

## **Case Study-Numpy,Pandas,Matplotlib**

1. Write a python program to create an array and covert to a desired dimension, as shown in picture.

Original array:

```
[[ 8  9 10]
 [11 12 13]]
```

Reshaped array:

```
[[ 8  9]
 [10 11]
 [12 13]]
```

2. Create an array and extract particular set of elements from an array as shown in the picture.

Original array:

```
[[ 8  9]
 [10 11]
 [12 13]]
```

Sliced array:

```
[ 9 11]
```

3. Create a dataframe as shown below.

	Country	Rank
0	Russia	121
1	Colombia	40
2	Chile	100
3	Equador	130
4	Nigeria	11

4. Read the given data set and answer the following questions. Show the steps taken to produce your final answer.
- Display the Glucose level and the Age for the samples having the index ranging from 45 to 60.
  - How many patients in the data are having the blood pressure level above 120?
  - Find the minimum and maximum value of insulin level in the data.
  - Create a histogram of "Age".
  - Create a scatter plot of "BMI" vs "Glucose"