

## Fundamentals of Scientific Computing (30th August 2024)

Do not use AI. Do not copy. Submit a ipynb notebook.

1. Correct the function below to check whether a list of tuples contain empty tuples. Create your own list of tuples and check whether your code is working. Note that an empty tuple always evaluates to False.

**Hint:**

```
def list_contains_empty_tuple(mylist_of_tuples):
    for t in tuples_list:
        if t:
            return True
    return False

# Test function
my_list1 = [(), (1,2,3),('a',2), ('Hello',), (1.2,0.2,3),()]
list_contains_empty_tuple(my_list1)
# Returns True
```

2. Write a line of code to generate the following errors:

- a) `NameError: name 'x' is not defined`
- b) `IndexError: list index out of range`
- c) `'KeyError: ' while declaring a 'dictionary' data type`
- d) `TypeError: must be 'str', not 'int'`