

Symbiosis Skills and Professional University



Skill Journal

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Date:10-12-2021

PRN:

School: School of Data Science

Course: Data Associate (Data Science)

Module Name: Python for Data Analysis / Managing with Data / Analyzing Data from Disparate Sources (**tick any one**)

1. Skill Activity Number: 9

2. Title: Business Analytics on PUBG Game Data Analysis

3. Skills / Competencies to be acquired:

Python

4. Duration: 2 days

5. What is the purpose of the activity?

How to analyses, explore a data with Python

6. Steps Performed in this activity?

7. What resources / materials / equipment / tools did you use for this activity?

Jupyter Notebook, MS Word

8. What skills did you acquire?

Python

9. Time taken to complete this activity?

2 Hours

Business – Analytics Assignment on Project Data

Project: PUBG Game Data Analysis

1) Descriptive Analytics:

2) Read a Dataset CSV files

```
In [3]: # import / read the csv or dataset file
data1 = pd.read_csv(r'H:\Downloads\Symboisis Skills\PUBG Data Analysis\pubg.csv')
```

```
In [4]: # import / read the csv or dataset file
data2 = pd.read_csv('H:\Downloads\Symboisis Skills\PUBG Data Analysis\Responses.csv')
```

```
In [5]: data1
```

```
Out[5]:
```

	Id	groupId	matchId	assists	boosts	damageDealt	DBNOs	headshotKills	heals	killPlace	...	revives	rideDistance	roadKills
0	2f262dd9795e80	78437bcd91d40e	d5db3a49eb2955	0	0	0.0	0	0	0	92	...	0	0.0	
1	a32847cf5bf34b	85b7ce5a12e10b	65223f05c7fdb4	0	0	163.2	1	1	0	42	...	0	0.0	
2	1b1900a9990398	edf80d6523380a	1cade04634f30a	0	3	278.7	2	1	8	16	...	3	0.0	
3	f589dd03b80bf2	804ab5e5585558	c4a5678dc91804	0	0	191.9	1	0	0	31	...	0	0.0	
4	c23c4cc5b78b35	b3e2cd169ed920	cd595700a01bfa	0	0	100.0	1	0	0	87	...	0	0.0	
...
9995	ef4f474acd8e85	2eca2a8391f75d	492ecdfae90b46	0	3	204.5	1	0	0	17	...	3	0.0	
9996	cf0bf82fb4d80e	2eaf2765f93adb	14bffd71e96320	0	0	0.0	0	0	0	49	...	0	0.0	
9997	a0a31a0b1dcbe1	8d50c64ccc5071	147e4bbb62e3bb	0	0	0.0	0	0	0	83	...	0	0.0	
9998	f6874657399d69	d31843d7e62ccb	662567dcf280f5	0	0	0.0	0	0	0	82	...	0	0.0	
9999	90359b0b8f8b0d	61d5b1bb8da43f	258bfa48d88014	0	0	0.0	0	0	0	78	...	0	0.0	

10000 rows x 29 columns

```
In [87]: data2.head(10)
```

```
Out[87]:
```

	Do you play	How long have you	How often do you	How much	How affect	Positive effects	Negative	What are reasons that	How affect	According to you are there positive
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Data Cleaning

```
In [7]: # shows the first 5 rows from dataset
data1.head()
```

```
Out[7]:
```

	Id	groupId	matchId	assists	boosts	damageDealt	DBNOs	headshotKills	heals	killPlace	...	revives	rideDistance	roadKills
0	2f282dd9795e80	78437bcd91d40e	d5db3a49eb2955	0	0	0.0	0	0	0	92	...	0	0.0	0
1	a32847cf5bf34b	85b7ce5a12e10b	85223f05c7fbb4	0	0	183.2	1	1	0	42	...	0	0.0	0
2	1b1900a9990398	edf80d8523380a	1cadeec4634f30a	0	3	278.7	2	1	8	18	...	3	0.0	0
3	f589dd03b80bf2	804ab5e5585558	c4a5878dc91804	0	0	191.9	1	0	0	31	...	0	0.0	0
4	c23c4cc5b78b35	b3e2cd189ed920	cd595700a01bfa	0	0	100.0	1	0	0	87	...	0	0.0	0

