ENCHANTED FOREST

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Summary:

Build Tool
Gameplay video
Assets used (from Unity Asset Store)
Links that helped us throughtout the game-making process :

Development setup

- Unity 2020.3.30f1 (64-bit)
- Plastic SCM (version control integrated with Unity)
- Visual Studio Community
- Visual Studio Code

Windows Requirements

Minimum requirements:

- OS: Windows 7.
- Processor: Intel Core 2 or AMD equivalent.
- Memory: 1 GB RAM.
- Network: Broadband Internet connection.
- Storage: 200 MB available space.

User Installation

Unzip the game archive, then run “Enchanted Forest.exe”.

User Stories

Current Number	As a	I want	So that
1	player	a simple and intuitive user interface	I can easily access the game menu, and have a good in game experience.
2		an easy to understand tutorial	I can understand how to play the game.
3		a storyline	I can better understand the goal of the game.
4		to interact with NPCs	the story feels more natural.

5		multiple levels	I don’t get to play the same level forever and get bored easily.
6		to find hidden items in the world	the exploration feels more interesting.
7		good music and sound effects	I can feel better immersed in the gameplay.
8		a scoreboard	I can measure my progress in time.
9	developer	a game creation software(such as GameMaker, Unity, Unreal, Godot)	I can create the game.
10		to know who the target audience is	I can design a game that really speaks to the customers.
11	manager	effective communication between team members	can build a common purpose among team members that will allow them to reach their goals.

Version Control

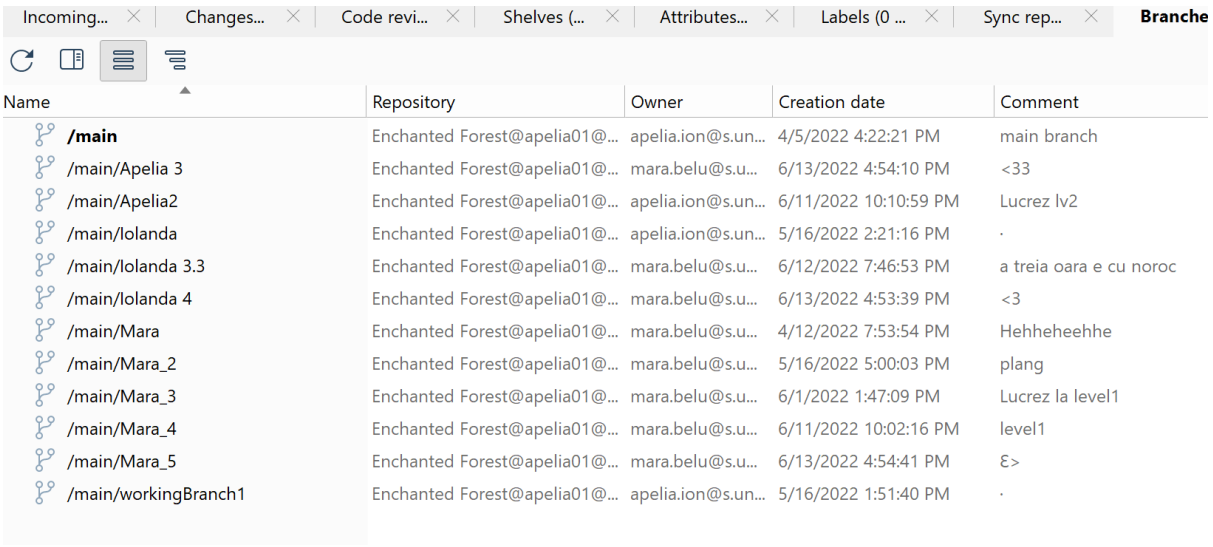
We have used Plastic SCM as Version Control for our game. Plastic SCM is integrated into our Unity project, and the whole team has access to it.

We've used the Unity IDE to make branches and commits to the project.

Because only team members have access to the game repository via Plastic SCM, we are going to add screenshots in the documentation to prove we used this form of version control.

