



**ATMIYA UNIVERSITY**

(Established under the Gujarat Private University Act 11, 2018)

Yogidham Gurukul, Kalawad Road, Rajkot - 360005, Gujarat (INDIA)

Project Report

On

**“Idle Shooting Zone”**

Under subject of

**MAJOR PROJECT**

B.Tech, Semester – VII

(Department of Information Technology)

Submitted by:

- |                   |           |
|-------------------|-----------|
| 1. Jenish Sangani | 190004034 |
| 2. Hemangi Javiya | 190004014 |
| 3. Janvi Patva    | 190004015 |

**Prof. Piyush Kashiyani**

(Faculty Guide)

**Prof. Darshan Jani**

(Head of the Department)

Academic Year

(2022-23)



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## **CANDIDATE'S DECLARATION**

We hereby declare that the work presented in this project entitled “**IdleShootingZone**” submitted towards completion of project in 8<sup>th</sup> **Semester** of B. Tech. (Information Technology) is an authentic record of our original work carried out under the guidance of “**Prof. Piyush Kashiyani**”.

We have not submitted the matter embodied in this project for the award of any other degree.

Semester: 8<sup>th</sup>

Place: Atmiya University, Rajkot

**Signature:**

- |                   |           |
|-------------------|-----------|
| 1. Jenish Sangani | 190004034 |
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## CERTIFICATE

Date:

This is to certify that the “**IdleZoneZone**” has been carried out by **Hemangi Javiya** under my guidance in fulfillment of the subject Major Project in Information Technology (7<sup>th</sup> Semester) of Atmiya University, Rajkot during the academic year 2022-23.

Prof. Piyush Kashiyani

**(Project Guide)**

Prof. Darshan Jani

**(Head of the Department)**



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## **ACKNOWLEDGEMENT**

We have taken many efforts in this project. However, it would not have been possible without the kind support and help of many individuals and organizations. We would like to extend our sincere thanks to all of them.

We are highly indebted to **Prof. Piyush Kashiyani** for their guidance and constant supervision as well as for providing necessary information regarding the Major Project titled “**Idle Shooting Zone**”. We would like to express our gratitude towards staff members of Information Technology Department, Atmiya University for their kind co- operation and encouragement which helped us in completion of this project.

We even thank and appreciate to our colleague in developing the project and people who have willingly helped us out with their abilities.



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## **ABSTRACT**

An idle game, also known as an incremental game, is a genre of games defined by the primary feature of its strategy: leaving the game running by itself with minimum or zero player interaction. Interaction with the game, while often useful for progression, is optional for extended periods of gameplay. Through a comparison between academic views on the definition of a video game and the results of a survey, this paper uncovers the importance of interactivity in an academic definition and a player's perceptions on how a game can be defined.

## **1.PROJECT PROFILE**

**Developed By :-** jenish , hemangi , janvi

**Project Title :-** Idle Shooting Zone

**Project Language :-** C#

**Year :-** 2022 - 23

**Operating System :-** Android

**Development Tools:-** Unity

**Submitted To :-** Atmiya University

## 2. PURPOSE OF PROJECT

Arcade Idle is a subgenre that incorporates idle and adventure arcade's main attributes to create games with a Hyper-casual feel and attractive metrics. Removing all complexity from resource mining games but preserving its core ability to engage, this clever mix between Hyper-casual and Idle translates into hybrid games with medium/low CPI. But much stronger playtime metrics that can reach 30+ minutes.

This game aims to gather resources and sell them to build wealth, expand territory, and have fun! But unlike general Idle, Arcade Idle incorporates a playable character, which affects the other game elements. Also, there's often an adventure-like feeling that makes it more appealing.

