

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)



Project Report

On

Text Adventure: The Return

Submitted by:

Harshvardhan Khare

(0901CS191042)

Himanshu Dawande

(0901CS191045)

Faculty Mentor:

Mir Shahnawaz Ahmad,

Asst. Professor, Computer Science and Engineering

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE

GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)



Project Report

On

Text Adventure: The Return

A project report submitted in partial fulfilment of the requirement for the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

Submitted by:

Harshvardhan Khare

(0901CS191042)

Himanshu Dawande

(0901CS191045)

Faculty Mentor:

Mir Shahnawaz Ahmad,

Asst. Professor, Computer Science and Engineering

Submitted to:

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE

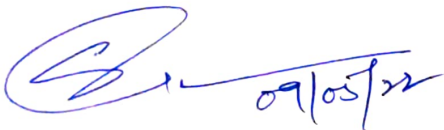
GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

CERTIFICATE

This is certified that **Harshvardhan Khare** (0901CS191042) has submitted the project report titled **Text Adventure: The Return** under the mentorship of **Mir Shahnawaz Ahmad**, in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.



Mr. Mir Shahnawaz Ahmad
Faculty Mentor
Assistant Professor
Computer Science and Engineering



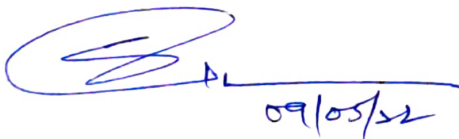
Dr. Manish Dixit
Professor and Head
Computer Science and Engineering

Dr. Manish Dixit
Professor
Department of CSE
M.I.T.S. Gwalior

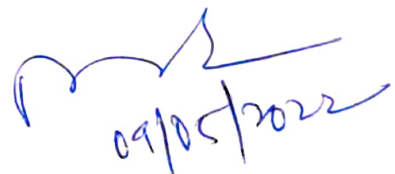
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

CERTIFICATE

This is certified that **Himanshu Dawande** (0901CS191045) has submitted the project report titled **Text Adventure: The Return** under the mentorship of **Mir Shahnawaz Ahmad**, in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.



Mr. Mir Shahnawaz Ahamad
Faculty Mentor
Assistant Professor
Computer Science and Engineering



Dr. Manish Dixit
Professor and Head
Computer Science and Engineering

Dr. Manish Dixit
Professor & HOD
Department of CSE
M.I.T.S. Gwalior

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

DECLARATION

We hereby declare that the work being presented in this project report, for the partial fulfilment of requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of **Mir Shahnawaz Ahmad, Assistant Professor, CSE department, MITS**

We declare that we have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.

Harshvardhan Khare
0901CS191042
3rd Year,
Computer Science and Engineering

Himanshu Dawande
0901CS191045
3rd Year,
Computer Science and Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ACKNOWLEDGEMENT

The full semester project has proved to be pivotal to my career. We are thankful to my institute, **Madhav Institute of Technology and Science** to allow me to continue my disciplinary/interdisciplinary project as a curriculum requirement, under the provisions of the Flexible Curriculum Scheme (based on the AICTE Model Curriculum 2018), approved by the Academic Council of the institute. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr. Manjaree Pandit** for this.

We would sincerely like to thank my department, **Department of Computer Science and Engineering**, for allowing me to explore this project. We humbly thank **Dr. Manish Dixit**, Professor and Head, Department of Computer Science and Engineering, for his continued support during the course of this engagement, which eased the process and formalities involved.

I am sincerely thankful to my faculty mentors. We are grateful to the guidance of **Mir Shahnawaz Ahmad Assistant Professor, CSE department**, for his continued support and guidance throughout the project. We are also very thankful to the faculty and staff of the department.

Harshvardhan Khare
0901CS191042
3rd Year,
Computer Science and Engineering

Himanshu Dawande
0901CS191045
3rd Year,
Computer Science and Engineering

ABSTRACT

This Report is focuses on the development of Text RPG game for the desktop **Text Adventure: The Return.**

This project is based on a text game containing different locations, controls, actions. And the objective of the game is to escape the Island. In this game we can perform different actions like pick , give, read , interact with NPC's And move one location to different location like south of island, tree etc.. The interference of the game is very simple in which we can see the actions we can perform and place we can go from our current location.

This game is like a puzzle in which we have to find a way to get out of the foggy island with the help of the available action present on the screen.