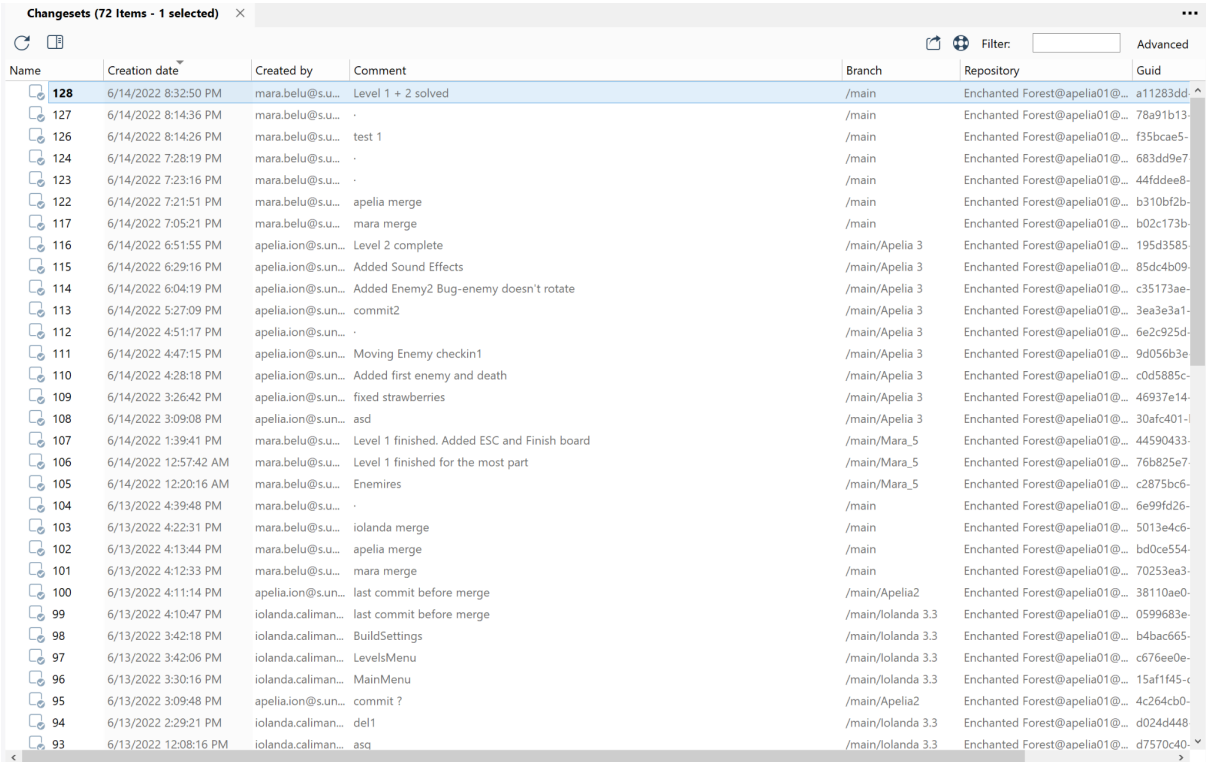
Each team member used different branches to work on certain parts of the game (eg. Level1, Level2, Menu). From time to time, we would merge those branches to the main so that we could share and use the scripts others have implemented.

The branches we used:



Name	Repository	Owner	Creation date	Comment
/main	Enchanted Forest@apelia01@...	apelia.ion@s.un...	4/5/2022 4:22:21 PM	main branch
/main/Apelia 3	Enchanted Forest@apelia01@...	mara.belu@s.u...	6/13/2022 4:54:10 PM	<33
/main/Apelia2	Enchanted Forest@apelia01@...	apelia.ion@s.un...	6/11/2022 10:10:59 PM	Lucrez lv2
/main/Iolanda	Enchanted Forest@apelia01@...	apelia.ion@s.un...	5/16/2022 2:21:16 PM	·
/main/Iolanda 3.3	Enchanted Forest@apelia01@...	mara.belu@s.u...	6/12/2022 7:46:53 PM	a treia oara e cu noroc
/main/Iolanda 4	Enchanted Forest@apelia01@...	mara.belu@s.u...	6/13/2022 4:53:39 PM	<3
/main/Mara	Enchanted Forest@apelia01@...	mara.belu@s.u...	4/12/2022 7:53:54 PM	Hehheheehhe
/main/Mara_2	Enchanted Forest@apelia01@...	mara.belu@s.u...	5/16/2022 5:00:03 PM	plang
/main/Mara_3	Enchanted Forest@apelia01@...	mara.belu@s.u...	6/1/2022 1:47:09 PM	Lucrez la level1
/main/Mara_4	Enchanted Forest@apelia01@...	mara.belu@s.u...	6/11/2022 10:02:16 PM	level1
/main/Mara_5	Enchanted Forest@apelia01@...	mara.belu@s.u...	6/13/2022 4:54:41 PM	Ɛ>
/main/workingBranch1	Enchanted Forest@apelia01@...	apelia.ion@s.un...	5/16/2022 1:51:40 PM	·

