

A Mini Project Synopsis on

Mario Game

S.E. - I.T Engineering

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CERTIFICATE

This to certify that the Mini Project report on **Mario Game** has been submitted by Bharat Sharma (21104023), Vaidehi Vichare (21104040), Muskan Singh (21104119) and Prasad Sawant (21104072) who are a Bonafide students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in **Information Technology**, during the academic year **2022-2023** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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Chapter 1

1. Introduction

Mario is a single player game. Where main player (Mario) can move in left/right directions and can jump. The levels are full of enemies and platforms, and open holes. If Mario touches an enemy, he dies. If he falls down the hole or misses a jump, he will also lose a life. The game includes points and rewards. The main mission of the game is to use his logic and save the mario. There are several levels and in each level the gamer must move mario in such a way the it does hits the enemy and should collect points. Mario is a character created by Japanese video game designer. He is the title character of the video game franchise of the same name and the mascot of Japanese video game company Nintendo. Mario has appeared in many video games worldwide. Mario has access to a variety of power ups that give him different abilities. Mario is a platform game. Miyamoto wanted to use Popeye as the protagonist, but he created Mario instead. Miyamoto expected the character to be unpopular and planned to use him for cameo apperance; originally called "Mr. Video", he was renamed to Mario after Mario. Mario's clothing and characteristics were themed after the setting of Donkey Kong. He then began to star in the Super Mario series of platform games, beginning with the critically acclaimed Super Mario Bros. Mario is near-unanimously considered to be the most famous character in the video game industry and an established pop culture icon. Mario's likeness has appeared in a variety of merchandise, such as clothing and collectible items, and people and places have been nicknamed after him. He has also inspired a considerable amount of unofficial media. With more than 750 million units sold worldwide, the overall Mario franchise is the bestselling video game franchise of all time.

1.1 Purpose

The purpose of the Mario game series is to navigate the protagonist, Mario, through various levels, avoiding obstacles and enemies, collecting power-ups and coins. The games typically involve platforming elements, where the player must jump and maneuver Mario through levels filled with various hazards, such as pits, spikes, and enemies. Along the way, the player can collect power-ups like coins, boxes, and cactus to aid them in their quest. The other purpose of this research is to provide a virtual image for the combination of both structured and unstructured information of our project "Mario Game". "Mario Game is a single-player strategy game on the web platform. The player will progress through levels which require precise manipulation of the environment, though the game encourages creativity and daring via branching pathways. This episodic structure of the game facilitates the pace of the story. We demonstrate the action flow between inputs, scripts, display (output). We are working mainly with story, levels, objects, animation, graphics. We are not working with Android launching. As the player progresses through the game, the levels become more challenging, with new obstacles and enemies to overcome.

1.2 Objective

- The objectives of the game is to progress through levels by defeating enemies,collecting items solving puzzles without dying.
- To make game with attractive graphics, suitable animation, and sound.
- We have implemented 3D installments in the series have had two subgenres:open world exploration based games and more linear 3D games with a predetermined path.
- To create user friendly website.
- To help users to consume game in a more convenient and efficient way.
- To be designed with the aim of providing a user-friendly gaming platform, regardless of their level of strategy.
- Its main objective is to complete each level and progress through the game's narration until the final boss battle, where Mario must defeat enemies and go further for next level.

1.3 Scope

- The scope of the Mario game series is quite broad, as it includes a wide range of games, spanning multiple genres and platforms.
- The Mario game series is extensive, with a wide range of games across multiple genres and platforms.
- The series has something to offer for gamers of all ages and preferences, making it one of the most popular and enduring franchises in video game history.
- The main focus of the Mario game series is platforming, with the player controlling Mario as he navigates through various levels, collecting power-ups and coins, and defeating enemies
- Mario game is a single-player strategy game on the android platform.
- The player will progress through levels which require precise manipulation of the environment, though the game encourages creativity and daring via branching pathways.
- The episodic structure of the game facilitates the pace of the story.

