

ITSE 1359 – Program08

General Points

- Use the course material located at:
 - [Python @ ACC](#) - Welcome! through Classes & Objects
- Create a file named program08.py.

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Write a program to keep track of data of Pokémon characters you have captured. Note: There is no data hard-coded in the program. All data is entered by the user. *See the code example at the end of this document.*

Your program will have a class named Pokémon which will contain the following member data:

- self.__name
- self.__ability

The Pokémon class will contain the following member methods:

- __init__ - constructor
- get_name – returns self.__name
- get_ability – returns self.__ability

Requirements (these are the requirements to identify by number):

1. Output a header in the console: “This is Program08 - <yournamehere>”
2. Print “This program keeps track of Pokémon characters.”
3. Most of the Pokémon class is provided. Complete the missing parts of the Pokémon class. For instance, add lines 6, 7, and the definitions for the get_name() and get_ability() methods.
4. Complete the ‘display_pokemon()’ function. My version required six lines (including the ‘def’ line) but you can use more.
5. Produce output like that shown below (your version must include Requirement statements):
6. **Print a statement explaining your experiences with Program08. Make this authentic (minimum of 2-3 sentences).**

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```

program-8.py x
1  # Pokemon Class definition
2  class Pokemon:
3      # __init__ called AUTOMATICALLY when an object is created
4      def __init__(self, name, ability):
5          # Assign argument 'name' to instance variable 'self.__name'
6
7          # Assign argument 'ability' to instance variable 'self.__ability'
8
9
10     # Get INSTANCE variable self.__name
11     def get_name(self):
12
13
14     # Get INSTANCE variable self.__ability
15     def get_ability(self):
16
17
18
19     # main() function
20     def main():
21         print('\n##### In main() #####')
22         pokemon_list = add_pokemon()
23         display_pokemon(pokemon_list)
24
25
26     # add_pokemon() function
27     def add_pokemon():
28         print("\nIn add_pokemon()")
29         # Create new list to hold pokemon characters
30         pokemon_list = []
31         # Counter used in loop
32         pokemon_number = 1
33         more_pokemon = input("\nDo you have a pokemon to enter? (y/n) ").lower()
34         while more_pokemon == 'y':
35             # Get the name of the pokemon from user
36             pokemon_name = input('\nEnter name for Pokemon #{}: '.format(pokemon_number))
37             # Get the ability of the pokemon from user
38             pokemon_ability = input('\nEnter ability for Pokemon #{}: '.format(pokemon_number))
39             # Create a new pokemon object with pokemon_name and pokemon_ability
40             new_pokemon = Pokemon(pokemon_name, pokemon_ability)
41             # Add new_pokemon to list
42             pokemon_list.append(new_pokemon)
43             # Increment counter
44             pokemon_number += 1
45             more_pokemon = input("\nAnother pokemon to enter? (y/n) ").lower()
46
47         return pokemon_list
48
49
50
51
52     def display_pokemon(pokemon_list):
53
54
55
56
57
58
59     # Determine if program is run as the main or a module
60     if __name__ == '__main__':
61         # This program is being run as the main program
62         main()
63
64     else:
65         pass
66         # Do nothing. This module has been imported by another
67         # module that wants to make use of the functions,
68         # classes, and/or other items it has defined.

```

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```
##### In main() #####  
  
In add_pokemon()  
  
Do you have a pokemon to enter? (y/n) y  
  
Enter name for Pokemon #1: Wortortle  
  
Enter ability for Pokemon #1: Torrent  
  
Another pokemon to enter? (y/n) y  
  
Enter name for Pokemon #2: Charizard  
  
Enter ability for Pokemon #2: Blaze  
  
Another pokemon to enter? (y/n) n  
  
Name of Pokemon #1: Wortortle  
  
Ability of Pokemon #1: Torrent  
  
Name of Pokemon #2: Charizard  
  
Ability of Pokemon #2: Blaze  
  
Process finished with exit code 0
```

TEST – TEST – TEST your application to ensure the requirements are met.

- Use the list above and the common requirements as a checklist.
- Not meeting all requirements = 0 points for the assignment.