Challenge 5: Multiply Two Matrices

Let's test your knowledge by solving a challenge in this lesson.

We'll cover the following

Problem statement

In this challenge, your task is to write a function `multiplication`. Your function signature would be:

```
void multiplication ( int arr1 [ ] [3], int row1, int col1, int arr2 [ ] [3] , int row2, int col2 , int result [ ] [3] )
```

The function `multiplication` will take three 2D arrays of type `int` and their row and column index in its input parameters. In the function body, we will multiply the two matrices `arr1[][3]` to `arr2[][3]`, store our result in `result[][3]` and return it in the output.

> We can only multiply the two matrices if the number of columns of the first matrix equals the numbers of rows of the second matrix. If this condition is not fulfilled, your program should set all the values of `result[][3]` matrix to **-1**.

Sample input

```
multiplication({{1,2} , {5,7}} , 2 , 2 , {{10,20} , {-30,70}} , 2 , 2 , {{0,0}
 , {0,0}};
```

Sample output

Sample output

```
{{-50,160} , {-160,590}}
```

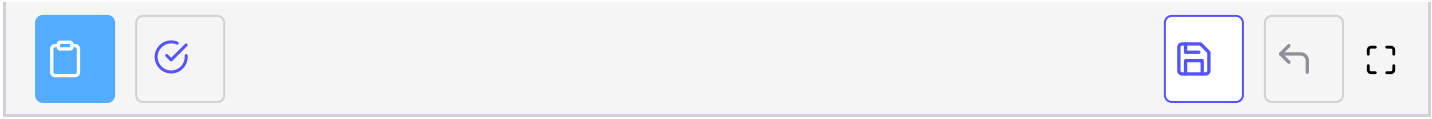
Coding exercise

Before diving directly into the solution, first, try to solve it yourself, and then check if your code passes all the test cases. If you get stuck, you can always see the given solution.

> 📝 Please don't modify the given function `multiplication`. Otherwise, your code will not pass the test cases.

Good Luck! 👍

```
void multiplication(int arr1[][2], int row1, int col1, int arr2[][2], int row2, int col2 , int resu
    // Write your code here
    }
```



🎉If you have solved the problem, congratulations!

In case you are stuck, let's go over the solution review in the next lesson.