5 rows × 29 columns

```
In [8]: # shows the last 5 rows from dataset
data1.tail()
```

```
Out[8]:
```

	Id	groupId	matchId	assists	boosts	damageDealt	DBNOs	headshotKills	heals	killPlace	...	revives	rideDistance	roadKills
9995	ef4f474acd8e85	2eca2a8391f75d	492ecdffae90b48	0	3	204.5	1	0	0	17	...	3	0.0	0
9996	cf0bf82fb4d80e	2eaf2785f93adb	14bfd71e98320	0	0	0.0	0	0	0	49	...	0	0.0	0
9997	a0a31a0b1dcbe1	8d50c84ccc5071	147e4bbb82e3bb	0	0	0.0	0	0	0	83	...	0	0.0	0
9998	f8874657399d89	d31843d7e82ccb	882567dcf280f5	0	0	0.0	0	0	0	82	...	0	0.0	0
9999	90359b0b8f8b0d	81d5b1bb8da43f	258bfa48d88014	0	0	0.0	0	0	0	78	...	0	0.0	0

5 rows × 29 columns

```
In [9]: # shows the first 5 rows from dataset
data2.head()
```

```
Out[9]:
```

1) The most kills ever recorded are

The most kills ever recorded are

```
In [10]: print('The most kills ever',pubg['kills'].max())
```

The most kills ever 35

2) Min, Max Median values of kills, killPoints, Age

```
In [33]: # show the mid value of column kills using median()
data1['kills'].median()
```

```
Out[33]: 0.0
```

```
In [34]: # show the max value of column killsPoints and kills using max()
data1[['killPoints','kills']].max()
```

```
Out[34]: killPoints    1926
kills              35
dtype: int64
```

```
In [35]: data1['killPoints'].argmax()
```

```
Out[35]: 5780
```

```
In [36]: data2['Age'].max()
```

```
Out[36]: 27
```

```
In [37]: data2['Age'].min()
```

```
Out[37]: 18
```

```
In [38]: data2['Age'].median()
```

```
Out[38]: 23.0
```

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3) Finding Rank Points of players where points are greater than 2000

```
In [59]: data1[data1['rankPoints']>2000]
```

