

### 1. Write a Pandas program to convert Series of lists to one Series.

Sample Output:

Original Series of list

0 [Red, Green, White]

1 [Red, Black]

2 [Yellow]

dtype: object

One Series

0 Red

1 Green

2 White

3 Red

4 Black

5 Yellow

dtype: object

### 2. Write a python NLTK program to split the text sentence/paragraph into a list of words.

```
text = ''
```

```
Joe waited for the train. The train was late.
```

```
Mary and Samantha took the bus.
```

```
I looked for Mary and Samantha at the bus station.
```

```
'''
```

### 3. Create a result array by adding the following two NumPy arrays. Next, modify the result array by calculating the square of each element

```
arrayOne = numpy.array([[5, 6, 9], [21, 18, 27]])
```

```
arrayTwo = numpy.array([[15, 33, 24], [4, 7, 1]])
```

### 4. Write a python program to extract word mention someone in tweets using @ from the specified column of a given DataFrame.

```
DataFrame: ({
```

```
  'tweets': ['@Obama says goodbye', 'Retweets for @cash', 'A political endorsement in @Indonesia', '1 dog = many #retweets', 'Just a simple #egg']
```

```
})
```

### 5. Write a NumPy program to compute the mean, standard deviation, and variance of a given array along the second axis.

```
array:
```

```
[0 1 2 3 8 5]
```