But let's dive into some of the specific features that make this sub-genre stand out:

### **In-game features**

Some of the main characteristics of this subgenre are:

- Camera: Slightly inclined Top View
- Controls: Joystick
- Character: Stickman or Low Poly
- Objective: To gather resources and sell them to extend your territory
- Map: Can be level-based, in which players reset their territories when going to another level (Harvest It), or an Open World based on zones (Craft Island and Farmland)

### **3. Progression and monetization**

- Idle Arcade games are chilled and relaxing, and you can't lose in games like Harvest It, Craft Island, or Farm Land. Instead, these games showcase several progression systems, such as island discovery and extension, skills improvement, visual improvement, and even a leveling system to bring depth to the experience. Players are active characters in an idle game, resulting in a good mix between a Hyper-casual core and an Idle monetization and progression scheme.
- In-game progression is strongly linked to the monetization setup. Farm Land is a prime example of this. Players collect resources, sell them, and use the money to unlock new zones in this game. Each zone is more expensive than the previous one but also increases the earnings, which means progression equals exponential inflation. Ads allow players to speed up their progress.

### **4. Interstitials (IS)**

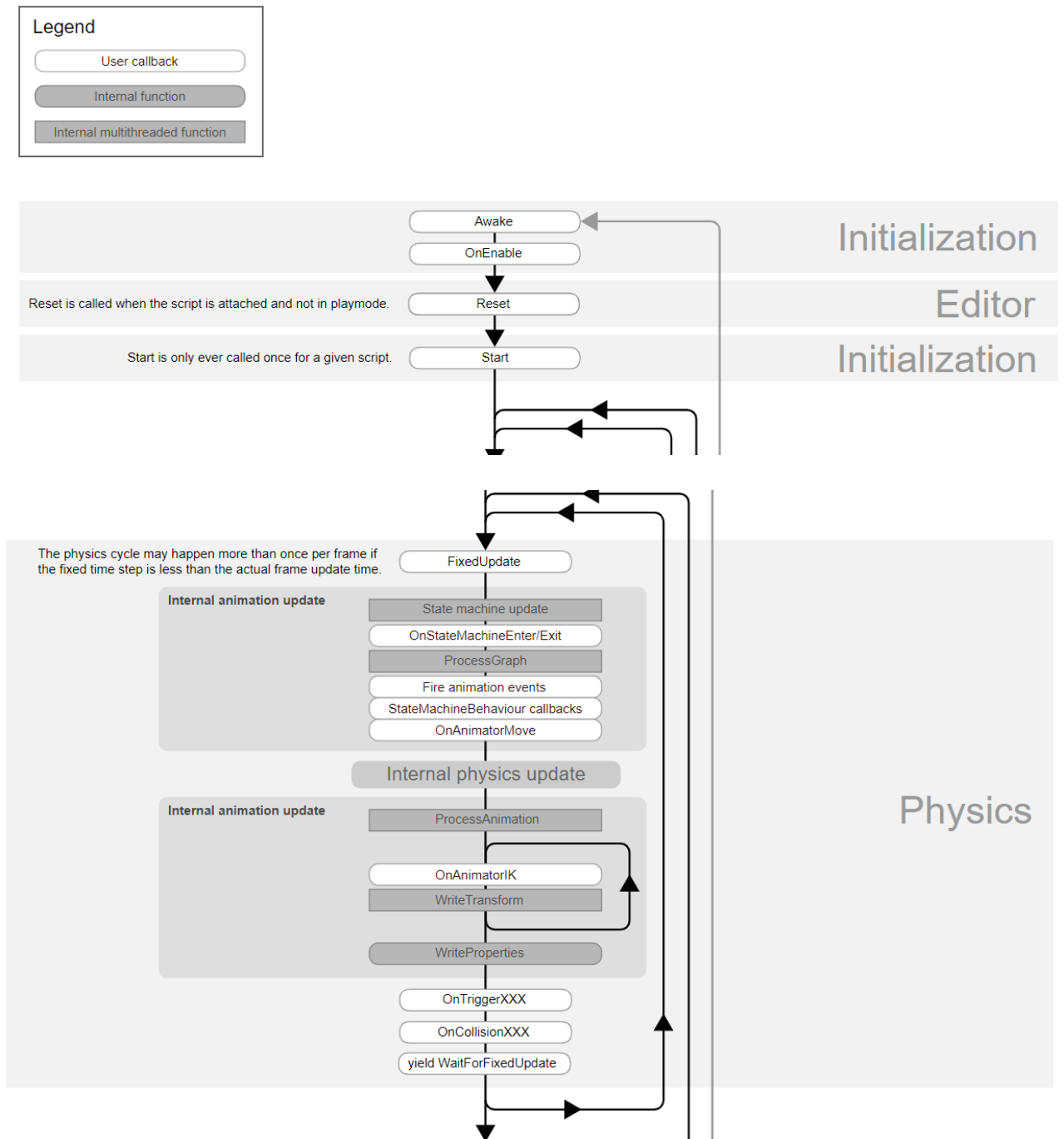
- Interstitials in Idle games are challenging to place because there's no pause, no transition. Farm Land uses Rewarded IS instead (view the ad in exchange for something similar to rewarded videos). For example, all the fields are fully grown at the end of the ad, saving the player time.

