RESQUE

Quest For Treasure

TRESQUE

-Quest For Treasure

A PROJECT REPORT SUBMITTED TO GOA UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENT

FOR THE DEGREE OF BCA

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Goa Multi - Faculty College

2017-2018

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DECLARATION BY CANDIDATES

We declare that this project report has been prepared by us and to the best of our knowledge, it has not previously formed the basis for the award of any diploma or degree by this or any other University.

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CERTIFICATE

This is to certify that a project on

Tresque (Quest for Treasure)

Has been successfully completed by

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Studying in T.Y.B.C.A. during the academic year 2017-18.

The project has been carried out under the supervision of the internal guide.

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Acknowledgement

We would like to thank all the people who have helped us during the project work and without whose help the project would have not been a success.

We wish to express our sincere gratitude to all those individuals who led a helping hand in all the difficulties that we faced.

First and foremost, we would like to thank Mrs. Nisha Sawant, Course coordinator (BCA Department) and Mr. Sandesh Gaonkar, our project guide who have provided us valuable guidance and assistance. We thank them for all support, suggestions, guidance and ideas that they shared with us.

Our special thanks go out to our principal Dr. Manasvi M. Kamat whose help was very crucial at all the stages.

We would also like to take an opportunity to thank all BCA faculty members who have consistently co-operated with us and always supported us and encouraged us.

Last but not the least we would like to thank Mr. Sandesh Gaonkar for providing us with support and motivation and all the tools needed in the course of this project.

We also thank our family members and colleagues who have helped us in achieving success for this project.

Table of content

Introduction

<u>Introduction</u>

Tresque quest for treasure is single player 3D game. In this game the main character is a prince. The main task of user (prince) is to rescue the queen from dragon.

The game is divided into 3 different levels. Each level is in different place.

Level 1   -: Island

Level 2   -: Snow Mountain

Level3   -: Fire Mountain

At first level Prince want to rescue his kingdom by finding the dragon treasure. While completing first level princess gets kidnap. In order to rescue princess and to kill dragon prince has to find parts of a legendary sword in next two levels.

Brief specification of levels

Level 1:

In level one prince (user) plays on island. Prince (user) and also along with his companion the princess has to set sail to find treasure with the help of a map in order to save his kingdom. First the prince has destroyed all other pirate ships. For every enemy defeats he gets certain amount of gold coins. The prince has to make his way through deadly traps, which are set to protect the treasure. Finally, when prince reaches to the treasure then the guardian of the treasure that is dragon. He gets angry and kidnaps the princess.

Level 2:

In second level prince (user) has to find first part of the sword on Snow Mountain. Prince (user) has to kill every minion sent by the dragon. After killing minion's prince will get higher amount of gold then the level 1. Also there will be a boss fight before getting one part of the sword and prince also has to solve a puzzle before takes the first part of the sword.

Level 3:

In this level prince (user) has to find the second part of the sword. The second part is on the fire mountain. In this level minions are more strong and hard to kill and reward for killing each minion will be higher. Prince has to pass the traps in order to reach to the sword. Before getting sword prince has to solve a puzzle. As soon as prince gets the second part of the sword, prince has to fight with the dragon to save his princess.

Existing System & its Limitation

Existing System

There are many other games based on puzzle and adventure but most of them have certain limitation.

Our main objective of this project is to overcome those limitations. For example, there is an adventure game called SWARDIGO and puzzle game called SUDOKU. Sudoku player has to see the same screen, same colour, which make the player boar and there is no competition so player often get board after playing one or two round. In SWARDIGO we have to play in 2D but in our game we are giving the user play in 3D it makes game more beautiful and attractive.

Limitations

1. Poor controlling system
2. No 3D environment
3. Maps are confusing

Features of Proposed System

Features of Proposed System

1: This game supports android platform mobile devices.

2: Store option is available for user to buy magic portions and equipment's.

3: Real time Health will be displayed.

4: 3D game environment, it gives more realistic look to the game.

