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Our game's name is "Refinery Caves 0". Refinery Caves 0 is your typical mining game. You can explore the Mythril Cave and the Adaman's Pass and pick up items along the way by mining or finding stray items on the floor! Your objective is to make it to the end of the game behind a rubble wall in one of the caves. If you just happen to die before then you will lose.

Some important implementation features include text parsing, tracking the players progress through a log which then can save and load the players state in the game, input handling to validate if a command will work or not, text formatting for specific important messages sent to the player, rigorous debugging and more.

The Object Oriented Design Patterns that you can find in our game are as follows:

Singleton - Used in the GameWorld and Notification Center classes to create a single instance of the object

Decorator - Used in the Item Class for decorating an item

Command - Used in Game Class to take inputs that are executed by the Player (actor)

Observer - Used in Player and some Room Classes to catch something the player does and activate a functionality in the classes

Composite - Used to build ItemContainers in the Item Class

Delegation - Used to add functionality to Rooms found in the Rooms Class

Proxy - Used in the Player Class to call upon the Zoom Command

Proxy is an Object Oriented Design Pattern we found ourselves outside of class. The idea is that Proxy will provide a substitute object for the real service object. For example, you want to peer into the next room but not send the player there you will instead send a Proxy.

Proxy Design Pattern: <https://refactoring.guru/design-patterns/proxy/csharp/example#example-0>

Some special features in our game include:

Menu system allowing new game and continue on start and save and quit on running

Teleporter room for random teleportation and shop room for buying/selling items

Mine function in each room to gather ore

Inspect command for room description and item examination

Locked doors requiring specific keys for unlocking

Back command for retracing steps (except after teleporting or death)

Command to die and lose if you really want to

Items with weight, volume, and price attributes

Help command providing definitions for specific commands

Extended say command so you can say as many words as you want

Zoom command to peer into the next room

Here are our known bugs:

You can soft lock yourself by selling key items.

If you save after you win you will have to go through the final cutscene again before you load in

If you kill yourself by mining the bomb player will be asked to quit and not forced to.

Time log:

Walker or Jordan	Time Started	Time Finished	Date	Description of Work	Total Time Worked
W	11:00:00 AM	11:30:00 AM	3/12/2024	Put together Google Doc for the outlining of the game itself to be updated as time goes on	0:30:00
W	3:00:00 PM	3:45:00 PM	3/20/2024	Put together Google Sheet and Trello board for time slots and keeping up on whats done	1:15:00
W	10:00:00 AM	10:50:00 AM	3/26/2024	Made some silly mods of the base game to better understand the code and how to modify it	2:05:00
W	11:30:00 AM	11:55:00 AM	3/26/2024	Attempted to make a Teleport method in the Player class to assist for future use. Currently unsuccessful	2:30:00
J	9:40:00 AM	10:10:00 AM	3/28/2024	Added/Created locations for our game	3:00:00
W	9:45:00 AM	10:45:00 AM	3/28/2024	I DID IT; created a dictionary in the Room class relating the room name as a string to the room object itself, therefore allowing a forced exit	4:00:00
J	11:00:00 AM	12:00:00 PM	3/28/2024	Creating a shop in the base game. Trying to get something to work. Added a weak player inventory.	5:00:00
W	11:00:00 AM	11:50:00 AM	3/28/2024	Spent a bit redesigning how rooms are created and grouped together. Created "worlds", differing groups of rooms with different properties	5:50:00
W	2:47:00 PM	4:00:00 PM	3/30/2024	Figured out everything I worked on previously was incorrect because I had misunderstood how Room.cs worked. Outlined a completely new way for world generation that would benefit us in the long run.	7:03:00
J	3:02:00 PM	3:44:00 PM	4/1/2024	Continued to work on shop. Actually making progress!	7:45:00
J	7:02:00 PM	8:24:00 PM	4/3/2024	Implemented Singleton. Tried to implement Observer. Having trouble :(9:07:00
J and W	9:30:00 AM	10:45:00 AM	4/4/2024	Worked	10:22:00
J and W	9:30:00 AM	10:45:00 AM	4/9/2024	Locked in	11:37:00

W	11:00:00 AM	12:00:00 PM	4/9/2024	Finalized cave 1	12:37:00
J	12:00:00 PM	1:42:00 PM	4/17/2024	Added Working Inventory + Items	14:19:00
W	3:30:00 PM	5:00:00 PM	4/28/2024	Finalized Cave 2 and set ores + their descriptors	15:49:00
J	3:30:00 PM	5:40:00 PM	4/28/2024	Weight Limit Implemented. Back Command Implemented.	17:59:00
W	7:00:00 PM	9:30:00 PM	4/28/2024	INFINITE WORD COMMANDS	20:29:00
J	3:20:00 PM	4:15:00 PM	4/29/2024	Added Volume. Added Volume Limit. Added Weight + Volume Limit Updaters.	21:24:00
W	6:00:00 PM	7:15:00 PM	4/29/2024	Modified commands and added descriptions, allowed the help command to provide help for commands. Modified the inspect command to check the room you are in when provided no arguments.	22:39:00
J	6:00:00 PM	8:00:00 PM	4/29/2024	Created a very basic teleport-anywhere room.	24:39:00
W	8:00:00 PM	9:00:00 PM	4/29/2024	Added player death, checkpoints, and dropping all items	25:39:00
W	12:00:00 AM	3:11:00 AM	4/29/2024 - 4/30/2024	Fixed a bug where the game tries to drop nothing from the players backpack on player death Cleaned up the player dropping their whole inventory into one line via new "quiet" override in Drop Made extremely basic GUI seperate from Parser for the Teleporter Room Fixed a bug where the Teleporter would describe the teleported-to room twice via "quiet" override in WaltTo Fixed unintentional usage of the back command where player could still use "back" command after TP Made pickup a multi-word command + simplified repetitiveness Fixed crash from picking up items off floor, attempting to pick up containers, or picking up items on the floor that were too big/heavy	28:50:00
J	6:50:00 PM	8:30:00 PM	4/30/2024	BUG FOUND! You cannot pickup duplicate items <---bug found my ass walker found this grrr Modified GetExit and GetExits to check for locked doors. Added a new dictionary of string and bool to hold	30:30:00