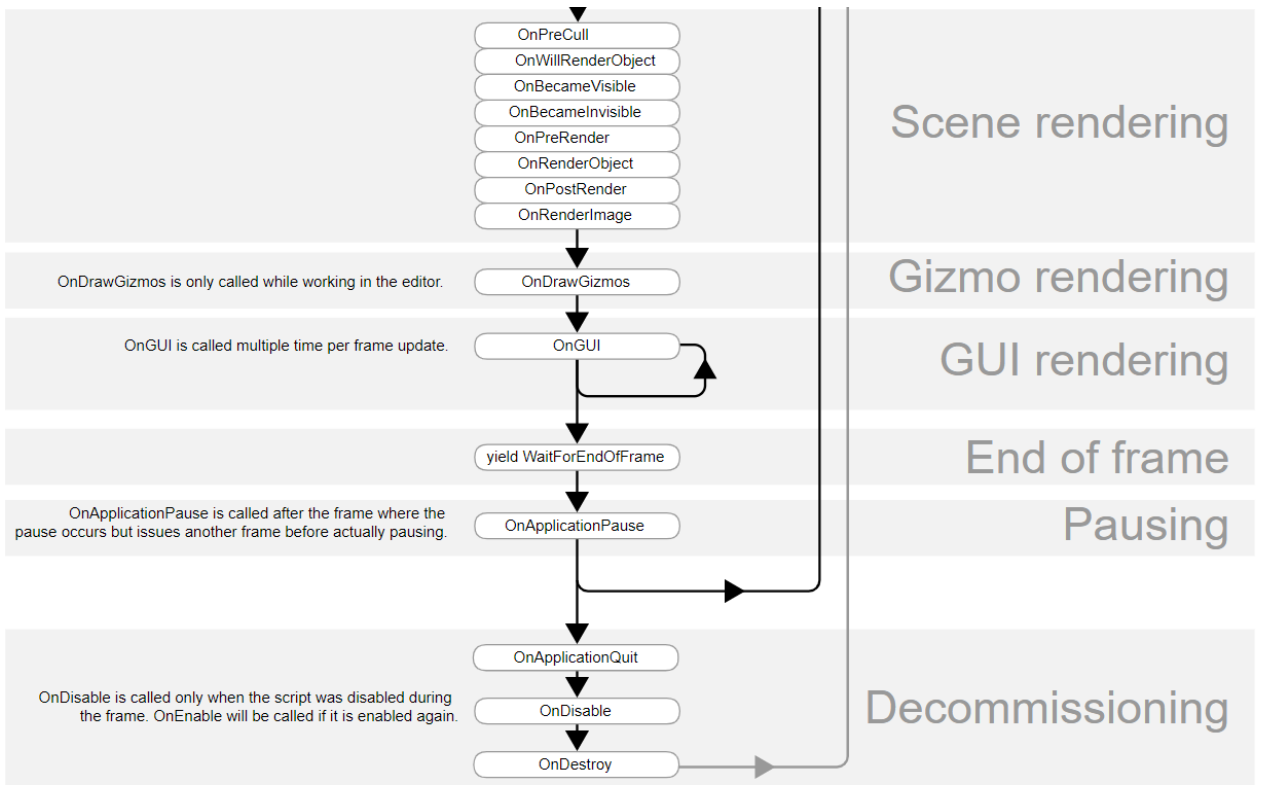