We made over 100 commits:



Name	Creation date	Created by	Comment	Branch	Repository	Guid
128	6/14/2022 8:32:50 PM	mara.belu@s.u...	Level 1 + 2 solved	/main	Enchanted Forest@apelia01@...	a11283dd-
127	6/14/2022 8:14:36 PM	mara.belu@s.u...	·	/main	Enchanted Forest@apelia01@...	78a91b13-
126	6/14/2022 8:14:26 PM	mara.belu@s.u...	test 1	/main	Enchanted Forest@apelia01@...	f35bcae5-
124	6/14/2022 7:28:19 PM	mara.belu@s.u...	·	/main	Enchanted Forest@apelia01@...	683dd9e7
123	6/14/2022 7:23:16 PM	mara.belu@s.u...	·	/main	Enchanted Forest@apelia01@...	44fddee8-
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117	6/14/2022 7:05:21 PM	mara.belu@s.u...	mara merge	/main	Enchanted Forest@apelia01@...	b02c173b-
116	6/14/2022 6:51:55 PM	apelia.ion@s.un...	Level 2 complete	/main/Apelia 3	Enchanted Forest@apelia01@...	195d3585-
115	6/14/2022 6:29:16 PM	apelia.ion@s.un...	Added Sound Effects	/main/Apelia 3	Enchanted Forest@apelia01@...	85dc4b09-
114	6/14/2022 6:04:19 PM	apelia.ion@s.un...	Added Enemy2 Bug-enemy doesn't rotate	/main/Apelia 3	Enchanted Forest@apelia01@...	c35173ae-
113	6/14/2022 5:27:09 PM	apelia.ion@s.un...	commit2	/main/Apelia 3	Enchanted Forest@apelia01@...	3ea3e3a1-
112	6/14/2022 4:51:17 PM	apelia.ion@s.un...	·	/main/Apelia 3	Enchanted Forest@apelia01@...	6e2c925d-
111	6/14/2022 4:47:15 PM	apelia.ion@s.un...	Moving Enemy checkin1	/main/Apelia 3	Enchanted Forest@apelia01@...	9d056b3e
110	6/14/2022 4:28:18 PM	apelia.ion@s.un...	Added first enemy and death	/main/Apelia 3	Enchanted Forest@apelia01@...	c0d5885c-
109	6/14/2022 3:26:42 PM	apelia.ion@s.un...	fixed strawberries	/main/Apelia 3	Enchanted Forest@apelia01@...	46937e14-
108	6/14/2022 3:09:08 PM	apelia.ion@s.un...	asd	/main/Apelia 3	Enchanted Forest@apelia01@...	30afc401-
107	6/14/2022 1:39:41 PM	mara.belu@s.u...	Level 1 finished. Added ESC and Finish board	/main/Mara_5	Enchanted Forest@apelia01@...	44590433-
106	6/14/2022 12:57:42 AM	mara.belu@s.u...	Level 1 finished for the most part	/main/Mara_5	Enchanted Forest@apelia01@...	76b825e7-
105	6/14/2022 12:20:16 AM	mara.belu@s.u...	Enemires	/main/Mara_5	Enchanted Forest@apelia01@...	c2875bc6-
104	6/13/2022 4:39:48 PM	mara.belu@s.u...	·	/main	Enchanted Forest@apelia01@...	6e99fd26-
103	6/13/2022 4:22:31 PM	mara.belu@s.u...	iolanda merge	/main	Enchanted Forest@apelia01@...	5013e4c6-
102	6/13/2022 4:13:44 PM	mara.belu@s.u...	apelia merge	/main	Enchanted Forest@apelia01@...	bd0ce554-
101	6/13/2022 4:12:33 PM	mara.belu@s.u...	mara merge	/main	Enchanted Forest@apelia01@...	70253ea3-
100	6/13/2022 4:11:14 PM	apelia.ion@s.un...	last commit before merge	/main/Apelia2	Enchanted Forest@apelia01@...	38110ae0-
99	6/13/2022 4:10:47 PM	iolanda.caliman...	last commit before merge	/main/Iolanda 3.3	Enchanted Forest@apelia01@...	0599683e-
98	6/13/2022 3:42:18 PM	iolanda.caliman...	BuildSettings	/main/Iolanda 3.3	Enchanted Forest@apelia01@...	b4bac665-
97	6/13/2022 3:42:06 PM	iolanda.caliman...	LevelsMenu	/main/Iolanda 3.3	Enchanted Forest@apelia01@...	c676ee0e-
96	6/13/2022 3:30:16 PM	iolanda.caliman...	MainMenu	/main/Iolanda 3.3	Enchanted Forest@apelia01@...	15af1f45-
95	6/13/2022 3:09:48 PM	apelia.ion@s.un...	commit ?	/main/Apelia2	Enchanted Forest@apelia01@...	4c264cb0-
94	6/13/2022 2:29:21 PM	iolanda.caliman...	del1	/main/Iolanda 3.3	Enchanted Forest@apelia01@...	d024d448-
93	6/13/2022 12:08:16 PM	iolanda.caliman...	asq	/main/Iolanda 3.3	Enchanted Forest@apelia01@...	d7570c40-