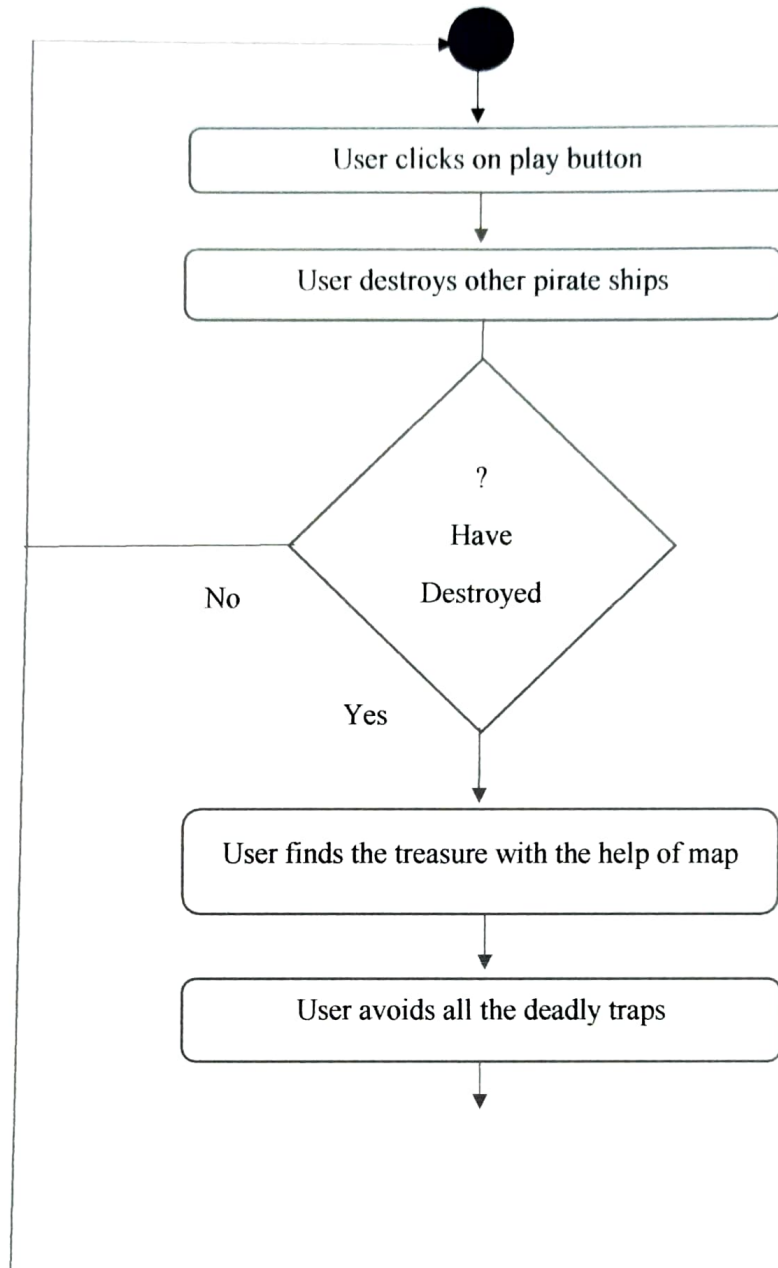# Activity Diagrams

Activity Diagrams
(Level 1)

User clicks on play button

User destroys other pirate ships

? Have Destroyed

No

Yes

User finds the treasure with the help of map

User avoids all the deadly traps

(Level 1 Continued)

?

Have

Avoided

No

Yes

User collects the treasure

User Completes the Level 1

Tresque (Quest for Treasure)

(Level 2)

Level 2 begins

User starts defeating minions

? Have Defeated

No

Yes

User solves the puzzle to get one part of sword

? Have Solved

No

Yes

User takes the one part of sword
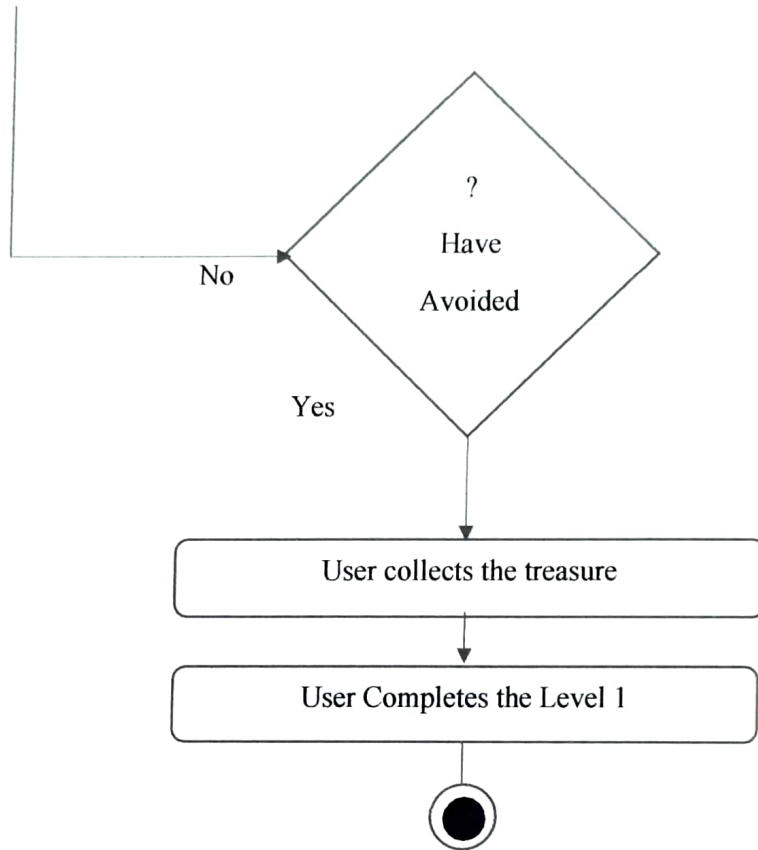
(Level 2 Continued)

