

# TensorArray Not Used

## Context

Efficiently growing arrays in TensorFlow loops can be challenging if not handled correctly. Using `tf.constant()` for this purpose **often leads to errors and inefficient code**. In TensorFlow, developers may need to create a dynamic array (one that grows during execution) inside a loop. Attempting this with `tf.constant()` **results in errors because tensors initialized with `tf.constant()` are immutable**.

## Problem

Using `tf.constant()` in loops for growing arrays leads to:

- TensorFlow will **raise an error** when trying to modify **an immutable tensor**.

## Solution

Developers should not use `tf.constant()` with arrays but instead use `tf.TensorArray()`

### Existing Stage

Model Training

### Effect

Efficiency & Error-prone

## Example

```
Python
### TensorFlow
import tensorflow as tf
def fibonacci(n):
    a = tf.constant(1)
    b = tf.constant(1)
    - c = tf.constant([1, 1])
    + c = tf.TensorArray(tf.int32, n)
    + c = c.write(0, a)
    + c = c.write(1, b)
```