

# Pubg Project With Usama

## Analyzing Pubg Data With Python

PlayerUnknown's Battlegrounds (PUBG) has taken the gaming world by storm, offering an immersive battle royale experience. Beyond its gaming aspect, PUBG also provides a wealth of data that can be mined and analyzed to gain insights into player behavior, strategies, and performance. In this Jupyter Notebook project, we will delve into the exciting world of PUBG data analysis using Python. We will be working with a dataset containing a treasure trove of information, including player statistics, match details, and in-game events. Our goal is to harness the power of Python libraries such as Pandas, NumPy, and Matplotlib to extract meaningful insights from this dataset.

### Import Library

```
In [2]: import pandas as pd
```

```
In [3]: import seaborn as sns
import matplotlib.pyplot as plt
import plotly.express as px
```

### Uploading CSV File

```
In [4]: df=pd.read_csv("pubg_stats.csv")
```

### Data Processing

#### df show First and five lines

```
In [5]: df
```

	Unnamed: 0	Player_Name	Matches_Played	Kills	Deaths	Assists	Damage_Dealt	Headshots	Wins	Top_10s	Revives	Distance_Traveled	Weapons_Used	Tir
0	0	StealthMaster	250	587	143	98	15243	234	32	145	67	72560	12	
1	1	SniperLion	312	823	218	112	18975	312	42	189	95	89042	15	
2	2	NinjaGamer	186	492	84	56	11786	156	28	97	48	60924	10	
3	3	ThunderStrike	409	923	267	134	21037	288	55	258	128	98234	18	
4	4	SpeedDemon	143	368	68	42	9865	123	20	72	36	52072	8	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
216	216	CrimsonRider	294	743	187	132	17567	242	39	133	67	66987	13	
217	217	BlazingSorcerer	203	521	109	72	13123	193	27	91	45	55487	10	
218	218	FrozenFlare	206	553	117	76	13756	196	29	96	49	58789	10	
219	219	AbyssGuardian	220	597	144	98	14967	212	32	108	54	60978	11	
220	220	SpectralPhantom	225	624	149	100	15345	219	33	110	55	61789	11	

221 rows × 15 columns

#### .head()

head is used to the by default = 5 rows in the dataset

```
In [6]: df.head()
```

Out[6]:	Unnamed: 0	Player Name	Matches Played	Kills	Deaths	Assists	Damage Dealt	Headshots	Wins	Top 10s	Revives	Distance Traveled	Weapons Used	Time Spent
	0	StealthMaster	250	587	143	98	15243	234	32	145	67	72560	12	
	1	SniperLion	312	823	218	112	18975	312	42	189	95	89042	15	
	2	NinjaGamer	186	492	84	56	11786	156	28	97	48	60924	10	
	3	ThunderStrike	409	923	267	134	21037	288	55	258	128	98234	18	
	4	SpeedDemon	143	368	68	42	9865	123	20	72	36	52072	8	



## Show Full Lists

pd.set\_option("display.max\_rows",None) is used to display full list

In [7]: `pd.set_option("display.max_rows",None)`

In [8]: `df`

Out[8]:	Unnamed: 0	Player Name	Matches Played	Kills	Deaths	Assists	Damage Dealt	Headshots	Wins	Top 10s	Revives	Distance Traveled	Weapons Used	Ti
0	0	StealthMaster	250	587	143	98	15243	234	32	145	67	72560	12	
1	1	SniperLion	312	823	218	112	18975	312	42	189	95	89042	15	
2	2	NinjaGamer	186	492	84	56	11786	156	28	97	48	60924	10	
3	3	ThunderStrike	409	923	267	134	21037	288	55	258	128	98234	18	
4	4	SpeedDemon	143	368	68	42	9865	123	20	72	36	52072	8	
5	5	BlazeFury	288	642	156	74	14238	189	35	129	57	68894	11	
6	6	RapidShadow	201	539	93	68	12689	165	26	89	42	59871	9	
7	7	Frostbite	178	421	105	63	10572	147	18	68	39	52590	8	
8	8	SavageQueen	332	748	193	122	17654	272	47	211	89	78216	14	
9	9	SwiftStriker	194	511	87	58	13579	182	23	83	51	56978	9	
10	10	VenomousViper	210	566	132	71	13985	187	27	98	46	58647	10	
11	11	PhoenixFury	288	742	188	104	16982	248	41	137	69	66298	12	
12	12	SteelStorm	176	448	83	52	10374	142	18	67	32	49876	8	
13	13	BlazingBlade	313	789	211	123	18876	275	44	163	72	72985	13	
14	14	StormChaser	257	674	158	95	15482	212	36	119	58	64279	11	
15	15	Frostbite	197	501	105	64	11634	149	25	85	43	57401	10	
16	16	Nightmare	288	713	174	118	16648	236	39	138	64	67845	12	
17	17	CrimsonTide	224	589	124	88	14257	195	31	105	53	59875	11	
18	18	SilentShadow	193	483	99	63	11968	155	22	78	40	53481	10	
19	19	VengefulViper	212	576	134	76	14398	197	28	100	50	57698	10	
20	20	SolarFlare	250	641	158	102	15734	221	37	130	61	62892	11	
21	21	SkyDancer	195	502	108	66	12683	169	24	83	42	55581	9	
22	22	RogueWraith	267	724	186	119	17092	253	40	146	68	67791	13	
23	23	Lethallynx	223	612	132	87	15234	211	32	111	55	60987	11	
24	24	FrostFang	204	529	104	70	13642	178	29	96	48	57645	10	
25	25	ScarletStrider	256	659	159	98	15679	224	35	116	57	63482	11	
26	26	RagingRaptor	271	698	167	111	16589	240	37	130	62	66934	12	
27	27	ShadowWisp	198	517	101	63	12465	172	23	81	43	54497	9	
28	28	VenomStrike	223	593	136	84	14275	201	31	105	53	58876	10	
29	29	FireFury	268	702	185	123	16587	231	36	126	60	65487	12	
30	30	VenomousViper	210	566	132	71	13985	187	27	98	46	58647	10	
31	31	PhoenixFury	288	742	188	104	16982	248	41	137	69	66298	12	
32	32	SteelStorm	176	448	83	52	10374	142	18	67	32	49876	8	
33	33	BlazingBlade	313	789	211	123	18876	275	44	163	72	72985	13	
34	34	StormChaser	257	674	158	95	15482	212	36	119	58	64279	11	
35	35	Frostbite	197	501	105	64	11634	149	25	85	43	57401	10	
36	36	Nightmare	288	713	174	118	16648	236	39	138	64	67845	12	
37	37	CrimsonTide	224	589	124	88	14257	195	31	105	53	59875	11	
38	38	SilentShadow	193	483	99	63	11968	155	22	78	40	53481	10	
39	39	VengefulViper	212	576	134	76	14398	197	28	100	50	57698	10	
40	40	SolarFlare	250	641	158	102	15734	221	37	130	61	62892	11	
41	41	SkyDancer	195	502	108	66	12683	169	24	83	42	55581	9	
42	42	RogueWraith	267	724	186	119	17092	253	40	146	68	67791	13	
43	43	Lethallynx	223	612	132	87	15234	211	32	111	55	60987	11	
44	44	FrostFang	204	529	104	70	13642	178	29	96	48	57645	10	
45	45	ScarletStrider	256	659	159	98	15679	224	35	116	57	63482	11	
46	46	RagingRaptor	271	698	167	111	16589	240	37	130	62	66934	12	
47	47	ShadowWisp	198	517	101	63	12465	172	23	81	43	54497	9	
48	48	VenomStrike	223	593	136	84	14275	201	31	105	53	58876	10	
49	49	FireFury	268	702	185	123	16587	231	36	126	60	65487	12	

