

Solution Review: Convert Digits from 0 to 5 into Text

Let's go over the solution review of the challenge given in the previous lesson.

We'll cover the following



- Solution
- Explanation

Solution

Press the **RUN** button and see the output!

```
#include <iostream>
using namespace std;

string digit_text (int number){
    // Declares a variable of type string
    string result ;
    switch (number){
        case 0:
            result = "zero";
            break;
        case 1:
            result = "one";
            break;
        case 2:
            result = "two";
            break;
        case 3:
            result = "three";
            break;
        case 4:
            result = "four";
            break;
        case 5:
            result = "five";
            break;

        default:
            result = "invalid number";
    }

    return result;
}

int main() {
    int number = 3;
```



```
cout << "number = " << number << endl;
string text;
text = digit_text(number);

cout << "text = " << text << endl;
return 0;
}
```



Explanation

On **Line No. 4**, we define our function `digit_text` that takes an `int` value in its input parameter and returns a value of type `string` in the output.

Line No. 6: Declares a variable `result` of type `string`

Line No. 7: The `switch` statement compares the value of the `number` with the label of each case.

Line No. 8 to 25: If the value of the `number` equals the case label, then the statements following that case are executed until it encounters the `break` statement. When the break statement is executed, the program flow jumps out of the `switch` block, and it executes the **Line No.32**. In each case, we are storing the text of the case label in the `result`.

Line No. 27 to 28: If the value of the `number` does not match any case label, then the statements following the `default` keyword are executed. The default case stores the `invalid number` in the variable `result`.

Line No. 32: Returns value of the `result` to the statement that calls the `digit_text` function

The next challenge will test your ability to pass parameters by reference in the function.