सार

यह रिपोर्ट डेस्कटॉप टेक्स्ट एडवेंचर: द रिटर्न के लिए टेक्स्ट आरपीजी गेम के विकास पर केंद्रित है।

यह प्रोजेक्ट विभिन्न स्थानों, नियंत्रणों, क्रियाओं वाले टेक्स्ट गेम पर आधारित है। और खेल का उद्देश्य द्वीप से बचना है। इस खेल में हम एनपीसी के साथ लेने, देने, पढ़ने, बातचीत करने और एक स्थान को अलग-अलग स्थान जैसे द्वीप, पेड़ आदि के दक्षिण में ले जाने जैसी विभिन्न क्रियाएं कर सकते हैं। खेल का हस्तक्षेप बहुत सरल है जिसमें हम उन कार्यों को देख सकते हैं जिन्हें हम देखते हैं प्रदर्शन कर सकते हैं और जगह हम अपने वर्तमान स्थान से जा सकते हैं।

यह गेम एक पहेली की तरह है जिसमें हमें स्क्रीन पर मौजूद एक्शन की मदद से धूमिल द्वीप से बाहर निकलने का रास्ता खोजना होता है।

TABLE OF CONTENTS

Title	Page No.
Front page	ii
Certificate	iii
Declaration	v
Acknowledgement	vi
Abstract	vii
सार	viii
Table of Content	ix
List of Figures	x
Chapter 1: Introduction	1
1.1 Project Overview	1
1.2 Software and language used	1
1.2.1 Unity	2
1.2.2 C#	2
1.3 Objective	3
1.4 Feasibility	3
1.5 System Requirement	3
Chapter 2: Preliminary Design	4
2.1 Introduction of game	4
2.2 Location and available actions	4
2.3 Items	6
2.4 Actions	6
2.5 Game Development Life Cycle model	6
Chapter 3: Result	8
3.1 Problem Faced	8
3.2 Limitations	8
References	9

LIST OF FIGURES

S.no.	Figure Caption	Page no.
1.1	Game Interface	1
1.2	Unity Interface	2
1.3	Visual Studio Interface	3
2.1	Waterfall Model	7
4.1	Game result	9

