

Java Source Code

```
package assignment2;

public class Assignment2Java {
    public static void main(String[] args) {
        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);
            }
        }
    }
}
```

Java Output

y7 .config/code,

1

2

Fizz

4

Buzz

Fizz

7

8

Fizz

Buzz

11

Fizz

13

14

FizzBuzz

16

17

Fizz

19

Buzz

Fizz

22

23

Fizz

Buzz

26

Fizz

28

29

FizzBuzz

31

32

Fizz

34

Buzz

Fizz

37

38

Fizz

Buzz

41

Fizz

Mips Source Code

```
# fizz buzz in mips
.data
    result: .space 20
    fizz: .asciiz "Fizz"
    buzz: .asciiz "Buzz"
    fizzbuzz: .asciiz "FizzBuzz"
    newline: .asciiz "\n"

.text
main:
    li $t0, 1    # i = 1
    li $t2, 100  # limit = 100

loop:
    bgt $t0, $t2, end # if (i > limit) goto end

    li $t1, 15    # check if i is multiple of 3 and 5
    div $t0, $t1
    mfhi $t6
    bnez $t6, check_div_by_3 # if (i % 15 != 0) goto check_div_by_3

    la $a0, fizzbuzz # load address
    li $v0, 4        # print_string
    syscall

    li $v0, 4        # print_string
    la $a0, newline  # load address
    syscall

    j loop_increment

check_div_by_3:
    li $t1, 3    # check if i is multiple of 3
    div $t0, $t1
    mfhi $t6
    bnez $t6, check_div_by_5 # if (i % 3 != 0) goto check_div_by_5

    li $v0, 4        # print_string
    la $a0, fizz     # load address
```

```

    syscall

    li $v0, 4      # print_string
    la $a0, newline # load address
    syscall

    j loop_increment

check_div_by_5:
    li $t1, 5      # check if i is multiple of 5
    div $t0, $t1
    mfhi $t6
    bnez $t6, print_i # if (i % 5 != 0) goto loop_increment

    li $v0, 4      # print_string
    la $a0, buzz   # load address
    syscall

    li $v0, 4      # print_string
    la $a0, newline # load address
    syscall

    j loop_increment

print_i:
    move $a0, $t0
    li $v0, 1      # print_int
    syscall

    li $v0, 4      # print_string
    la $a0, newline # load address
    syscall

    j loop_increment

loop_increment:
    addi $t0, $t0, 1 # i = i + 1
    j loop

end:

```

```
li $v0, 10    # exit program  
syscall
```

Mips Output

```
(spim) load "fizz_buzz.s"
(spim) run
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
11
Fizz
13
14
FizzBuzz
16
17
Fizz
19
Buzz
Fizz
22
23
Fizz
Buzz
26
Fizz
28
29
FizzBuzz
31
32
Fizz
34
Buzz
Fizz
37
38
Fizz
Buzz
41
Fizz
43
44
FizzBuzz
46
```