Concept and Timetable

Concept

During the lab course ‘IT basiertes Lernen gestalten’ the group will develop a simple computer game, which will be used to give pupils an introduction to computer programming (with python). The lecture will happen at the end of June.

The Game - Free Pythonia

The actual game will be a simple jump and run adventure, which will be described in the following sections.

Story

The main character (hero) is a huge fan of reptiles and owns some very rare species. One of his favorite snakes - a female white python with the name ‘Pythonia’ was kidnaped by a criminal smuggler who illegally deals with rare animals. The hero has to free Pythonia before the smuggler can finish his cruel plan to make a handbag out of the snake’s skin.

Unfortunatley the hero is not fast/strong/talented enough to succeed, so the underlying source code has to be modified by the students, so that the hero can accomplish that goal.

Implementation

- After starting the game one has to choose the main character (male/femeale) and enter a name.
- The player will be presented a short summary of the plot and get to know what his/her tast will be.
- The player has to modify the source code of the game so that the main character will be able to rescue the snake
  Examples for this are:
- implementing a function that allows the character to run continously (e.g. through a

while-clause)
- implementing a function that allows the character to jump
- implementing a function that allows the character to run
- implementing various attributes and setting them to different values (e.g. ability to swim = true…)
- implementing a new additional object (e.g. coins)
- implementing a new object/function/attribute that helps the player to get across obstacles

Goals

The students will get an introduction to computer programming with python.
After finishing the course they should know in particular
* what variables are and how they are used
* what control structures are (if - else, loops)
* how functions work
* the basic concept of object oriented prgramming

Timetable

The following time table shows the work which has to be done during the next weeks. It was assumed that the lecture will happen at the end of week 10.

week	***dates***	***to do***	***hours***
1	20.04. - 26.04.	planning, concept and time estimation	15
2	27.04. - 03.05.	drawing storyboard + concept art and python introduction	25
3	04.05. - 10.05.	get to know python and pygame	25
4	11.05. - 17.05.	set up tooling (vcs, ide,…) + start of implementation	20
5	18.05. - 24.05.	implementation	25

week	*dates*	*to do*	*hours*
6	25.05. - 31.05.	first result check (test what has been done so far, readjust concept and plan)	25
7	01.06. - 07.06.	implementation	25
8	08.06. - 14.06.	implementation	25
9	15.06. - 21.06.	testing + Bug fixes	25
10	22.06. - 28.06.	plan and hold lecture	30
11	29.06. - 05.07.	collect feedback, summarize expiences, ideas to improve program	25
12	06.07. - 12.07.	Presentation, Experiences, Final report	25
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