The Little Traveler

by CinnyRolls

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EPITA 2021 S2 | Book of specifications

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1   Preamble

The purpose of this book of specifications is to present the assignment we are asked to do for our second semester at EPITA: the much talked about game project everyone was dying to start! It is an important document that will allow us to carry out our assignment throughout the seven-month period dedicated to it. It will contain the basic outline of the project and its details, the way it is going to be made, the task distribution and the overall progression it is supposed to follow, and the resources needed.

During this second semester, we will have to use all the knowledge we gained or will gain through our classes and our personal researches to create our very own game with the framework Unity. We chose to do an adventure game, a third-person platform-type game in 3D running on the Microsoft Windows operating system. It will be coded in C# (or C++++ for the most purist of us). And we will mostly use pre-made assets from the Unity assets store, that we are going to modify or not, depending on if it is eventually possible.

In the following pages, we are going to identify the development framework of our project ”The Little Traveler”, present the project, ourselves as a team and as individuals, present the task distribution, and finally, emphasize our choice of execution.

Making this book is a real help, because it forces us to focus on how the game is going to be working (and looking). It allows us to concentrate on it during a time where we haven’t really started anything, which makes us more productive for the

2   Team CinnyRolls

It is common to team up with acquaintances in the same class and it is exactly what happened in our case. We are classmates but also and foremost a subgroup of friends from a bigger group, which made us naturally team up together. We know we get along well enough since we spend most of our time with each other at school, so we will take advantage of that and make use of the fact that our team is made up of unique people with different backgrounds to try and appeal to a larger audience.

As an anecdote, our team name, "CinnyRolls", is a reference to cinnamon rolls, which is a really great snack by the way. Why we chose it however, will remain a big secret as it comes from a private joke...

2.1   Maxime "Teelry301" Gouet

I've always been fascinated by computers and the way programs are made, how they can magically work without any human pulling the strings behind, at least in appearance. I have very little experience in computer programming, and I didn't really understand anything before this year. I have tried, though, to make a FPS using openclassrooms with a friend (who is now in Epitech). We tried doing it but it just ended up being us copy pasting code. I also helped someone make a World of Warcraft private server (told you, yarrrr) but I never really had the opportunity to claim it as my own work. Therefore, having the opportunity to make a game ourselves is a challenge. It is not going to be easy, but I am ready to take upon this challenge and prove my worth inside this group. I have always been a fan of video games, which makes it even harder to make one since I am even more demanding in terms of quality, but on the other hand it makes me even more happy to make it.

2.2   Mohamed Israt "Shoppy" Shopnil

I remember back when I was young, I used to love to just operate our family's computer. Opening up Command Prompt and make it say the date and time. Then when Windows XP was out, I would play around with the themes and such. I was fascinated by it. To be honest, it wasn't just computers that fascinated me, just machines in general did.

That fire of interest in machines never died out. And to this day the fire is growing. As I grew to an age where hobbies were our world, I played with R/C cars. And when they broke, I used to open it up and try to fix it. Failed most of the time, as I would never understood how the circuits worked, but I learned. So making a game is the perfect thing for me!

When internet came along, I couldn't handle the amount of things I could do! First, I obviously had to learn about video games, and that's where another fire in my heart started, this time for video games. I learned how to act on the internet, tips and tricks that made everyone blow their minds, and most importantly, how to code websites! Then, in school, we were introduced to the world of programming with Java, and that's how I got into this.

I gathered some friends who were also interested in setting up a server. We learned that it is not very easy to maintain such a small company. But that also taught me the importance of keeping a group alive and functional, and that's what I will do in this group! I shall be their personal psychiatrist.

2.3   Céline "S.A.T.A.N." Wu

Unlike my teammates, I was not deeply interested in how computers worked nor what they were made of until last year, when I decided I wanted to join EPITA. I began to get an interest in coding when I was in middle school, mainly working on Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) as a hobby. I may be a very beginner at programming, only knowing what we were taught in

the first semester, but my curiosity and thirst for knowledge make up for any parts I am lacking of. Making a game is something definitely new and interesting for any person that plays at least a bit, or is interested in games or codes. It also has a very educational aspect for computer engineering students as we have to learn how to manage a project, how to make it and how to work in a team. So I am hoping I will be able to grow and mature as a team member and as a computer engineering student along with my team in this project.

