

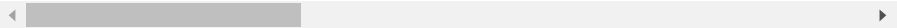
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

# Load the Pokémon dataset
data = pd.read_csv('pokemon.csv')
```

```
data.head()
```

	abilities	against_bug	against_dark	against_dragon	against_electric	against_fai
0	['Overgrow', 'Chlorophyll']	1.0	1.0	1.0	0.5	(
1	['Overgrow', 'Chlorophyll']	1.0	1.0	1.0	0.5	(
2	['Overgrow', 'Chlorophyll']	1.0	1.0	1.0	0.5	(
3	['Blaze', 'Solar Power']	0.5	1.0	1.0	1.0	(
4	['Blaze', 'Solar Power']	0.5	1.0	1.0	1.0	(

5 rows × 41 columns



```
data.describe()
```

	against_bug	against_dark	against_dragon	against_electric	against_fairy	against_fight	again
count	801.000000	801.000000	801.000000	801.000000	801.000000	801.000000	80
mean	0.996255	1.057116	0.968789	1.073970	1.068976	1.065543	
std	0.597248	0.438142	0.353058	0.654962	0.522167	0.717251	(
min	0.250000	0.250000	0.000000	0.000000	0.250000	0.000000	(
25%	0.500000	1.000000	1.000000	0.500000	1.000000	0.500000	(
50%	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	
75%	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	
max	4.000000	4.000000	2.000000	4.000000	4.000000	4.000000	

8 rows × 34 columns



```
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 801 entries, 0 to 800
Data columns (total 41 columns):
#   Column              Non-Null Count  Dtype
---  -
0   abilities           801 non-null   object
1   against_bug         801 non-null   float64
2   against_dark        801 non-null   float64
3   against_dragon      801 non-null   float64
4   against_electric    801 non-null   float64
5   against_fairy       801 non-null   float64
6   against_fight       801 non-null   float64
7   against_fire        801 non-null   float64
8   against_flying      801 non-null   float64
9   against_ghost       801 non-null   float64
10  against_grass       801 non-null   float64
11  against_ground      801 non-null   float64
```

```

12  against_ice      801 non-null    float64
13  against_normal  801 non-null    float64
14  against_poison   801 non-null    float64
15  against_psychic  801 non-null    float64
16  against_rock     801 non-null    float64
17  against_steel    801 non-null    float64
18  against_water    801 non-null    float64
19  attack           801 non-null    int64
20  base_egg_steps    801 non-null    int64
21  base_happiness    801 non-null    int64
22  base_total        801 non-null    int64
23  capture_rate      801 non-null    object
24  classification    801 non-null    object
25  defense           801 non-null    int64
26  experience_growth 801 non-null    int64
27  height_m          781 non-null    float64
28  hp                801 non-null    int64
29  japanese_name     801 non-null    object
30  name              801 non-null    object
31  percentage_male    703 non-null    float64
32  pokedex_number     801 non-null    int64
33  sp_attack          801 non-null    int64
34  sp_defense         801 non-null    int64
35  speed             801 non-null    int64
36  type1             801 non-null    object
37  type2            417 non-null    object
38  weight_kg         781 non-null    float64
39  generation         801 non-null    int64
40  is_legendary       801 non-null    int64
dtypes: float64(21), int64(13), object(7)
memory usage: 256.7+ KB

```

```

# Select the columns for the pair plot
columns = ['attack', 'defense', 'speed', 'type1']

```

```

# Create a DataFrame with selected columns
selected_data = data[columns]

```

```

# Define the color palette based on the 'type1' column
palette = sns.color_palette('Set1', n_colors=len(selected_data['type1'].unique()))

```

```

# Create the pair plot
sns.pairplot(selected_data, hue='type1', palette=palette)

```

```

# Add labels to the x-axis and y-axis
plt.xlabel('Attributes')
plt.ylabel('Attributes')

```

```

# Set the title above the pair plot
plt.suptitle("Relationship between Pokemon Type, Attack, Defense, and Speed", y=1.05)

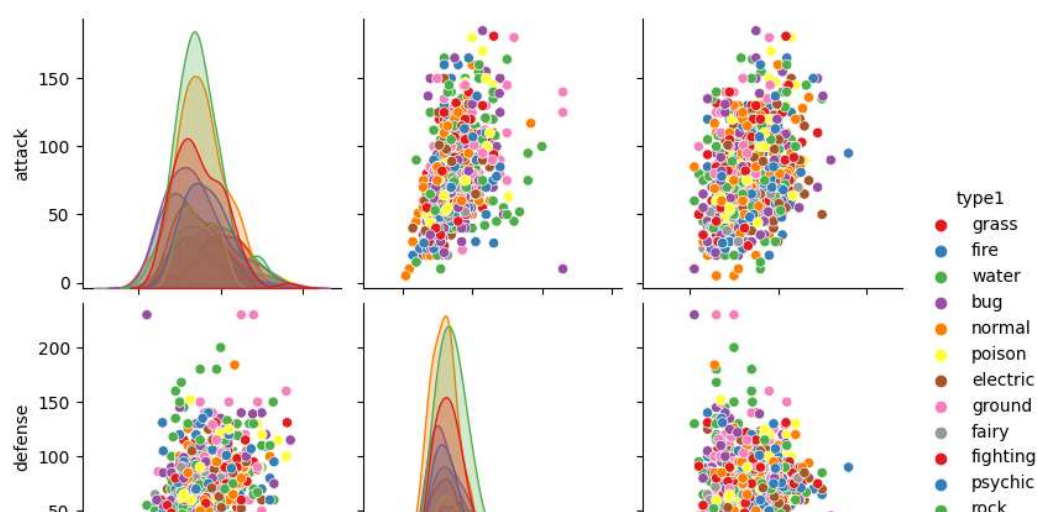
```

```

# Show the plot
plt.show()

```

Relationship between Pokémon Type, Attack, Defense, and Speed



#Questions

#1. How does the distribution of attack stats vary across different Pokémon types?

#Are there any types that exhibit significantly higher or lower attack values compared to others?

#2. Are there any distinct relationships between the Pokémon's attack and defense stats based on their type?

#Do certain types generally have higher attack or defense compared to others?

#3. How does the Pokémon's attack and defense stats relate to each other?

#Are there any noticeable patterns or correlations between these attributes?

#4. Which Pokémon types tend to have higher speed stats? Is there a particular type that stands out in terms of speed?

#5. Is there any observable relationship between a Pokémon's type and its overall combat capabilities?

Can we identify specific types that tend to excel in attack, defense, and speed simultaneously?

[Colab paid products](#) - [Cancel contracts here](#)

✓ 8s completed at 22:08

