

Date	15-10-2022
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Project name	AI based Nutrient analysis
Maximum marks	2 marks

1. Split this string s = "Hi there Sam!"

Answer:

```
s="Hi there Sam!"
```

```
s=s.split()
```

```
print(s);
```

2. Use .format() to print the following string.

Output should be: The diameter of Earth is 12742 kilometers.

```
planet = "Earth"
```

```
diameter = 12742
```

Answer:

```
planet = "Earth"
```

```
diameter = 12742
```

```
print('The diameter of {} is {} kilometers.'
      .format(planet,diameter));
```

3. In this nest dictionary grab the word "hello"

```
d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
```

Answer:

```
d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
print(d['k1'][3]["tricky"][3]['target'][3])
```

4.1 Create an array of 10 zeros?

```
import numpy as np
array=np.zeros(10)
print("An array of 10 zeros:")
print(array)
```

4.2 Create an array of 10 fives?

```
array=np.ones(10)*5
print("An array of 10 fives:")
print(array)
```

5. Create an array of all the even integers from 20 to 35

Answer:

```
import numpy as np
array=np.arange(20,31,2)
print("Array of all the even integers from 20 to 35")
print(array)
```

6. Create a 3x3 matrix with values ranging from 0 to 8

Answer:

```
np.arange(0,9).reshape((3,3))
```

```
array([[0, 1, 2],
       [3, 4, 5],
       [6, 7, 8]])
```

7. Concatenate a and b

```
a = np.array([1, 2, 3]), b = np.array([4, 5, 6])
```

Answer;

```
print("% s % s" % (a, b))
```

8. Create a dataframe with 3 rows and 2 columns

```
import pandas as pd
```

Answer:

```
import numpy as np
```

```
A = np.random.randint(10, size=(3,2))
```

```
array([[9, 2], [4, 3], [2, 3]])
```

9. Generate the series of dates from 1st Jan, 2023 to 10th Feb, 2023

Answer:

```
start = datetime.date(2023,1,1)
```

```
k=(2023,2,10)
```

```
res = []
```

```
for day in range(k):
```

```
    date = (start + datetime.timedelta(days = day)).isoformat()
```

```
    res.append(date)
```

```
print("Next K dates list: " + str(res))
```

10. Create 2D list to DataFrame

```
lists = [[1, 'aaa', 22],  
         [2, 'bbb', 25],  
         [3, 'ccc', 24]]
```

Answer:

```
lst = [['1', 'aaa', 22], ['2', 'bbb', 25], ['3', 'ccc', 24]]  
df = pd.DataFrame(lst, columns =['FName', 'LName', 'Age'],dtype  
=float)  
print(df)
```


