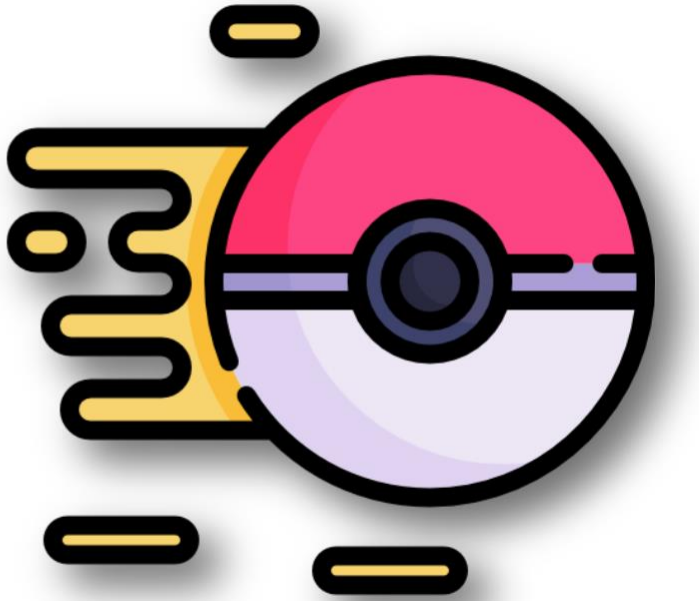
Pokemon Case Study

Pokemon



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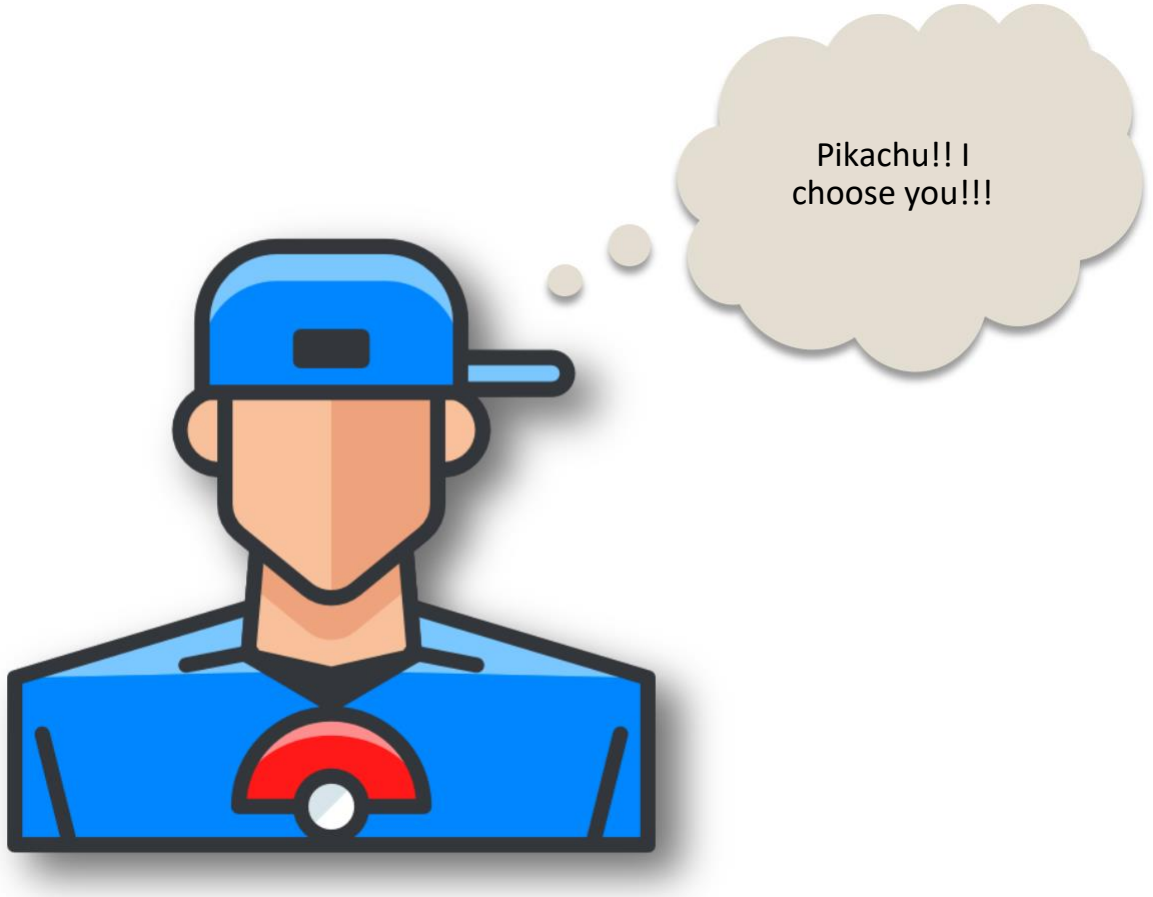