User Completes the Level 2

Tresque (Quest for Treasure)
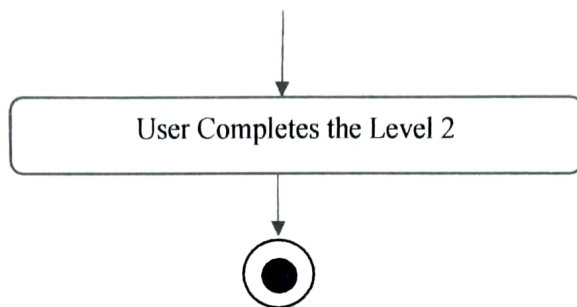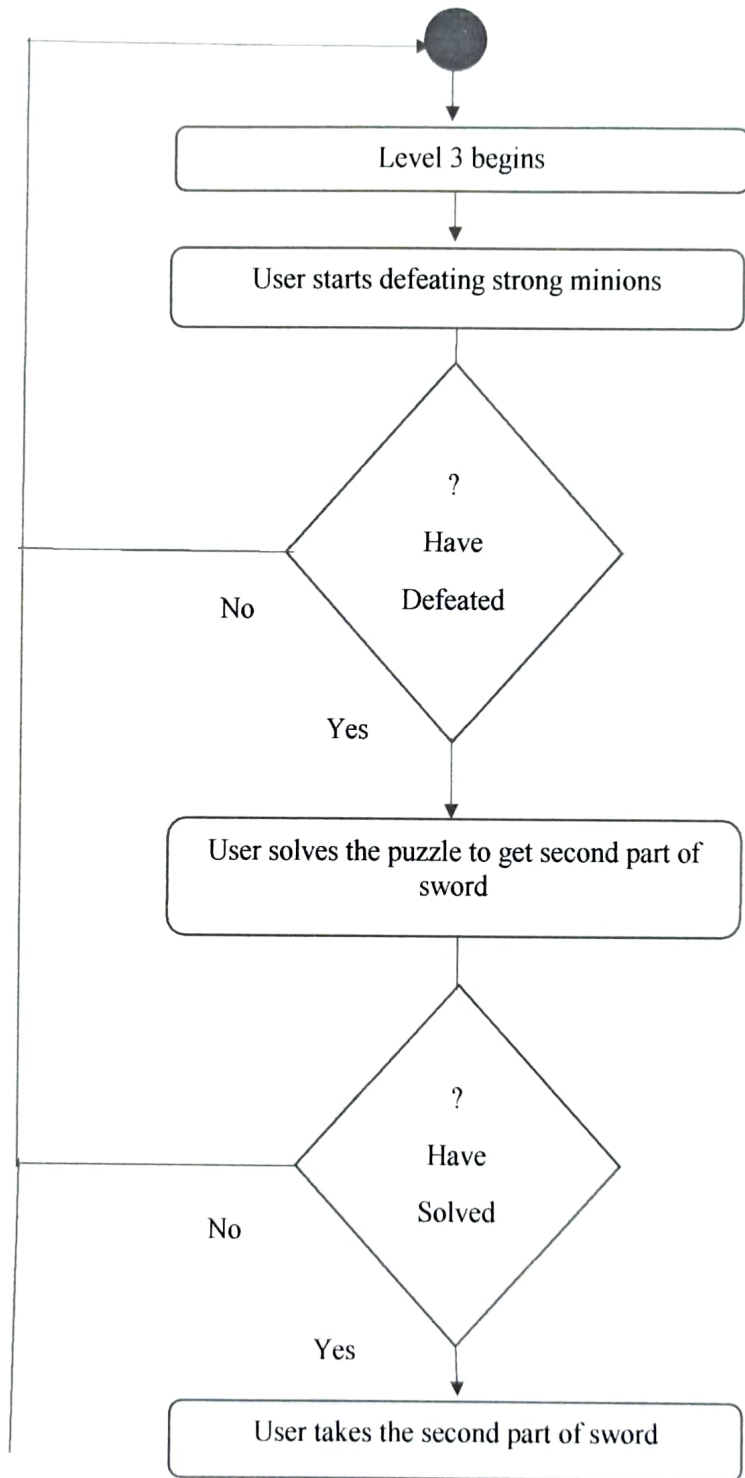
<u>(Level 3)</u>

Level 3 begins

User starts defeating strong minions

? Have Defeated

No

Yes

User solves the puzzle to get second part of sword

? Have Solved

No

Yes

User takes the second part of sword

(Level 3 Continued)

