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ActionScript Course Team-exercise with LEGO IxD2 2011
(ActionScript 3.0)

⚐ Description

This is a team-exercise where the student will have a chance to practice; The theory and principles behind Object Oriented Design/programming by building basic objects with LEGO. Focus will be on the documentation, with parts like: "Thinking/planning/analyzing", design phases, UML diagrams and class documentation such as: Classes, Objects, Properties, Methods and inheritance.
The models can be used to visualize and illustrate real-world objects/situations.

The AS3 lecture "Introduction to Object Oriented Programming" + the "Game design/UML exercise" is the preparation and theory for this exercise.

Students are working in teams with 3-4 people in each group, presenting their documentation on the wiki/webpage followed by discussions in class. It's possible to borrow pieces between the groups.
No programming of the models. Keep it simple and short.

Goal: Increase knowledge in basic OOP design/programming, have fun + get a break from all coding!
Work room/location: Make yourselves as comfortable you can.

⚐ Project examples & inspiration

The LEGO objects could represent 'real world things' or just something invented from the fantasy-world. Here are a couple of examples, that can serve as inspiration:
- Basic game
- Spaceship, racing car or a boat
- Storytelling with focus on OOP
- Multimedia presentation of Animals
- Multi-touch or gesture-based/interaction system/prototype
- Small/basic system for physical computing
- Interaction design for a navigation system or a product
- Presentation/Prototype/Portfolio application

Documentation

Here are a couple of topics that could be interesting to take part of in the documentation:

- General presentation of the project: Text outline/description and functionality of the project (max 15 lines)
- Video recordings and/or still images (stop-motion recordings)
- The "Thinking"/planning/analyzing-phases of the work
- Storyboard (with a narrator)
- A basic flowchart and/or pseudo-code for a specific part of the project
- Technical description: Classes/objects/(inheritance), variables, properties, functions/methods, events, stages/screens, navigation, connections etc.
- Problems, solutions etc.
- Future: Improved functionality, technique and usage

Presentation

There will be a short (group) presentation of each project at the presentation-day, followed by discussions in class. The presentation should include the LEGO project/model and the documentation. The documentation will also be published and available on the wiki/webpage.

Don't forget to have fun! ☺
/Thomas