

Specification

This project is sort of a pokemon battle interface that you can play in python. It's purpose is just to entertain the user. Before making this project, there are a few necessary features that needed to be specified. Such as,

- It can generate random opponents with given options.
- It needs different damages depending on the pokemon's type.
- It needs a health which indicates how much life points the pokemon have.

Solution Design

Based on the project specification, the project is intended to entertain user and the idea itself started when I was playing pokemon sun and moon a while back. Because since the first pokemon game I played until now. I am always interested and wanted to understand a little of how they actually works and how they are programmed its battle interface. So with the little bit of python knowledge I learned in school, I gave it a try and made it my own.

For this program, the use of class, for loop, functions, modules, and json file is implemented. The json file that contains all of the pokemon's name, type, moves, even each of the moves attack power as well as the pokemon's speed itself. The program does not need to login so everyone can just run the program and play to your heart's contents. I also use a little of ASCII arts in there.

In pokemon there is a thing called type. Type is basically is a element that every pokemon have. In this program I only used three main elements which is fire, water, and grass type. Just like in the game,



I have made a function that imitates the image above, if a grass type pokemon attacks a fire type pokemon the damage will be reduced and if a fire type pokemon attacks a grass type pokemon the damage will be amplified. Here is the code,

```
def attack(self,target,move):
    modifier = 1
    if target.types == "Fire":
        if self.types == "Grass":
            modifier = 0.50 #damage will be reduced by 50% of it's original damage
        elif self.types == "Water":
            modifier = 1.25
    elif target.types == "Water":
        if self.types == "Fire":
            modifier = 1.25 #damage will be amplified for 25% from it's original damage
        elif self.types == "Grass":
            modifier = 0.50
    elif target.types == "Grass":
        if self.types == "Fire":
            modifier = 1.25
        elif self.types == "Water":
            modifier = 0.50
```

Links

The link below is the source code.

<https://github.com/calvinshalim/BINUSIAN-2023/tree/master/Project>

How It Works

Phase 1.

- Start the program by running the code.
- Then enter the number based on what pokemon you want.

pokemon

===== WELCOME TO POKEMON BATTLE =====

PICK YOUR POKEMON!

- 1 Charizard
- 2 Blastoise
- 3 Venusaur
- 4 Typhlosion
- 5 Feraligatr
- 6 Meganium

Enter number >>

Phase 2.

- After you input the number. (i.e 1)
- It'll automatically select the opponent and print all of your pokemon's moves.
- Enter what moves you want by it's number.

```
Enter number >> 1
1 Flamethrower 90
2 Ember 75
3 Flame charge 100
4 Fire Blast 110
```

```
Charizard Health >> 900
```

```
Blastoise Health >> 960
```

```
Select move >>
```

Phase 3.

- After you enter the moves.
- Whoever has more speed moves first and the pokemon health be reduced depend on the damage.

```
Charizard USED Flamethrower
Blastoise HEALTH REDUCED 90
```

```
Blastoise USED Bubble
Charizard HEALTH REDUCED 75
```

```
1 Flamethrower 90
2 Ember 75
3 Flame charge 100
4 Fire Blast 110
```

```
Charizard Health >> 825
```

```
Blastoise Health >> 870
```

```
Select move >>
```

Phase 4.

- Keep repeating *phase 3* until one of the pokemon's hp is 0.
- The one who reached 0 hp first will be the loser.

```
1 Flamethrower 90
2 Ember 75
3 Flame charge 100
4 Fire Blast 110
```

Charizard Health >> 210

Blastoise Health >> 100

```
Select move >> 4
```

```
Charizard USED Fire Blast
Blastoise HEALTH REDUCED 110
```

Charizard IS THE WINNER!

Phase 5.

- Extra ASCII for the finish.

congratulations

===== THANKS FOR PLAYING =====

Future Updates

As much as I love coding this program. I understand that there is still a lot of improvement to be done and a bunch of stuffs to add. I can only what my best abilities as of right now can make and hope that if continue to learn more about python and other sort of programming I can implement more stuff. That is why I am thinking of adding a ton of stuff in this program and maybe I will be able to remake a pokemon game with a little tweak myself. And as for the future I will try to make updates and implement a those things,

- Add a player name and character.
- Implement a environment. (I.e forest, dungeon, city)
- Character that can move around and move to different locations.

- Player can encounter random pokemon depends on his/her location.
- A print of the pokemon itself when it enters battle mode.
- A health that shows bar instead of number.
- Apply this into pygame.