Unnamed: 0	Player Name	Matches Played	Kills	Deaths	Assists	Damage Dealt	Headshots	Wins	Top 10s	Revives	Distance Traveled	Weapons Used	Ti
50	50	VenomousViper	210	566	132	71	13985	187	27	98	46	58647	10
51	51	PhoenixFury	288	742	188	104	16982	248	41	137	69	66298	12
52	52	SteelStorm	176	448	83	52	10374	142	18	67	32	49876	8
53	53	BlazingBlade	313	789	211	123	18876	275	44	163	72	72985	13
54	54	StormChaser	257	674	158	95	15482	212	36	119	58	64279	11
55	55	Frostbite	197	501	105	64	11634	149	25	85	43	57401	10
56	56	Nightmare	288	713	174	118	16648	236	39	138	64	67845	12
57	57	CrimsonTide	224	589	124	88	14257	195	31	105	53	59875	11
58	58	SilentShadow	193	483	99	63	11968	155	22	78	40	53481	10
59	59	VengefulViper	212	576	134	76	14398	197	28	100	50	57698	10
60	60	SolarFlare	250	641	158	102	15734	221	37	130	61	62892	11
61	61	SkyDancer	195	502	108	66	12683	169	24	83	42	55581	9
62	62	RogueWraith	267	724	186	119	17092	253	40	146	68	67791	13
63	63	Lethallynx	223	612	132	87	15234	211	32	111	55	60987	11
64	64	FrostFang	204	529	104	70	13642	178	29	96	48	57645	10
65	65	ScarletStrider	256	659	159	98	15679	224	35	116	57	63482	11
66	66	RagingRaptor	271	698	167	111	16589	240	37	130	62	66934	12
67	67	ShadowWisp	198	517	101	63	12465	172	23	81	43	54497	9
68	68	VenomStrike	223	593	136	84	14275	201	31	105	53	58876	10
69	69	FireFury	268	702	185	123	16587	231	36	126	60	65487	12
70	70	VenomousViper	210	566	132	71	13985	187	27	98	46	58647	10
71	71	PhoenixFury	288	742	188	104	16982	248	41	137	69	66298	12
72	72	SteelStorm	176	448	83	52	10374	142	18	67	32	49876	8
73	73	BlazingBlade	313	789	211	123	18876	275	44	163	72	72985	13
74	74	StormChaser	257	674	158	95	15482	212	36	119	58	64279	11
75	75	Frostbite	197	501	105	64	11634	149	25	85	43	57401	10
76	76	Nightmare	288	713	174	118	16648	236	39	138	64	67845	12
77	77	CrimsonTide	224	589	124	88	14257	195	31	105	53	59875	11
78	78	SilentShadow	193	483	99	63	11968	155	22	78	40	53481	10
79	79	VengefulViper	212	576	134	76	14398	197	28	100	50	57698	10
80	80	SolarFlare	250	641	158	102	15734	221	37	130	61	62892	11
81	81	SkyDancer	195	502	108	66	12683	169	24	83	42	55581	9
82	82	RogueWraith	267	724	186	119	17092	253	40	146	68	67791	13
83	83	Lethallynx	223	612	132	87	15234	211	32	111	55	60987	11
84	84	FrostFang	204	529	104	70	13642	178	29	96	48	57645	10
85	85	ScarletStrider	256	659	159	98	15679	224	35	116	57	63482	11
86	86	RagingRaptor	271	698	167	111	16589	240	37	130	62	66934	12
87	87	ShadowWisp	198	517	101	63	12465	172	23	81	43	54497	9
88	88	VenomStrike	223	593	136	84	14275	201	31	105	53	58876	10
89	89	FireFury	268	702	185	123	16587	231	36	126	60	65487	12
90	90	BlazingSun	263	692	158	89	16273	207	39	132	63	64402	12
91	91	ShadowStrike	215	562	96	74	13452	163	30	101	47	56623	10
92	92	SteelGuardian	289	703	175	101	17481	222	37	134	59	68937	11
93	93	WickedWitch	176	387	78	47	9867	127	21	69	35	49785	9
94	94	RuthlessRaptor	336	826	222	139	20357	278	48	178	76	75894	15
95	95	FrostyFox	197	501	105	64	11634	149	25	85	43	57401	10
96	96	ViperVenom	221	621	154	86	14598	193	29	102	48	60986	11
97	97	CrimsonReaper	278	719	185	118	16678	218	36	128	62	68591	13
98	98	PhantomGhost	185	471	91	55	11876	138	22	74	37	52103	9
99	99	StormStrider	257	654	147	92	15645	201	34	118	54	62891	11

Unnamed: 0	Player Name	Matches Played	Kills	Deaths	Assists	Damage Dealt	Headshots	Wins	Top 10s	Revives	Distance Traveled	Weapons Used	Ti
100	100	StormBreaker	213	577	126	93	14123	204	28	99	50	59674	10
101	101	SapphireSword	238	621	145	102	15346	219	33	111	55	61598	11
102	102	ShadowReign	241	662	168	117	16092	232	35	119	59	62987	12
103	103	DragonSlayer	229	619	141	97	14894	213	31	105	52	60982	11
104	104	SilverShadow	218	589	132	89	14389	207	30	100	50	59976	10
105	105	EagleEye	226	604	155	100	15234	216	32	110	56	61875	11
106	106	BlazingStorm	193	518	109	71	12876	193	25	87	43	55589	10
107	107	MidnightSage	247	681	173	119	16098	224	36	120	58	62974	11
108	108	RapidBlaze	202	537	122	82	13367	189	28	93	47	57894	9
109	109	FrostFire	211	548	117	79	13687	197	30	100	49	58976	10
110	110	ScarletWitch	254	679	152	98	15678	214	35	115	56	62893	11
111	111	RagingTiger	288	731	188	124	16679	230	37	128	61	66678	12
112	112	SpectralRogue	245	642	148	96	15432	218	34	115	57	61784	11
113	113	BlazingRaptor	296	786	192	131	17845	246	40	138	66	68876	13
114	114	EternalShadow	209	579	135	88	14267	203	29	101	51	59987	10
115	115	WickedStrider	232	619	154	100	14976	213	32	110	53	61587	11
116	116	FrostFire	191	501	114	73	12678	184	26	88	44	56489	10
117	117	CrimsonStorm	226	638	159	105	15694	223	34	117	57	61987	11
118	118	RuthlessReaper	198	512	103	68	12987	186	24	84	42	54278	10
119	119	VenomousViper	246	674	163	107	16056	219	35	120	58	62894	11
120	120	FrostFury	216	553	129	81	13587	191	29	99	49	59987	10
121	121	ShadowBlade	267	702	178	116	16687	227	36	125	62	65789	12
122	122	RapidPhantom	285	729	185	127	17568	238	38	130	65	67689	13
123	123	ViperStrike	202	533	110	72	13157	189	28	96	47	55478	10
124	124	EternalBlaze	226	622	140	96	14986	215	33	109	54	61187	11
125	125	Vengeance	213	568	124	95	13967	201	28	101	52	59487	10
126	126	LunarShadow	239	621	144	98	15234	219	34	112	56	61694	11
127	127	Deathstrike	242	662	167	112	15987	231	35	119	60	62876	12
128	128	AzureBlade	227	612	138	92	14789	210	31	107	54	60589	11
129	129	RavenHeart	219	583	130	87	14256	203	29	98	50	59876	10
130	130	SerpentFury	223	594	152	102	15378	220	32	109	55	61879	11
131	131	CrimsonRogue	195	519	107	69	12789	191	26	86	44	55894	10
132	132	VoidSeeker	248	671	171	114	15978	225	36	120	59	62987	12
133	133	AstralSword	203	536	123	83	13247	194	28	92	48	57856	10
134	134	FrozenFlame	212	543	116	78	13678	196	30	100	49	59278	10
135	135	TwilightWarden	253	661	150	97	15589	212	34	116	56	61975	11
136	136	ShadowPhoenix	287	723	185	128	16689	229	37	127	61	66698	12
137	137	PhantomStrider	286	732	183	130	17345	234	38	130	65	67587	13
138	138	VengefulViper	203	534	112	75	13078	188	29	95	48	56298	10
139	139	EternalFire	213	578	131	88	14257	202	30	102	53	59987	10
140	140	NebulaBlade	238	632	154	100	15378	214	34	115	57	61187	11
141	141	SilverHawk	194	526	106	68	12987	193	27	87	43	55698	10
142	142	SolarSword	248	662	167	114	15867	226	35	120	59	62378	11
143	143	EclipseShadow	205	547	124	84	13589	197	29	98	50	58987	10
144	144	StarBlade	214	562	119	80	13876	200	30	100	51	59968	10
145	145	LethalWraith	252	667	153	99	15678	213	33	114	58	61789	11
146	146	RadiantBlaze	288	727	183	129	16878	230	37	126	62	66789	12
147	147	FrostGuardian	283	724	182	128	17256	236	37	128	64	67578	13
148	148	MysticSerpent	207	539	111	76	13278	190	29	95	48	56478	10
149	149	InfernoStorm	211	548	121	82	13789	198	30	99	50	57876	10

