

Exercise – Structures

Exercises:

1. Create the following structures:
 - a. A Player with the following attributes: Name, Health, Score, Position and Velocity
 - b. A rectangle in 2D space with the following attributes: 4 points (each with X, Y positions) and its colour (RGB value).
2. Create an instance of the `Player` structure and ask the user to input a name and score. Store the user's input into the member variables of the structure. Then output the name and score in the `Player` structure.
3. Pull the code you wrote for question 2 out into a function that creates and then returns the `player` the user created.
4. Create an array of 5 `Player` structures. Loop through each `Player` and ask the user to input the `Player`'s name and score and store them in each of the 5 `Player` structures. Do this step using the function you wrote in question 3. Then loop through the 5 `players` and output each of their names and scores
5. After completing Question 4, now prompt the user to enter in a name. Loop through the 5 `Players` and find the player with that name. If there is a match, output that player's score, otherwise report this back to the user that a match could not be found.
6. Write a program that simulates an RPG shop inventory. The shop should store how much gold it currently has. It should also store an array of items it can stock. Each item should have the name of that item, the cost per item and the quantity of that item currently in the shop. The program should have the following options:
 - a. Change the price of each item in the shop
 - b. Spend gold to add stock for a specific item
 - c. Sell stock for a specific item to gain more gold