



Activity: Architectural Design Process – Iteration 3

Breakout room 11; November 19, 2021

Members Names	Student ID
Raphael Halim	100700318
William Robinson	100751756
Liam Rea	100743012
Phillip Jasonwiki	100751888

Step 2: Establish Iteration Goal by Selecting Drivers

For this iteration, QA-6, QA-1, 2 and 3 are being focused on. QA-6 handles autosaving at critical points during battle so that the player will progress. QA-1, QA-2 and QA-3 are also involved as they will be the drivers also interacting with the UI changes for all current and future hardware.

Step 3: Choose One or More Elements of the System to Refine

The elements that will be refined in this iteration are the save system that will allow players to continue where they left off, and the UI design that will control the functions of the system.

Step 4: Choose One or More Design Concepts That Satisfy the Selected Drivers

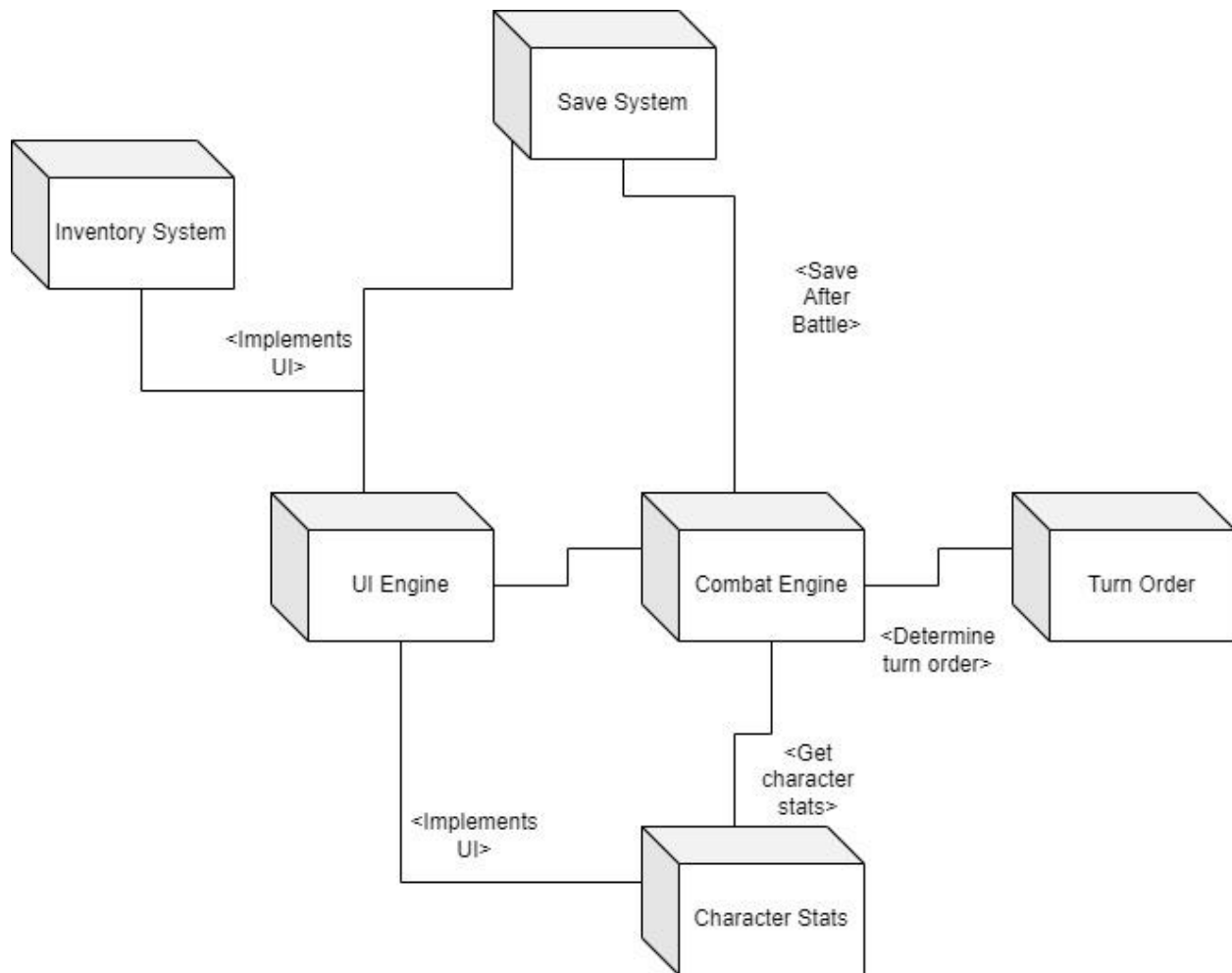
Design Decisions	Rationale and Assumptions
Introduce Auto saving after every battle to prevent save manipulation and maintain the users progress	If the user has auto saves, this means that they can reload from before the battle, preventing them from losing progress. Also prevents save manipulation which is frequently used in games to glitch certain properties.
UI design reworked to scale to screen size from 640*480 all the way up to 7680 × 4320.	To keep our game future proofed and functioning on current hardware and any future hardware, we will redo our UI to automatically resize/rescale based on the chosen resolution. 640*480 is our minimum as this is the lowest resolution we feel can still reasonably be used, whereas 7680 x 4320 (known as 8k) is the upper end of computing displays at the moment and for the near future.

Step 5: Instantiate Architectural Elements, Allocate Responsibilities, and Define Interfaces

Design Decisions and Location	Rationale
Location: Combat Engine Design Decision: At the end of battle, autosave.	By giving the Combat engine the responsibility of auto saving, this allows us to save every time a battle is over without needing extra code to determine if one has ended. Saving after the battle also allows us to save the updates to characters from the battle, IE health, mp, exp ect.

<p>Location: Graphical Engine</p> <p>Design Decision: Upon first launch of game, a check is done on the display to adjust UI accordingly</p>	<p>By running a check using the graphical engine with first launch of the display, it allows the player to experience an immersive and an overall smooth gameplay. Without the need to go through and having to adjust the settings, allowing for a fluent gameplay from first launch.</p>
--	--

Step 6: Sketch Views and Record Design Decisions



Step 7: Perform Analysis of Current Design and Review Iteration Goal and Achievement of Design Purpose

Not Addressed	Partially Addressed	Completely Addressed	Design Decisions Made During the Iteration
	QA-1		Introduced QA-1 for the UI changes as the driver is involved in the graphical system.
	QA-2		Addressed for UI changes as the driver is involved in the graphical system.
	QA-3		Addressed for UI changes as the driver is involved in the graphical system.
	QA-5		No relevant decisions made.
		QA-6	Introduced with changes to saving conditions. New conditions have been added to auto-saving. Now allows game progression without loss of progress for the player's experience. After battles forced auto-saves take place.
	CON-1		No relevant decisions made.
	CON-2		No relevant decisions made.
	CON-6		Constraint involved to prevent oversized save file directory. Making sure only one auto-save file is created will prevent the save directory from exceeding its set limitations of 1GB.
	CON-8		Constraint involved when auto-saving occurs. System must all be connected so only one main auto-save file is created and written over previous.
	CRN-3		No relevant decisions made.
CRN-1			This new architectural concern is introduced in this iteration: Inter-connection between classes. More connections between drivers being made may cause future issues. No decisions made yet.