Solution: Find Min and Max from a 2-D NumPy Array

This lesson gives a detailed review of the solution to the challenge in the previous lesson.

We'll cover the following

Solution

```
def getMinMax(arr):

  res = []

  for i in range(arr.shape[0]): # Traverse over each row

    res.append(arr[i].min()) # Store minimum element in list

    res.append(arr[i].max()) # Store maximum element in list

  return res

# Test Code
arr = np.random.randint(1,100, size=(5,5))

print("The Original Array:")
print(arr)

res_arr = getMinMax(arr)

print("\nThe Resultnt list with min & max values:")
print(res_arr)
```

Explanation

A function `getMinMax` is declared with `arr` passed to it as a parameter.

- On **line 3**, a list variable `res` is declared to store the minimum and maximum values.
- On **line 5**, the `shape[0]` function of the `NumPy` is used to get the row count of

the array. The loop is then used to traverse over each row to find the required information. On every iteration, a row is processed to find the min and max elements.

- On **line** 7, the min() function of the `NumPy` array is used to find the minimum element of the row, which is then stored in the list.
- On **line 9**, the max() function of the `NumPy` array is used to find the maximum element of the row, which is then stored in the list.
- On **line 11**, the `res` with all the minimum and maximum elements of each row of the array is returned.

Let’s review these concepts with a quiz in the next lesson.