Comp-361 : Course Overview
Lecture 1

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Original notes by Jörg Kienzle
Computer Science
McGill University
Winter 2008

Questions

Grab a piece of paper ...

I want to know ...

1) What do you expect to learn from this course?

2) What do you want to learn from this course?

Course Objectives

- Develop a (medium-sized) application using object-oriented technology
  - Master an object-oriented programming language
  - Use programming tools: compilers, debuggers, profilers, etc.
  - Apply design patterns
- Concurrent programming skills
  - Work with threads
  - Inter-process (networked) communication
- Learn how to work in a (small) group
  - Communicate!
  - Use version control software
- Have fun and improve your portfolio!

Why a game?

- Video Games development requires skill in different Computer Science topics:
  - Graphics, Data Structures, Concurrency, Network, AI, Geometry, etc
- There is a growing interest in the topic among the students.

Mammoth Research Group
Summer 2008

Course Outline

- Overview
- Project Description
- Some lectures on selected topics
  - Object-orientation
  - Game Design
  - Network programming
  - Programming Tools
  - ...
- Group meetings
  - To discuss design decisions
  - To help with user-interface or game-related problems
  - To discuss group-related problems

Project Description

- Students must implement Naval Battle, a turn-based strategy game, as part of their requirement for the course.
- The project must be completed in teams of 3,4 or 5 students.
- Students are free to use the technology of their choice to implement the game, although only the Minueto (Java) development environment will be officially supported.
- They are four deliverables for this course: a design document, a project demo, an acceptance test and a final hand in.

Grade

- 10% Design Document
- 30% Project Demo
- 40% Acceptance Test
- 20% Final Hand In

Development Environment

- Whatever programming language you like
  - Must be object-oriented
  - Good examples are Java, C++, C# or Python
- Whatever platform you prefer
  - PC, Mac, Linux Macintosh
  - Xbox 360, PS3, ...
  - Gameboy, PDAs, iPod/iPhone, ...
- Officially, we support
  - Java / Minueto (http://www.cs.mcgill.ca/~minueto/)

Course Information

- 3 credits, 3 hours of lecture per week
- Monday, Wednesday and Friday, 9h35-10h25
- Trottier Building 0060
- Prerequisite: ECSE 321 or COMP 335 or COMP 303
- Co-requisite: none
- Course Webpage: http://www.cs.mcgill.ca/~adenau/cs361/

Instructor

Alexandre Denault

- 3rd Year PhD student
- Been at McGill since 1999
- Office: McConnell Room 322 (Soft Eng Lab)
- Email: alexandre.denault@mail.mcgill.ca
- Office Hours:
- Monday & Wednesday mornings
- (or send email for a different time)

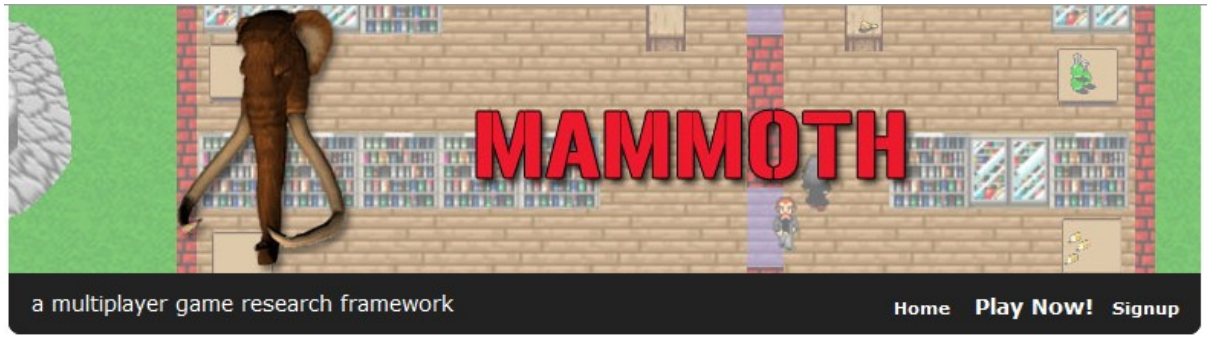
Note: Contacting me on MSN or Facebook is of limits!

My Work

SOFTWARE ENGINEERING LAB McGill

http://www.cs.mcgill.ca/~joerg/SEL/SEL_Home.html

http://gram.cs.mcgill.ca/



http://mammoth.cs.mcgill.ca/

Community Involvement

Computer Science Undergraduate Society
http://csus.cs.mcgill.ca/

http://summercamp.cs.mcgill.ca/

T.A.

Yanwar Asrigo

Kyle Li

Cool Books

- Software Engineering and Computer Games, by Rudy Rucker, Addison Wesley, 2003, ISBN: 0201767910
- Java Design Patterns, A Tutorial, by James W. Cooper, Addison Wesley, 2001, ISBN: 0201485397
- Postmortems from Game Developer: Insights from the Developers of Unreal Tournament, Black and White, Age of Empires, and Other Top-Selling Games, edited by Austin Grossman, CMPBooks, ISBN: 1578202140

Cool Websites

- http://minueto.cs.mcgill.ca/
- http://www.gamedev.net/
- http://www.gamasutra.com/
- http://www.mobygames.com/

Artwork

- http://www.flyingyogi.com/fun/spritelib.html
- http://www.molotov.nu/?page=graphics
- http://www.vbexplorer.com/ (in VB Games section)

Project from Previous Years

SpaceConquest2.avi

SpaceConquest3.avi

StrategicContquest2.avi

WoodenCrusader.avi

Count

- Alex, count the number of people in the classroom.

Question?

http://www.cs.mcgill.ca/~adenau/cs361/

Download and read the Project Deliverables and the Game Rules.