Chapter 2

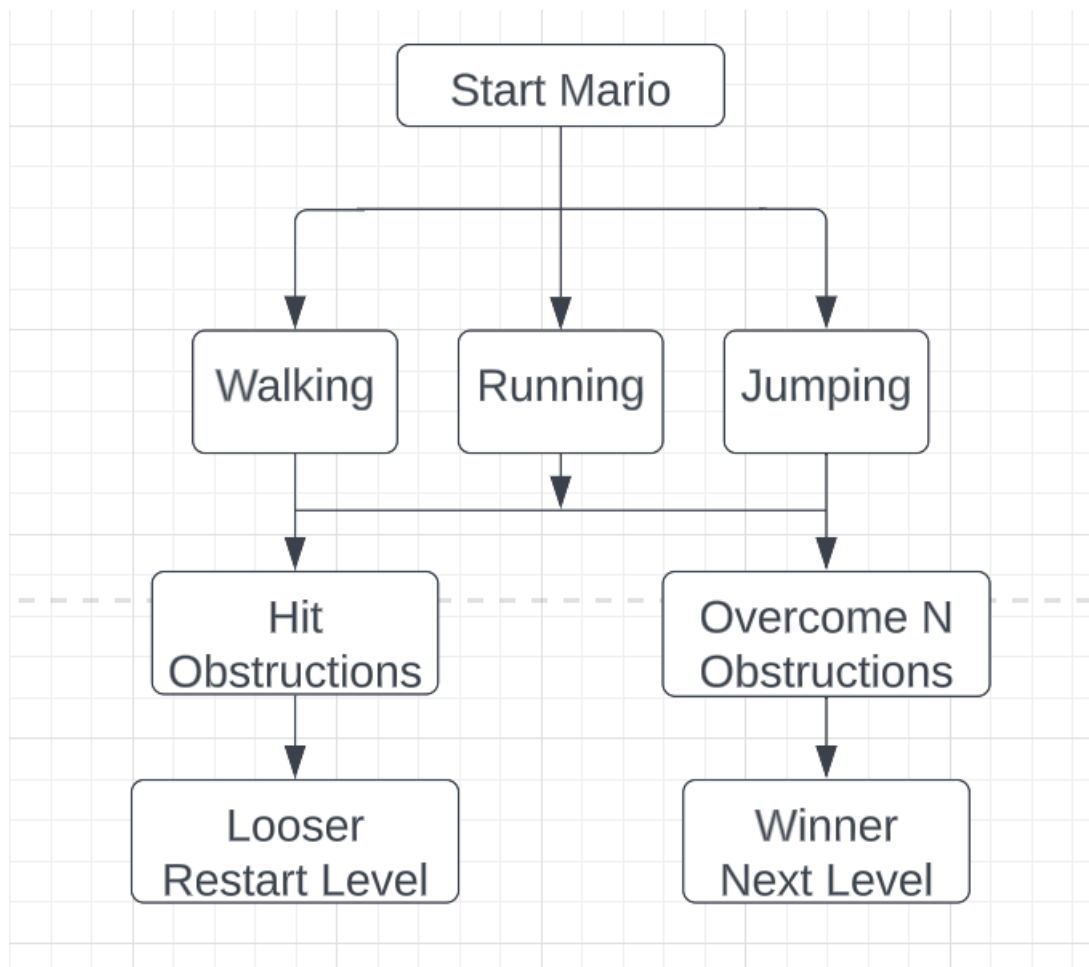
2.1 Problem Defination

Super Mario is a classic video game that has been enjoyed by generations of gamers since its creation over three decades ago. The game is a side-scrolling platformer with 2D graphics that follows the adventures of Mario. The game consists of various levels with different themes, designs, and difficulties. Each level has multiple obstacles, including spikes, and enemies that the player must navigate by jumping, running, and sliding. Mario can collect power-ups such as mushrooms and stars to gain additional abilities and strength. The game has a scoring system that rewards the player for completing levels and collecting items. It also has a menu system that allows the player to access various options such as sound and display settings. The game has sound effects and music that enhance the gameplay experience, and responsive controls that allow the player to perform actions with precision and ease. The game has a difficulty curve that gradually increases as the player progresses through the levels. Overall, creating a Mario game can be a complex process that requires careful planning and execution.

Chapter 3

Proposed System

In this the player should be able to control Mario's movement, including running, jumping, and stomping on enemies. The controls should be intuitive and responsive, allowing the player to easily navigate the game world. The game world is well-designed with different levels, each with its own unique challenges, enemies, and obstacles. The levels has also power-ups that can be discovered by the player. The game should have a variety of enemies with different abilities and weaknesses. Each enemy requires a different strategy to defeat, keeping the gameplay interesting and challenging. The game should include power-ups that give Mario special abilities, such as invincibility or the ability to fly. These power-ups should be strategically placed throughout the levels, encouraging exploration and experimentation



3.1 Features and Functionality

- **Character inputs/moves:** Player can move left or right and can simultaneously jump.
- **Levels:** There are total three level in the game which can be extended further.
- **Dashboard:** Dashboard will display total number of levels and levels unlocked. User cannot access next level unless completing previous level.
- **Coins:** 1.Coins collected while playing will be displayed on screen.
2.Game include two types of coins gold/silver
- **Health:** A health bar shows the status of player's power/energy they have left. If the player's health bar is completely empty or the no. shows zero, the player will usually lose a life or die.
- **Enemy:** If player strikes/hits enemy then ultimately he will die. Player can kill enemies by tapping on to their head.