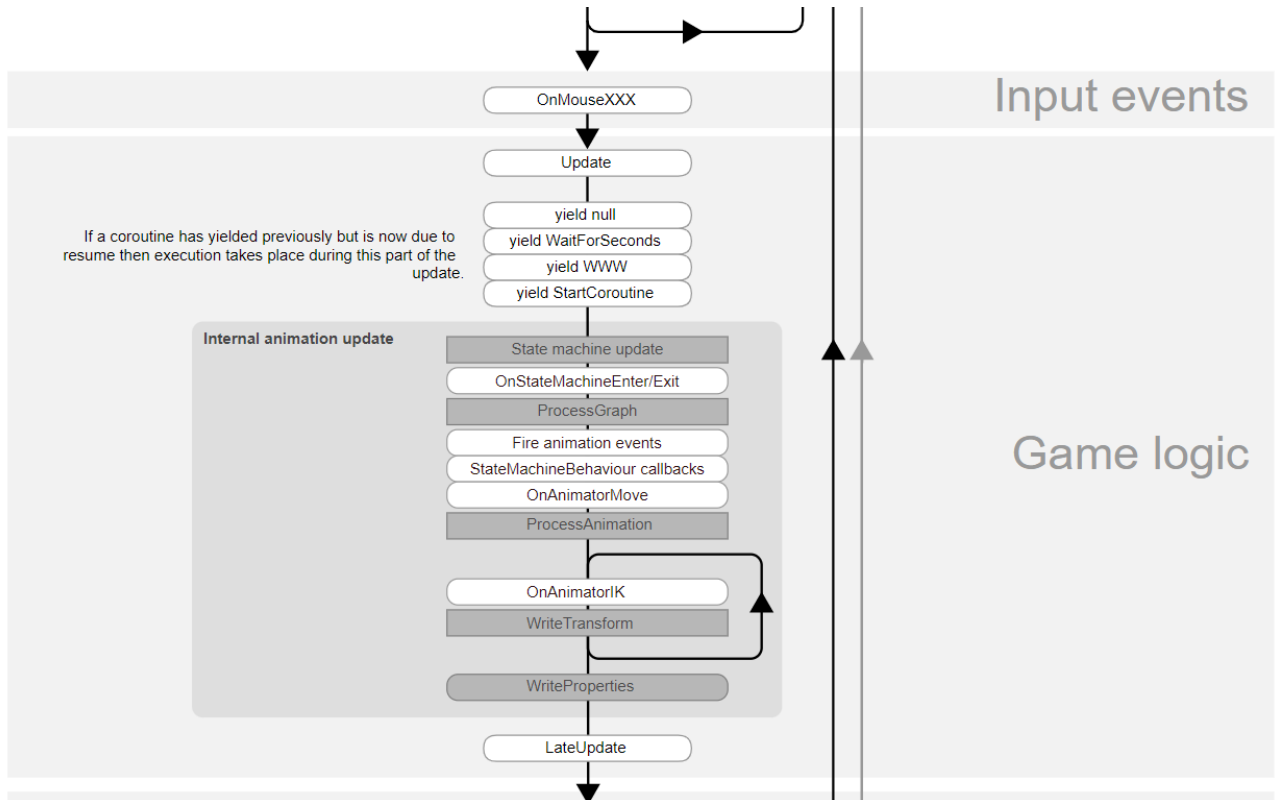