We have also used Github, in order to make the project and the documentation available to other persons that are not part of our Unity team.

Github link: https://github.com/Apelia-Ion/Proiect-MDS

Game Design

Story

Curious adventurers have always wondered if the stories they've heard about a number of hidden treasures were true. The legend says whoever may find all of them will live the most fortunate life.

The treasures are said to be located in the heart of a forest known as "The Enchanted Forest" where many unusual creatures can be discovered. Some of them are really friendly and want to help everyone that may pay them a visit, while others find strangers dangerous and will do anything to protect the forest and its riches. Many tried to step into the mysterious woods, but few came out.

One courageous traveller decided to find for themselves if all of this is true.

Gameplay

Design Pillars

Linear stages.
Happy atmosphere.

Core Loop

Player starts a level. Explores around until they find the treasure.

Characters

Player

Moves with ASDW or arrows.
Jumps with "space". You can jump one more time while in the air.
Pressing "ESC" gives the opportunity to return to the Main Menu.

Friendly NPCs

Cute-looking creatures with a question mark above their heads. When the Player gets near them (when the Player object collides with the NPC object), the creature starts displaying helpful messages.
The Player moves to the next message by pressing "space". When the conversation is over for the first time, the following times you talk with the NPC it will display a single-new message.

Enemies

Angry creatures that move in a straight line. When the Player gets near them (when the Player object collides with the Enemy object), they die and restart the level.

Level/environment design

Every level displays a magic forest in a simple, pixelated, cute art style. Around the scene you can find strawberries, some more easily obtainable than others. Just like the Enemies, there are spikes on the ground that can kill the Player.

Art, sound and music

Unity Asset Store.

User Interface

Example 1

In the top left of the screen you can see how many fruits you have collected so far.
Down, when you interact with a friendly NPC, the Player can see the creature's messages.

Example 2

When the Player presses “ESC”, this box comes up. They can choose whether to return to the game or the Main Menu (where you can close the game).

Example 3

When the Player finds the treasure, this box comes up. They can see how many fruits they collected and the total number of fruits in the current level they could have acquired.

Code

CameraController.cs

Makes sure the camera follows the player.

DialogueManager.cs

After the dialogue is triggered, the script makes sure the right message is displayed. It iterates through the NPC's messages vector till Lenght - 1. The last element of the vector is the text that will be shown whenever the Player revisits the NPC after the first meeting. Whenever a new message is shown a sound is made.

DlalogueTrigger.cs

It triggers the dialogue.
numMeetingsNpcs is a vector that keeps track of the number of times the Player interacted with each NPC. When the Player object collides with the NPC, the dialogue starts.

ESCTrigger.cs

It opens a box after pressing "ESC". When the box is opened, you can either press "ESC" again to close the box or press "Space" to go back to the Main Menu.