Chapter 4

Project Outcome

The outcome of a Mario game project can vary depending on the goals and scope of the project. However, some possible outcomes could include:

- A fully functional and polished Mario game with multiple levels, power-ups, enemies, and obstacles that provide a challenging and entertaining gameplay experience for players.
- A Mario game that features innovative mechanics or game modes that differentiate it from other Mario games and make it stand out in the market.
- A Mario game that incorporates multiplayer features, allowing players to compete or cooperate with each other and providing a social and interactive aspect to the game.
- A Mario game that includes advanced graphics, animations, and sound effects that enhance the immersive nature of the game and create a visually stunning and engaging experience for players.
- A Mario game that showcases the skills and creativity of the game developers and demonstrates their ability to create a high-quality game that meets the expectations of players and critics alike.

Chapter 5

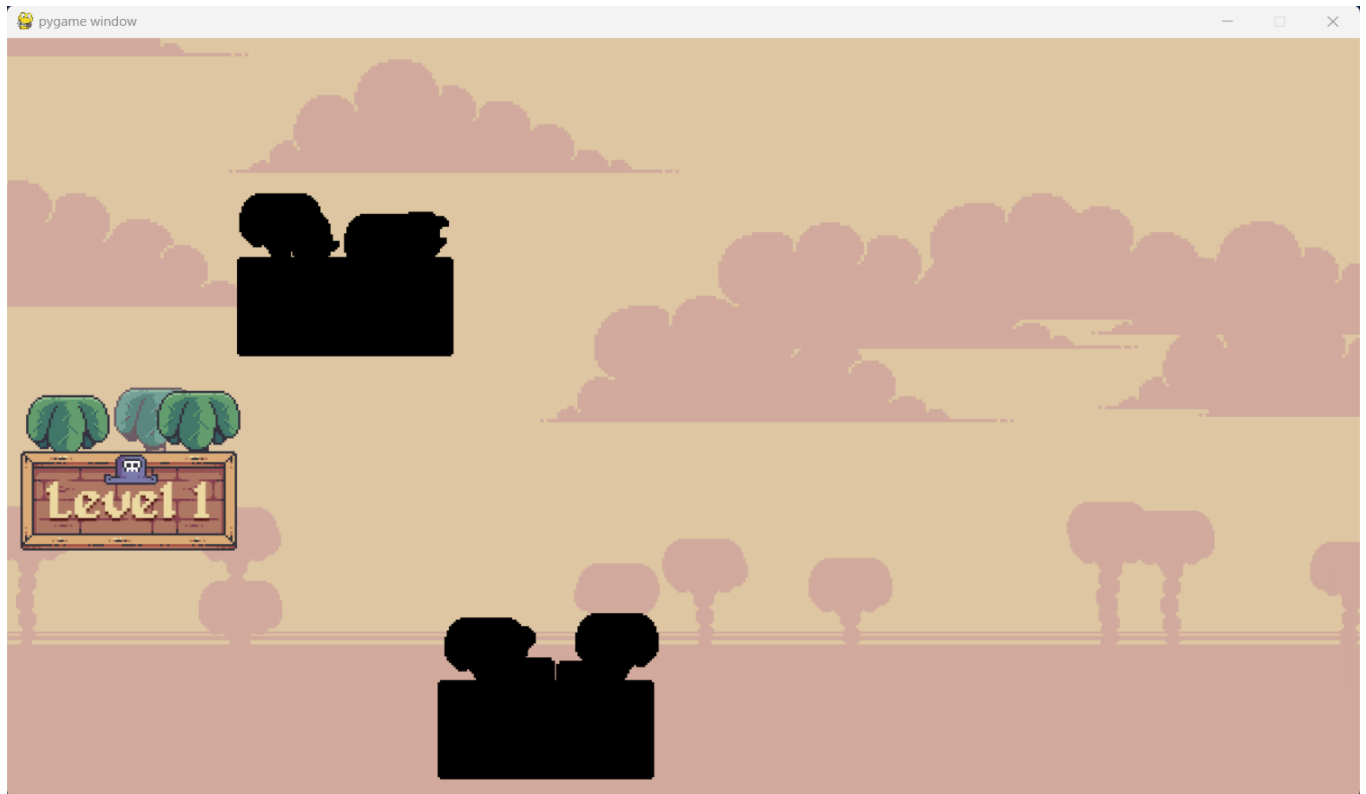
Software Requirements

- **Python:** Python is used to provide add-on game functionality, create 3D graphics and script.
- **Pygame:** The most popular library that supports developing game in python pygame.
- **Tiles:** Tiles are visual chunks that are positioned and reused throughout a game to make up the entire map