User kills the dragon

? Have Killed

No

Yes

User saves the princess

User completes level 3

Use Cases

Use Cases

Play

New Game

Select Mode

Exit Game

Options

Show Control

Music Volume

Back

Player

Store

Weapons

Health

Exit

Back
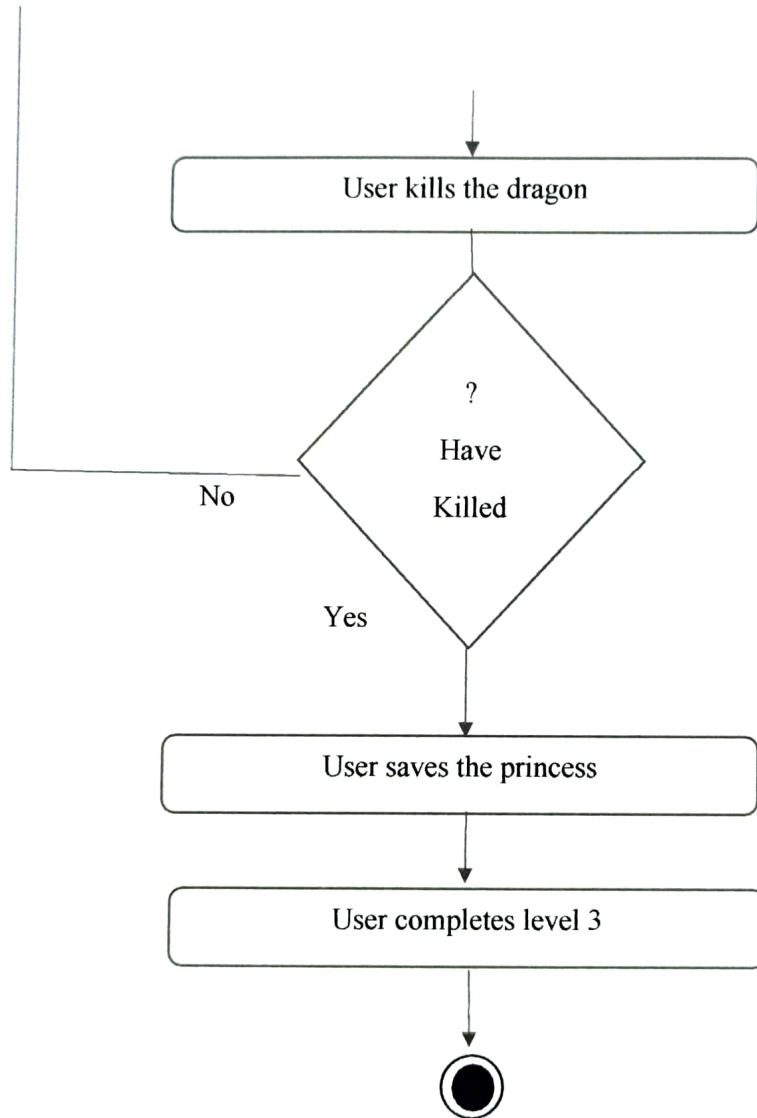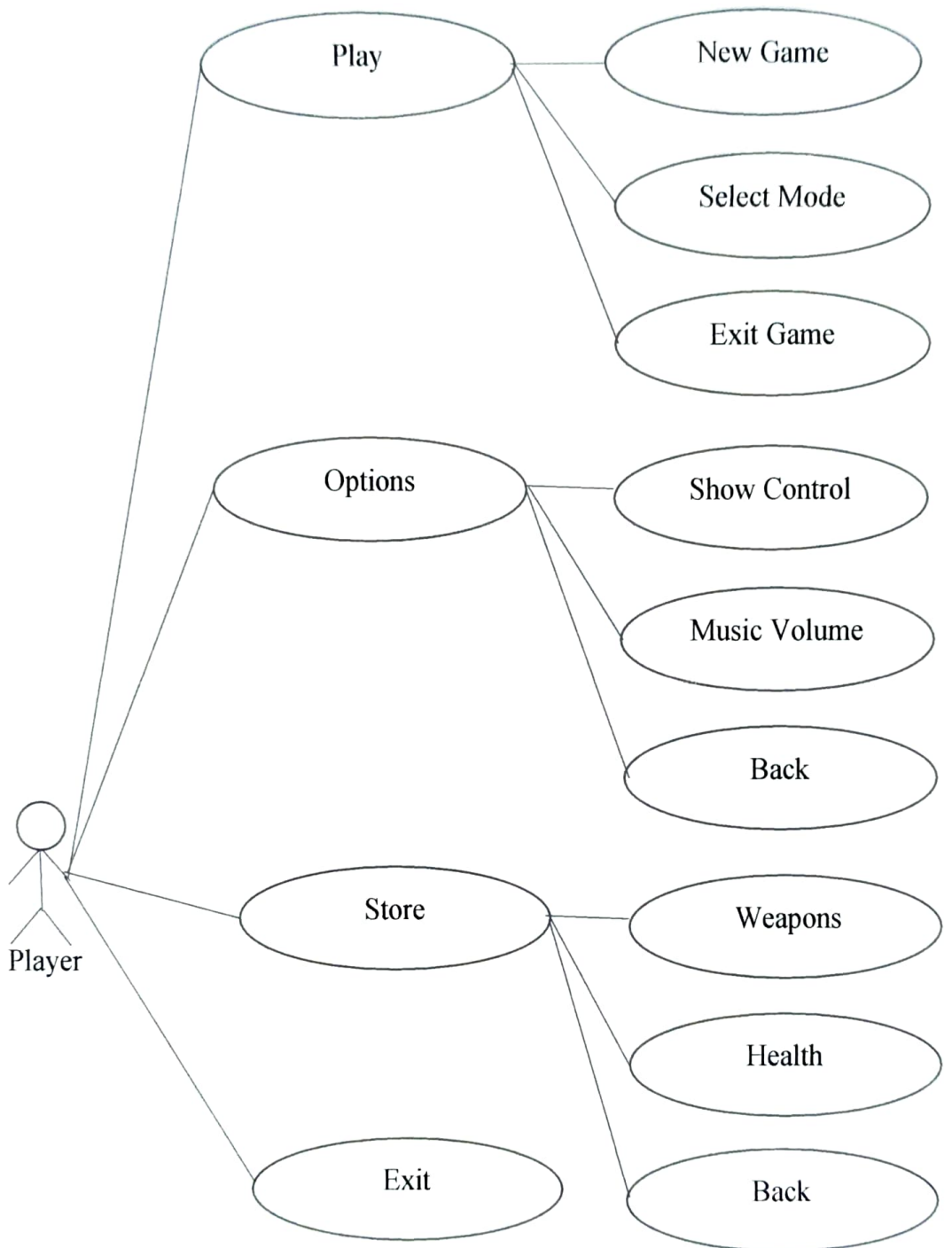
Tresque (Quest for Treasure)

Level 1

Use case: - Level 1

Level: - User goal

Primary actor: -user

Stakeholder: - User

Precondition: -User click on play button from main menu.

Postcondition: -Successfully completes level 1 and unlocks level 2.

MSS:-

In first level user plays on Island. User and also along with his companion the princess has to set sail to find treasure with the help of a map.

> ➤ Use case starts when User finds the treasure with the help of the map in order to save his kingdom.
> ➤ User along with his companion the princes is goes to find the treasure.
> ➤ User destroys other pirate's ships who are in search for the treasure.
> ➤ User avoids all the deadly traps in order to get to the treasure.
> ➤ User collects the treasure as soon as the dragon who has been protecting that treasure come there when dragon sees that his treasure has been stolen he gets mad and he kidnaps the princess.

Extension-

> ➤ Fails to destroy all pirate ships.
> ➤ Fails to avoid traps.
> ➤ Fails to find treasure.

Level 2

Use case: - Level 2

Level: - User goal

Primary actor:-user

Stakeholder: - User

Precondition:-User successfully completes level 1.

Postcondition:-Successfully completes level 2 and unlocks level 3.

MSS:-

In second level user plays on Snow Mountain. To kill dragon and rescue princess user is to find the sword by which he can kill the dragon.

- ➢ Use case starts when User is start defeating minions send by the dragon as he progresses through level 2.
- ➢ When user reaches to the location where one part of the sword is hidden he will be provided with the puzzle.
- ➢ In order to acquire part of the sword user solves the puzzle.
- ➢ As soon as user acquires the part of sword there will be a battle.

Extension

- ➢ Killed by the minions.
- ➢ Not able to find out sword.
- ➢ Was unable to solve the puzzle.
- ➢ Fails to defeat the boss.

Level 3

Use case: - Level 3

Level: - User goal

Primary actor:-user

Stakeholder: - User

Precondition:-User successfully completes level 2.

Postcondition:-Successfully completes level 3 and win the game.