Chapter 1: Introduction

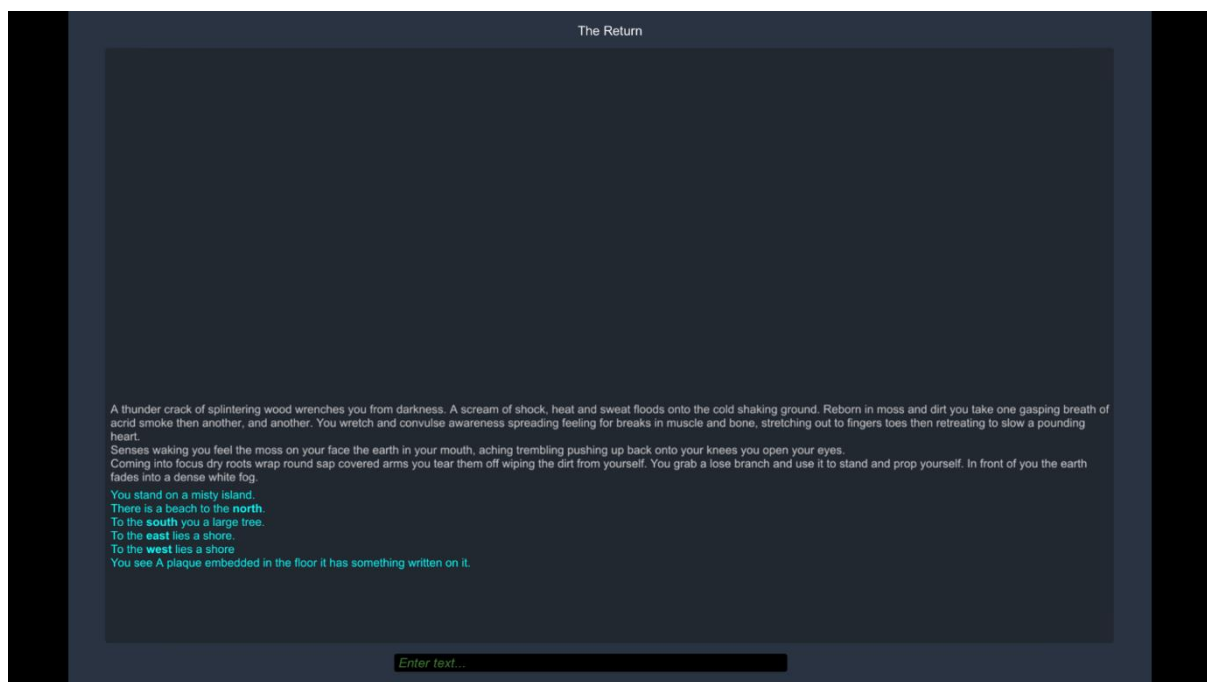
1.1 Project overview

This Report is focuses on the development of Text RPG game for the desktop **Text Adventure: The Return.**

This project is based on a text game containing different locations, controls, actions. And the objective of the game is to escape the Island. In this game we can perform different actions like pick , give, read , interact with NPC's And move one location to different location like south of island, tree etc.. The interference of the game is very simple in which we can see the actions we can perform and place we can go from our current location.

This game is made using Unity which is a popular game engine for creating and developing games.

The language we use to create this game is c#(c-sharp)



1.1 Game Interface

1.2 Software and Language used

The software we used is Unity Game Engine and Language we used is C-Sharp(c#)

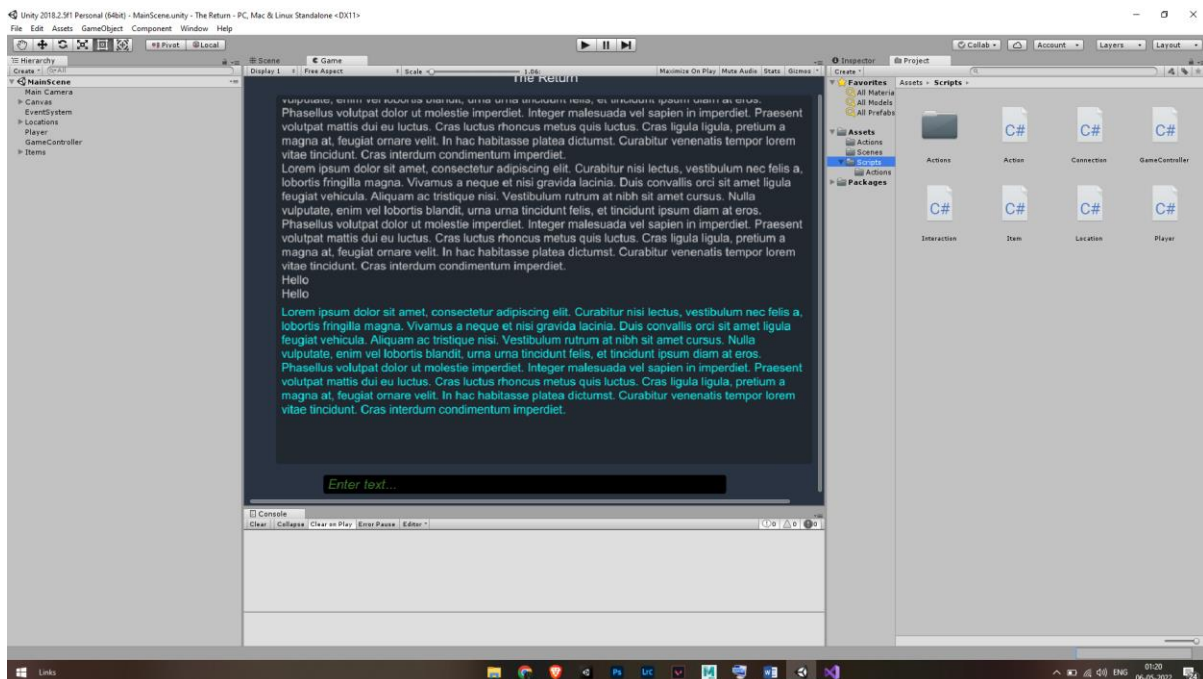
1.2.1 Unity

Unity is a cross-platform game engine developed by Unity Technologies, first announced and released in June 2005 at Apple Inc.'s Worldwide Developers Conference as a Mac OS X-exclusive game engine.