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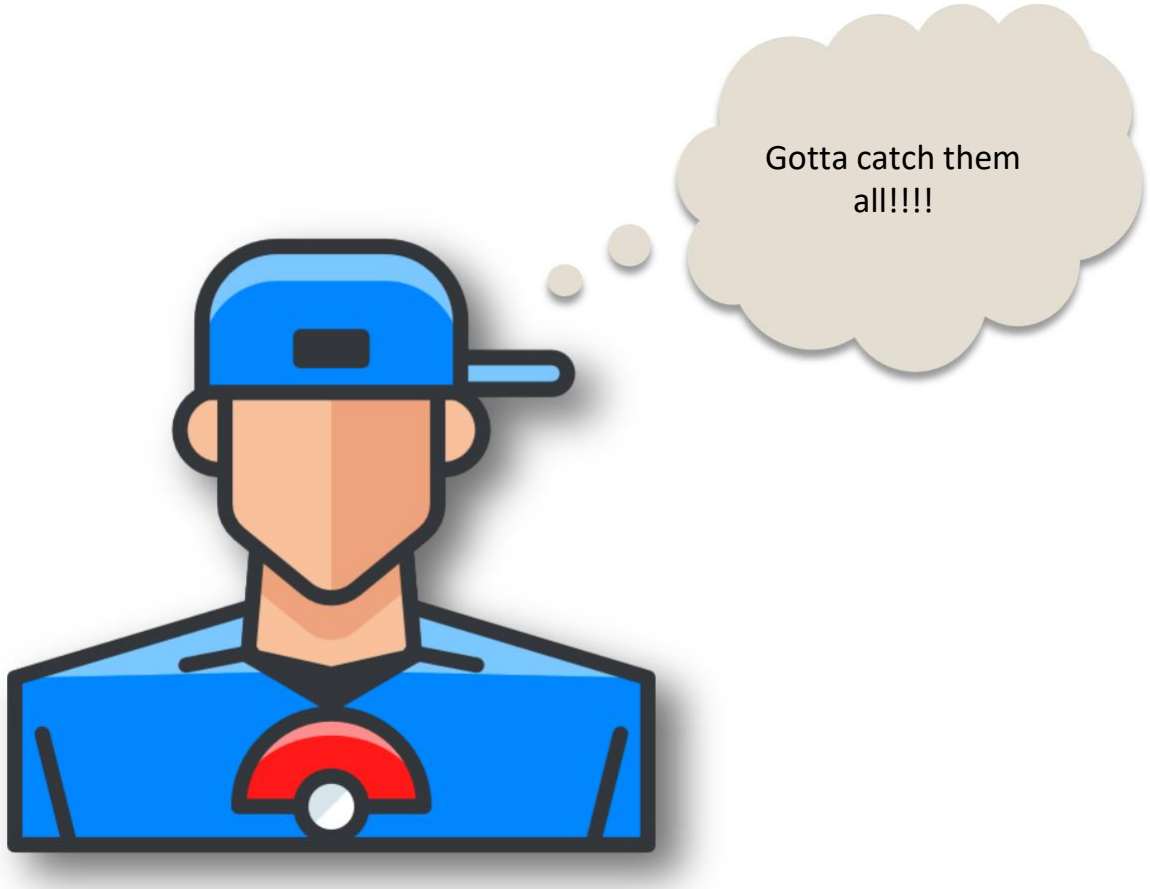

Pokemon Dataset

Name	Type.1	Type.2	Total	HP	Attack	Defense	Sp..Atk	Sp..Def
Bulbasaur	Grass	Poison	318	45	49	49	65	65
Ivysaur	Grass	Poison	405	60	62	63	80	80
Venusaur	Grass	Poison	525	80	82	83	100	100
VenusaurMega Venusaur	Grass	Poison	625	80	100	123	122	120
Charmander	Fire		309	39	52	43	60	50
Charmeleon	Fire		405	58	64	58	80	65
Charizard	Fire	Flying	534	78	84	78	109	85
CharizardMega Charizard X	Fire	Dragon	634	78	130	111	130	85
CharizardMega Charizard Y	Fire	Flying	634	78	104	78	159	115
Squirtle	Water		314	44	48	65	50	64
Wartortle	Water		405	59	63	80	65	80
Blastoise	Water		530	79	83	100	85	105
BlastoiseMega Blastoise	Water		630	79	103	120	135	115
Caterpie	Bug		195	45	30	35	20	20

Problem Statement – Task-1

1. Select a pokemon **whose primary type is “Grass”, secondary type is “Poison”** with the maximum speed

2. Select a pokemon **whose primary type is “Water”, secondary type is “Flying”** with the maximum speed

3. Select a pokemon **whose primary type is “Fire”, secondary type is “Psychic”** with the maximum speed

Problem Statement – Task-2

Attack vs Defence

Divide the data-set into train & test sets

Build a linear model on train set where independent **variable is 'Defence'** & Dependent **variable is 'Attack'**

Predict the values **on the 'test' set**

Find the root mean square error

Problem Statement – Task-3

Legendary or not

Divide the data-set into train & test sets

Build a decision tree on train set where dependent variable **is 'Legendary' & all** other columns are independent variables

Predict the values **on the 'test' set**

Find the accuracy by making a confusion matrix