

CPSC 2720 Fall 2025

F1 Adventure

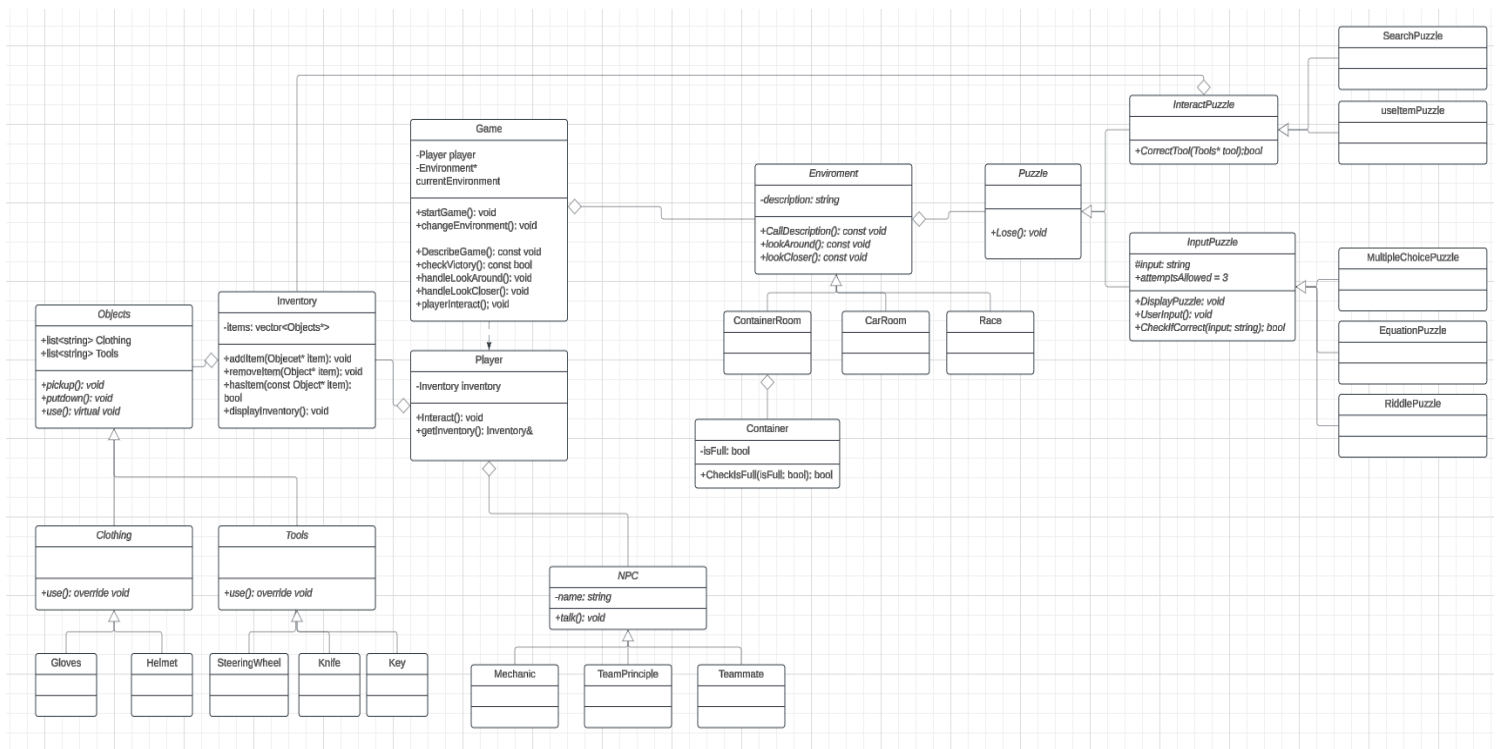


Group 06

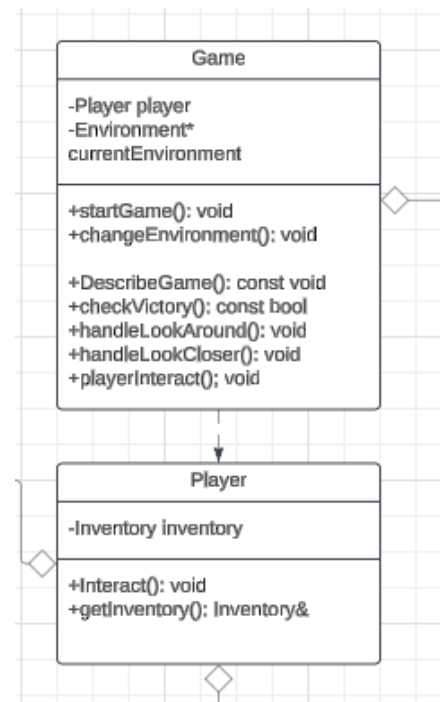