MSS:-

In 3rd level user plays on Fire Mountain.

➢ Use case starts when user fights with much bigger and stronger minions in this level.
➢ User avoids the traps in order to reach to the sword.
➢ Before getting to the sword user solves the puzzle.
➢ As soon as user gets the second part of the sword user fights with the dragon.
➢ User kills the dragon and saves the princess.

Extension

➢ Get killed by the minions.
➢ Not able to avoids the trap and solves the puzzle.
➢ Unable to kills dragon.
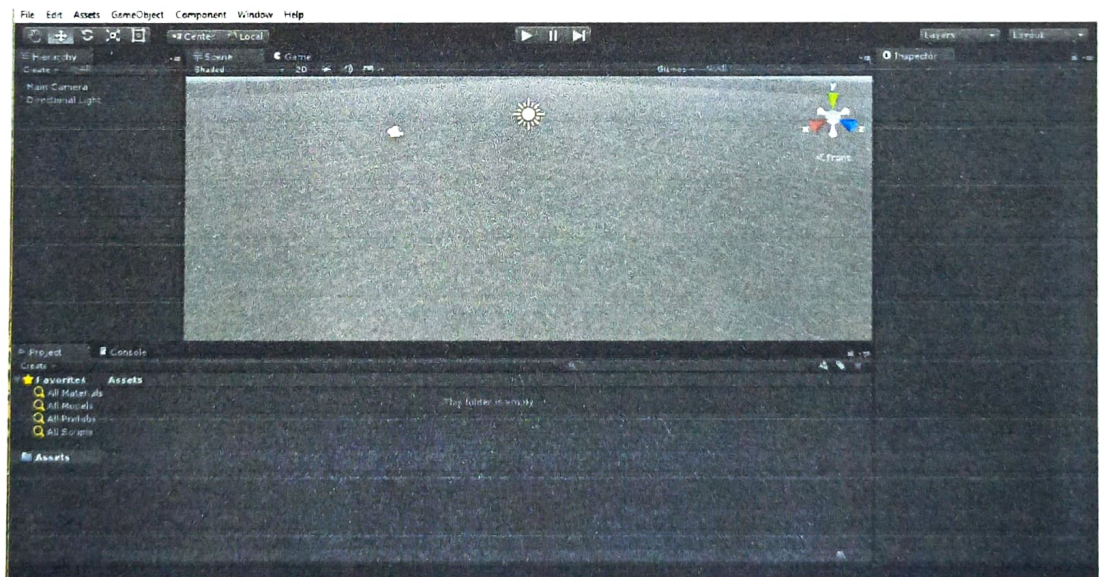
<u>Backend Software Tools</u>

<u>Backend Software Tools</u>

Unity is a cross-platform game engine developed by Unity Technology which is primarily used to develop both three-dimensional and two dimensional video games and simulations for computer, consoles, and mobile devices. Unity is a multipurpose game engine that supports 2D and 3D graphics, drag-and-drag functionality and scripting using C#. Two other programming languages were supported: Boo, which was deprecated with the release of Unity 5 and Java Script which started its deprecation process.

<u>Front-end Software Tools</u>

Front-end Software Tools

Blender is a professional, free and open-source 3D computer graphics software toolset used for creating animated films, visual effects, art, 3D printed models, interactive 3D applications and video games. Blender's features include 3D modelling, UV unwrapping, texturing, raster graphics editing, rigging and skinning, fluid and smoke simulation, particle simulation, soft body simulation, sculpting, animating, camera tracking, rendering, motion graphics, video editing and compositing. It also features an integrated game engine.
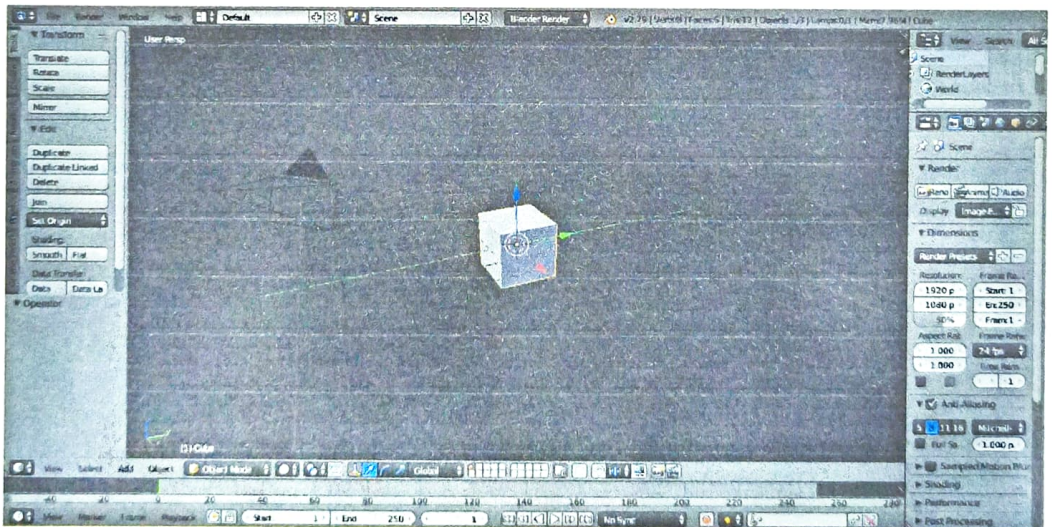
3 AUTODESK®
3DS MAX®

