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Task 1: Stack arrays a and b vertically

```
In [4]: 1 import numpy as np
2 a = np.arange(10).reshape(2,-1)
3 b = np.repeat(1, 10).reshape(2,-1)
4 stacked_array=np.vstack((a,b))
5 stacked_array
```

```
Out[4]: array([[0, 1, 2, 3, 4],
               [5, 6, 7, 8, 9],
               [1, 1, 1, 1, 1],
               [1, 1, 1, 1, 1]])
```

Task 2 Create the following pattern without hardcoding. Use only numpy functions and the below input array a.

```
In [26]: 1 a = np.array([1,2,3])
2 repeated_array=np.repeat(a,3)
3 tiled_a=np.tile(a,3)
4 tiled_a
5 result=np.hstack((repeated_array,tiled_a))
6 result
```

```
Out[26]: array([1, 1, 1, 2, 2, 2, 3, 3, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3])
```

Task 3 Convert the function maxx that works on two scalars, to work on two arrays

```
In [36]: 1 def pair_max(a,b):
2         return np.maximum(a,b)
3
4
5 a = np.array([5, 7, 9, 8, 6, 4, 5],dtype='f')
6 b = np.array([6, 3, 4, 8, 9, 7, 1],dtype='f')
7 result=pair_max(a,b)
8 print(result)
```

```
[6. 7. 9. 8. 9. 7. 5.]
```

Task 4: Swap rows 1 and 2 in the array arr:

```
In [41]: 1 array=np.array([[2,3,4,5,6],
2               [9,8,7,5,4],
3               [12,13,0,11,19]])
4 array[[1,2]]=array[[2,1]]
5 print(array)
```

```
[[ 2  3  4  5  6]
 [12 13  0 11 19]
 [ 9  8  7  5  4]]
```

Task 5: From array a remove all items present in array b

```
In [47]: 1 a = np.array([1,2,3,4,5])
2 b = np.array([5,6,7,8,9])
3 desired_array=np.setdiff1d(a,b) #setdiff1d is a function that returns unique
4 desired_array
```

```
Out[47]: array([1, 2, 3, 4])
```

```
In [ ]: 1
```