JAVA CODE:

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public class FizzBuzz {

    public static int SIZE = 100;

    public static void main(String[] args) {

        System.out.println("Playing FizzBuzz...");

        for(int i=1;i<=SIZE;i++) {

            boolean has\_printed = false;

            if(i%3==0) {

                System.out.print("FIZZ");

                has\_printed = true;

            }

            if(i%5==0){

                System.out.print("BUZZ");

                has\_printed = true;

            }

            if(!has\_printed)

                System.out.print(i);

            System.out.println();

        }

    }

}

JAVA OUTPUT:

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MIPS CODE:

# Copyright 2025 Abby Holdcraft

.data

size: .word 100

new\_line: .asciiz "\n"

fizz: .asciiz "FIZZ"

buzz: .asciiz "BUZZ"

.text

main:

li $t0, 1 # i = 1

lw $t1, size # end when i > size

li $t2, 3 # divide by 3

li $t3, 5 # divide by 5

li $t5, 0 # has\_printed = false

j check\_fizz # begin printing FizzBuzz

loop\_continue:

la $a0, new\_line # load new\_line into a0

li $v0, 4 # print string

syscall

addi $t0, $t0, 1 # i++

li $t5, 0 # has\_printed = false

bgt $t0, $t1, exit # if i>size, exit

j check\_fizz # else, restart loop

check\_fizz:

# check if divisible by 3

div $t0, $t2 # divide i by 3

mfhi $t4 # store remainder in t4

beq $t4, 0, print\_fizz # if remainder == 0, print fizz

j check\_buzz # else, check buzz

check\_buzz:

# check if divisible by 5

div $t0, $t3 # divide i by 5

mfhi $t4 # store remainder in t4

beq $t4, 0, print\_buzz # if remainder == 0, print buzz

beq $t5, 0, print\_number # if has\_printed == false, print i

j loop\_continue # else, continue loop

print\_fizz:

la $a0, fizz # load buzz into a0

li $v0, 4 # print string

syscall

li $t5, 1 # has\_printed = true

j check\_buzz # check buzz

print\_buzz:

la $a0, buzz # load buzz into a0

li $v0, 4 # print string

syscall

li $t5, 1 # has\_printed = true

j loop\_continue # return to loop

print\_number:

move $a0, $t0 # copy value of t0 into a0

li $v0, 1 # print int

syscall

j loop\_continue # return to loop

exit:

li $v0, 10

syscall

MIPS OUTPUT:

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