

Lab 2: Pokemon class

You are probably familiar with Pokémon characters, at least with some of Generation 1 Pokémon. If not, you can find a list of Pokémon at <http://pokemondb.net/pokedex/national>. You will see that each Pokémon has a **number** and one or two **elemental types** (grass, bug, flying, etc.).

Using **Visual Studio 2017**, create an **empty project** named **Project**. Write the **definition** and **implementation** of the class **Pokemon** in **two different files** (**separate compilation**), **Pokemon.h** and **Pokemon.cpp**. Your class must have the following attributes:

- **Member variables**
 - A **string** that stores the name of the Pokémon
 - An **int** to store the Pokémon's number
 - A **string** to store the Pokémon's first type
 - A **string** to store the Pokémon's second type—if the Pokémon has no second type, the string will remain empty.
- **Default constructor**
- **Two overloaded constructors**
 - **Parameters** (in this order): the name, the number, the first type
 - **Parameters** (in this order): the name, the number, the first type, the second type
- Functions **getType1**, and **getType2**
 - Each function returns the value of the appropriate type.
- Function **commonType**
 - **Parameter**: An object of the class **Pokemon**
 - The function compares the types of the **calling object** and the **parameter object**. If at least one type is the same, the function returns true; if the objects do not have any type in common, the function returns false.
 - Note that the type order does **not** matter:

Bulbasaur: Grass Poison		They have a common type: Poison
Nidoking: Poison Ground		
- Function **print**
 - Prints information in this format → Bulbasaur: Grass Poison
 - If the Pokémon has no second type, then the function prints → Charmander: Fire
- **Destructor**

Use the **Main.cpp** file given to test your functions.

Do **NOT** write any implementation in the class **interface**. All **implementation** should be written in the **.cpp** file (**separate compilation**).

Make sure to:

- Add a **name header** with your name, date, etc.
- Pass by **reference** when needed and add the **const** modifier to the parameters **ONLY** when **necessary**.
- Do **NOT** use a **return** statement without returning anything! → **return;**
- Do **NOT** use the **break** and **continue** statements (there are no switch statements to use **break**).
- Do **NOT** use global variables **ever**.
- Do **NOT** modify any of the given code.
- Use the **const** modifier when necessary for **member functions**.

Keep in mind the following:

- Divide your code in meaningful blocks for readability
- Name your variables using descriptive names
- Use all appropriate conventions for naming
- Do not leave unnecessary spaces or lines in your code

Below you can find a segment of the expected output:

```
Bulbasaur: Grass Poison
Ivysaur: Grass Poison
Common type? Yes
-----
Bulbasaur: Grass Poison
Charmander: Fire
Common type? No
-----
Bulbasaur: Grass Poison
Arbok: Poison
Common type? Yes
-----
```