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Moteur De Jeu I

420-JV8-AS gr. 07211

Ice Labyrinth (Final Project)

Presented to M. Marc-André Larouche

LaSalle College

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**List of all user stories and/or present tasks in your game**

* Story 1

As a game designer, I want my game to have an icon, the college’s logo during the splash images, so the game looks professional.

* Add an icon for the build.
* Add the LaSalle logo in the splash image section.
* Add a credits page in the splash image section (to respect some authors’ guidelines).
* Story 2

As a player, I want a game manager to manage to handle the flow of the game so we can win.

* If the player collects all the objects to collect (spheres and capsules), the game ends and the player sees a victory screen.
* Give the player the option to replay the game and return to the start screen and the option to quit the game.
* Story 3

As a player, I want to pause and quit the game anytime I want.

* The player can pause the game when clicking the key button Escape, and the option to quit the game is available.
* The cursor is visible and unlocked.
* The player presses the Escape key again on the keyboard to resume the game.
* Story 4

As a player, I want to have obstacles to make the game more difficult and I can lose if I am not careful.

* There are pink obstacles (deadly objects) spread in the labyrinth with animation (scaling or rotating).
* If the player collides with the pink obstacles, the player loses a life (player possesses 3 lives in the beginning).
* When the player loses a life, the player is respawned at the position where the player first started the game to avoid losing more than one life at once.
* When the player loses all their lives, the game ends and a game over screen will be shown.
* Give the player the options to quit the game or replay the game when the player has lost.
* The number of lives is shown in the upper right corner of the screen.
* A message will be displayed for 3s to inform that the player lost 1 life.
* Story 5

As a player, I want to collect the spheres and get a hint to where the other objects to collect are situated.

* When the player collides with a sphere, the sphere will disappear.
* When the player collects a sphere (by colliding with it), the map of the labyrinth will be displayed in the upper left corner of the screen for a few seconds after the sphere has been collected.
* The map will disappear after the few seconds has passed.
* Story 6

As a player, I want to get some chances to move around without having a risk of losing a life (without deadly objects in the way).

* When the player collides with a capsule, the capsule will disappear.
* When the player collects a capsule (by colliding with it), all deadly objects (pink obstacles) will be deactivated for 30s.
* When 30s passed after collecting a capsule, the deadly objects (pink objects) will be activated once again.
* A message will be displayed for 3s when the player collected a capsule to inform the player that the deadly objects have been deactivated.
* A message will be displayed for 3s when 30s passed after the deactivation of the deadly objects to inform the player that the deadly objects have been reactivated.
* Story 7

As a player, I want to know how the game is played before playing the actual game.

* Before starting the actual game, two pages of text will be shown to give an idea to the player of how to play the game and the pertinent points to know about the gameplay.
* The cursor is unlocked and visible.
* The player can go to the next page and come back to the previous page (start screen included in the statement) freely until they start playing the game.
* When the game ends whether in a loss or in a victory, if the player chooses to replay, they will be directed back to the start screen.
* When starting to play the game, the cursor is locked and invisible unless the player pressed the Escape key, or the game has ended.

**User manual, with an overview of the default controls and supported controllers (keyboard, mouse, joystick, touchscreen ...) as well as rules for winning your game (if applicable).**

The keyboard and the mouse are the supported controllers[[1]](#footnote-1)\* of this game.

* The keyboard is used to control the movement of the character.
* W key or Upwards Arrow key is used to move the character forward (back to the player).
* S key or Downwards Arrow key is used to move the character backward (facing the player).
* A key or Leftwards Arrow key is used to move the character to the left.
* D key or Rightwards Arrow key is used to move the character to the right.
* The mouse is used to look around the character.
* The cursor is locked and invisible while playing the game.
* The player can look toward the right or toward the left depending on the direction where their cursor is leaning toward.
* The cursor is locked so it is positioned in the middle of the screen and it is always in the middle of the camera’s view.
* Moving the mouse to the right will make the camera’s view look to the right.
* Moving the mouse to the left will make the camera’s view look to the left.
* The camera has a vertical axis of rotation of 360˚.

The objective of the game is to collect all the spheres and capsules present in the labyrinth.

* To win the game, the player has to collect all spheres and all capsules.
* When the player collects a sphere, the map of the labyrinth will be displayed for a few seconds then will disappear after.
* The map will show the current state of the field (labyrinth), including the player’s position (red diamond), the positions of the objects yet to be collected and the deadly objects in pink if they are activated.
* When the player collects a capsule, the deadly objects will be deactivated for 30s and the player can move without risking losing a life.
* After 30s since collecting a capsule, the deadly objects will be reactivated so be careful!
* To lose the game, the player’s lives have been reduced to 0.
* The player has 3 lives in the beginning.
* When the player gets hit by deadly objects (pink obstacles), the player loses a life, and the player is respawned at the position where the player first started the game.
* When the player lives reached 0, the player has lost the game.

