



Consulting & Analytics Club  
IIT Guwahati

# Summer Analytics 2022

A primer course on Data Science and Machine Learning

## Week-1 Quiz (Graded)

Total points **29/30** ?

Hope that you've gone through the course content for week-1 as well as the covered assignment before attempting the quiz.

- This form accepts the solution only once, so make sure you don't press the submit button accidentally. No requests will be entertained.
- Use the SAME email ID which you used for registering for Summer Analytics 2022.
- Please follow the honor code, which otherwise may lead to harsh actions being taken.

All the best :)

Email \*

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0 of 0 points

Name \*

Hriday Agrawal

Enrolment ID \*

This is a 5-digit number of the form XXXXX. It can be found in the enrolment confirmation mail sent to you.

41395

Are you from IIT Guwahati ? \*





yes



No

If you are from IIT Guwahati , provide your roll no.

.....

Graded Questions

8 of 8 points

Answer the following questions. Some of them are related to the assignment, so make sure you have completed the assignment first.



- ✓ 1. Consider the table below. Which of the above variable(s) are classified 2/2 as ordinal variable(s)? (Multiple Correct)

ID	Age	Gender	Height	Blood group	LDL †	Feeling happy?	Number of children	Smoke?	Social class
1	25	M	1.52	O	154	Strongly agree	0	No	II
2	35	F	1.66	B	132	Disagree	1	Yes	III
3	44	M	1.44	B	151	Agree	3	Yes	II
4	28	M	1.22	AB	198	Indifferent	0	No	I
5	35	F	1.43	A	231	Indifferent	2	Yes	II
6	42	M	1.56	O	222	Agree	2	Yes	I
7	36	F	1.81	B	103	Strongly disagree	1	No	IV
8	38	M	1.54	AB	125	Strongly agree	1	Yes	III
9	30	M	1.47	A	280	Indifferent	0	No	V
10	40	F	1.18	B	187	Strongly disagree	6	No	III
:	:	:	:	:	:	:			

☐ LDL

☐ Blood Group

☒ Feeling Happy ?☒ Social class☐ Gender☐ Age☐ Height☐ Smoke ?☐ ID☐ Number of children

✓ 2. What is the code snippet which will give the following output according to the given DataFrame?

1/1

```
import pandas as pd
import numpy as np
df = pd.DataFrame([[4,7,10],
                   [6,8,2],
                   [1,3,4],
                   [2,10,5]])
```

	0	1	2
1	6	8	2
2	1	3	4
3	2	10	5

☒ df.iloc[1:4]☐ df.loc[1:3]☐ df.iloc[1:3]☐ df.loc[1:4]

✓ 3. Given `x = np.array([[1, 2], [3, 4], [2, 2], [9, 6]])`

1/1

```
print(np.sum(x))  
print(np.sum(x, axis=0))  
print(np.sum(x, axis=1))
```

```
29  
[3 7 4 15]  
[15 14]
```

☐ Option 1

```
29  
[15 14]  
[3 7 ]
```

☐ Option 3

```
29  
[3 7  
 4 15]  
[15  
 14]
```

☐ Option 2

```
29  
[15 14]  
[ 3 7 4 15]
```

☒ Option 4



✓ What is the correct output for the following code?

1/1

```
import numpy as np
x = np.array([[5,2,1,7], [9,5,2,8], [7,3,8,11], [15, 11, 20, 12]])
v = np.array([4, 0, 2, 1])
y = x + v
print(y)
```

a) 

9	2	3	8
13	5	4	9
11	3	10	12
19	11	22	13

b) 

9	2	3	8
9	5	2	8
7	3	8	11
15	11	20	12

c) 

9	2	1	7
9	5	2	8
9	3	8	11
16	11	20	12

d) 