Unnamed: 0	Player Name	Matches Played	Kills	Deaths	Assists	Damage Dealt	Headshots	Wins	Top 10s	Revives	Distance Traveled	Weapons Used	Ti
150	150	Vengeance	213	568	124	95	13967	201	28	101	52	59487	10
151	151	LunarShadow	239	621	144	98	15234	219	34	112	56	61694	11
152	152	Deathstrike	242	662	167	112	15987	231	35	119	60	62876	12
153	153	AzureBlade	227	612	138	92	14789	210	31	107	54	60589	11
154	154	RavenHeart	219	583	130	87	14256	203	29	98	50	59876	10
155	155	SerpentFury	223	594	152	102	15378	220	32	109	55	61879	11
156	156	CrimsonRogue	195	519	107	69	12789	191	26	86	44	55894	10
157	157	VoidSeeker	248	671	171	114	15978	225	36	120	59	62987	12
158	158	AstralSword	203	536	123	83	13247	194	28	92	48	57856	10
159	159	FrozenFlame	212	543	116	78	13678	196	30	100	49	59278	10
160	160	TwilightWarden	253	661	150	97	15589	212	34	116	56	61975	11
161	161	ShadowPhoenix	287	723	185	128	16689	229	37	127	61	66698	12
162	162	PhantomStrider	286	732	183	130	17345	234	38	130	65	67587	13
163	163	VengefulViper	203	534	112	75	13078	188	29	95	48	56298	10
164	164	EternalFire	213	578	131	88	14257	202	30	102	53	59987	10
165	165	NebulaBlade	238	632	154	100	15378	214	34	115	57	61187	11
166	166	SilverHawk	194	526	106	68	12987	193	27	87	43	55698	10
167	167	SolarSword	248	662	167	114	15867	226	35	120	59	62378	11
168	168	EclipseShadow	205	547	124	84	13589	197	29	98	50	58987	10
169	169	StarBlade	214	562	119	80	13876	200	30	100	51	59968	10
170	170	LethalWraith	252	667	153	99	15678	213	33	114	58	61789	11
171	171	RadiantBlaze	288	727	183	129	16878	230	37	126	62	66789	12
172	172	FrostGuardian	283	724	182	128	17256	236	37	128	64	67578	13
173	173	MysticSerpent	207	539	111	76	13278	190	29	95	48	56478	10
174	174	InfernoStorm	211	548	121	82	13789	198	30	99	50	57876	10
175	175	Vengeance	213	568	124	95	13967	201	28	101	52	59487	10
176	176	LunarShadow	239	621	144	98	15234	219	34	112	56	61694	11
177	177	Deathstrike	242	662	167	112	15987	231	35	119	60	62876	12
178	178	AzureBlade	227	612	138	92	14789	210	31	107	54	60589	11
179	179	RavenHeart	219	583	130	87	14256	203	29	98	50	59876	10
180	180	SerpentFury	223	594	152	102	15378	220	32	109	55	61879	11
181	181	CrimsonRogue	195	519	107	69	12789	191	26	86	44	55894	10
182	182	VoidSeeker	248	671	171	114	15978	225	36	120	59	62987	12
183	183	AstralSword	203	536	123	83	13247	194	28	92	48	57856	10
184	184	FrozenFlame	212	543	116	78	13678	196	30	100	49	59278	10
185	185	TwilightWarden	253	661	150	97	15589	212	34	116	56	61975	11
186	186	ShadowPhoenix	287	723	185	128	16689	229	37	127	61	66698	12
187	187	PhantomStrider	286	732	183	130	17345	234	38	130	65	67587	13
188	188	VengefulViper	203	534	112	75	13078	188	29	95	48	56298	10
189	189	EternalFire	213	578	131	88	14257	202	30	102	53	59987	10
190	190	NebulaBlade	238	632	154	100	15378	214	34	115	57	61187	11
191	191	SilverHawk	194	526	106	68	12987	193	27	87	43	55698	10
192	192	SolarSword	248	662	167	114	15867	226	35	120	59	62378	11
193	193	EclipseShadow	205	547	124	84	13589	197	29	98	50	58987	10
194	194	StarBlade	214	562	119	80	13876	200	30	100	51	59968	10
195	195	LethalWraith	252	667	153	99	15678	213	33	114	58	61789	11
196	196	RadiantBlaze	288	727	183	129	16878	230	37	126	62	66789	12
197	197	FrostGuardian	283	724	182	128	17256	236	37	128	64	67578	13
198	198	MysticSerpent	207	539	111	76	13278	190	29	95	48	56478	10
199	199	InfernoStorm	211	548	121	82	13789	198	30	99	50	57876	10

Unnamed: 0	Player Name	Matches Played	Kills	Deaths	Assists	Damage Dealt	Headshots	Wins	Top 10s	Revives	Distance Traveled	Weapons Used	Ti
200	200	BlazeRanger	225	603	139	93	14678	207	31	106	52	60967	11
201	201	RagingFire	239	625	142	97	15123	218	33	110	55	61976	11
202	202	ShadowDancer	242	662	165	110	15789	225	35	118	59	62867	12
203	203	PhoenixWings	226	617	136	89	14456	201	30	105	53	60487	11
204	204	IceStorm	218	589	127	83	13987	205	29	98	50	59967	10
205	205	MoonlitSorcerer	221	598	150	99	15087	213	32	108	54	61489	11
206	206	DarkReaper	197	511	104	68	12689	190	26	85	43	55576	10
207	207	CosmicGhost	239	655	170	112	15567	221	34	115	56	62367	11
208	208	StormRider	206	542	124	81	13345	194	29	97	49	58678	10
209	209	FlareRogue	215	561	118	79	13678	197	30	100	50	59789	10
210	210	RadiantBlade	263	692	174	116	16456	226	35	120	58	63345	12
211	211	TempestPhantom	295	728	184	126	17134	238	38	130	65	67234	13
212	212	SapphireViper	210	549	113	74	13489	189	29	96	48	56789	10
213	213	EternalFlame	223	591	130	85	14234	199	30	103	52	60178	11
214	214	StarlightBlade	248	652	157	103	15578	217	33	110	54	61287	11
215	215	LunarShadow	267	697	173	120	16245	231	36	125	62	64876	12
216	216	CrimsonRider	294	743	187	132	17567	242	39	133	67	66987	13
217	217	BlazingSorcerer	203	521	109	72	13123	193	27	91	45	55487	10
218	218	FrozenFlare	206	553	117	76	13756	196	29	96	49	58789	10
219	219	AbyssGuardian	220	597	144	98	14967	212	32	108	54	60978	11
220	220	SpectralPhantom	225	624	149	100	15345	219	33	110	55	61789	11

