Internship Bordeaux - Tsukuba 2017

Game development in Java using LibGDX

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Imagining a game

3 weeks

Imagining a game

Finding a type of game

5 ideas

- Music game
- Arcade game
- Narrative/Interactive game
- Rogue like
- RPG

The one we picked :

Narrative/Interactive game :

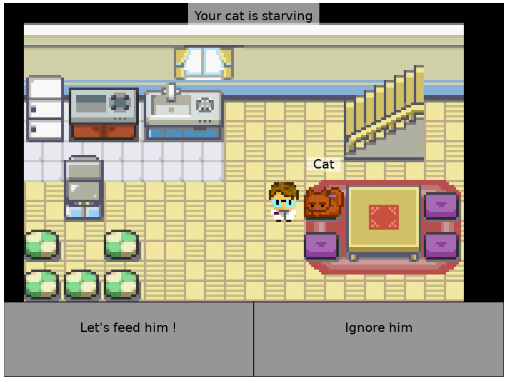
- Story > Gameplay
- Story forked at some points
- Player makes decisions
- Can be played again to obtain different outcomes

Finding the verbs

- RPG-like controls (move up, down, left, right)
- Interact with entities
- Enter a building
- Choose answer in a dialogue

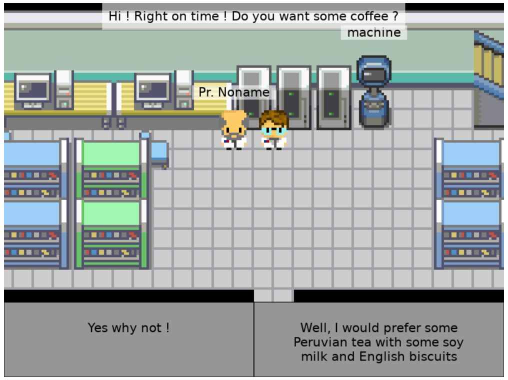
Imagining a game

Prototyping


Your cat is starving

Let's feed him !

Ignore him


Hi ! Right on time ! Do you want some coffee ?

Yes why not !

Well, I would prefer some Peruvian tea with some soy milk and English biscuits

The tools

Framework : LÖVE 2D (Lua)

For the sprites : Piskel

For the map edition : Tiled

For the tileset : pokemonfangames.deviantart.com

The prototype scene

1. Story description
2. Events
3. Dialogues

Developing a game

7 weeks

Developing a game

Developing the engine

5 weeks

Already existing interactive novel engines :

- Twine (Javascript)
- Ren' Py (Python)
- Interact (.NET)

Why develop our own engine ?

- Specific controls
- Graphics
- World (with entities and interactions)

Our engine :

- Tiled map (.tmx)
- XML dialogue files
- Asset manager
- Scene system

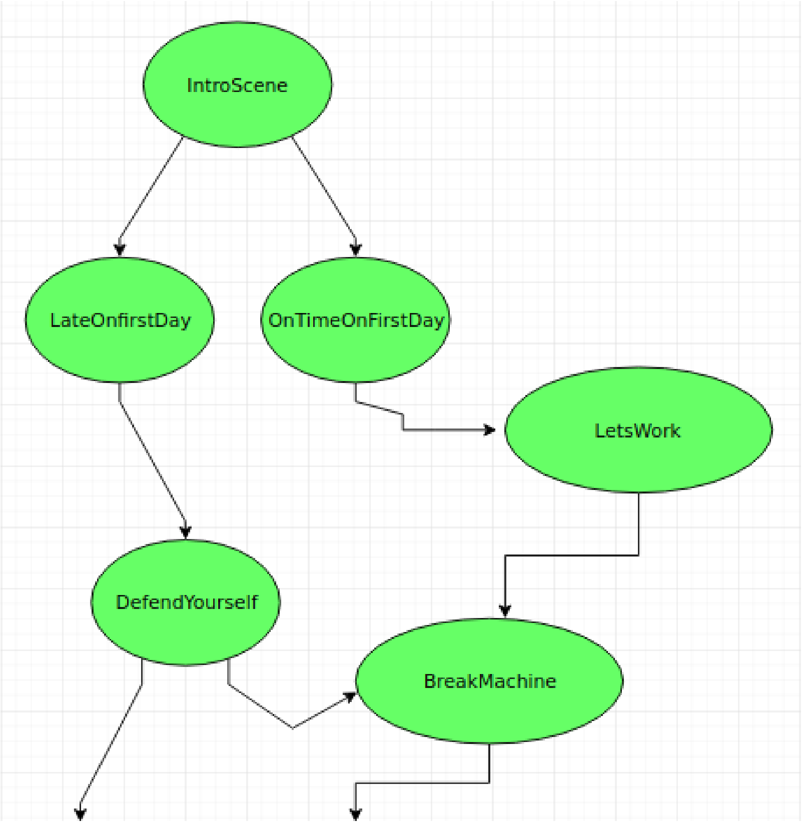
Developing a game

Outlining the scenes

2 weeks

Making scenes independent

- Knows which scene to load next
- Doesn't care about the previous ones



Creativity

Demonstration

What we learned

What we learned

Methodology

Issues

- Avoid work conflicts
- Focus on a goal
- Measure work progress

Branches

- Parallel developments
- Safe experimentations
- Clean up before merging

Agile software development

- Weekly iteration
- Efficient face-to-face communication
- Feedback and adaption

What we learned

Tools

Game framework

- **LÖVE2D** : Lua framework for 2D games
- **LibGDX** : Java framework for games

Assets

- **Bfxr** : 8-bit sounds generator
- **Piskel** : animated sprite editor
- **Tiled** : tiled map editor

What we learned

Game Design

- Minimum Viable Product
- Prototyping
- Setup -> Obstacles -> Goal
- "Don't punish the player"

To conclude