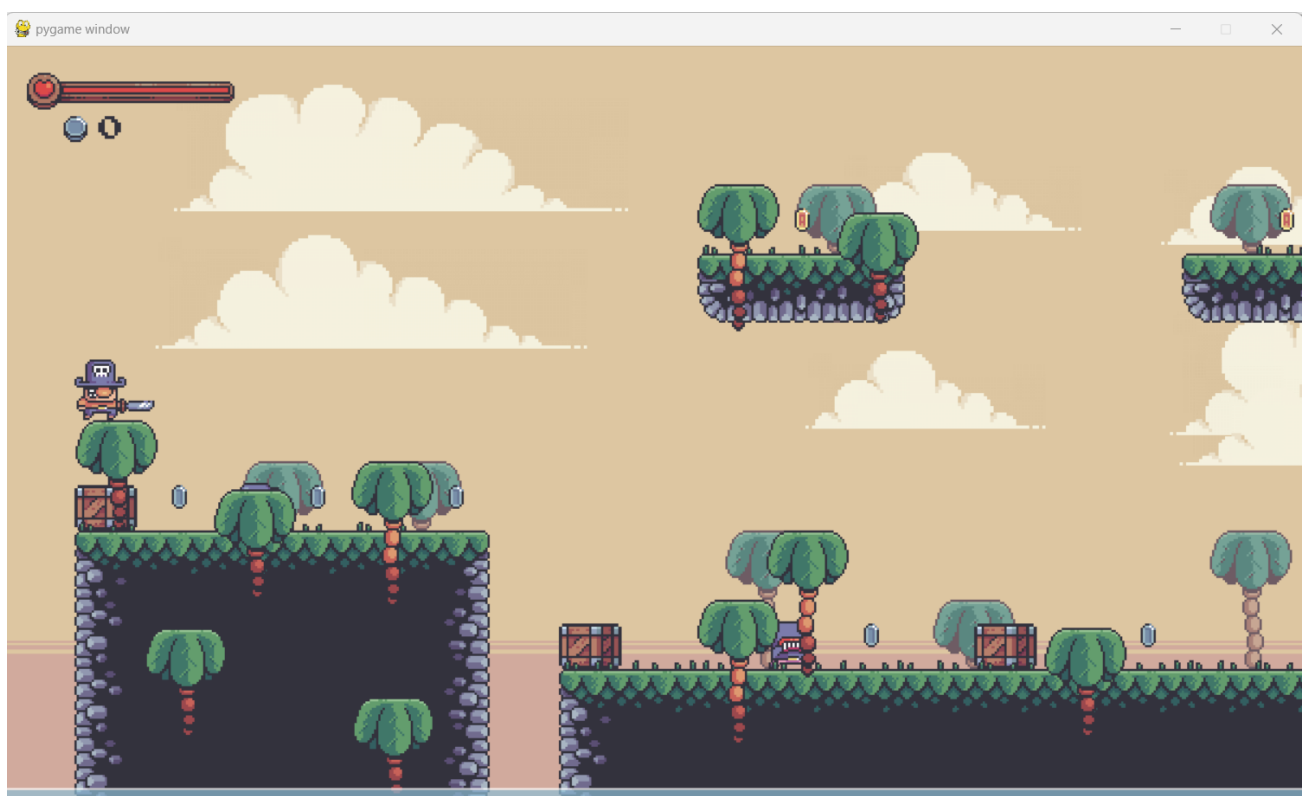
Chapter 6

Project Design

1. This the dashboard/main page of the game



2. Level 1: Start of the game



Chapter 7

Conclusion

In conclusion, a Mario game should be designed to provide an enjoyable and challenging experience for players of all ages. A well-designed game should include intuitive controls, a varied game world with unique enemies and obstacles, power-ups, challenging boss battles, and a clear progression system. Additionally, adding multiplayer functionality could enhance the game's replayability and provide an opportunity for players to compete or collaborate with each other. With these elements in place, a Mario game can provide hours of fun and entertainment for players, while also challenging their skills and abilities.

Reference:

