GADE INDIVIDUAL REPORT Q1.4

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THIS INDIVIDUAL REPORT WILL SHOW THE CREATIVE PLANNING DOCUMENT IN WHICH WILL GO THROUGH THE PROCESS OF THE GAME AND ITS CREATION.

- LISTING OF ALL COMPENTES……………………………

- OVERALL FUNCTIONS OF THE GAME WHICH WILL PROVIDE….

+ Use of each forms

+ User input

+ Outputs that will be generated

+ Reasoning for the outputs

* UNDERSTANDING OF GAME………………………………

1. COMPONENTS/OBJECTS THAT ARE USED

Componets or objects are the programmes use of actions. They are like the access points that make, design and outline the entire programme. In our game, we make use of many componets that will be listed and provides its overall contribution to it. In coding, objects are placed in a class which captures different data. It can make uses of variables, functions and methods.

The Form:

The form is where everything will be displayed, all componets used like buttons, textbox, etc will appear. The name of the form will also let the user know (in the case of the game ) whos turn it is. The form will also adjust in background according to which dragon is on now. Eg. For Johnny’s turn , he has the fire dragon, so the form background must change to an image of orange and red, indicating fire.

GroupBox1:

GroupBox1 will have objects inside of it, forming them into one group. It will being renamed to whoevers dragon’s turn it is. Alligning with the form as well, the background colour must also be the same colour as the froms colour. Eg. For Johnny’s Turn, he would have the fire dragon, so as well as the form colour would change, the back FOR THE GROUPBOX1 must also change.

Label1:

This label will belong to the GroupBox1 as it is placed inside of it. Name of it is lblOutput1 as it will output something. The label will show an output of the HP ( HIT POINT ) of the dragon when its played before it dies.

Button1:

Button1 will for the attack for the dragon , when it is in battle. The button is named as btnAttack. Making it very clear that it will be used for offense. The caption of the button will be ATTACK in bold italic. In the button, there will be code that will excute an attack for the dragons turn. It will call an action that needs to happen, considered to be basic with the same amount of damage done.

Button2:

This button is important or to be special as it is a special attack the be done. Refered to as btnSpecialAttack, it will excute a UNIQUE and powerful attack for each different dragon. It will not be able to excute for the next round after use.

Button3:

Block. This will allow a player to block an attack or special attack from damaging the players dragon. Blocks are limited which means they will not last the entire game. It is refered to as btnBlock, letting programmers aware of its function.

GroupBox2:

This groupbox have the opponets information on their HP, type of dragon and their name. Will also have the same background colour as the form.

Label2:

Label will output the name of opponets dragon. Eg : Tidal, the Ice Dragon, informing them of who it is.

Label3:

Will output the health points of the opponets dragon. Makes it easier for the players to see how far letf their opponents dragon HP is.

GroupBox3:

The GroupBox will be labbelled as the “Battle Log” where is will capture and “Log” or record everting that occurs in the game.

RichTextBox:

A RichTextBox will function as a display of the battle logs. Everything will be recorded and the richtextbox will display. The lines of the richtextbox it be set to = 0 so that there are no text or lines present before displaying. Object will be named richDisplay so that it is easy to be aware of its function.

WHAT THE USER WOULD PROVIDE IN THE GAME

User input ( people using the programme or game ) is information that has been entered by the user and as the programmers we take that input and generate an outputs with their entererd information. {“What Is Input in Programming?” *Quora*, 2020, [www.quora.com/What-is-input-in-programming. Accessed 11 Apr. 2025](http://www.quora.com/What-is-input-in-programming.%20Accessed%2011%20Apr.%202025).}

In this case , the user input would be their names and their dragons. An additional use of radio buttons would also determine what type of dragon would their be. In this way we would be able to see information on the different type of dragons that are there.

The Ice dragon will feature an HP of 30. It will also have an attack damage of 4 on its opponeting dragons. Its special attack will be of 9 and its blocking power will be 5. Not really the strongest one out of them, yet depeneding on the players skills and abilities , the dragon can be just as powerful.

The Fire dragon will have a HP of 20. It has an attack damage of 5, making it the strongest attack out of the 4 dragons availabe. This can be taken into consideration if players are looking for a more aggressive approach into the game. The dragon also has the strongest special attack of 12. It would be very clear which dragon would be considered overpowered in this game, yet although it has the weakest block damage amongst all the dragons. This would leave it in a vunerable state when the limit of block have been reached by the player.

The Wind dragon has the HP of 40. It has the attack damage of 3 making it the weakest among the rest of the dragons. Its special attack is at 7 which is quite powerfull as well. The block damage is at 5 as well. Not the strongest yet the dragon can still put up at challenge amongest the rest if played well correctly.

Lastly the Earth dragon with the best HP of 50. The attack damage is at the weakest of only 2, showing that it is not at best in terms of its basic attacks. It also the weakest in its special attack at 5 showing that offensively, its not that powerful compared to al other dragons. This is the best dragon defensively with the block of 6, making it the best in its blocking power.

