Project Plan

ITEC 2505-80 Fall 2024

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Strider: A Turn-Based Dungeon Crawler Experience

Project Plan

Executive Summary

Strider is a mobile retro styled game application designed to provide a new and engaging role-playing experience to the dungeon crawling experience on the go! The app will allow players to choose a difficulty, pick a player class, encounter several monster types, and gain experience to level up and choose new skills and stat bonuses.

The Decrepit dungeon contains mysteries and dangers lurking at every level. Players can challenge themselves to delve deeper and set new records.

Functional Requirements

1. As a gamer I want to be able to level up my player, so that I feel rewarded for my progress in the game.

2. As a gamer I want random encounters within the game to make the game exciting and challenging.

3. As a roleplayer I want several classes available from the start so that I can tailor my playtime to my own interest.

4. As a gamer I want to be able to see my overall stats and record from previous run throughs, so that I know what score to aim to beat.

5. As a gamer I want a game that is quick and simple to hop into so that I have something to occupy myself with when commuting or during free time.

6. As a gamer I want to be able to see my player and the monsters I am engaging in battle, so that the game feels more immersive.

Technical Requirements

Development

* The project will be developed using C# within Visual Studio to help with object-orientation and compatibility.
* All code will be pushed and initialized on a GitHub repository.

Functionality

* I will comment the code throughout to inform logic and track features
* The GitHub repository will include a README file to provide an overview of the game objective and how to play.
* The app will store adventurer values such as health(hp), attack power(ap), and other stats under defined variable names.
* The app will calculate damage and healing values from adventurer and monster skills using C# mathematical operators.
* The app will determine whether the adventurer has gained enough experience to level up by using Boolean operators to compare to experience thresholds.
* The app will use conditional statements to allow the user to determine which level up bonus they wish to acquire.
* The app will use loops to repeat player vs monster turns until either the opponent’s health or the player’s reaches zero.
* The app will use data structures such as a list to save adventurer skills.

Object-Oriented Design

* OOP principles will be utilized to create adventurer classes such as warrior, rogue, or cleric.
* These classes will contain different starting stat values.

User Interface

* An optimized user interface will be developed using Blazor to provide the user with important gameplay information, visuals, and choices.

Database Design

* An SQL database will be implemented to store different monster encounters, classes, and difficulty tiers.
* These monsters will be retrieved and displayed to the player in combat encounters.
* Monsters will be created and added to the database as the player continues deeper into the dungeon.

Task List

Sprint 1 (Nov 20-Dec 4)

* Finalize project plan -Due November 20
* Set up development within visual studio -Due November 21
* Create GitHub Repository -Due November 21
* Develop monster database functions and values -Due November 23
* Create adventurer classes and values -Due November 25
* Set up basic Blazor app -Due Dec 4

Sprint 2 (Dec 4-11)

* Find adventurer and monster image visuals -Due Dec 4
* Create monster database (Stats, difficulty tiers) -Due Dec 5
* Develop gameplay loop (Pick a class, challenge monsters from the database in turn-based combat, store player experience and gain experience from victory, after every 5th encounter the monsters become stronger, allow players to buy and use items...?) -Due Dec 9
* Develop Blazor app to display player and monster (GUI) -Due Dec 11
* Final testing -Due Dec 11

Draw.io:

