

# Numpy Practice

## Do The following :

- Finish the practice
- share it on your github account
- notify me at [m.kutbi@seu.edu.sa](mailto:m.kutbi@seu.edu.sa) (mailto:m.kutbi@seu.edu.sa) if you faced any difficulties or when you finish

Write the code that will produce the requested output or action as you see on the following cell

In [14]:



```
## For example
## to get the output Hello, Mohammed
print("Hello, Mohammed") ## TODO
```

Hello, Mohammed

import the package numpy and make the shortcut "np" for it.

In [ ]:



```
## TODO
```

define a numpy array [1, 2, 3, 4, 5] and assign it to variable x

In [ ]:



```
## TODO
```

Print x

In [ ]:



```
## TODO
```

Print the mean of x using numpy

In [ ]:



```
## TODO
```

Print the maximum number in array x

In [ ]:



```
## TODO
```

**Generate a random number between 35 and 40**

In [ ]:



```
## TODO
```

**generate a list (N) of 1000 numbers with random values between 100 and 150**

In [ ]:



```
## TODO
```

**get the mean, median, std, and variance of the list N**

In [ ]:



```
## TODO
```

**generate a 2D array of size 3 x 4 of random numbers between 18-65**

In [ ]:



```
##TODO
```

**Get the mean for every columns N**

In [ ]:



```
## TODO
```

**Get the mean for every row of N**

In [ ]:



```
## TODO
```

**Create the following 2D array (S) of students grade in a classroom**

- grades [coursework, midterm exam, final exam]
- [20, 15, 40]
- [25, 24, 35]

- [21, 15, 25]

In [ ]:



```
## TODO
```

**Get the sums of student grades in S**

In [ ]:



```
## TODO
```

**Get the means of student grades in every activity (coursework, midterm exam, final exam) in S**

In [ ]:



```
## TODO
```

**reshape S in a way that make the columns represent the students and rows represent the activity, as follow**

- [20, 25, 21]
- [15, 24, 15]
- [40, 35, 25]

In [ ]:



```
## TODO
```

## Pandas Practice

**import the package pandas and make the shortcut "pd" for it.**

In [16]:



```
## TODO
```

**create Series call it (Data) with the values 'a','b','d','u' and 'l'**

In [17]:



```
## TODO
```

**change index to 3,6,9,12, and 15 for (data)**

In [ ]:



```
## TODO
```

**change index to client1, client2, client3, client4 and client5 for (data)**

In [18]:



```
## TODO
```

**create a dataframe (D) with the followin values**

- Name - Age
- Ali - 55
- Ahmad - 15
- Nora - 40

**Get the means of ages of people in (D)**

In [19]:



```
## TODO expected value is 36.66
```