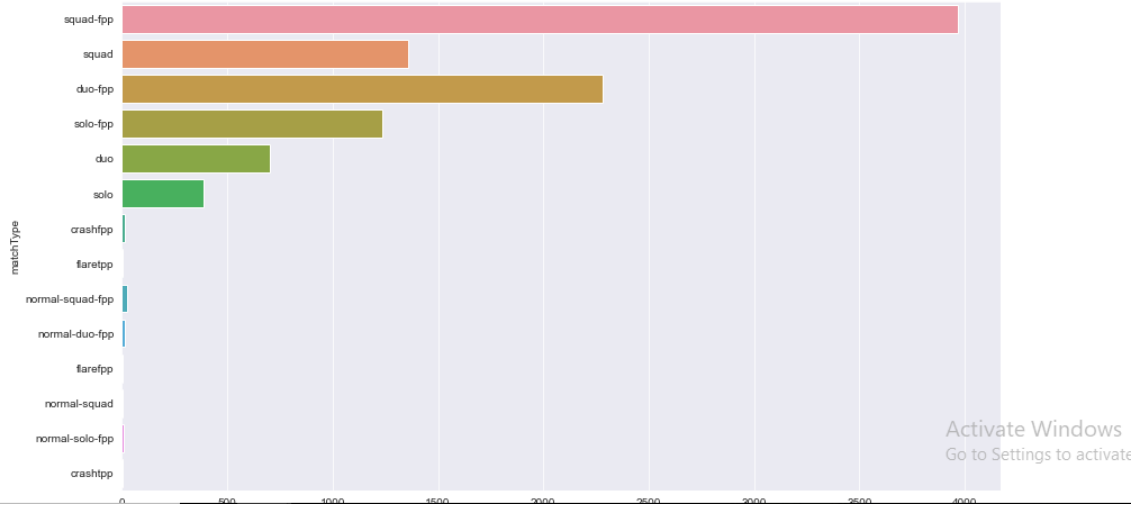
```
Out[59]:
```

	Id	groupId	matchId	assists	boosts	damageDealt	DBNOs	headshotKills	heals	killPlace	...	revives	rideDistance	roadP
15	c5473a410326a8	8a25860cd71a23	88cfe1ae97aff	1	1	594.00	2	1	7	16	...	2	0.0	
91	dc098f1bfc19e1	d96d854e3a6e83	141292a39f9e83	2	3	655.10	6	1	3	1	...	1	4360.0	
270	0a1c83c01366df	6a863044fe1c0e	82eb0de129cedd	0	0	57.33	0	0	0	55	...	0	0.0	
513	d63ab04adc3fd1	826ff26c2c7867	831d979936fb21	0	0	0.00	0	0	0	72	...	0	0.0	
1577	14661f448bb275	a487bd82df96e1	06c6fbd62c73e	3	7	1036.00	6	2	3	1	...	1	0.0	
1843	ab1afced689401	d1479427076a34	67397e5c90e9d0	0	0	69.66	0	0	0	93	...	0	0.0	
2319	b40aaade792d1fb	9f0ca505f443f7	e4b85e3eff53c1	0	2	351.20	1	1	4	28	...	0	0.0	
2921	2212e334a8bbbf	193060169f350b	e377dcb932cb03	0	0	288.80	0	1	3	32	...	0	0.0	
5603	1c51258d8c0cea	e530b35789a839	f43b3ff598d007	0	3	540.40	4	0	3	4	...	0	3115.0	
6376	b48874dabe851c	896534034ba76c	e5dccbd8c8c18	0	1	81.02	0	0	0	35	...	0	0.0	
6405	9485a48ebd27d4	f7858ecfb9fba3	f65530a592ed86	0	0	0.00	0	0	0	69	...	0	113.0	
6832	eb431c5ecad7d1	2348895c92364b	b0e64a66584b59	1	3	866.50	0	2	2	1	...	0	0.0	
7306	1400869b0955aa	601f6efe857a36	c9feeeef48054c	0	3	135.10	0	0	3	57	...	0	0.0	
7498	62925734e6f78d	97c237fbb9fad6	1ff10e296365a9	3	2	399.70	3	0	2	9	...	1	0.0	
9406	e670fa5408eeff8	492f610edeff94	8fce0450d9ab98	1	0	160.20	0	0	3	66	...	0	0.0	
9551	8b45ccbb7d9db4	e7e18c351c6d4a	5a3c6c83b98b6a	0	1	100.00	0	0	8	35	...	0	0.0	

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4) Counting of Match Type in Game

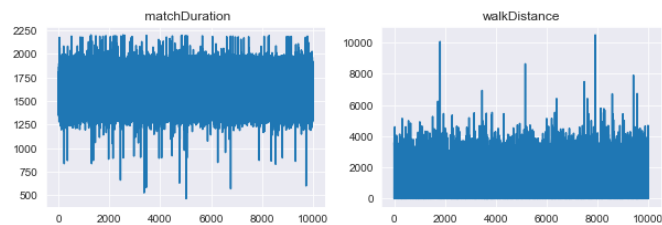
```
In [74]: sns.countplot(y = 'matchType', data = data1)  
plt.show()
```



5) Distribution of Match duration vs walk distance

distribution of the match's duration vs walk distance below each other.