https://viewer.diagrams.net/?tags=%7B%7D&lightbox=1&highlight=0000ff&edit=\_blank&layers=1&nav=1#R%3Cmxfile%3E%3Cdiagram%20id%3D%22R2lEEEUBdFMjLlhIrx00%22%20name%3D%22Page-1%22%3E7V1tc5s4EP41nrn7kAyYYDsfYztpe3HaXJLrNZ86MshGV4yoLL%2F1158EwjYvxoIAocYzngQtYpG0j%2FbRrsBuaYPZ%2BgMBrvWATWi32oq5bmnDVrutXmka%2B8clG1%2FS7Sm%2BYEqQKSrtBM%2FoFxTCoNoCmXAeqkgxtilyw0IDOw40aEgGCMGrcLUJtsN3dcEUxgTPBrDj0n%2BRSS1f2tOVnfwjRFMruLOqiDMzEFQWgrkFTLwKieCa3mGHiiY%2BQjIDDnQoO%2FMAyA9IWvqtRSnv6U2rfcc%2BE177corx1IbARfNLA8%2BY2JizKncTMEM2H%2BY9RX2hiN1Ou21pA4Ix9Y9m6wG0ua0CM%2FhtujtwdjsOhOuVuGBwsdyMfijU%2BbjSvtKHh%2Bljd3zRFmhYAnshBvjGXDKNCwLJXIwT3QSDz4bM5YcUjLmoP6eAUIERTWECZnUKkMM6qA1Vr2zbwJ0jr7ovsZBtjsAGL2igKCj1J2gNzScfIrwuQ8uIKeNFrpwP9rNoDD8NbDR12LHB2svv2CdwztoyAnMqasTHSAzbEhIK13siMWYfIJ5BSjasSnA2wI%2BYLwHQVjvwbWXWPvCCeQUEmqZb1TsjsQNhpyw2u4rZ7KChWNcpAvYTm4nAmXo2C5uEj6tJsPsCyBRSIXAx4iN6y4GwHXxk2wNsY25ZBzswqOb1Tu%2BzD%2BvvQLnUWzprwICV1V2ZfXh1QgfYmVPCEMJvBZmhVpAbq0%2BxK%2B5jw0nQDCJGkx%2BPMaVsah0yazq4jxtbGFeTNK5Wmm31mG0f77NYF7POTmzPrVnINKHjT0ruisHO4gnGTLTAdtSj5ohORVmLXElbZM8EWkYLCGW7YcmsDdgM%2Fg6gsI8XjjmPmXXbzjdYupPieb9%2FGtbQ6IG%2F9ev25y4wkDMd%2BVd2IqjQS0HF%2BvA8bReKEil1VcCk22Rnr5Tp7DuyTN4uzdv33mTciqa9rAG60gY44o1TBzy7c4%2Bpq2LaXscsC8zl95eNCz0pMSxA%2FtCVP1np85cX%2Fvef0ajFSUFTPV%2FLaj8BQ7J26LB2ADrKG8UjLCNPvAFxcvqKhdyY9r7cDSczc%2FJl8gpexvZfn%2B4v1BjiHrj%2FPYUwzqIz%2B%2BBCM3NE1wsHdFdqAkiuE4zaVgrggUTTteVpwBvpJz5l%2BxYm6Bc3lC0Gdt%2BMXnmFZjZw4EcIzIioj738z4HpLbtqqEfslzob3hT6JaGgiNAvscXxTEy2yK%2BCKC%2BJL1YWovDZ5VSlDVcEuMfma%2BoMaFRcmDgS8eSOcOMZY8I6xH91wEvKSqBTbMQoo64CAMUzSGcykY8tiyGTpNCyUjKJJ5fe2XdAEwX6ymUSXdpWp84k8czRDDvHQ9B6U0wdgNM4SsmQpjpTSkmUcv3elBLPaDWFUnrStjp1SglSJRFOGcK5QZBLEXbO1PImADWOWtR42vLMLVVzyzZdfYxcinimJbnJGVKgJ8Yuqry5jhBCmnWy00tUWxXOIJ4DbS5pZMBFRtbIjxMpdcUCZfq3db8Y%2FzQsw%2Fyvp94%2Ffn21HhP2up4poCe40RUzfsLe10E86IG1DocQ26cUC9%2FoSrRbBi%2FfaLKXBsDh2ZFloysRBUUEkonNO%2BWNrjzmauci%2B98plkzsdnyji%2FvwJu1yFQiWwysANevzy%2BngkVJXAXrOu1xZw8bimSRhlyuRSa7LYpKT3eXKYys9F42k2SY7jUS1VeAIkp6P7tjCczshMHR%2BLrA3e%2BCaXvChv5hhE3rvcikOFrbYVWNHU%2F6f%2BQKbdbqtfPr8Eklo%2Bjdi7fbv5dcPxGOSeHcXmCYjFP%2B2irv2rlBmzFMgJyLM2NCiO%2F7sQmg2sN83lALjR%2FaOm2hZVpNu12729jBxqEn1XlbVwVlmXEbld55S6irwnued3fdfRqkJr5RWG5Gf7NZuHmP1mhmOJ2ztnhnjOCwaF3ifN2zrQBk9Scoo4tXF5PZlSOWfPmeo%2BTZsi33Psdx3zpL73aAN2yJxkZE18uNESl0VQIln%2B2%2FGyEYUwfOubfqurSbr6wt5Tz3ZeudseyX7tleppP%2FuG7dqPN%2Fe7J1bNV%2FO%2FfePFeNJd9%2Bbb87bt%2FkQ07ww8px5rCSMTKcU2R3c8ijlnHqMTYrm8UmwcN3nEyPpbZJ6M0stsNI4JsnydZhnJimLSWSfLS6NSRK%2BObPBTNI%2BYK2TZ5LaPRJWL9Y4hIvGsYYukbmG5hQGkSIbVhbePkEb8HXJ7e6MH0%2F6tKG2w3aCjnnDv%2FKcFW%2BfGHhe8ANwNl7KkfULBrQC14h%2BCy5hx69cfqmL0nC9V20Y8A5rD9l82y%2FsXcWLu8u8UnCd30nes4PAEaI5XhBD1Er9Oj4aMNvBsT7qi7Zfsh3KZwZC4o36MtziFOg9cnbdgfoqWF4GebRontTvqbhqB7WYIj2iKJZI90cipqgwzEqsdH5HzHa6vSOo9UqPkCA2hF7WPz%2BU017Qrj2SI1sDnajjlEZyRJEeVVQ2kiUWa5Uj%2BVLRwmhWu0fwzApRUFbrl1NfHD2KZol0Q7lwvg6jsJsbzpHfaOhEX2AsG84Sq853gLPaCcO5p9Uczm9bZkjsxpQKZ02PrDO6OeF8FVHUjirKDWdW3P3gjF999ytB2u3%2F%3C%2Fdiagram%3E%3C%2Fmxfile%3E