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**AI LAB**

**Task 2**

## **1. Code Overview**

This Python program is a variation of the classic FizzBuzz game. Instead of directly checking numbers from a sequence, it uses a hidden number generated by adding the current random number to the previous number. The player must guess whether the hidden number is divisible by 3 (Fizz), 5 (Buzz), both (FizzBuzz), or neither (Number).

## **2. How the Code Works**

• The function get\_answer(num) determines the correct response based on divisibility rules:  
 - Divisible by 3 and 5 → 'fizzbuzz'  
 - Divisible by 3 only → 'fizz'  
 - Divisible by 5 only → 'buzz'  
 - Otherwise → 'Number'  
  
• The play() function controls the game flow:  
 - A random number between 1 and 30 is generated.  
 - A hidden number (backend) is calculated by adding the random number to the previous one.  
 - The player is asked to guess whether the hidden number is fizz, buzz, fizzbuzz, or Number.  
 - If the guess is correct, the score increases, and the game continues.  
 - If the guess is wrong, the correct answer and hidden number are shown, and the player chooses whether to continue or stop.

## **3. Why This Code Works**

The code leverages the modulo (%) operator to check divisibility conditions. Using conditions in the right order ensures fizzbuzz is prioritized when both conditions are true. The game logic correctly tracks the score and uses input validation for continuation. The loop ensures continuous play until the player decides to stop.

## **4. Screenshot of Output**

Below is an example of how the program output may look when executed:

