

# Python List Exercise

## Exercise 1: Reverse a list in Python

**Given:**

```
list1 = [100, 200, 300, 400, 500]
```

**Expected output:**

```
[500, 400, 300, 200, 100]
```

## Exercise 2: Concatenate two lists index-wise

Write a program to add two lists index-wise. Create a new list that contains the 0th index item from both the list, then the 1st index item, and so on till the last element. any leftover items will get added at the end of the new list.

**Given:**

```
list1 = ["M", "na", "i", "Ke"]  
list2 = ["y", "me", "s", "lly"]
```

**Expected output:**

```
['My', 'name', 'is', 'Kelly']
```

### Exercise 3: Turn every item of a list into its square

Given a list of numbers. write a program to turn every item of a list into its square.

**Given:**

```
numbers = [1, 2, 3, 4, 5, 6, 7]
```

**Expected output:**

```
[1, 4, 9, 16, 25, 36, 49]
```

### Exercise 4: Remove empty strings from the list of strings

```
list1 = ["Mike", "", "Emma", "Kelly", "", "Brad"]
```

**Expected output:**

```
["Mike", "Emma", "Kelly", "Brad"]
```

### Exercise 5: Replace list's item with new value if found

You have given a Python list. Write a program to find value 20 in the list, and if it is present, replace it with 200. Only update the first occurrence of an item.

**Given:**

```
list1 = [5, 10, 15, 20, 25, 50, 20]
```

**Expected output:**

```
[5, 10, 15, 200, 25, 50, 20]
```

## Exercise 6: Remove all occurrences of a specific item from a list.

Given a Python list, write a program to remove all occurrences of item 20.

**Given:**

```
list1 = [5, 20, 15, 20, 25, 50, 20]
```

**Expected output:**

```
[5, 15, 25, 50]
```