## 5. Coding Patterns

- Unity Life Cycle:-

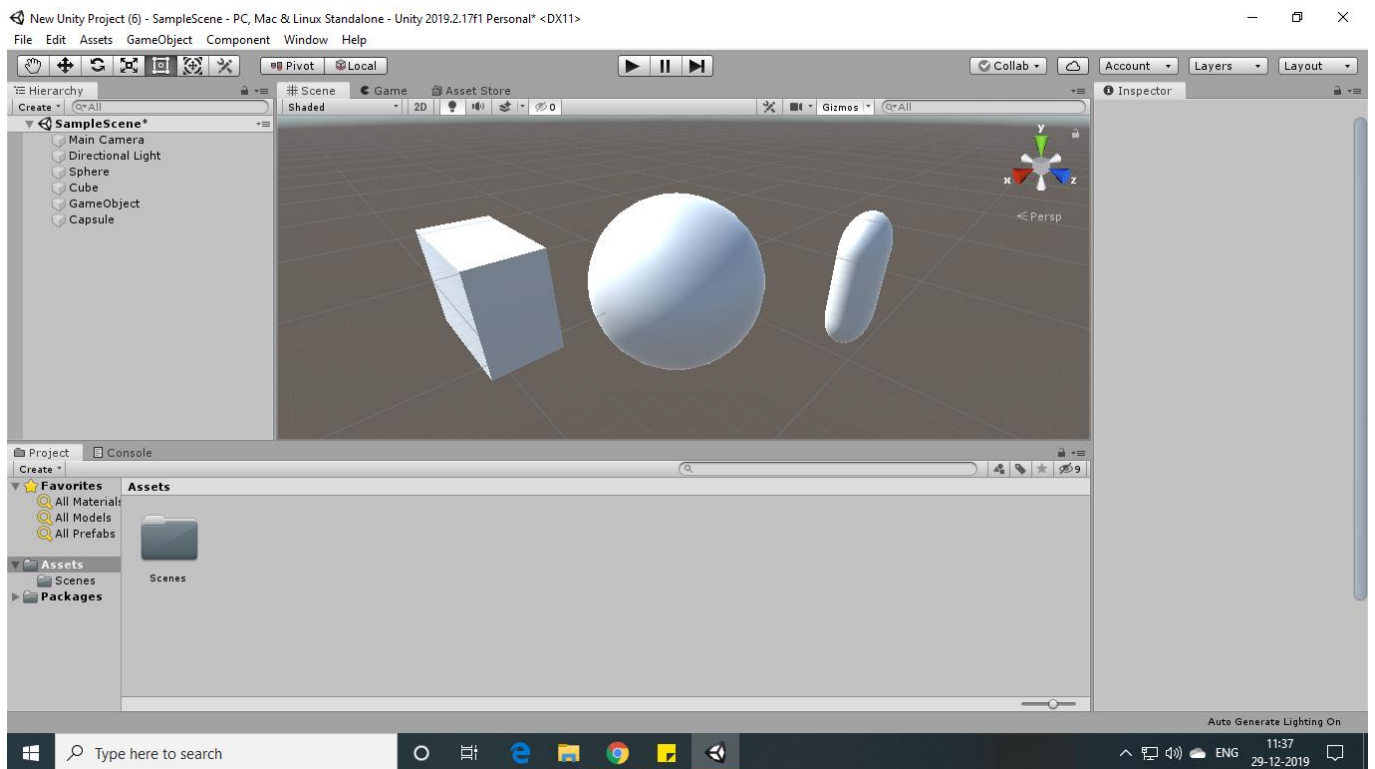
### Script lifecycle flowchart





## 6. Unity Engine

- Unity Engine Look :-



## 7. Unity Assets & Packages

- 3D Model and Level Design
- Toon City Assets
- Auto Layout 3D
- Code Monkey
- Easy Touch Bundle
- Hyper Casual - Stickman Pack 2
- Epic Toon FX

- DOTween
- TextMesh Pro
- AI Navigation
- FBX Exporter
- Recorder
- Visual Studio Editor

## **8. Project Scripting**

- Manager Script
  - Customer Manager
  - Camera Follow
  - Player Controller
  - Game Controller
  - Money Manager
  - Tag Manager
  - Task Controller
- AI Task
  - Task Parent
  - Gun Shooting Task
  - Archery Shooting Task
- Other
  - Money Stacker

- Unlockable
- Tutorial Controller
- Donut Storage
- Donut Counter
- Customer
- Collectables
- Ticket Controller
- Save System
- Worker
- Money
- Hr Controller
- Helper
- Exit Point

# 9. Idle Shooting Zone Game Set-Up