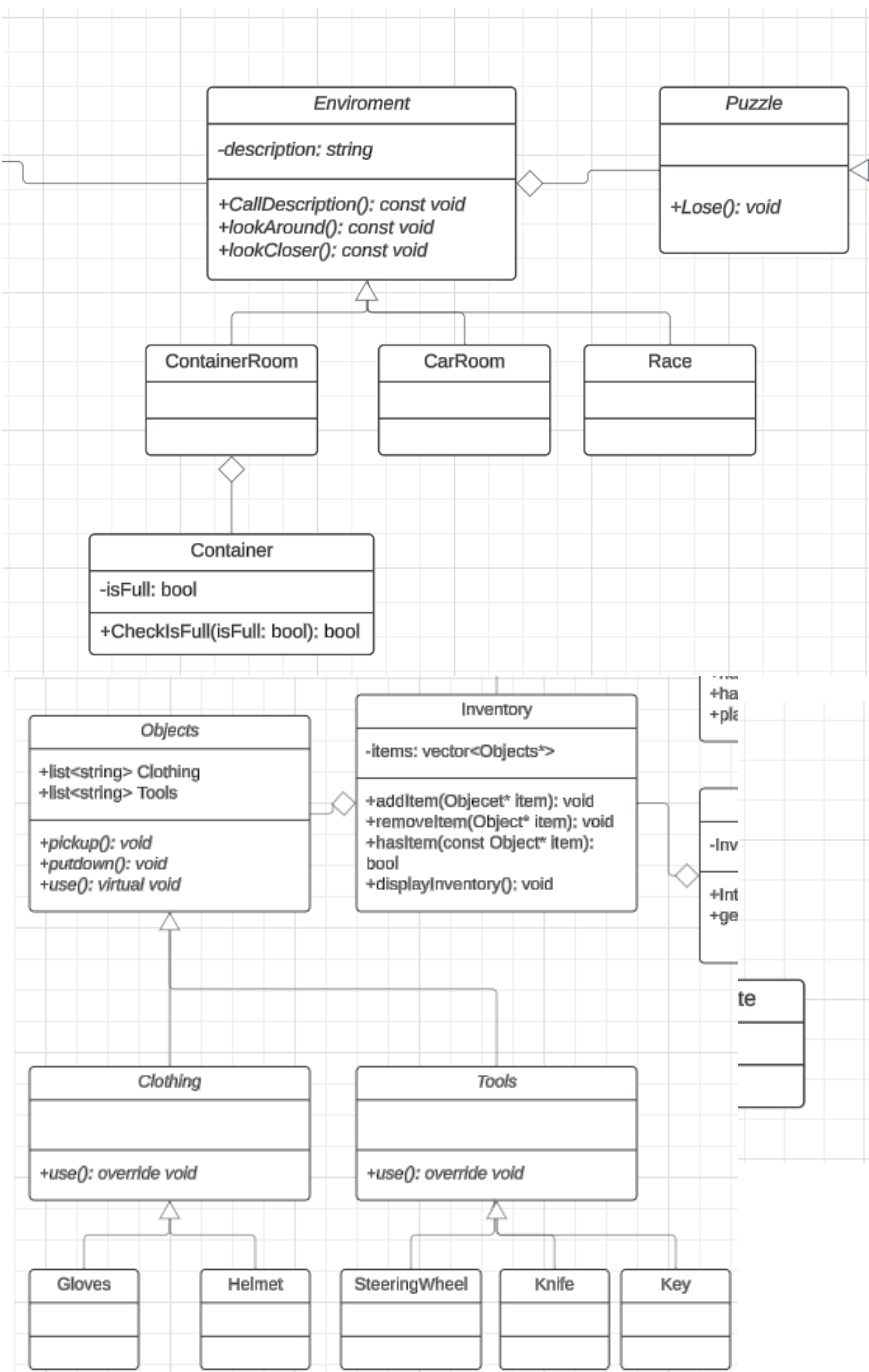
Team: Jack Simonton, Mackenzie Meyers, David Henein, Jonah Friesen