The engine has since been gradually extended to support a variety of desktop, mobile, console and virtual reality platforms. It is particularly popular for iOS and Android mobile game development and used for games such as *Pokémon Go*, *Monument Valley*, *Call of Duty: Mobile*, *Beat Saber* and *Cuphead*. It is considered easy to use for beginner developers and is popular for indie game development.

The engine can be used to create three-dimensional (3D) and two-dimensional (2D) games, as well as interactive simulations and other experiences. The engine has been adopted by industries outside video gaming, such as film, automotive, architecture, engineering, construction, and the United States Armed Forces.

Unity have both free to use version for indie game developer and paid for big studios and more professional work. The current version of unity is 2018.2.5f. Other than game developing this engine is also use for vfx, animation.

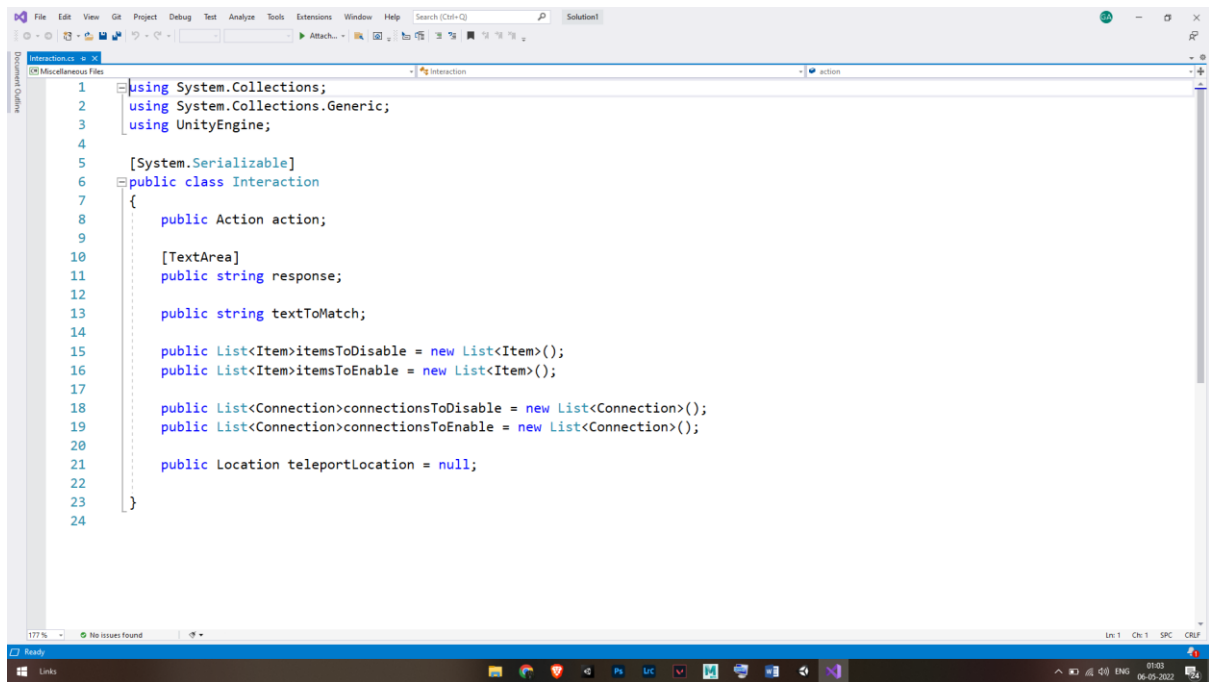


1.2 unity interfacce

1.2.2 C-Sharp

C# is a modern, general-purpose programming language that can be used to perform a wide range of tasks and objectives that span over a variety of professions. C# is primarily used on the Windows .NET framework, although it can be applied to an open source platform. This highly versatile programming language is an object-oriented programming language (OOP)—which isn't very common—and fairly new to the game, yet already a reliable crowd pleaser.

We use Visual Studio for programming in Unity.



1.3 Visual Studio Interface

1.3 Objective

Over objective is to create a game which is easy to play so that all age group can play this game and enjoy. This game provide easy to understand interference and the interface also guide the user/player what are the provided actions the can use. There is also contains help function which provide instruction to the user/player.

This game's requirement is very low, so everyone can install and play the game. Interface is very easy to understand, all we need to write keyword of the action we need to perform to get desired output.

