GAD173 Game Programming

Play It Sam

Deadline and Milestones: Week 12	Duration: 4 Weeks	Autonomy Level: Facilitator Directed

Overview

A modern game or game engine will typically make use of a wide range of expected systems and mechanics. Ranging from physics responses to traversal and wall climbing. These taken for granted elements often require careful planning and communication between separate objects or systems.

With our level editor capable of creating levels and configuring game objects to users specification, we now need the game to be able to actually be played. Here we will be expanding our level editor to have a play mode. This will necessitate the addition of new systems and updates to our core game objects to allow them to be operated on by external systems and for them to potentially communicate with each other.

Learning Outcomes associated to this project

L01,L02,L03,L04

Project Brief and Process / Workflow

For this project, your facilitator will provide you with a simple 2D, C++ framework / engine. Your facilitator will also be guiding the initial technical designs that you are to implement. This will be a simple grid based platformer. This is to be built on and extend your previous level editor.

Project Requirements

You will be extending your previous level editor, technical designs and documentation guided by your facilitator.

Using this framework as your starting point, you must design and implement the engine, system, and game logic for:
Game and menu loop including level select screen.
Object communication and interactions
Player input and movement
Destructible world elements
Points, Powerups, Checkpoints
Rudimentary AI

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Sprite animation

You will be using the techniques shown in class and via assigned readings. These will include; use of language features, design patterns, technical design, software architecture, mathematical and geometrical formulae, serialisation, physics, game logic, and performance.

While the resulting application must fulfil the Criteria outlined above, but you are encouraged to go beyond that. Your facilitator will assist in identifying areas for enhancement..

You will need to keep your technical design, including diagrams, up to date with the code that is being written. And, you will need to use a repository and source control to manage the projects files.

Project Deliverables and Milestones

Technical Design and Planning
Archive of repository and all working files.
Release build of the project, including sample levels demonstrating functioning mechanics.
Readme and instructions for playing your game and using your level editor.

Checklist

Milestones:
1.
A Build of your platformer and updated build of your level editor (this may be the same or separate executables). This also needs to include; documentation of minimum and extra features or elements.Technical design and planning for your application. Full copy of repository and working files.
You will also need to confirm with your facilitator that access to any required assets or online tools has been granted.

Naming Convention

Your folder should be named:
"GAD173.3_<Student Name>

Your zip file(s) should be named:
"GAD173.3_<Student Name>_<Contents>.zip"

Log of Changes to Project Brief

Version Number and Trimester of Introduction	Description of changes
101 - 19T2	Document created
102 - 19T2	Re-org to remove scheme of work related material.