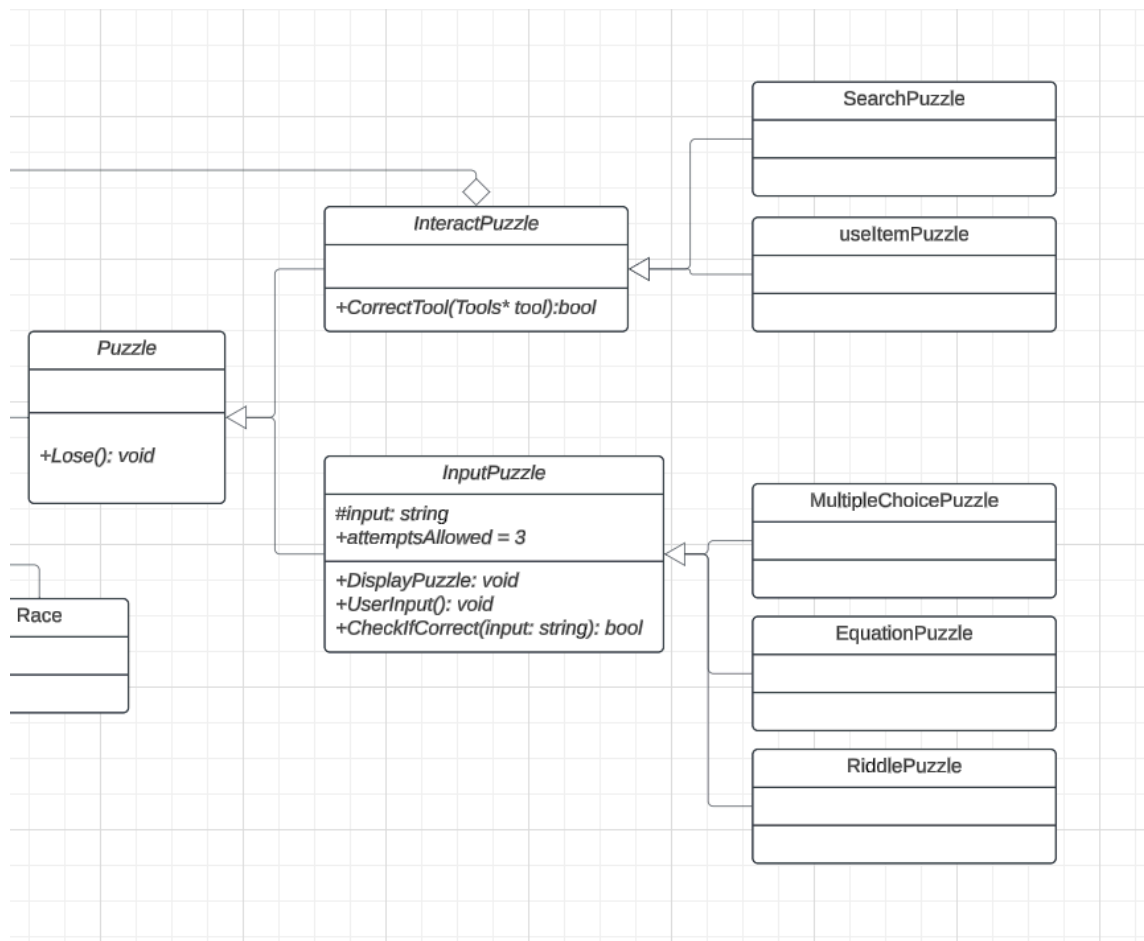
Due: 2024 November 8th Midnight.

Zoomed out Diagram -



Zoomed in on individual parts -





The following is the description of each method and the associated classes therein.

Class	Method Name	Description
<i>Objects</i>	<code>pickUp()</code>	Allows the player to pick up an object, adding it to the inventory.
	<code>putDown()</code>	Removes objects from the player inventory.
	<code>Use()</code>	Virtual method where specific functionality is implemented in derived classes.
Clothing	<code>Use()</code>	Overrides use to define

		specific behavior for wearable objects.
Tools	Use()	Overrides use to define specific behavior for tools.
Intentory	addItem(Object* item)	Adds item to the inventory
	removeItem(Object* item)	Removes an item from the inventory
	hasItem(const Object* item)	Checks if the inventory contains a specific item. Returns a Bool.
	displayInventory()	Displays the contents of the Inventory
Game	startGame()	Starts the Game/ while checkVictory game loop.
	changeEnvironment()	Change the environment to another room.
	describeGame()	Describes the goal and rules of the game.
	checkVictory()	Checks if the victory conditions are met, returning bool.
	handleLookAround()	Handles the players look around.
	handleLookCloser()	Handles the action of looking closer, Ex finding items
	playerInteract()	handles the interactions involving the player
Player	Interact()	Allows the player to interact with the environment or objects.
	getInventory()	Retrieves the player's inventory
Environment	callDescription()	Calls a description of the current environment
	lookAround()	Examines the surroundings of the current environment

	lookCloser()	Takes a closer look at something in the environment
Puzzle	Lose()	Manages the behavior when a puzzle is lost.
InteractPuzzle	CorrectTool(Tools* tool)	Check if the player's tool is correct for the puzzle.
InputPuzzle	DisplayPuzzle()	Displays the puzzle to the player
	UserInput()	Takes input from the user
	CheckIfCorrect(input: string)	Checks if the provided input is correct. Returns bool.
Container	CheckIsFull(isFull: bool)	Checks if the container is full
NPC	talk()	Allows interaction via conversation with the NPC.