1.4 Feasibility

This game is very easy to play since user need to perform the provided action using keyboard of computer. No need to install the game. All we need to do is to run .exe file and enjoy the game!

1.5 System requirements

No specific system requirement.

Basic requirements are:

Monitor

Keyboard

Chapter 2: Preliminary design

To create the game we need the knowledge of C#, unity engine, concepts of data structures and algorithms and a good story.

2.1 Introduction of game

A thunder crack of splintering wood wrenches you from darkness. A scream of shock, heat and sweat floods onto the cold shaking ground. Reborn in moss and dirt you take one gasping breath of acrid smoke then another, and another. You wretch and convulse awareness spreading feeling for breaks in muscle and bone, stretching out to fingers toes then retreating to slow a pounding heart. Senses waking you feel the moss on your face the earth in your mouth, aching trembling pushing up back onto your knees you open your eyes. Coming into focus dry roots wrap round sap covered arms you tear them off wiping the dirt from yourself. You grab a loose branch and use it to stand and prop yourself. In front of you the earth fades into a dense white fog.

2.2 Locations and available actions

Island:

You stand on a misty island.

Connections:

East: To the east lies a shore.

West: To the west lies a shore.

North: There is a beach to the north.

South: To the south you a large tree.

Items: None

East Shore:

You are on a black rock shore that leads to a still silver sea with no horizon.

Connections:

West: To the west is the island

Items: None

West Shore:

You are on a black rock shore that leads to a still silver sea with no horizon.

Connections:

East: To the east is the island

Items: None

Bridge:

You find yourself at the water's edge. Sea worn planks tied with barnacle encrusted ropes form a bridge over the water fading into the fog.

Connections:

North: Peering north across the sea to a dark shape hovers on the edge of sight.

South: To the south is the island

Items: None

Tree:

You stand by the tree and touch its blackened and gnarled surface.

Connections:

North: To the north is the rest of the Island

Items: Tree

Causeway:

Reaching the shore, the walls of an ancient fortification are carved into the cliff face. At the top of the cliff a stone chapel looks out over the sea.

Connections:

North: Steps snake northward, high up the rock face leading to a dark cave entrance.

South: The wooden bridge leads south over the sea.

Items: None

Chapel:

A dark ruined chapel. In the centre of a dark stone room a smashed statue, the plinth and lower half of a robed figure. In front of the statue a deep well is carved into the rock. You are drawn to it. Looking down the well leads directly into the sea below, in the water you see piles of coins, and some black with age some sparkling gold and silver in the light. A shape swims through the water.

Connections:

East: There is an antechamber to the east.

West: and an antechamber to the west.

North: To the north a carved wooden door.

South: To the south the steps snake down the cliff face to the shore.

Items:

Statue

Well

Serpent (disabled)

Gold Coin (disabled)

Dock:

You find yourself walking down a stone jetty, as you move forward, slowly a hooded figure materialises from the mist. A Ferryman stands in his boat, it rocks in the gathering wind ringing the arrival bell.

Connections:

South: returns to the chapel

Items:

FerrymanTalk1

FerrymanTalk2 (disabled)

ferrymanTalk3 (disabled)

East Antechamber:

A dark antechamber, the remnants of the smashed statue scattered across the dusty stone floor.

Connections:

West: West returns to the Chapel knave.

Items: Head

West Antechamber:

A dark antechamber, smashed and upturned pews, the wall is covered with faded artworks and tapestries.

Connections:

East: East returns to the Chapel knave.

Items: The Tapestry

The End:

The Ferryman's hand clenches around the gold coins he moves aside and you step onto the boat. As he casts off you look back once at this ghost land and then turn to face a wall of fog as you drift silently into the unknown.

Connections:

None

Items: None

2.3 Items

Staff

Tree

Statue

Well

Ferryman talk1

Ferryman talk2

Ferryman talk3

Head

Tapestry

Golden coins

2.4 Actions

Examine Item name

Get Item name

Give Item name

Go connection name

Help

Say talk

Talkto character name

Use Item name

2.5 Game Development Life Cycle model

2.5.1 Life cycle model- Waterfall Model

The model we are using to prepare our game is waterfall model. It is the oldest and most frequently used model and follows simple and straight-forward methodologies – according to which first complete one phase, then move on to the next phase (no going backward). Every stage of waterfall model depends on the information passed on from the previous stage. It is easier to understand and to manage effectively. This model was very popular during early game developments when the requirements were constant through the development. But these days, requirements change every day, hence following this model is not a good choice. It can be used for small game project.