9	2	3	8
13	5	4	9
11	3	10	12
19	11	22	13

☐ c

☒ d



☐ a

☐ b



## ✓ 5. Fill in the Blanks

1/1

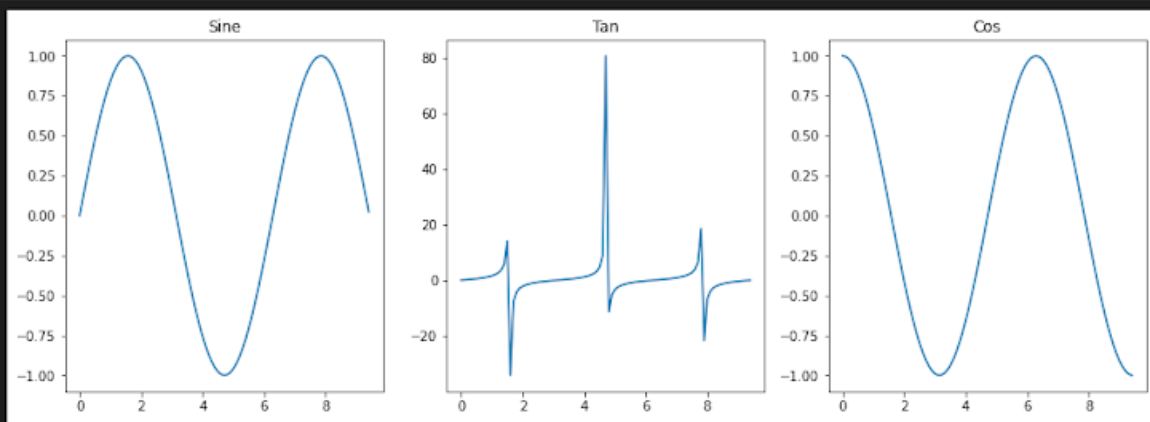
```
import numpy as np
import matplotlib.pyplot as plt
fig = plt.figure(figsize=(15,5))
x = np.arange(0, 3 * np.pi, 0.1)
y_sin = np.sin(x)
y_cos = np.cos(x)
y_tan = np.tan(x)

# _____ # fill in the blank - i
plt.plot(x, y_sin)
plt.title('Sine')

# _____ # fill in the blank - ii
plt.plot(x, y_cos)
plt.title('Cos')

# _____ # fill in the blank - iii
plt.plot(x, y_tan)
plt.title('Tan')
plt.show()
```

✓ 0.4s



- ☒ i) plt.subplot(1, 3, 1), ii) plt.subplot(1, 3, 3), iii) plt.subplot(1, 3, 2) ✓
- ☐ None
- ☐ i) plt.subplot(1, 3, 1), ii) plt.subplot(1, 3, 2), iii) plt.subplot(1, 3, 3)
- ☐ i) plt.subplot(1, 3, 1), ii) plt.subplot(1, 3, 1), iii) plt.subplot(1, 3, 1)



✓ 6. Which of the following does not give an error ?

1/1

```
a = ('a','b','c','d')  
a[0] = 'j'  
print(a)
```

☐ Option 1

```
a = ['a','b','c','d']  
a[0] = 'j'  
print(a)
```

☒ Option 2



```
a = ['a','b','c','d','h']  
a[5] = 'j'  
print(a)
```

☐ Option 4

```
s = 'gndjhf'  
s[0] = 'j'  
print(s)
```

☐ Option 3

✓ 7. Which of the following statements are false about sets in python ?

1/1

☐ elements contained in the set must be of immutable type

☒ sets store data in ordered way by default



☐ sets are mutable





☒ you can store duplicate elements



### Questions related to the Assignment

21 of 22 points

✓ 8. How many pokemons have 'Mega' in their name?

2/2

☒ 49



☐ 48

☐ 47

☐ 46

✗ 9. What is the standard deviation of Sp. Def. in the dataset ? (round off upto 3 decimal places) 0/1

☐ 27.831

☐ 27.829

☐ 27.830

☒ 27.828



Correct answer

☒ 27.829

✓ 10. What percentage (upto 3 decimal places) of pokemons are legendary ? 1/1

☐ 8.100

☐ 8.150



☐ 8.175☒ 8.125 ✓

✓ 11. Which pokemon(s) has/have Maximum Defense. (Multiple Correct) 3/3

☒ Shuckle ✓☒ SteelixMega Steelix ✓☒ AggronMega Aggron ✓☐ Avalugg☐ Regirock

✓ 12. Which 'poison' pokemon has the strongest attack ? 3/3

☐ Toxicroak☒ BeedrillMega Beedrill ✓☐ Muk☐ Victreebel

✓ 13. Which of the following statement(s) is(are) TRUE ? (Multiple Correct) 5/5

☒ There are total 6 pokemons with type-1 as 'Psychic' and type 2 as 'Flying' ✓☒ Generation 3 has most no. of legendary pokemons. ✓☒ Generation 4 has more no. of Pokemons than generation 6 but less than that of generation 1 ✓☐ Flving is least common Type-1 followed by Ice.

- ☐ 'Flying' is less common Type-2 than 'Electric' and 'Poison'
- ☐ 'Fairy' is less common Type-2 than 'Steele' and 'Psychic'

✓ 14. Which is the second-fastest non-legendary 'Ghost' type pokemon from 4th generation ? 4/4

☐ Drifblim

☒ Mismagius ✓

☐ Rotom

☐ Froslass

✓ 15. How many non-legendary pokemons have stronger defence but weaker attack than Charizard? 3/3

☐ 70

☐ 58

☐ 122

☒ 116 ✓

You've reached the end of the quiz!

0 of 0 points

I have filled the correct credentials in the first section, read all my answers and confirm that is my final submission. \*

☒ Yes



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