## .tail()

tail is used to show rows by descending order

In [9]: df.tail()

Unnamed: 0	Player_Name	Matches_Played	Kills	Deaths	Assists	Damage_Dealt	Headshots	Wins	Top_10s	Revives	Distance_Traveled	Weapons_Used	Ti
216	216	CrimsonRider	294	743	187	132	17567	242	39	133	67	66987	13
217	217	BlazingSorcerer	203	521	109	72	13123	193	27	91	45	55487	10
218	218	FrozenFlare	206	553	117	76	13756	196	29	96	49	58789	10
219	219	AbyssGuardian	220	597	144	98	14967	212	32	108	54	60978	11
220	220	SpectralPhantom	225	624	149	100	15345	219	33	110	55	61789	11

## .Shape

it show the total no of rows & column in the dataset

In [10]: df.shape

Out[10]: (221, 15)

## .columns

it show the no of each column

In [11]: df.columns

```
Out[11]: Index(['Unnamed: 0', 'Player_Name', 'Matches_Played', 'Kills', 'Deaths',
       'Assists', 'Damage_Dealt', 'Headshots', 'Wins', 'Top_10s', 'Revives',
       'Distance_Traveled', 'Weapons_Used', 'Time_Survived', 'Rank'],
      dtype='object')
```

## .dtypes

This attributes show the data type of each column

In [12]: `df.dtypes`

```
Out[12]: Unnamed: 0      int64
          Player_Name    object
          Matches_Played   int64
          Kills            int64
          Deaths           int64
          Assists          int64
          Damage_Dealt     int64
          Headshots        int64
          Wins             int64
          Top_10s          int64
          Revives          int64
          Distance_Traveled int64
          Weapons_Used     int64
          Time_Survived    int64
          Rank             object
          dtype: object
```

## .unique()

In a column, it show the unique value of specific column

In [13]: `df["Player_Name"].unique()`

```
Out[13]: array(['StealthMaster', 'SniperLion', 'NinjaGamer', 'ThunderStrike',
       'SpeedDemon', 'BlazeFury', 'RapidShadow', 'Frostbite',
       'SavageQueen', 'SwiftStriker', 'VenomousViper', 'PhoenixFury',
       'SteelStorm', 'BlazingBlade', 'StormChaser', 'Nightmare',
       'CrimsonTide', 'SilentShadow', 'VengefulViper', 'SolarFlare',
       'SkyDancer', 'RogueWraith', 'Lethallynx', 'FrostFang',
       'ScarletStrider', 'RagingRaptor', 'ShadowWisp', 'VenomStrike',
       'FireFury', 'BlazingSun', 'ShadowStrike', 'SteelGuardian',
       'WickedWitch', 'RuthlessRaptor', 'FrostyFox', 'ViperVenom',
       'CrimsonReaper', 'PhantomGhost', 'StormStriden', 'StormBreaker',
       'SapphireSword', 'ShadowReign', 'DragonSlayer', 'SilverShadow',
       'EagleEye', 'BlazingStorm', 'MidnightSage', 'RapidBlaze',
       'FrostFire', 'ScarletWitch', 'RagingTiger', 'SpectralRogue',
       'BlazingRaptor', 'EternalShadow', 'WickedStrider', 'CrimsonStorm',
       'RuthlessReaper', 'FrostFury', 'ShadowBlade', 'RapidPhantom',
       'ViperStrike', 'EternalBlaze', 'Vengeance', 'LunarShadow',
       'Deathstrike', 'AzureBlade', 'RavenHeart', 'SerpentFury',
       'CrimsonRogue', 'VoidSeeker', 'AstralSword', 'FrozenFlame',
       'TwilightWarden', 'ShadowPhoenix', 'PhantomStrider', 'EternalFire',
       'NebulaBlade', 'SilverHawk', 'SolarSword', 'EclipseShadow',
       'StarBlade', 'LethalWraith', 'RadiantBlaze', 'FrostGuardian',
       'MysticSerpent', 'InfernoStorm', 'BlazeRanger', 'RagingFire',
       'ShadowDancer', 'PhoenixWings', 'IceStorm', 'MoonlitSorcerer',
       'DarkReaper', 'CosmicGhost', 'StormRider', 'FlareRogue',
       'RadiantBlade', 'TempestPhantom', 'SapphireViper', 'EternalFlame',
       'StarlightBlade', 'CrimsonRider', 'BlazingSorcerer', 'FrozenFlare',
       'AbyssGuardian', 'SpectralPhantom'], dtype=object)
```

## .nunique()

it will show the total no unique value from whole data frame

In [14]: `df.nunique()`

```
Out[14]: Unnamed: 0      221
          Player_Name    106
          Matches_Played   70
          Kills            90
          Deaths           82
          Assists          65
          Damage_Dealt     102
          Headshots        70
          Wins             28
          Top_10s          59
          Revives          39
          Distance_Traveled 105
          Weapons_Used     9
          Time_Survived    107
          Rank             4
          dtype: int64
```

## .describe()

It show the count,mean,median etc

In [15]: `df.describe()`

	Unnamed: 0	Matches_Played	Kills	Deaths	Assists	Damage_Dealt	Headshots	Wins	Top_10s	Revives	Distance_Traveled	Weapon
<b>count</b>	221.000000	221.000000	221.000000	221.000000	221.000000	221.000000	221.000000	221.000000	221.000000	221.000000	221.000000	221.000000
<b>mean</b>	110.000000	234.624434	612.674208	142.579186	92.615385	14801.004525	207.361991	31.895928	110.357466	54.330317	61449.316742	10.
<b>std</b>	63.941379	37.178429	89.311216	32.882564	21.423045	1902.947975	29.775909	5.806190	23.794648	10.436145	5775.529199	1.
<b>min</b>	0.000000	143.000000	368.000000	68.000000	42.000000	9865.000000	123.000000	18.000000	67.000000	32.000000	49785.000000	8.
<b>25%</b>	55.000000	206.000000	543.000000	117.000000	76.000000	13589.000000	193.000000	28.000000	97.000000	48.000000	57856.000000	10.
<b>50%</b>	110.000000	224.000000	604.000000	138.000000	92.000000	14894.000000	210.000000	32.000000	108.000000	54.000000	60986.000000	11.
<b>75%</b>	165.000000	257.000000	674.000000	167.000000	111.000000	15987.000000	226.000000	36.000000	125.000000	60.000000	64279.000000	12.
<b>max</b>	220.000000	409.000000	923.000000	267.000000	139.000000	21037.000000	312.000000	55.000000	258.000000	128.000000	98234.000000	18.