**A list of all your references / external resources and information on your libraries, assets and fonts that you did not create yourself**

**Audio Source Used For The Background Music In The Game**

PeriTune. (2019). *Ice\_Cave* [MP3]. <https://peritune.com/blog/2016/02/03/ice_cave/>

**Class Videos Used As References For The Game**

Larouche, Marc-André. [marclar83]. (2020, September 16). *Moteur de Jeux (7211) - Vendredi 11 Sept - Cours 3* [video]. Youtube. <https://www.youtube.com/watch?v=CpWhzON9vqk&feature=youtu.be>

Larouche, Marc-André. [marclar83]. (2020, September 18). *Moteur de jeux - 18 Sept - cours 4* [video]. Youtube. <https://www.youtube.com/watch?v=4fmy_ymj6jE&feature=youtu.be>

Larouche, Marc-André. [marclar83]. (2020, September 25). *Moteur de jeu - Vendredi 25 Sept - Cours 5* [video]. Youtube. <https://www.youtube.com/watch?v=HiyfzheCzO4&feature=youtu.be>

Larouche, Marc-André. [marclar83]. (2020, October 8). *Moteur de jeux 1 - Vendredi 2 Oct - Cours 6 (partie 1/2)* [video]. Youtube. <https://www.youtube.com/watch?v=uApOI0J1eiI&feature=youtu.be>

Larouche, Marc-André. [marclar83]. (2020, November 20). *Moteur de jeu I - 20 Nov - Cours 12* [video]. Youtube. <https://www.youtube.com/watch?v=AmBlouhDvr8&feature=youtu.be>

**Character Making Sources**

Adobe. (2020). *Fuse CC (Beta)* (version 2017.1) [Software]. Creative Cloud Desktop. (No URL Available)

Adobe. (2020). *Mixamo*. <https://www.mixamo.com/#/>

**Font Used In The Game**

Divide By Zero. (no date). *Epilog Font* (no mentioned version) [Font]. 1001 Fonts.

<https://www.1001fonts.com/epilog-font.html#stats>

**Teacher’s Personalized Unity Package**

Larouche, Marc-André. (2020). *BallBouncer\_Package\_F2020* (no mentioned version) [UnityPackage]. (Downloaded via Omnivox).

**Unity Packages Used In The Game From The Asset Store**

dreamlevel. (2016). *DL Fantasy RPG Effects* (version 1.0.0) [Unity Package]. <https://assetstore.unity.com/packages/vfx/particles/dl-fantasy-rpg-effects-68246>

Swift Games. (2020). *Magic VFX – Ice (FREE)* (version 1.0.0) [Unity Package]. <https://assetstore.unity.com/packages/vfx/particles/spells/magic-vfx-ice-free-170242>

The Developer. (2020). *Ultimate 10+ Shaders* (version 1.0.2) [Unity Package]. Unity Asset Store. <https://assetstore.unity.com/packages/vfx/shaders/ultimate-10-shaders-168611>

Unity Technologies Inc. (2020). *Standard Assets (for Unity 2018.4)* (version 1.1.6) [Unity Package]. <https://assetstore.unity.com/packages/essentials/asset-packs/standard-assets-for-unity-2018-4-32351>

**Specific Informations (Assets used)**

From *DL Fantasy RPG Effects* By dreamlevel

* FinalProject\Assets\DL\_Fantasy\_RPG\_Effects\prefab
* explode
* explode\_2
* star1
* star2

From *Magic VFX – Ice (FREE)* By Swift Games

* FinalProject\Assets\Magic VFX\Magic VFX – Ice (FREE)\Models\Materials\Materials
* Glow\_Ice\_06
* FinalProject\Assets\Magic VFX\Magic VFX - Ice (FREE)\Prefabs
* Ef\_IceMagicGlowFree01

From *BallBouncer\_Package\_F2020* By Larouche, Marc-André

* FinalProject\Assets\textures
* LaSalle-Montreal\_V
* Rebonds\_grid\_map

From *Ultimate 10+ Shaders* By The Developer

* FinalProject\Assets\Ultimate 10 Plus Shaders\Materials
* Gray
* FinalProject\Assets\Ultimate 10 Plus Shaders\Materials\Unique
* Blur
* Force Field
* FinalProject\Assets\Ultimate 10 Plus Shaders\Shaders
* Force Field
* Outline

From *Standard Assets (for Unity 2018.4)* By Unity Technologies Inc.

* FinalProject\Assets\Standard Assets\Characters\ThirdPersonCharacter\Prefabs
* ThirdPersonController (ThirdPersonUserControl script modified for Input System and Animator Avatar replaced by personalized character)

1. \*I am not familiar with a gamepad as I never played with a gamepad before. [↑](#footnote-ref-1)