2.4   Antonin "Sillycium" Chantier

Like most of people at EPITA, I think, I like to play video games, and this since I was really young. Although, I never got interested in programming until last year, when I started the ISN courses in high school. Before this, I was seeing computer engineering as something cool but I never ever thought about making it my academic carrier. In ISN, I learned the basics of programming in Java and I made a game with a friend (who is also in the school by the way) and I liked it a lot. So when I had to choose a school for higher studies, I looked up some computer engineering schools and here I am. I'm really looking forward to make this game because we have a lot more resources than last year and we can do something great, I BELIEVE IN MY TEAM!

3   Project "The Little Traveler"

3.1   Introduction

Our team decided to make a third-person adventure platform-like game named "The Little Traveler". We did not base our project on any existing game at first as we thought it would be better not to get influenced by a base. But as we proceeded with our ideas, we realized that it had similar ideas to the well-known third-person games such as *The Legend of Zelda* series, the *Crash Bandicoot* series, the *Spyro* series, or some of the *Mario* games.

Their strengths and specific features rely on the fact that they are pretty intuitive in terms of gameplay. They also have pretty simple and colorful stories, which we are planning to use to create the base of the structure for our own project.

3.2   Object of study

This project is the first long-time group work we will do in our academic career. Its purpose is to make us learn how to work as a team, how to manage an assignment, how to handle deadlines and respect progression curves, as it is very important for an engineer to know how to. It is also going to be challenging since we have to learn how to abide by this book of specifications too.

Since our group is multicultural and composed of people from different backgrounds, we all have different thoughts on how to make a game. We will turn that as an advantage to make a game that will appeal to a larger audience.

3.3   Game scenario and gameplay

The basic storyline of our game is set in a far, far future, in which space traveling has been made possible and standardized. Humans discovered a new abundant resource that began to be widely used,

mainly for fueling spacecrafts. In such an era, new laws exist to regulate space traveling, thus making new criminals appear: they are space pirates.

Our heroine is an earthling young woman of age twenty-something, named Hayden, who has been an orphan since childhood. She became a space pirate at age nine, after she was taken in and raised by one, and she has been traveling from planets to planets since then. She mainly attacks space cargo-ships that transport sweets and candies to take and redistribute them to orphans on every planet she stops. Her other goal is to taste every sweet and candy of the universe, which is her main motive for her actions.

We will follow her through her adventure on the ships she encounters and then on the planet she lands on.

As for the gameplay, the main idea is to be able to choose between an infiltration mode or a full-on attack mode. The player can choose to eliminate the enemies or not depending on what they want to do. The main character will also have a side character, a robot companion, that will be artificial intelligence or used in cooperation (or multi-player) mode. It is going to be split in levels on space cargoships and planets.

3.4   Design and items

We made an initial design for our heroine, but since we were told that modeling our own assets on Blender would be very difficult, we decided to not use it. We'll still try to find a girl with long hair and maybe a robotic limb, if it can be found. That is the look we want to give to our character.

The enemies are going to be anthropomorphic aliens, human-looking, four-limbed creatures, maybe fur people, like Charrs in Guild Wars, for example.