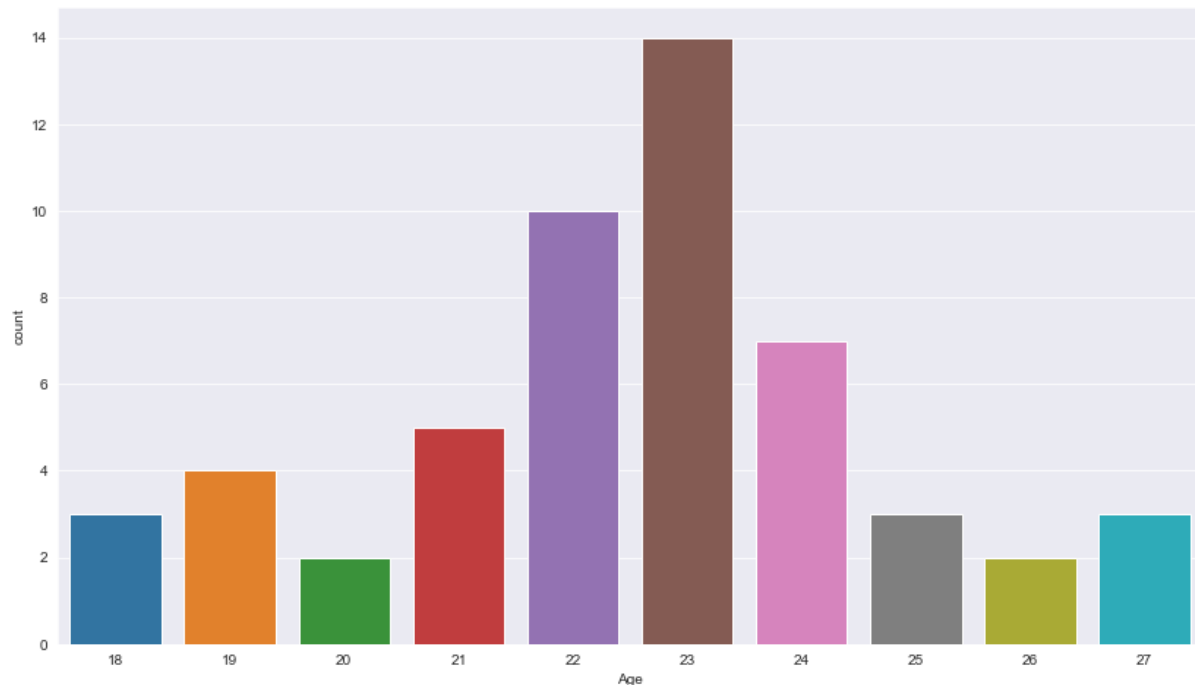
```
In [89]: plt.figure(figsize=(10,3))  
plt.subplot(1,2,1)  
plt.title(" matchDuration")  
plt.plot(data1['matchDuration'])  
plt.subplot(1,2,2)  
plt.title("walkDistance")  
plt.plot(data1['walkDistance']);
```



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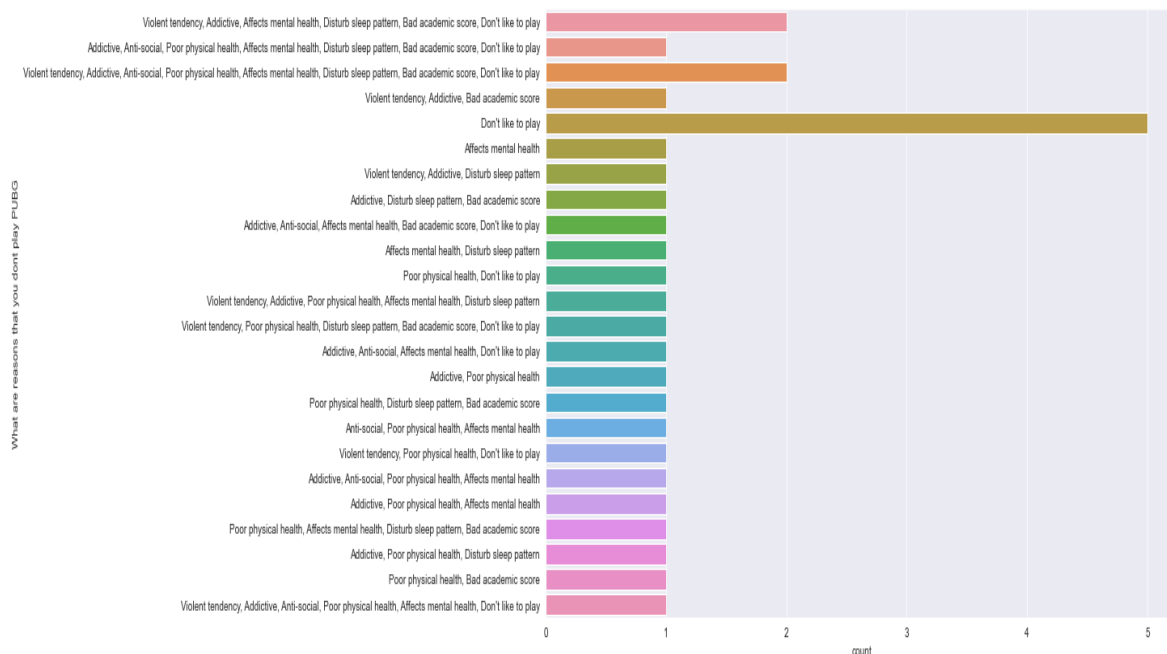
6) Calculate age groups by using pubg_dataset.

```
sns.countplot(x = 'Age', data = data2)  
plt.show()
```