## .value\_counts()

its show all the unique value with their count

In [16]: `df["Player_Name"].value_counts()`

```
Out[16]: VengefulViper    7
          Frostbite      5
          VenomousViper   5
          LethalLynx      4
          Nightmare      4
          FireFury        4
          VenomStrike     4
          ShadowWisp      4
          RagingRaptor    4
          ScarletStrider  4
          FrostFang       4
          RogueWraith     4
          SkyDancer       4
          SolarFlare      4
          SilentShadow    4
          CrimsonTide     4
          StormChaser     4
          BlazingBlade    4
          SteelStorm      4
          PhoenixFury     4
          LunarShadow     4
          AzureBlade      3
          SolarSword      3
          SilverHawk      3
          EclipseShadow   3
          StarBlade       3
          InfernoStorm    3
          MysticSerpent   3
          FrostGuardian   3
          NebulaBlade     3
          EternalFire     3
          PhantomStrider  3
          Deathstrike     3
          ShadowPhoenix   3
          TwilightWarden  3
          FrozenFlame     3
          LethalWraith    3
          AstralSword     3
          VoidSeeker      3
          CrimsonRogue   3
          SerpentFury     3
          RavenHeart      3
          Vengeance       3
          RadiantBlaze   3
          Frostfire       2
          StealthMaster   1
          BlazeRanger     1
          TempestPhantom  1
          AbyssGuardian  1
          FrozenFlare     1
          BlazingSorcerer 1
          CrimsonRider   1
          StarlightBlade  1
          EternalFlame    1
          SapphireViper  1
          RadiantBlade   1
          RagingFire      1
          FlareRogue      1
          CosmicGhost     1
          DarkReaper      1
          MoonlitSorcerer 1
          IceStorm        1
          PhoenixWings    1
          ShadowDancer    1
          StormRider      1
          EternalShadow   1
          EternalBlaze    1
          ViperStrike     1
          StormStrider    1
          PhantomGhost    1
          CrimsonReaper   1
          ViperVenom      1
          FrostyFox       1
          RuthlessRaptor  1
          WickedWitch     1
          SteelGuardian   1
          ShadowStrike    1
          BlazingSun      1
          SwiftStriker    1
          SavageQueen     1
          RapidShadow     1
          BlazeFury       1
          SpeedDemon      1
          ThunderStrike   1
          NinjaGamer     1
          StormBreaker    1
          SapphireSword   1
          ShadowReign     1
          BlazingRaptor   1
          RapidPhantom    1
```

```
ShadowBlade      1
FrostFury        1
RuthlessReaper   1
CrimsonStorm     1
WickedStrider    1
SniperLion       1
SpectralRogue    1
DragonSlayer     1
RagingTiger       1
ScarletWitch     1
RapidBlaze       1
MidnightSage     1
BlazingStorm     1
EagleEye          1
SilverShadow      1
SpectralPhantom   1
Name: Player_Name, dtype: int64
```

## .isnull()

it shows the how many null values

```
In [17]: df.isnull()
```

Pubg Project Done By Usama

Out[17]:

Pubg Project Done By Usama

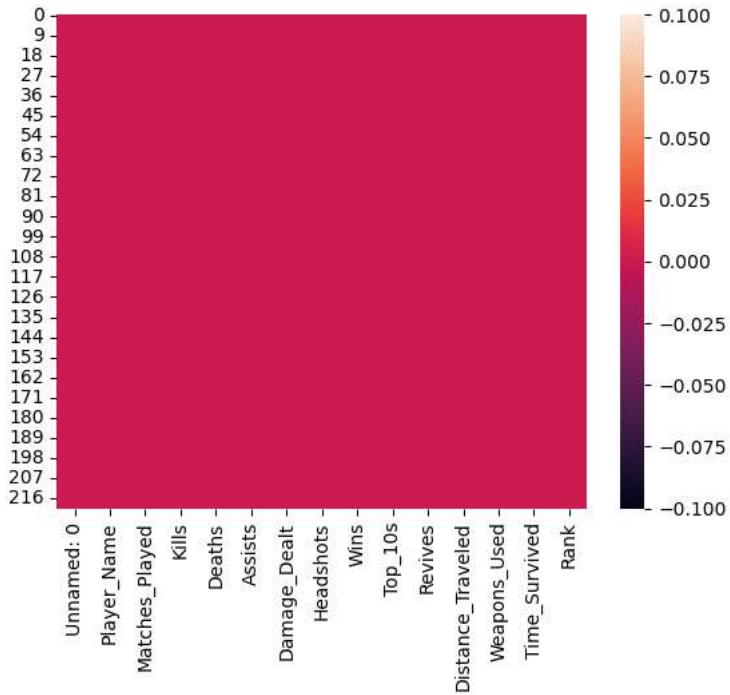
Pubg Project Done By Usama

Pubg Project Done By Usama

Unnamed: 0	Player Name	Matches Played	Kills	Deaths	Assists	Damage Dealt	Headshots	Wins	Top 10s	Revives	Distance Traveled	Weapons Used	Time
200	False	False	False	False	False	False	False	False	False	False	False	False	False
201	False	False	False	False	False	False	False	False	False	False	False	False	False
202	False	False	False	False	False	False	False	False	False	False	False	False	False
203	False	False	False	False	False	False	False	False	False	False	False	False	False
204	False	False	False	False	False	False	False	False	False	False	False	False	False
205	False	False	False	False	False	False	False	False	False	False	False	False	False
206	False	False	False	False	False	False	False	False	False	False	False	False	False
207	False	False	False	False	False	False	False	False	False	False	False	False	False
208	False	False	False	False	False	False	False	False	False	False	False	False	False
209	False	False	False	False	False	False	False	False	False	False	False	False	False
210	False	False	False	False	False	False	False	False	False	False	False	False	False
211	False	False	False	False	False	False	False	False	False	False	False	False	False
212	False	False	False	False	False	False	False	False	False	False	False	False	False
213	False	False	False	False	False	False	False	False	False	False	False	False	False
214	False	False	False	False	False	False	False	False	False	False	False	False	False
215	False	False	False	False	False	False	False	False	False	False	False	False	False
216	False	False	False	False	False	False	False	False	False	False	False	False	False
217	False	False	False	False	False	False	False	False	False	False	False	False	False
218	False	False	False	False	False	False	False	False	False	False	False	False	False
219	False	False	False	False	False	False	False	False	False	False	False	False	False
220	False	False	False	False	False	False	False	False	False	False	False	False	False

## Starting Graphs

```
In [18]: sns.heatmap(df.isnull())
plt.show()
```



```
In [19]: df.isna().sum()
```

```
Out[19]: Unnamed: 0      0
          Player_Name    0
          Matches_Played  0
          Kills           0
          Deaths          0
          Assists          0
          Damage_Dealt    0
          Headshots        0
          Wins            0
          Top_10s          0
          Revives          0
          Distance_Traveled 0
          Weapons_Used     0
          Time_Survived    0
          Rank             0
          dtype: int64
```

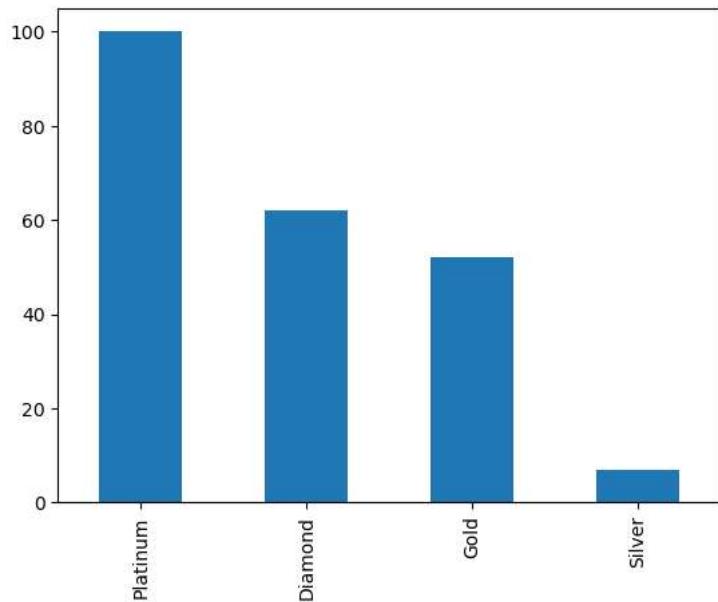
## Drop the unnamed column

```
In [20]: df.drop(['Unnamed: 0'], axis=1, inplace=True)
```

