

What is Pokemon? Why this report?

- Pokémon is a series of video games developed by Game Freak and published by Nintendo and The Pokémon Company as part of the Pokémon media franchise.
- The key feature in the game is that players are able to catch Pokemon (pocket monsters) while exploring the game map.
- During the exploration, the players could encounter with different wild Pokemons to fight against. There are many types of Pokemon which make this game has a certain level of difficulty.
- To understand the stats of the skills would help the players to gain more fun and sense of achievement when playing the game.
- ☐ Key role in the game: **Pokemons**.

This report is a study based on the available Pokemon game dataset





Intro to the Dataset

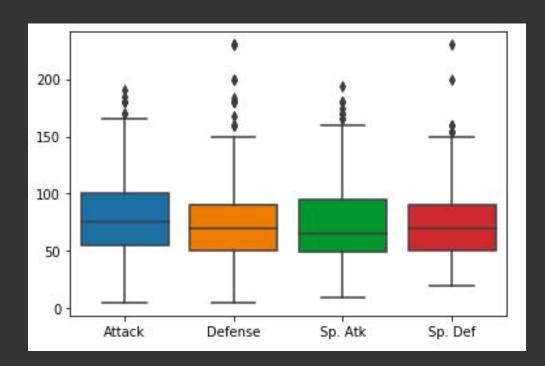
- This data set includes 721 Pokemon, including their number, name, first and second type.
- Their basic stats including: HP, Attack, Defense, Special Attack, Special Defense, and Speed.
- Other variables: Generation of the Pokemon and whether it is Legendary Pokemon or not.

	#	Name	Type 1	Type 2	Total	HP	Attack	Defense	Sp. A	Atk	Sp. Def	Speed	Generation	Legendary
0	1	Bulbasaur	Grass	Poison	318	45	49	49		65	65	45	1	False
1	2	Ivysaur	Grass	Poison	405	60	62	63		80	80	60	1	False
2	3	Venusaur	Grass	Poison	525	80	82	83	1	100	100	80	1	False
3	3	VenusaurMega Venusaur	Grass	Poison	625	80	100	123	1	122	120	80	1	False
4	4	Charmander	Fire	NaN	309	39	52	43		60	50	65	1	False

- How to Play the Game?



- Attack & Defense





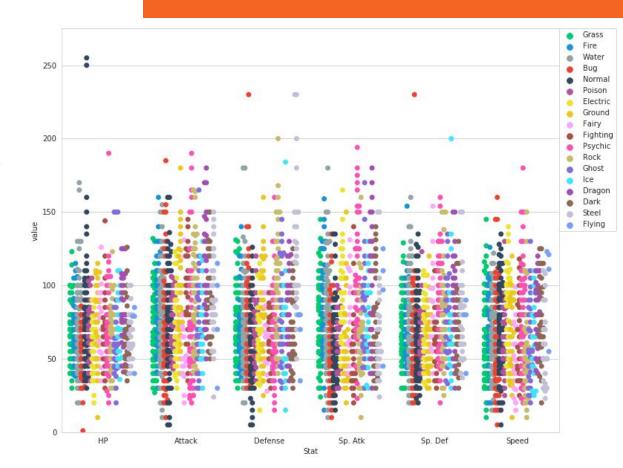
Overview

The key playable component in the game is the battle between different Pokemons.

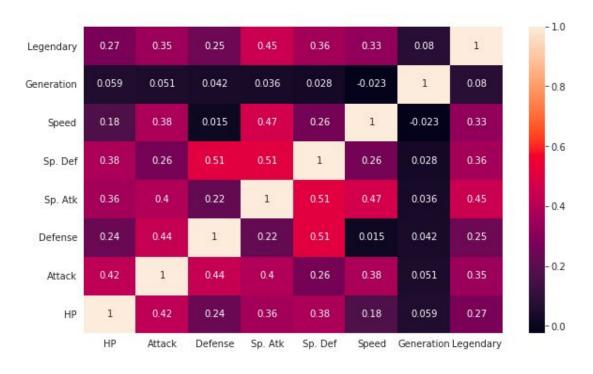
By taking a look at the overall stats from the dataset, we can tell that there's not significant difference between normal attack and defense vs. special attack and defense.

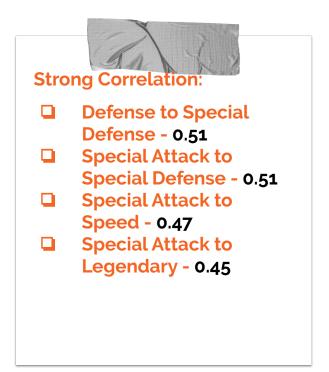
Stats by Type

- Different types of Pokemon bring different abilities. The attack and defense skills from different type of Pokemons could be inter-restricted. For example, water type Pokemons are natural blocker against fire type ones.
- In each of the stats category, there are outliers in all types, which shows the balancing of the powerful Pokemons among different types in the game.

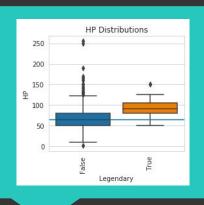


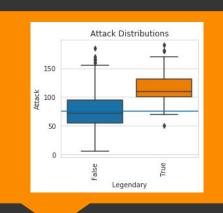
Correlation Heatmap

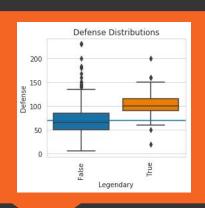


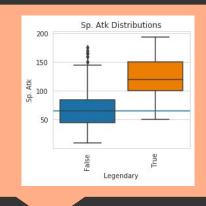


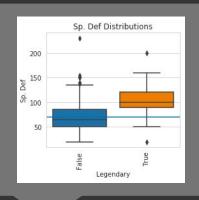
Legendary Pokemons beat normal ones!

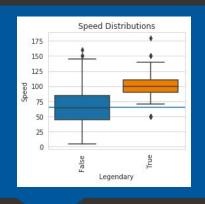












Final learnings.

There are 18 types of Pokemons. Each of them has great performers - Don't give up to any of the types!

Legendary Pokemons' skills are outstanding than the normal ones - Try to catch as many legendary Pokemons as you can!

It's good to figure out the resistance of the types before entering a battle.



