

## Lab 9 (Practice)

### Class and Objects (2)

#### Question-1.

This question continues to work on the same class of Q2 in Lab8 and define two functions. The first function is used to calculate an object's current age based on the user input and the given date of production. The requirements for the first function are as follows.

- a. First, you need to define an additional class 'ProductionDate', which has three members of type int. The three members are year, month and day. Meanwhile, the default values of these three members are 2022, 1 and 1.
- b. Second, you need to define an object 'productiondate' of class 'ProductionDate' in the original Candy class.
- c. Third, you need to define the function 'int Compute\_age()' in Candy class. This function requires to calculate the candy's age based on the user input and the year in the ProductionDate.
- d. Fifth, you need to define an object in the main function and call this function to calculate the age. Finally, the result is printed.

The second function is used to reverse the name of an object. The requirements for the second function are as follows.

- a. You need to define a global function 'void reverse(char\* target)' outside the class to reverse the string 'target' of type char\*.
- b. The function of reverse is required to be implemented by yourself. You are not allowed to call string's built-in functions such as strrev() directly.
- c. This function needs to print the string before reverse and the string after reverse. You need to define an object in the main function and call this function to reverse the name of an object.

Notes:

1. Test Case 1 and Test Case 2 will be generated by user input.

#### Expected Output

<p>Example 1:</p> <pre>Enter year, month and day: 2023 11 22</pre>
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<pre>Age: 1 Original name: strawberry Reversed name: yrrebwarts</pre>
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<p>Example 2:</p> <pre>Enter year, month and day: 2027 1 1</pre>
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<pre>Age: 5 Original name: strawberry Reversed name: yrrebwarts</pre>
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