				exits and their lock status. Added a LockExit and UnlockExit method in Rooms class. Doors now lock and unlock, we still need to apply "keys" into the mix and it is stumping me.	
J	9:10:00 PM	9:43:00 PM	4/30/2024	Tried to make an unlock command in player but now im having trouble getting the key needed for the room into player so they know what to look for.	31:03:00
J	2:00:00 PM	3:10:00 PM	5/1/2024	I DID IT; I HAVE UNLOCK COMMAND YIPPEE Bug: If the player has any item in their inventory, upon using unlock on a locked door, the player will be told the door is unlocked, but it is not. Bug: Any door can be attempted to be unlocked, regardless of locked status. Needs isLocked Bug: Output for attempt to enter a locked door is that there is no door there. Needs to signify locked status	32:13:00
W	3:30:00 PM	3:40:00 PM	5/1/2024	tried to fix the first bug kinda failed	32:23:00
W and J	8:35:00 PM	9:22:00 PM	5/1/2024	Fixed all locked door related bugs - needed pookie to explain his bs	33:10:00
W and J	9:30:00 PM	9:50:00 PM	5/1/2024	Fixed door output upon using "Go" Fixed newlines to make things pretty! Translated walker code to jordan language for his understanding	33:30:00
W	10:00:00 PM	11:59:59 PM	5/1/2024	Made a start menu (Game.cs)	35:29:59
J	10:00:00 PM	10:30:00 PM	5/1/2024	Made a log and a display log command.	35:59:59
J	1:20:00 AM	1:46:00 AM	5/2/2024	Tried to bug fix the multiple items cannot be picked up on paper. Put into code. Waiting for walkers concoction to start working to test. Didn't work. Debugging tomorrow! TODO: make the game fun	36:25:59
W	12:00:00 AM	2:10:00 AM	5/2/2024	wasted my mental capabilities sweating over the most complicated pause menu known to mankind	38:35:59

J	2:30:00 AM	5:30:00 AM	5/2/202 4	<p>Officially fixed the Item bug Added new value to items called Quantities. They are an int value. Modified Insert and Remove in ItemContainer class. Now they check for quantity of item and update. Modified ItemNames in Item. Now returns all items. aka if ball(2) return ball ball. That fixed bug where die command would not drop all items and would leave you with # of items - 1 Modified Description in ItemContainer. Now prints item(quantity) when looking at containers. Another BUG found. If you drop more than 2 items on the floor it no longer works :(Also if you pick up an item out of a container it adds container weight + item weight and says its to heavy to pickup</p>	41:35:59
J	12:00:0 0 PM	1:30:00 PM	5/2/202 4	<p>Jordan McWilliams tried and tried until met with utter failure of getting duplicate items to be picked up past 2 this has lowered team morale into unbelievable depths.</p>	43:05:59
J	2:00:00 PM	3:00:00 PM	5/2/202 4	<p>Was working on document when I realized we only had 6 Object Oriented Design Patterns. I added zoom. Which uses the Proxy design pattern to peer into another room. Very proud of myself.</p>	44:05:59
W	2:00:00 PM	4:20:00 PM	5/2/202 4	<p>I MADE A WORKING SHOP THAT YOU CAN BUY FROM AND ADD ITEMS TO REALLY EASILY THROUGH GAMEWORLD!!! shouldve done that like two months ago</p>	46:25:59
J	3:00 PM	4:00 PM	5/2/202 4	<p>I have made a school appropriate document that contains everything about our project in a nice consise manner. Waiting for Walker to complete Sell so we can double check all of our code and our document.</p>	47:25:59
J & W	6:30:00 PM	7:15:00 PM	5/2/202 4	<p>Added a mine command. You can now mine ore in the room. The ore will drop you an ore on the floor. Time to make the game.</p>	48:10:59
W	8:00:00 PM	10:00:0 0 PM	5/2/202 4	<p>FULLY FIXED SAVING AND LOADING "i could probably do it in ten minutes"</p>	50:10:59
J	7:40:00 PM	10:20:0 0 PM	5/2/202 4	<p>I have completed the game world. I've set all rooms, exits, locked rooms, keys, containers on the ground. I'm letting Walker drop the items.</p>	52:50:59

J	11:00:00 PM	11:21:00 PM	5/2/2024	Studied up on what Walker made in Game.cs I understand what it does!	53:11:59
W	10:30:00 PM	11:59:59 PM	5/3/2024	Added Items to the game and ran through the game so we know it works	54:41:58
W	12:00:00 AM	12:30:00 AM	5/3/2024	Continuation	55:11:58
J	12:30:00 AM	12:50:00 AM	5/3/2024	Working on Deliverables (Report + Log)	55:31:58
W & J	12:00:00 AM	2:16:00 AM	5/3/2024	Finalized win condition and lose condition. Finished game.	57:47:58
W & J	2:16:00 AM	3:34:00 AM	5/3/2024	Have went through all code and left comments. Confirmed our understanding.	59:05:58