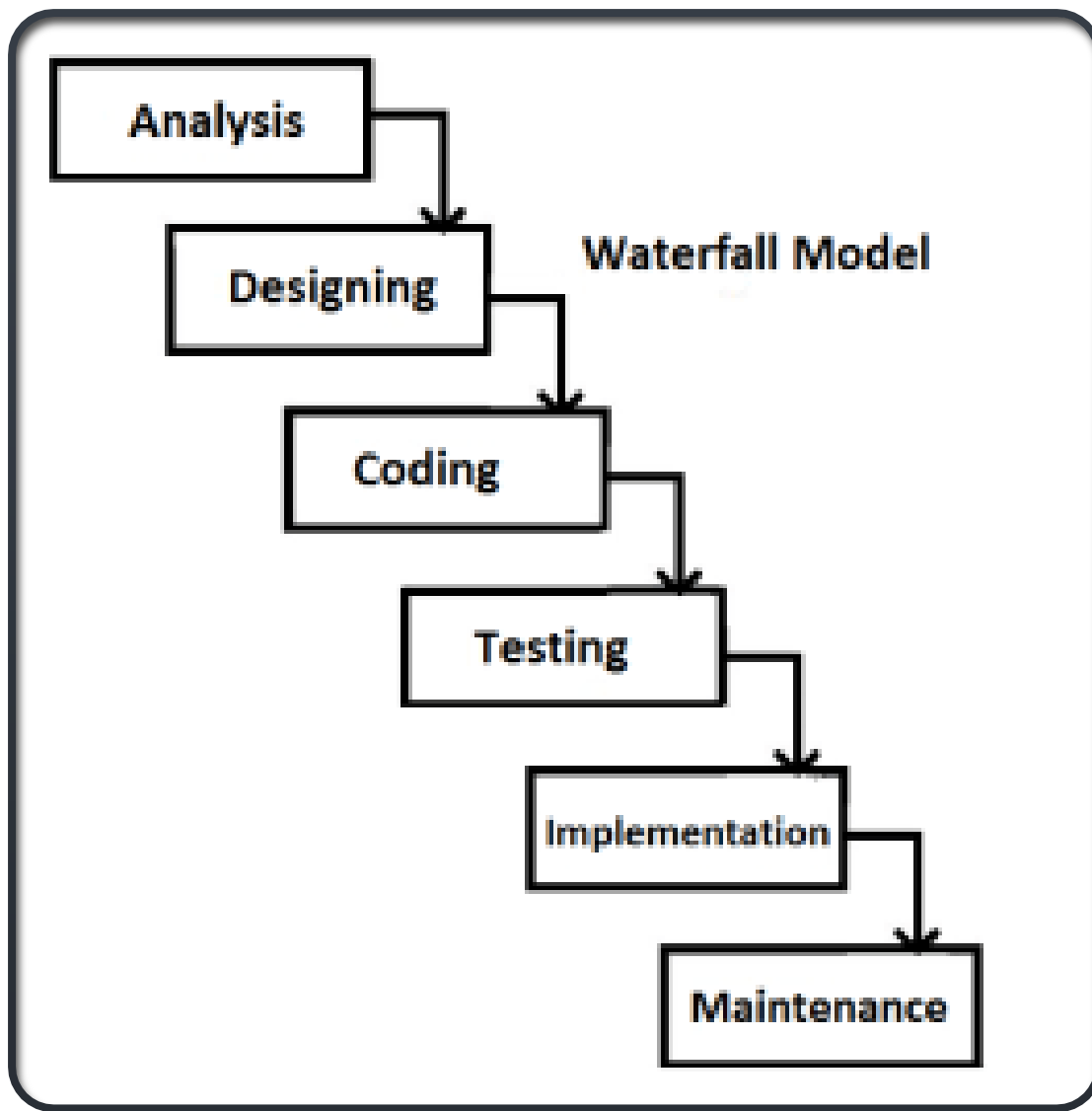


Figure 2.1 Waterfall Model

Chapter 3: Result

At the end we are able to complete our game. The interface is not that attractive but easy to understand

