Lappeenranta University of Technology

31.01.2017

CT10A7040 Code Camp

The Pro_phet

Ville Raukola LUT School of Business and Management, 043855 <u>ville.raukola@student.lut.fi</u> Saku Arho LUT School of Business and Management, 0453427 <u>Saku.Arho@student.lut.fi</u> Elmer Häyrynen LUT School of Business and Management, 0455933 <u>Elmer.Hayrynen@student.lut.fi</u> Sami Arho LUT School of Business and Management, 0454536 <u>Sami.Arho@student.lut.fi</u> Roman Hyvönen LUT School of Business and Management, 0435979 <u>roman.hyvonen@student.lut.fi</u>



What type of game were you making, what was the first draft of the game? We ended up using unreal engine for creating the game, and so it was natural to go for a 3D game. The top angle was chosen for the camera angle, and so began the development of our action RPG game. On the first draft we had a pool in the middle of a bigger hall(which also ended up being in the final version). This holy pool must be defended from the touch of evil creatures that keep spawning around the hall surviving as long as possible. Every creature that touches the water damages it a little bit, eventually spoiling the whole pool and ending the game. Player defends the pool by controlling the main character of the game, Moses the prophet.

How did you come up with the idea for the game, how did you "refine" it After some brainstorming, where everyone pitched in some of their ideas (good or bad), we had multiple ideas for the game. For example we had an idea for a platformer, where we'd have a wave in the middle which would shift the level somehow or mess up your controls after you passed it. We also had an idea for a building game where you had a coastal medieval city and you had to protect it by constructing a wall. The waves would get bigger and bigger so you'd have to build bigger and better walls to protect your city. These were just a few of the outcomes of our brainstorming session, but after a while we ended up at our current idea, which was a combination of two smaller ones.

How much prior experience did your group members have?

Most of us had little to none experience in game development, and the only one with any significant experience was Roman and we decided to use a game engine of his preference, Unreal Engine 4 which he was used to working with. Our main goal was to learn about the engine itself and make a game while doing so.

In a few sentences, describe what applicable experience your group had (such as programming skills, 3D modeling skills, how many years of experience?)



(Our character models)

All of our group members have been studying computer science in LUT for one and a half years. This has left us with basic knowledge of programming and a few programming languages (Python, C, Java) as well. Other than that we had Elmer working on audio and music, who's had 6 years of experience in making his own music before. Roman has used Unreal Engine 4 for 2 years before, and has had some experience in 3D modeling as well. Other group members had no previous experience that was of use to the project.

Which tools and development methods did you apply, why?

As the main platform we used unreal engine, because we had one guy in our midst that had experience with that particular software. He could teach us the basics really well and he had a good idea of the limits and restrictions we couldn't do with that platform. He also worked as our project manager and told everyone what useful things we could do that helped with the development and which weren't too hard for us to comprehend. The coding with this particular engine was also really easy to learn as it was graphical, using nodebased interface.

We used Adobe Fuse CC in making of the game characters. It was really easy to use and worked really well with Unreal Engine. It offered few premade, modular meshes, form which you sculpted your character.

Which were the most important objectives in your development (visual presentation, the game rules, balance etc...), why?

As the 2017 Global Game Jam's theme was "waves", it had to be a part of the game. Our goal was to be able to use the water of the pool to defend ourselves. This in mind, we created the special attack of our character: *a wave*. When in the middle of the pool, player can control the water and create gigantic and ultra powerful holy waves that one shot the enemies. To make this wave to actually look like a wave, we made it to act like a moving sine curve. The water of the pool (which was also used as the material of the wave) was also one of the main focus points, and we tried to make it appear semi realistic and good looking.

How did you test your game demo?

We did the testing by playing the game ourselves, and seeing if our new features behaved correctly or if there was any unexpected behaviour.

How close to the original idea did you get? (draft vs. actual demo)

Some things got lost in the process of creating to make it much more manageable as the time was so limited. After all those cuts we got real close to what we were going for. Only thing that really got cut out was the main feature we started designing around (and really hard to implement) the ability to manipulate the water material with the movements on mouse and spawn waves based on that.

What were the most difficult parts in your work, why?

The most difficult part was probably creating the wave and trying to make it look realistic. Also creating the material for the water was challenging, but luckily there were tutorials that could be used as a starting point for creating our own material.

Did you change your game design during the implementation? i.e. To eliminate some obstacles because of technology difficulty?

We were originally going to have the prophet to actually control the pool of water in the middle, but it was way easier to just have him to do an attack that must be dragged from the pool to make waves. Also we planned to implement towers around the pool, which the enemies were supposed to attack, but for the sake of simplicity and time we decided to go with the pool only.

Did you use some any ideas from systematic software development methodology (such as Waterfall or Agile) during the game development? if you did, which one did you select? and if not why?

No, we actually didn't even think about using them. Our goal of for the FGJ was learning to use the Unreal Engine, not really the software development methodologies relates to game development.

As a game developer, do you prefer advanced game engines (such as Unity3D) or traditional tools and libraries for game making? Why? After getting familiar with Unreal Engine 4 and using it for a while it felt really simple and easy to get into. The graphical UI helped visualizing what was going on and when. With the Unreal Engine 4 it was really easy to find guides and information about how to proceed if you encountered a problem at some point. As stated before most of us don't have that much previous experience in game development, but after our group used Unreal Engine 4 for this game we definitely prefer it over the traditional tools.

Did you design the game architecture and write down the design document during game development?

We just had the original idea at the start through our brainstorming session and after that it was pretty clear for everyone. If we had any ideas or features to add to it we'd just mention about it to the group and discuss whether it would be a good idea.

How large proportion of your project time did you dedicate to the game design?

We did a really fast brain storm at the start and landed on an idea which we would pursue. After that we didn't actually invest much time in designing, but rather designed the game along the way, based on our initial idea.

Should you continue with the demo development, which would be the next activities you would do?

We would add more depth in the game. For example we would put different monsters you would face and add powerups, items and different you could use. We'd develop more levels than just the basic one and we would work on the physics so that you could actually control the water with your mouse in some way.

If you were to redo the demo completely, what would you do differently? If we were to start the project over we'd probably just use our time more efficiently. At the start it seemed like we had way more time than we needed for the actual game, and we ended up wasting time on unnecessary things. Also now that our group members have the basic concepts of the engine we'd be able to more efficiently do the required features and tasks handed out to us, without Roman constantly having to help us. We had many more features already designed for the game, but at the end we couldn't implement them due to lack of time.

Music

Music for the game aimed to be something evolving, and it should have maybe some religious aspects to it. We used FL studio and it's preset packs for the main soundtrack, and added in some sampled vocal chords.

Sound effects

Some sound effects for the game's actions were done with FL studio multisampling, unfortunately most of these sounds got bugged when we were trying to export them from FL studio, and therefore could not be used in the demo version of the game.

Open feedback on the Game Jam event, this course, or anything related. Our group really enjoyed the event and we are most likely going to attend next year aswell with more experience. The course really helped us understand how game development would actually work in real life. Even though our game development only lasted for one weekend we still pretty much went through the same processes as real game development company would (much faster of course).