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Lab 3 Reflection

My original design was mostly based on the instructions, most of the actual game is done in a Game class, both Die and LoadedDie classes are just for creating objects with certain attributes, so they both had getter and setter functions. I also decided to add the round loop into the game loop instead of in my main file so that I could do everything with a simple object, and there was less chance of breaking the classes if using in another program.

During implementation, I decided to make function calls from other functions. For instance, once the initial menu is displayed, it automatically goes into user input so that I did not have to call every function from the main class. I am not sure if this is a good practice to be honest, but at my current knowledge level I did not see any reason not to, it made my class more modular where I was not trying to cram everything into a function in order to not have to call each step.

Surprisingly, I did not run into any major problems during this program. Everything went according to plan and there were not in issues besides minor errors like missing a closing bracket. This was definitely a first for me and put me in a really good mood until writing program 2, were I spent a whole day fixing errors.

Test Cases:

Starting Menu test cases

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test case | Input Values | Driver Function | Expected Outcome | Observed Outcome |
| Function a not an unsiged integer | A, 1.5, -4 | ValidStr() | Display error, repeat options to user | Display error, repeat options to user |
| Integer not a valid option | 5 | ValidStr() | Display error, repeat options to user | Display error, repeat options to user |
| Integer a valid option | 1 | Menu()  If choice == 1 || choice ==2 | Print starting prompts and continue to user input | Print prompts and get inputs for functions |
| Integer second option | 2 | Exit() | Quit program | Quit program |

Number of sides for input

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function a not an unsiged integer | A, 1.5, -4 | ValidInt() | Display error, repeat options to user | Display error, repeat options to user |
| Integer not in range (<2 or >400) | -5, 0, 500, 1000 | ValidInt() | Display error, repeat options to user | Display error, repeat options to user |
| Integer in valid range (1 = 400) | 1, 244, 15 | userInput() | Store in variable and in response array | Store in variable and in response array |
| Input at extreme low | 1 | userInput() | Store in variable and in response array | Store in variable and in response array |
| Input at extreme high | 400 | userInput() | Store in variable and in response array | Store in variable and in response array |

Picking Type of Die input test

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function a not a menu choice | A, 1.5, -4 | ValidStr() | Display error, repeat options to user | Display error, repeat options to user |
| Input is low menu choice | 1 | setDieType() | Creates normal die | Creates normal die |
| Input is second menu choice | 2 | setDieType() | Creates loaded die | Creates loaded die |