Throughout the listed dragons and their abilities, it will also be determinded by the player on which one they will select. Eventually, all players will need to be make startigically smart plays and moves in order to win the game or take down the other dragon(s). different dragons have their different abilities, which means players will have to learn and counter their opponetnts attacks and blocks depeneding on their opponets dragon and their power.

Users would use the textboxes given in the forms to enter their information and their dragons.

THE OUTPUT TO BE GENERATED AFTER INPUT

The output from the input would show what has been entered as input from the user and will need to be displayed, calculated , etc. It is important to know what type of output the user is expecting based on the application. With the inputted information, the programme must excute and create and output based on the information receiceved.

The output after the users input in the game would result in what their names are, the dragons name and the type of dragon they have selected. After clicking the “Save” and “Start game” button, all their information and data will be stored and displayed once it’s a players turn to play. On the form it will display the dragons HP, Atttack damge, Special Attack Damage and the Block Damage. The richDisplay would be the component to be responsible for the output or the display of the input information. This will also under go the process of in-and-out, where data that is being inputed will be processed , and will be displayed or stored, anyting depending on the output circumstances.

WHY OUTPUT WOULD BE GENERATED

Outputs would be generated ( once input has been enetered ) as the information entered would go through the in-and-out process. This works as data entered will be receieved by the program, the data will be proccessed in a way that it is being ready to be displayed, been shown as in output. {Codenga. (2024). *PL*. [online] Available at: https://codenga.com/pages/guides/input\_and\_output\_operations\_in\_programming.}

The outputs to be displayed will be generated as they have an display or output function, meaning that data needs to be presented/displayed. The purpose of an output is to be proccessed within the input information. This would show the user that their inputs have been generated and displayed.

In terms of the games and the dragons, the output would show the names of the players , dragon names and the type of dragon they are. It allows them to visually seen what they have choosen or selected. In the code, the richDisplay object would be the output device that displays the information.

LOGICALLY USES AND RULES FOR THE GAME

The logic behind the game will be based on the dragons and the players turn. Players will follow the rules of the game to be it balaneced and fair. Rules are there in place to make the play field even for all players.

{By Michael Filimowicz PhD Year: 2024 Container: Understanding Games URL: <https://medium.com/understanding-games/rules-mechanics-a7d7551193bc>}

Rules of the game:

If a dragon attacks another dragon, they will get the damage which is equal to the attacking dragons attack.

In pseudo code snippet , it would be represented like:

string dragon1,dragon2

num attack

num health

If dragon1 attack dragon2

then health – attack

endif

When a dragon attacks another dragon, and the player has not attack, their must be damage towards the dragons HP.

In pseudo code snippet, it would be represented as:

num HP

num attack

bool block

if (dragon1 attack dragon2 ) AND ( block == false )

then attack – HP

endif

if the 2nd dragon manages to block the 1st dragons attack, then a flag will be in play for the 2nd dragon block. In a small sample of code it would likely show:

If (dragon2 block == true) AND (dragon1 attack == false)

Blockflag == true

Endif

The players will play each round until the one of them is dead, meaning that their HP is less or equal to zero:

If HP >= 0

then output “ you are dead”

endif

in addition to that previouse pseudo code, it will also check each round if the dragons are near death towards every each round:

if HP >= 0

then output “ your dragon is dead”

else

endif

the last rule that will apply to the game is if a dragon dies, the player that killed it will be the winner of the overall game. This will put an end to the game and declare a players as victorios.

The game will make use of different ways of attacking and damaging the opponent. It will also force the players to focus on using strategic moves and plays to outsmart their opponents. Within this, each player will get an opportunity to play a turn. In this turn they will be able either attack, use their special attack moves or block an attack that’s coming their way. Once they have made their decision, it will move on to the next players turn. The entire battle will be logged onto the battle log richDisplay. Outputs will display the winners dragon image, along side the background colours with.

Understanding the logic of the game ( as the developer ) is extremely important as components are used for a reason, inputs and outputs need to processed as well.

{By Josh Knell Year: 2024 Container: Bloomtech.com Publisher: Bloom Institute of Technology URL: <https://www.bloomtech.com/article/logic-the-language-of-coding>}

The games need to work well so that there is no errors , bugs or logic/syntax that occur. Dealing with those as the user will cause issues and unejoyment for them while playing the game. it is always considererd a priority for the users needs of the game to be met. Ensuring that is possible, the rules of the game should be made clear and of understanding to ALL players involved, sense of balance and equality amongest the players so that everyone has an equal chance during their turn.Throughout the project, changes will be made to better, update or fix coding to better games performance and user expierence, with additional coding conditions.

Reference List

These were used as reference throughout the research project:

By Anon Year: 2020 Container: Quora URL: https://www.quora.com/What-is-input-in-programming

By Anon Year: 2024 Container: Codenga URL: https://codenga.com/pages/guides/input\_and\_output\_operations\_in\_programming

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Knell, J. (2024). *Logic, the Language of Coding*. [online] Bloomtech.com. Available at: <https://www.bloomtech.com/article/logic-the-language-of-coding>.