Autodesk 3ds Max, formerly 3D Studio and 3D Studio Max, is a professional 3D computer graphics program for making 3D animations, models, games and images. It is developed and produced by Autodesk Media and Entertainment. It has modelling capabilities and a flexible plug in architecture and can be used on the Microsoft Windows platform. It is frequently used by video game developers, many TV commercial studios and architectural visualization studios.
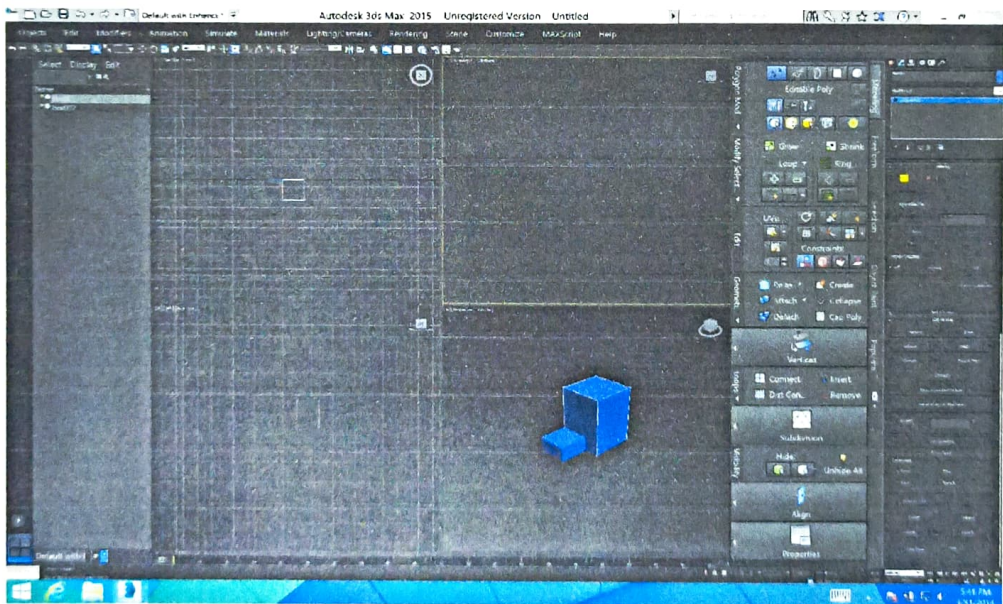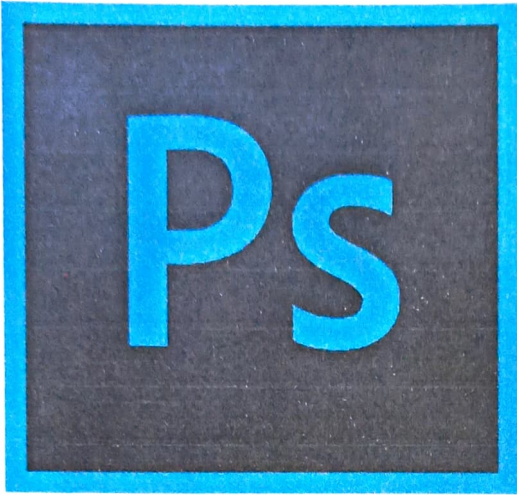
Middleware and Auxiliary Tools

Middleware and Auxiliary Tools

Adobe Photoshop is a raster graphics editor developed and published by Adobe Systems for macOS and Windows.

Photoshop was created in 1988 by Thomas and John Knoll. Since then, it has become the de facto industry standard in raster graphics editing, such that the word "Photoshop" has become a verb as in "to Photoshop an image," "photo shopping" and "Photoshop", though Adobe discourages such use. It can edit and compose raster images in multiple layers and supports masks, alpha compositing and several color models including RGB, CMYK, CIELAB, spot color and duotone.
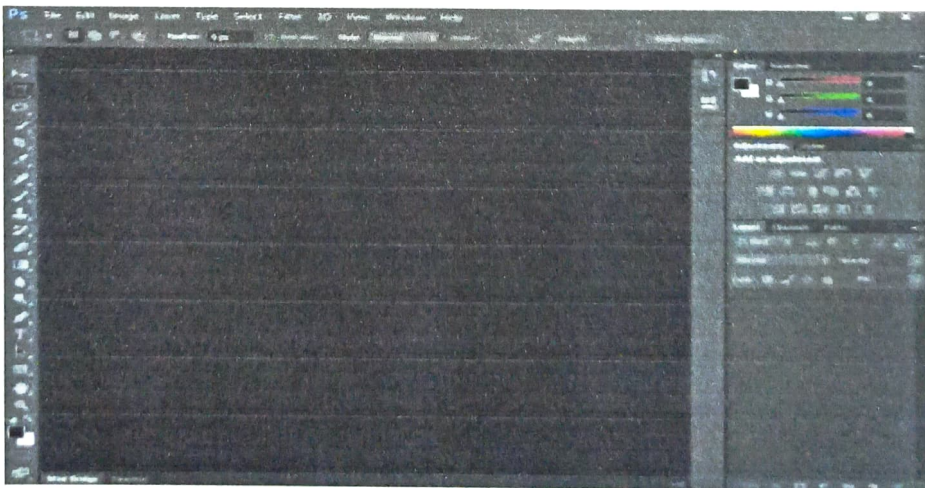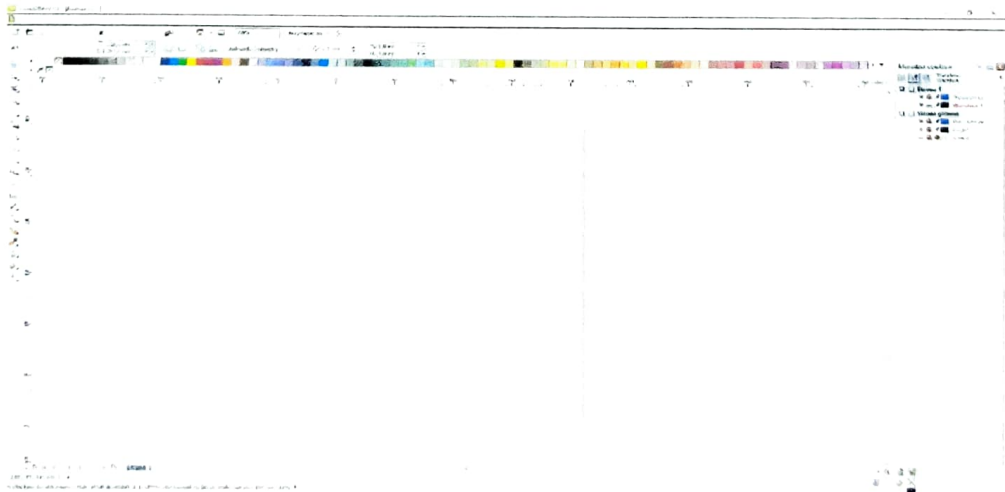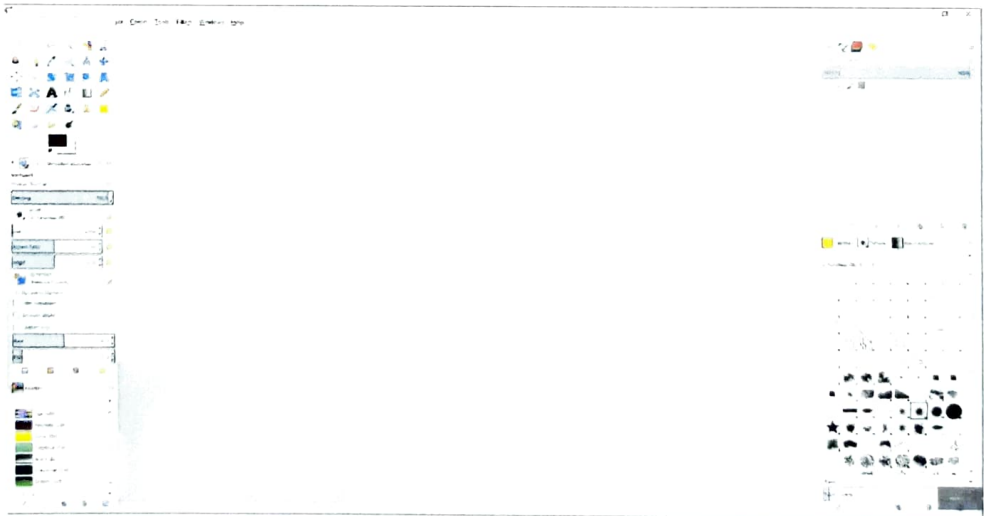
Tresque (Quest for Treasure)