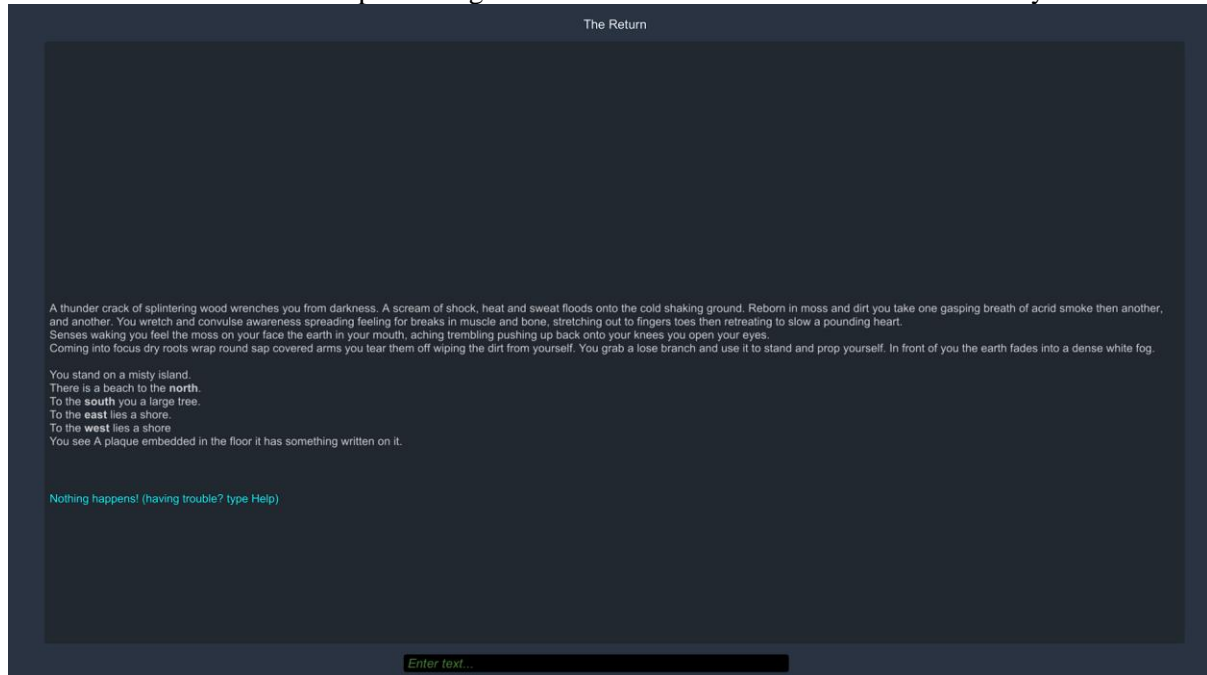


Figure 4.1 Game result

3.1 Problem faced

We faces only few some of them are

- 3.1.1: can't transport scripts in action folder in unity
- 3.1.2: complier error in visual studio
- 3.1.3: game is not taking input
- 3.1.4: [System. Serializable] not working in c#

3.2 Limitations

- 3.2.1 The limitation of this game is it can't run in android and iOS OS.
- 3.2.2 Not containing any digital art.
- 3.2.3 Boing Interface

References

Unity basics

<https://youtu.be/E6A4WvsDeLE>

by: Code monkey

Basics of C#

<https://youtu.be/E6A4WvsDeLE>

By: CodeWithHarry

Game tutorial

<https://youtu.be/E6A4WvsDeLE>

By: Unity

The Deamhold

<https://eblong.com/zarf/zweb/dreamhold/>

Zork

http://textadventures.co.uk/games/play/5zyoqrsugeopel3ffhz_vq

Michelle Menard. Game Development with Unity. USA: Cengage Learning; 2012.

Wikipedia. Level (Video Gaming) [Online]. Wikipedia, the free encyclopaedia. URL: [http://en.wikipedia.org/wiki/Level_\(video_gaming\)](http://en.wikipedia.org/wiki/Level_(video_gaming)) . Accessed 15 November 2013.

Philip Chu. Game Development with Unity. [Online] Copyright © 2003-2010 Technicat, LLC. URL: <http://www.cocoachina.com/downloads/video/2010/0617/1698.html>. Accessed 15 October 2013.

Penny de Byl. Holistic Game Development with Unity. Focal Press: 1 edition November 15, 2011.