Finish.cs and Finish2.cs

When the Player object collides with the Finish object (the treasure), a sound is made and a box is opened. It will show how many fruits you collected and how many fruits where in total in the current level.
Finish.cs is the script for Level 1(and reusable for any level that is not the last one) and Finish2.cs is the script for Level 2.
After 2 seconds, Finish.cs will change the current scene to the next one (to the next Level) and Finish2.cs will change the current scene to the Main Menu.

ItemCollector.cs

Updates and displays the text in the left-upper corner of the screen that shows how many fruits you collected so far. It also provides the number of fruits collected so that Finish scripts can display the correct number.

LevelsMenu.cs

When you click the button displaying a number you go to the respective level, and when you click the "back" button you return to Main Menu.

MainMenu.cs

When you click the “Levels” button you go to the Levels scene, when you click the “Settings” button you go to the Settings scene and when you click the “Quit” button the game closes.

PlayerDeath.cs

When the Player collides with an enemy or a trap, a sound is displayed and the Player “dies”. The current level is restarted.

PlayerMovement.cs

The script that is responsible for all of the Player’s movements. It also provides a sound effect whenever you jump and makes sure you can jump once more while in the air (double jump).

WaypointFollower.cs

Provides the movement for the enemies and updates their sprites if needed.

Scenes

Main Menu

The Main menu contains 3 scenes

Each scene is represented by a button:

- Levels
- Options
- Quit

Levels

You can choose the level you wish to play! Take into consideration that the levels are getting progressively harder.

Options

From the Options Menu you can choose to increase or decrease the volume, using a volume slider.

Level 1

The first level is more like a tutorial.
You start near a Mushroom. You can interact with it and it will teach you how to move and how to jump. It also hints that you will find fruits that you should collect on your journey.
Then, you find a Radish that will tell you that you can double jump and it warns you about spikes and enemies.
Ahead you will find 2 enemies flying around, and after that you will meet a friendly Snail. Up you go and you face an angry rabbit running around.
After that you will need to find the treasure that will move you to the next level.

Level 2

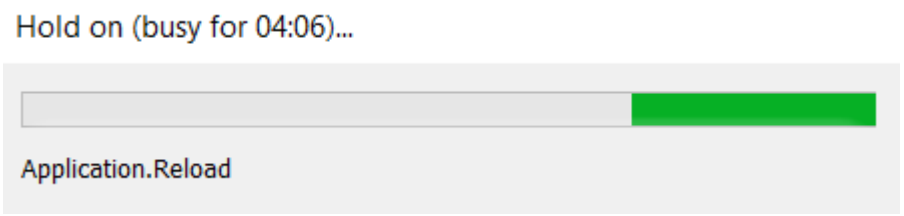
The second level brings the player into a new world, a new map, which brings more difficult challenges. There are more strawberries to collect, more enemies, and more traps. The tutorial in Level 1 taught the player the basics of this game. In level two there is one single NPC that continues the storyline.

The purpose of this level is the same as in the first one, the player has to find the treasure chest.

Others

Bug Reporting

1.



The program would randomly display this loading box, that would never disappear. We found out you had to manually save the scene you were working on to avoid this problem.

2.

Before changing the function in PlayerMovement.cs that checks whether or not the Player is on the ground, after we implemented the double jump, the Player could infinitely jump when he banged his head on terrain. We fixed this by finding an alternative way of checking whether or not the Player's feet touched the terrain.

Build Tool

Unity Build Tool was used to create the game.

Gameplay video

https://www.youtube.com/watch?v=S6T3XAzd9PQ&ab_channel=KyaMara

Assets used (from Unity Asset Store)

CasualGameSounds
Free Orchestral Music Park
Pixel Adventure 1
Pixel Adventure 2

Links that helped us throughout the game-making process :

- https://www.youtube.com/watch?v=lF26yGJbsQk&list=PLRgRPP3qlMdF0si-M01aeMTW6urhDOeQG&index=1&ab_channel=Tarodev
- https://www.youtube.com/watch?v=li-scMenaOQ&list=PLrnPJCHvNZuCVTz6lvhR81nnaf1a-b67U&ab_channel=CodinginFlow
- https://www.youtube.com/watch?v=KCzEnKLaaPc&list=PLRgRPP3qlMdF0si-M01aeMTW6urhDOeQG&index=3&ab_channel=Blackthornprod
- https://www.youtube.com/watch?v=PswC-HlKZqA&t=494s&ab_channel=CocoCode