## show the rank in Barplot

```
In [21]: df.Rank.value_counts().plot(kind="bar")
```

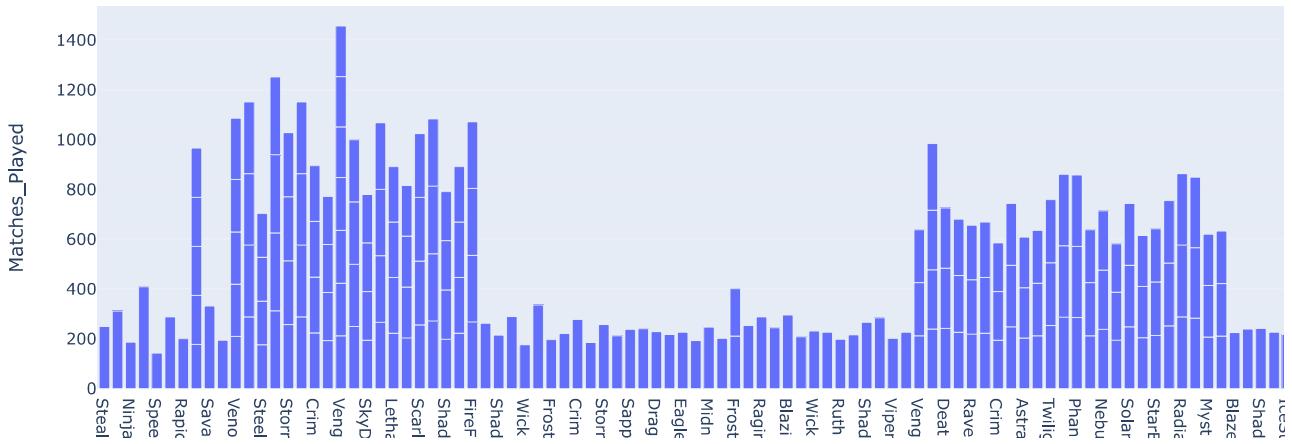
```
Out[21]: <AxesSubplot:...
```



## top 10 players by matches played

```
In [22]: bar_top_10_players= px.bar(df, x="Player_Name", y="Matches_Played", title="Top")
bar_top_10_players.show()
```

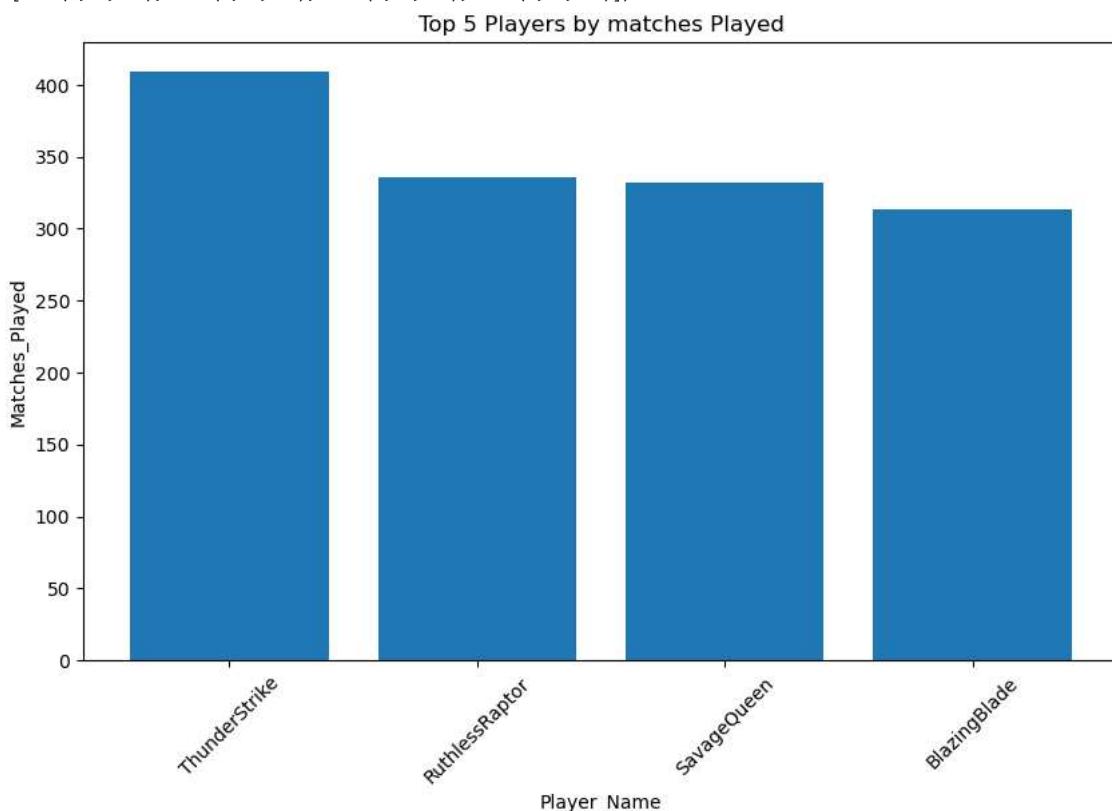
Top



sort the dataframe by "matches played" in descending order

```
In [68]: df = df.sort_values(by="Matches_Played", ascending=False)
#select the top 5 players with the highest matches played
top_5_players = df.head(5)
#create a bar plot for the top 5 Players
plt.figure(figsize=(10,6))
plt.bar(top_5_players["Player_Name"], top_5_players["Matches_Played"])
plt.xlabel("Player_Name")
plt.ylabel("Matches_Played")
plt.title("Top 5 Players by matches Played")
plt.xticks(rotation=45)
```

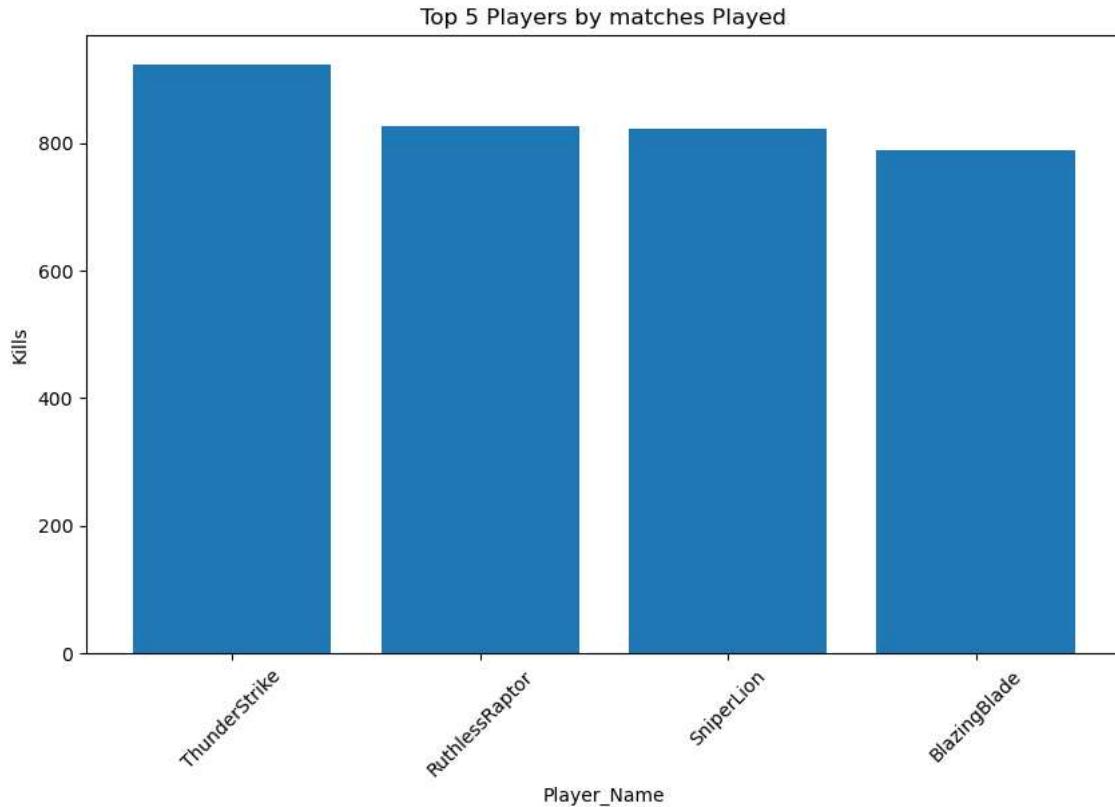
```
Out[68]: ([0, 1, 2, 3],
 [Text(0, 0, ''), Text(0, 0, ''), Text(0, 0, ''), Text(0, 0, '')])
```