The environment is mostly going to revolve around spaceships. We

want our game to be lighthearted and colorful. The interior of a space-ship does not particularly look colorful. So we decided we are going to add our little touch to the interior :
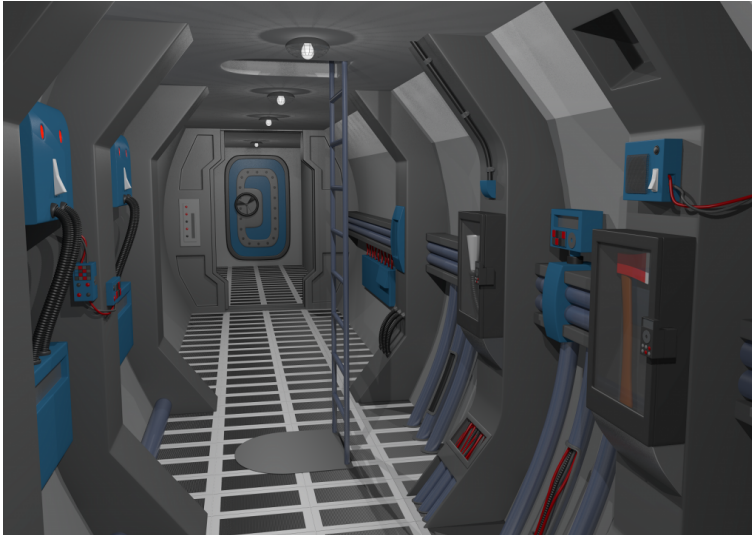
Before

After

3.5 Task distribution

Here is how we're going to split the tasks between each other:

Tasks	Teelry301	Shoppy	S.A.T.A.N.	Sillycium
Website	X		X	
Level Design		X		X
Game Menu		X		X
Gameplay	X		X	
Interface		X		X
Save	X		X	
Multiplayer		X	X	
Physics			X	X
AI	X			X
SFX/Music	X	X		

Here are what the tasks are going to be about :

Website : Céline will do the most part of the site, as she already know how to code in CSS and HTML, we want to make a welcoming and clean looking website to present our game.

Level Design : Shopnil and Antonin are going to work together to make the levels (ships, planets) look like we want them (tons of candies, woo!). They will design the levels to make them pleasant to play.

Game menu : The way our starting menu, with the title, the background, the settings are going to look like.

Gameplay : How the camera, the movements is going to be handled for every character. The gadgets of the fuck

Interface : The beautiful HUDs that will be enjoyed by the player. And the jury. And us. I love HUDs. HUDs are great.

Physics : This part will be about the scripts of the entities in the game, how they will react with each other depending on where they are in the game.

AI : The artificial intelligence is one if the challenges for this game,

because we expect the robot companion to actually help us and not to be a pain in the arr. We also want the enemies to be not to easy to pass but not too punitive either.

SFX / Music : We actually plan to make most of the sounds ourselves, some of them with our mouths (when possible of course) and others with what we will find. We think we will all participate in this part, at least a bit for the sounds. Then, for the music and the mixing, Maxime and Shopnil will do it.

4   Material resources

4.1   Progression

Tasks	First Presentation	Second Presentation	Third Presentation
Website	50 %	80 %	100 %
Character Design	40 %	80 %	100 %
Level Design	20 %	60 %	100 %
Game Menu	50 %	80 %	100 %
Gameplay	30 %	75 %	100 %
Interface	30 %	70 %	100 %
Multiplayer	10 %	60 %	100 %
Physics	30 %	50 %	100 %
AI	10 %	70 %	100 %
SFX/Music	0 %	30 %	100 %

4.2   Software used

Overleaf is a LaTeX project creator. We will use it to create our reports.

Adobe Photoshop CS5 is going to be used for making the game and team logo.

Unity will be used during this project as the engine for making the game.

The software we're going to code our code from the game (the scripts) on.

We're going to make sounds and music with this thing.

Vegas Pro is going to be used to make the trailer of our game.

4.3   Extra costs

Of course we are not chimps working for free, the game we're going to build has a cost:

- **Software:** 0 € (Yarrr!)

- **Goodies' creation:** 120 € (It is our way to corrupt the jury...)

- **Food:** 1000 € (Mainly sushi and sugary soy sauce)

- **Drinks:** 500 € (You would not make us drink tap water, would you?)

- **Server renting:** 5 € per month during 4 months

- **Communication:** 1000 € (Look at our game, our game is amazing!)

- **DVD:** 10 €

- **Total:** 2650 €

5   Conclusion

In this book, we tried to explain the way we're going to make our third-person adventure game. It is going to be proactive making a 3D game from scratch, but we are confident in our power to make it as good as we can. We'll try to respect the deadlines and work consistently, not only before the presentations.