CorelDraw (styled CorelDraw) is a vector graphics editor developed and marketed by Corel Corporation. It is also the name of Corel's Graphics Suite, which bundles CorelDraw with bitmap-image editor Corel Photo-Paint as well as other graphics-related programs. CorelDraw is designed to edit two-dimensional images such as logos and posters. CorelDraw was originally developed for Microsoft Windows 3 and currently runs on Windows XP, Windows Vista, Windows 7, Windows 8 and Windows 10.

Tresque (Quest for Treasure)

GIMP (gimp/GHIMP) (GNU Image Manipulation Program) is a free and open-source raster graphics editor used for image retouching and editing, free-form drawing, converting between different image formats, and more specialized tasks. GIMP is released under GPLv3+ licenses and is available for Linux, macOS, and Microsoft Windows.

<u>User Manual</u>

<u>User Manual</u>

When user is going to click on game ICON then it displays the welcome page.

Main Menu

Play: All levels is displayed on the screen.

Options: All controls and music volume are displayed.

Store: All weapons and health portion will be displayed.

Exit: User exits/close the game.

Tresque (Quest for Treasure)

<u>Level 1</u>

User is plays on Island.

In First Level Prince and also along with his companion the princess has to set sail to find treasure with the help of a map in order to save his kingdom. First the prince has destroyed all other pirate ships. For every enemy defeats he gets certain amount of gold coins. The prince has to make his way through deadly traps, which are set to protect the treasure. Finally, when prince reaches to the treasure then the guardian of the treasure that is dragon. He gets angry and kidnaps the princess.

- User will play with the help of joystick and fire button.
- Joystick are used to move forward, backward, right, left direction.
- Two buttons are used.
- One button is for fire and second button is for jump.

After all completion of tasks in level 1 prince gets the treasure.

