GAME PROJECT

Learning aims

At the end of this semester you should be able to make independently a small game.

Course Material

- Processing: A programming Handbook for Visual Designers and Artists (C. Reas & B. Fry)
- All Labs from Programming for Artists 1 & 2

General Description

As a **final assignment** for Programming for Artists 2, you make a small game.

The grades for this final assignment will be **100%** **of the grades for your total score** for this course.

You can choose between these games (see further details below):

- **Cross the Road**
- **Balloon Kid**
- **Dangerous Dave**
- **Words of Wonders**
- **Saboteur**
- **Tentrix (challenge!)**

You can also make a **game of your own choice**:

- This **needs** to be **approved** by the lecturers **first**! Therefor you need to fill in the document (available on LEHO) and **await the approval**!

- Games that are **NOT allowed** in anyway are **ConnectFour, Tetris, Mastermind, Flappy Bird, Space Invaders, Asteroids, Candy Crush, Bomberman and Snake**.

Mail your game choice to your teacher (see below) **before Monday 20/04.** **Once you have made your choice, you cannot change it!**

- 1DAE01, 1DAE07: Lies Pinket
- 1DAE02, 1DAE05: Eleni Moumtzidou Panagiota
- 1DAE03, 1DAE16: Ingrid Viaene
- 1DAE04: Istvan Vermeulen
- 1DAE06, 1DAE12: Jef Daels
- 1DAE13, 1DAE14: Stephanie Defoort

Feedback sessions will be organized **online**, during your weekly lab-class. **More info follows on Monday 20 April for the sessions.**

* **Week 27-30 April 2020 (Version 1)**

* **Week 4-8 May 2020 (Version 2)**

* **Week 11-15 May 2020 (Version 3)**

* **Exam (online session - more info to come)**

We will use a rubric to grade each version! These scores will be considered for the final grade.

Before the first feedback session, we **expect** that you have **already started** your game project and that there will be **some code** where **we can** give **feedback** on!

Games

For each game described below or the game of your own choice, there are some **mandatory specifications** mentioned below. Of course, you can code as many extensions as you want!

- Minimum 2 different levels (different level visuals, more obstacles, …)
- Minimum 3 lives
- Make use of classes (inheritance and/or composition)
- Read from/write to a text-file
- Use of arrays (one- or two-dimensional)
- HUD with a score system

The completer the game, the better grades you can get!

1.1.   Cross the Road

Many different versions can be found online.

https://www.youtube.com/watch?v=oW_DgtLuY6g

Gameplay:

Your goal is simple, you must jump across the street without getting hit by something. There are many dangers that threaten you on the road like a rushing car or train, but it is necessary to cross.

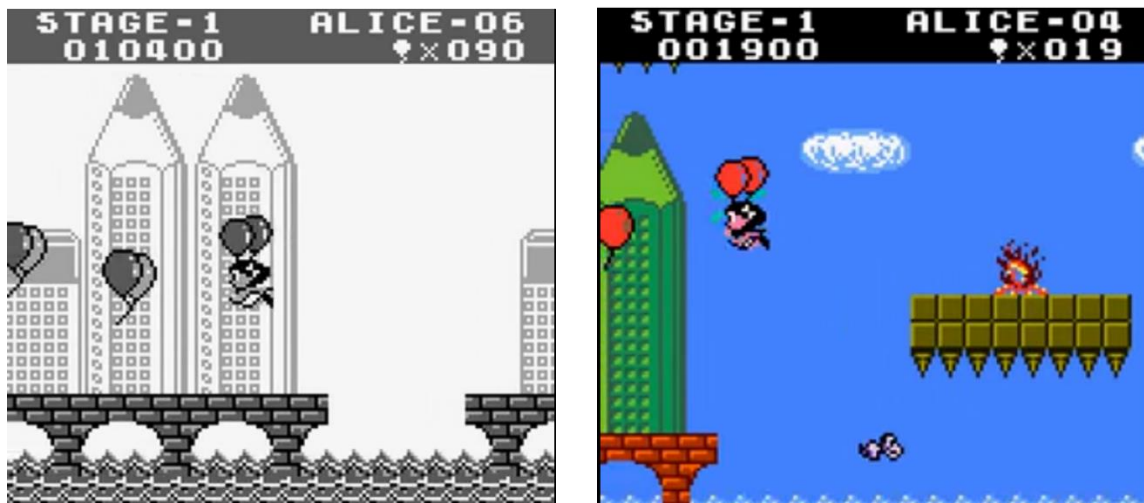Even standing still in this game is not safe because if you stand too long in one place someone will kidnap you…

* For this game, you must create the possibility that the player can stay on a moving object also!

1.2.   Balloon Kid

Many different versions can be found online.

https://www.youtube.com/watch?v=4MnscS9_ZOw

Gameplay:

The game has a plot and 3 characters. Each one of them has it's own personality. You fly on your balloons through different locations like an ocean, mountains, industrial building or a town called Pencilvania which is filled with skyscrapers shaped like pencils.

The player starts each stage with 2 balloons, balloons are popped by enemies or hazards, players will fall to their death unless they find a safe platform. Players are also allowed to purposely let go of balloons to accomplish different tasks.

1.3.   Dangerous Dave

Many different versions can be found online.

https://www.youtube.com/watch?v=aTf_mD0YfqA

Gameplay:

The goal of the game is to collect gold cups to move on to the next level. Guide Dave through ten terrifying levels as he tries to reclaim his trophies from a deserted pirate's hideout!

1.4.   Words of Wonders

Many different versions can be found online.

https://www.youtube.com/watch?v=U68lYUA4Dj8

Gameplay:

Words Of Wonders will test your vocabulary as you discover the wonders with challenging levels.

Start your journey with the first miracle and climb up to reach the last miracle. Each miracle and level becomes more and more difficult and will be unique, thanks to the game's rich word database.

Connect the letters without lifting your finger, find the hidden words on the board!

1.5.   Saboteur

Many different versions can be found online.

https://www.youtube.com/watch?v=FNTesrTLh4I

Gameplay:

In this card game you use playing cards to build a mine with underground corridors. Each player is secretly assigned a role. The dwarves map out a route through the corridors to a card with a hidden gem. The saboteurs will thwart them.

The role you fulfill determines whether you earn points (nuggets of gold) through successes or failures. The Saboteur game also contains action cards: with these you hinder other players, or collect information about the location of the gem.

1.6.   Tentrix

Many different versions can be found online.

https://www.youtube.com/watch?v=rxPAgk0bX3o

Gameplay:

Can you fit all the blocks in the grid of 10 by 10 squares and make full rows and columns? All blocks in a full row or column will disappear to make room for new blocks. If you can't place your blocks in the grid anymore, you're finished. Have fun with this fun blocks game inspired by the arcade classic Tetris!

Submission instructions and deadlines

You need to **upload every version** on **a weekly basis** to **receive your grades for the game project!**

>> The DEADLINE for each version? Evening before your lab-class! <<

- Make a folder for **each version** to save your sketch:
  - DAE*xx*_**GP**_*name_firstname_V1* *(deadline evening before lab at 23:59)*
  - DAE*xx*_**GP**_*name_firstname_V2* *(deadline evening before lab at 23:59)*
  - DAE*xx*_**GP**_*name_firstname_V3* *(deadline evening before lab at 23:59)*

- The **FINAL VERSION** must be uploaded **BEFORE 22 May 2020 23:59:00**
  - DAE*xx*_**GP**_*name_firstname_FINAL*

- Make sure your sketch is inside the folder and **zip the folder**!

- **Upload your zipped file to the specific assignment on LEHO.**

Good luck!!