

# **ASSIGNMENT NO. 1**

## **Task1**

**Review the following codes, find & fix errors & explain the error**

### **Code Snippet 1: Variable Name Typo**

**Answer =>**

**Write the error :**

```
Traceback (most recent call last):
  File "<pyshell#1>", line 1, in <module>
    print(number_of_apple)
NameError: name 'number_of_apple' is not defined. Did you mean:
'number_of_apples'?
```

**Explain the error:**

The Variable `number_of_apples` is used in the assignment, but `number_of_apple` is used in the print statement. This inconsistency will lead to a `NameError`.

**Write corrected code:**

```
number_of_apples = 5
print(number_of_apples)
```

### **Code Snippet 2: Accessing list element out of range**

**Answer =>**

**Write the error :**

```
Traceback (most recent call last):
  File "<pyshell#5>", line 1, in <module>
    print(fruits[3])
IndexError: list index out of range
```

### Explain the error:

Lists in python are zero-indexed, meaning the first element is at index 0, the second at index 1, and so on. Attempting to access fruits[3] will result in an IndexError since the list only has three element (indices 0,1, and 2).

### Write corrected code

```
fruits = ["apple","banana","Cherry"]  
print(fruits[2]) #print last element
```

### Code Snippet 3: Function not behaving as expected

Answer =>

### Write the error :

```
line 4, in find_average  
sum += number  
TypeError: unsupported operand type(s) for +=: 'int' and 'str'
```

### Explain the error:

The list numbers contains both integers and a string ("6"). This will cause an error when trying to calculate the sum of the numbers because you can't add an integer to a string.

### Write corrected code:

```
def find_average(numbers):  
    sum = 0  
    for number in numbers:  
        sum += number  
    average = sum / len(numbers)  
    return average  
  
numbers = [1, 2, 3, 4, 5, 6]  
average = find_average(numbers)  
print(f"The average is: {average}")  
|
```

## Code Snippet 4: Incorrect Dictionary usage

Answer=>

**Write the error :**

AttributeError

**Explain the error:**

In the `update_record` function, when `name` is not already in `records`, it tries to assign `records[name] = score`. However, `score` here is a single value (91 or 95 in the function calls), while for existing names (Alice and Bob), `records[name]` is a list of scores ([88, 92] or [70, 85]).

**Write corrected code:**

```
def update_record(records, name, score):
    if name in records:
        records[name].append(score)
    else:
        records[name]=[score]

student_records = {"Alice": [88, 92], "Bob": [70, 85]}
update_record(student_records, "Charlie", 91)
update_record(student_records, "Alice", 95)

print(student_records)
```