 96 Proceedings, 1996, pp. 89-103, doi: 10.1109/IPCC.1996.552585.

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