Tresque (Quest for Treasure)
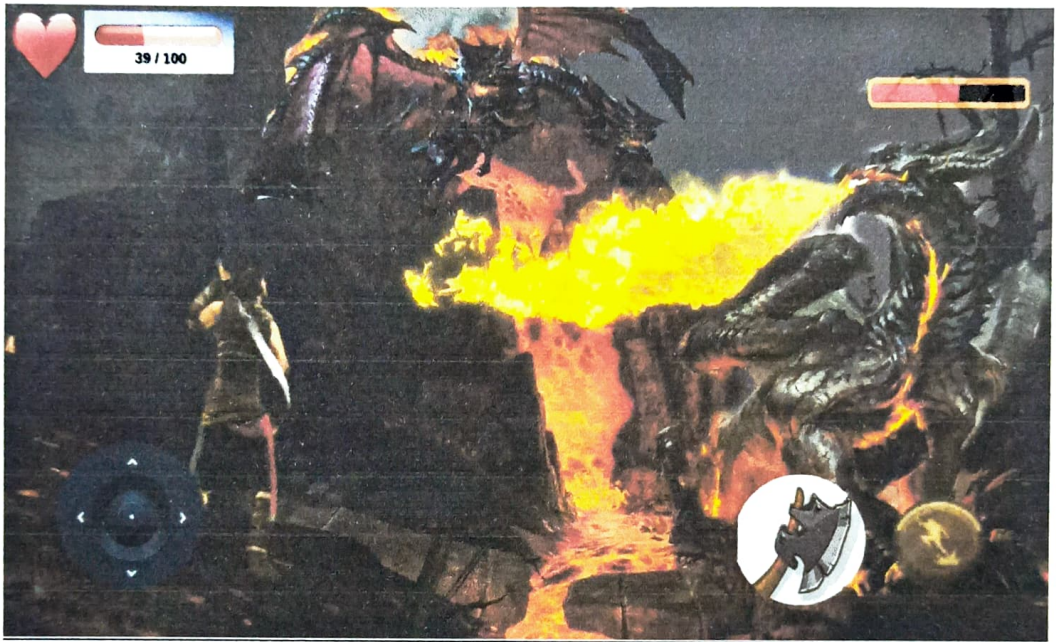
Level 2

User is plays on Snow Mountain

In second Level Prince (user) has to kill every minion sent by the dragon. After killing minion's prince will get higher amount of gold then the level 1. Also there will be a boss fight before getting one part of the sword and prince also has to solve a puzzle before takes the first part of the sword.

When prince and minions are fighting the health loss meter will be displayed on the screen.

Tresque (Quest for Treasure)

<u>Level 3</u>

User plays on Fire Mountain

In third Level prince (user) has to find the second part of the sword. The second part is on the fire mountain. In this level minions are more strong and hard to kill and reward for killing each minion will be higher. Prince has to pass the traps in order to reach to the sword. Before getting sword prince has to solve a puzzle. As soon as prince gets the second part of the sword, prince has to fight with the dragon to save his princess.

<u>Future Enhancements</u>

Future Enhancements

1: Upgrade the game and provide new weapons to princess.

2: iOS supports.

3: Additional levels

4: Multiplayer option

Bibliography and References

Links

Blender Tutorial

https://www.youtube.com/watch?v=B5nBc1rivBQ

Start Menu

https://www.youtube.com/watch?v=zc8ac_qUXQY

https://www.youtube.com/watch?v=v04_Rzu-TGY

https://www.youtube.com/watch?v=VZIhlYYcDBk

https://www.youtube.com/watch?v=QZ6nlq-uvnw

Monster AI

https://www.youtube.com/watch?v=8DZAXuIUgvY

Dragon

We use dragon asset from unity store. It can help for creating dragon character.

https://assetstore.unity.com/packages/3d/characters/creatures/dragon-the-terror-bringer-pbr-77121

Terrain creator

We use Terrain creator asset from unity store. It can help for creating scenes.

https://assetstore.unity.com/packages/tools/terrain/microsplat-96478

Tresque (Quest for Treasure)
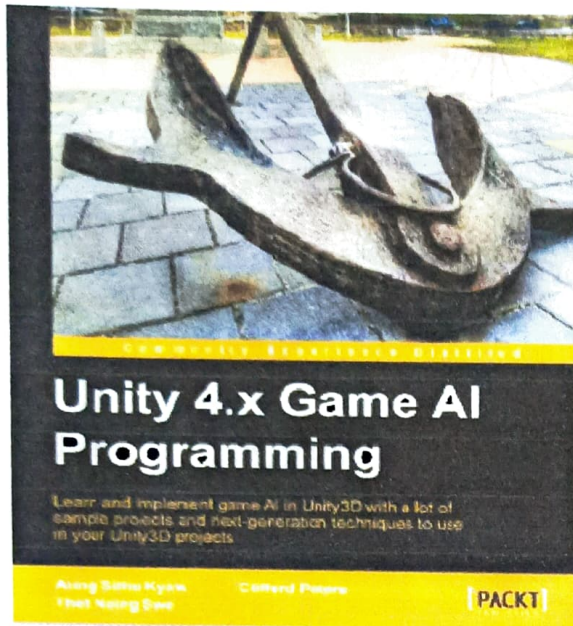
(By: Aung SithuKyaw, Clifford Peters, ThetNaingSwe)

Unity 4.x Game AI Programming shows how to apply AI techniques to your Unity3D projects using C# as the scripting language. It is a beginner's book. If you are just starting in the Game world then, you can learn AI techniques such as flocking behaviour, building a sensory system for taking inputs from the environment and other AI agents, and so on.. It focuses more on the application of AI techniques in the Unity3D engine. There are sample projects that demonstrate FSMs, path finding etc. The path following and steering shows how to avoid dynamic obstacles. The book also covers plug ins from the Unity Asset Store.

Tresque (Quest for Treasure)
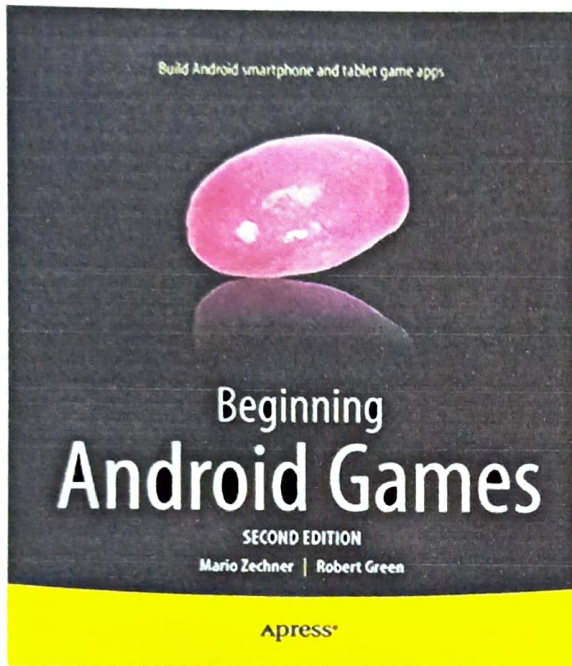
(By: Robert Green, Mario Zechner)

Beginning Android Games, Second Edition book includes basic game design fundamentals and programming basics, and then progress toward creating own basic game engine and playable game app that work on Android and earlier version compliant smart phones.