## top 5 players by kills

```
In [69]: #sort the dataframe by "kills" in descending order
df = df.sort_values(by="Kills", ascending=False)
#select the top 5 players with the highest matches played
top_5_players = df.head(5)
plt.figure(figsize=(10,6))
plt.bar(top_5_players["Player_Name"], top_5_players["Kills"])
plt.xlabel("Player_Name")
plt.ylabel("Kills")
plt.title("Top 5 Players by matches Played")
plt.xticks(rotation=45)
```

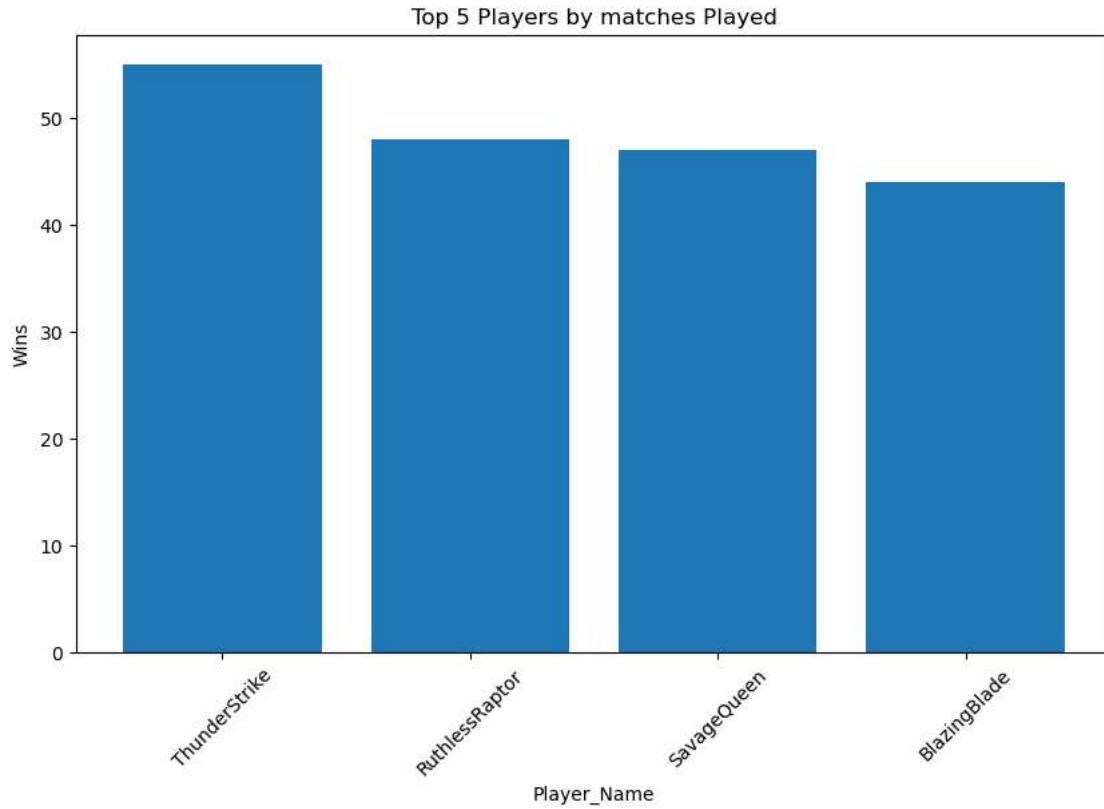
```
Out[69]: ([0, 1, 2, 3],
[Text(0, 0, ''), Text(0, 0, ''), Text(0, 0, ''), Text(0, 0, '')])
```



## Top 5 players by wins

```
In [70]: #sort the dataframe by "wins" in descending order
df = df.sort_values(by="Wins", ascending=False)
#select the top 5 players with the highest matches played
top_5_players = df.head(5)
plt.figure(figsize=(10,6))
plt.bar(top_5_players["Player_Name"], top_5_players["Wins"])
plt.xlabel("Player_Name")
plt.ylabel("Wins")
plt.title("Top 5 Players by matches Played")
plt.xticks(rotation=45)
```

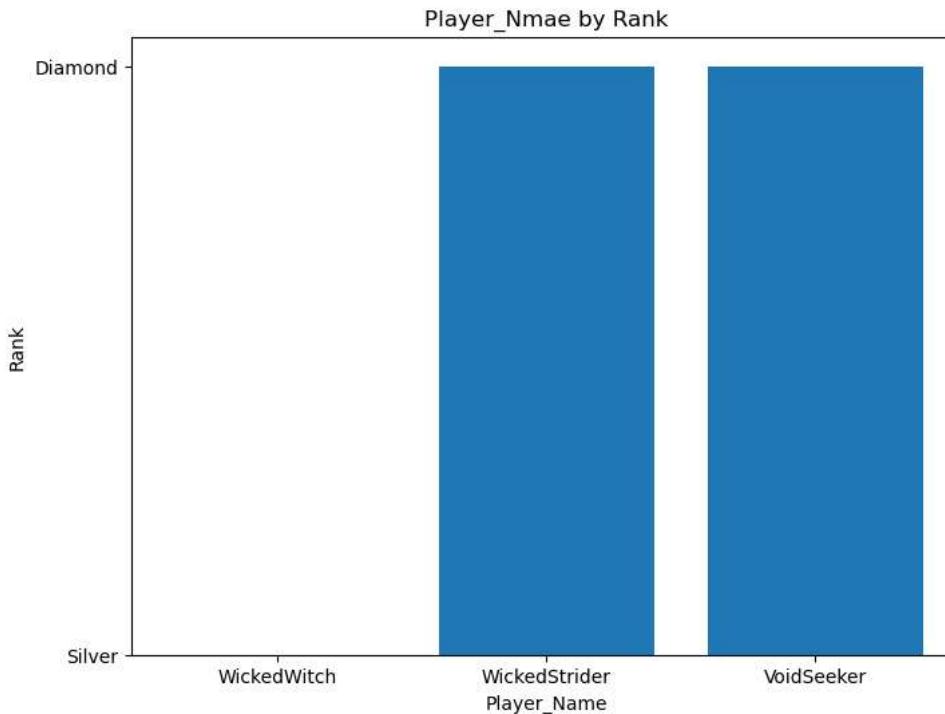
```
Out[70]: ([0, 1, 2, 3],
[Text(0, 0, ''), Text(0, 0, ''), Text(0, 0, ''), Text(0, 0, '')])
```



