

CS 152  
Computer Programming  
Fundamentals  
FizzBuzz

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# FizzBuzz Problem

- Common programmer interview question.
- Write a program that prints the numbers from 1 to 100.
  - For multiples of three print “Fizz” instead of the number.
  - For the multiples of five print “Buzz”.
  - For numbers which are multiples of both three and five print “FizzBuzz”.

# Variations

- Use a method
- Specify start/end numbers
- Specify other multiples, words
- Build an array instead of printing.

# Basic Solution

```
public static void fizzBuzz1() {
    for(int i = 1; i <= 100; i++) {
        if(i % 15 == 0) {
            System.out.println("FizzBuzz");
        } else if (i % 3 == 0) {
            System.out.println("Fizz");
        } else if (i % 5 == 0) {
            System.out.println("Buzz");
        } else {
            System.out.println(i);
        }
    }
}
```

## Building a String to print

```
public static void fizzBuzz2() {
    for(int i = 1; i <= 100; i++) {
        String str = "";

        if(i % 3 == 0) {
            str += "Fizz";
        }
        if(i % 5 == 0) {
            str += "Buzz";
        }
        if(str.length() == 0) {
            str += i;
        }

        System.out.println(str);
    }
}
```

# Specify start and end as parameters

```
public static void fizzBuzz(int start, int end) {
    for(int i = start; i <= end; i++) {
        String str = "";

        if(i % 3 == 0) {
            str += "Fizz";
        }
        if(i % 5 == 0) {
            str += "Buzz";
        }
        if(str.length() == 0) {
            str += i;
        }

        System.out.println(str);
    }
}
```

# Build an array instead of printing

```
public static String[] fizzBuzzArray(int start, int end) {  
  
    String[] arr = new String[end - start + 1];  
  
    for(int i = start; i <= end; i++) {  
        String str = "";  
  
        if(i % 3 == 0) {  
            str += "Fizz";  
        }  
        if(i % 5 == 0) {  
            str += "Buzz";  
        }  
        if(str.length() == 0) {  
            str += i;  
        }  
  
        arr[i-start] = str;  
    }  
    return arr;  
}
```

# Specify numbers and strings

```
public static String[] fizzBuzzArray(int start, int end,
                                     int[] nums, String[] strs) {

    String[] arr = new String[end - start + 1];

    for(int i = start; i <= end; i++) {
        String str = "";

        for(int j = 0; j < nums.length; j++) {
            if(i % nums[j] == 0) {
                str += strs[j];
            }
        }

        if(str.length() == 0) {
            str += i;
        }

        arr[i-start] = str;
    }
    return arr;
}
```