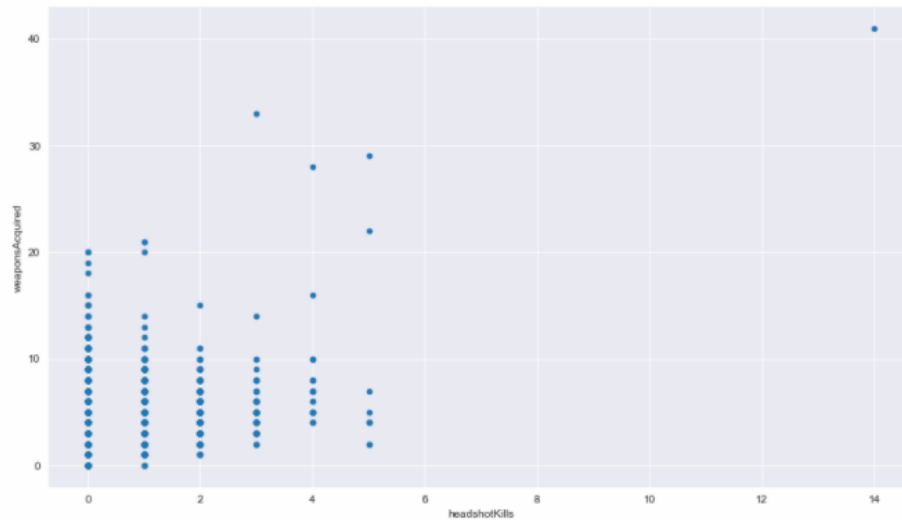
7) Calculating What are reasons that you don't play PUBG?

```
sns.countplot(y = 'What are reasons that you dont play PUBG', data = data2)  
plt.show()
```



8) Visualize headshotKills & weaponsAcquired by using scatter plot.

```
In [82]: data1.plot.scatter(x='headshotKills',y='weaponsAcquired')
Out[82]: <AxesSubplot:xlabel='headshotKills', ylabel='weaponsAcquired'>
```



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9) How many unique values are there in 'matchType' and what are their counts?

```
In [18]: pubg['matchType'].unique()
Out[18]: array(['squad-fpp', 'squad', 'duo-fpp', 'solo-fpp', 'duo', 'solo',
               'crashfpp', 'flaretpp', 'normal-squad-fpp', 'normal-duo-fpp',
               'flarefpp', 'normal-squad', 'normal-solo-fpp', 'crashtpp'],
              dtype=object)
```

```
In [19]: pubg['matchType'].value_counts()
```

```
Out[19]: squad-fpp      3969
duo-fpp      2282
squad      1359
solo-fpp      1234
duo      702
solo      386
normal-squad-fpp      24
crashfpp      13
normal-duo-fpp      13
normal-solo-fpp      8
normal-squad      4
flaretpp      3
crashtpp      2
flarefpp      1
Name: matchType, dtype: int64
```

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2) Diagnostic Analytics:

PUBG Game:

1. It happens because of Gaming addiction.
2. Due to this pandemic situation peoples are played PUBG game.

3) Predictive Analytics:

1. Age wise side effects count.
2. It affects on our physical health

4) Prescriptive Analytics:

1. Control any addiction by proper measures.
2. To begin with, try to lessen the time you spend on the game.
3. Try to divert your mind. Do not always stay indoors. Go out and indulge in physical activities.