

# 677. Map Sum Pairs

## Description

Design a map that allows you to do the following:

- Maps a string key to a given value.
- Returns the sum of the values that have a key with a prefix equal to a given string.

Implement the `MapSum` class:

- `MapSum()` Initializes the `MapSum` object.
- `void insert(String key, int val)` Inserts the `key-val` pair into the map. If the `key` already existed, the original `key-value` pair will be overridden to the new one.
- `int sum(string prefix)` Returns the sum of all the pairs' value whose `key` starts with the `prefix`.

### Example 1:

#### Input

```
["MapSum", "insert", "sum", "insert", "sum"]  
[[], ["apple", 3], ["ap"], ["app", 2], ["ap"]]
```

#### Output

```
[null, null, 3, null, 5]
```

#### Explanation

```
MapSum mapSum = new MapSum();  
mapSum.insert("apple", 3);  
mapSum.sum("ap");           // return 3 (apple = 3)  
mapSum.insert("app", 2);  
mapSum.sum("ap");           // return 5 (apple + app = 3 + 2 = 5)
```

### Constraints:

- `1 <= key.length, prefix.length <= 50`
- `key` and `prefix` consist of only lowercase English letters.
- `1 <= val <= 1000`
- At most `50` calls will be made to `insert` and `sum`.