## TOP 5 players by Rank

```
In [71]: #sort the dataframe by "matched played" in descending order
df = df.sort_values(by="Player_Name", ascending=False)
#select the top 5 players with the hightest matches played
top_5_players = df.head(5)
plt.figure(figsize=(8,6))
plt.bar(top_5_players["Player_Name"], top_5_players["Rank"])
plt.xlabel("Player_Name")
plt.ylabel("Rank")
plt.title("Player_Nmae by Rank")
```

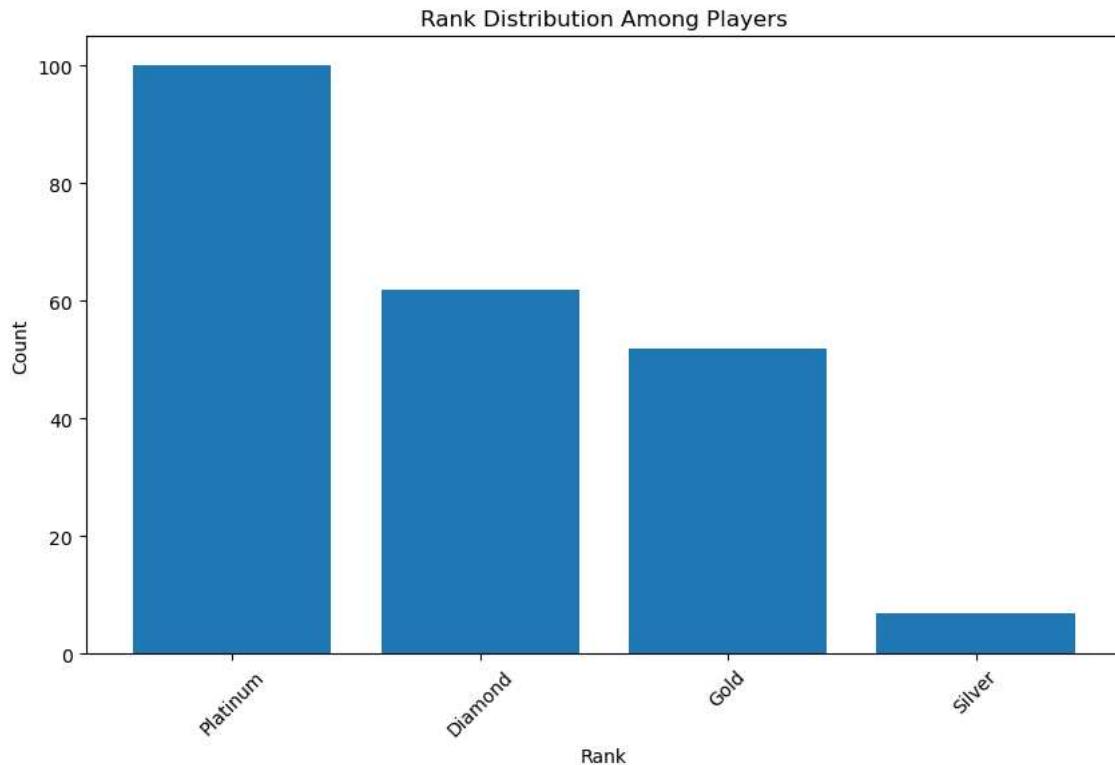
```
Out[71]: Text(0.5, 1.0, 'Player_Nmae by Rank')
```



## How many times rank are published

```
In [76]: rank_counts = df["Rank"].value_counts().reset_index()
rank_counts.columns = ["Rank", "Count"]
rank_counts = rank_counts.sort_values(by="Count", ascending=False)

plt.figure(figsize=(10, 6))
plt.bar(rank_counts["Rank"], rank_counts["Count"])
plt.xlabel("Rank")
plt.ylabel("Count")
plt.title("Rank Distribution Among Players")
plt.xticks(rotation=45)
plt.show()
```



## how many times Rank published by player

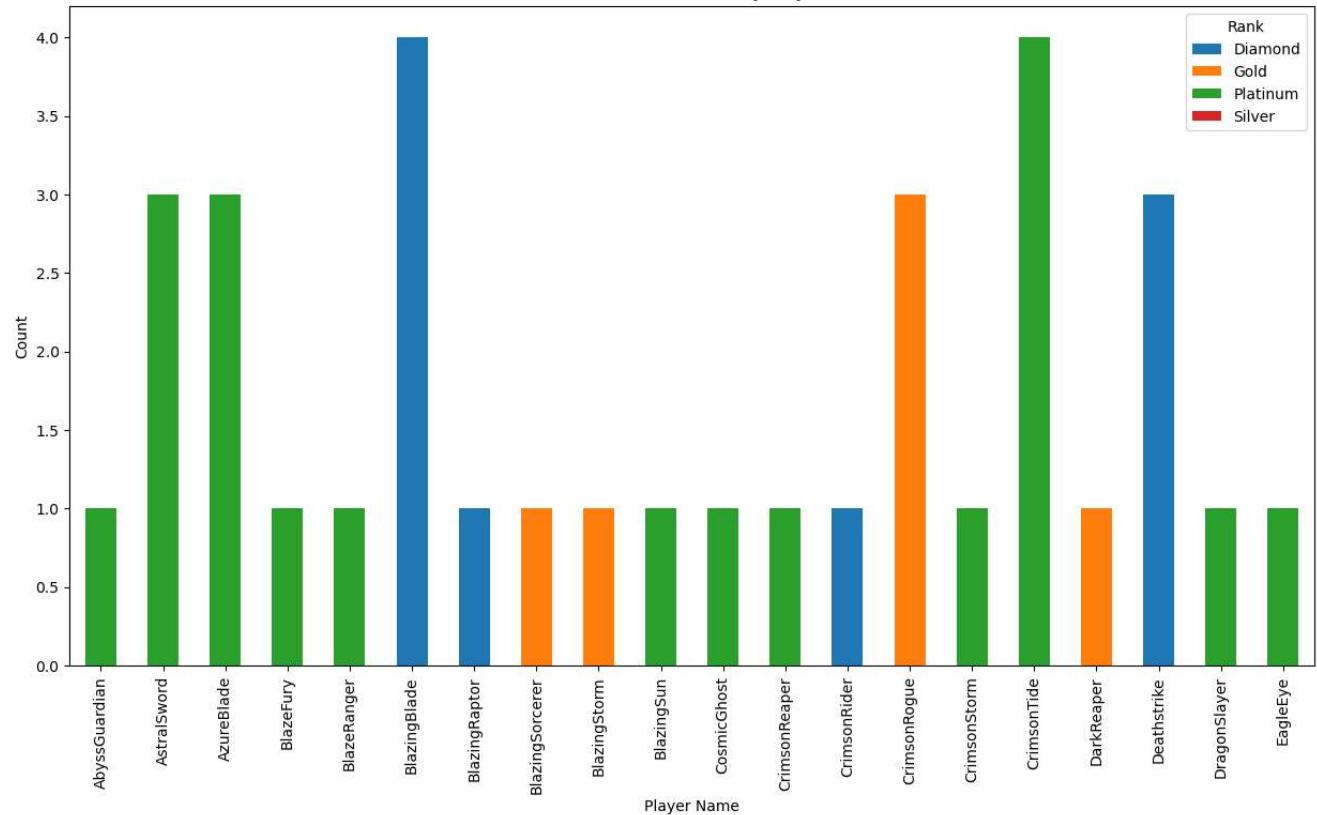
```
In [80]: #create a cross-tabulation to count how many times each rank was achieved by players
cross_tab = pd.crosstab(df["Player_Name"], df["Rank"]).head(20)

#plot the bar chart
cross_tab.plot(kind="bar", stacked=True, figsize=(15,8))

#customize the plot
plt.xlabel("Player Name")
plt.ylabel("Count")
plt.title("Rank Achievements by Player")

#Show the plot
plt.show()
```

## Rank Achievements by Player



In [ ]: