

202001445

## LAB 5

### ● Static Analysis Tool Understanding

Here, I used the **mypy python** static analysis tool which identify the errors in code without executing it.

To check it : **python -m mypy file\_name.py**

```
application_for_post.py:63: error: expected ':' [syntax]
Found 1 error in 1 file (errors prevented further checking)
application_for_post.py:86: error: expected 'except' or 'finally' block [syntax]
Found 1 error in 1 file (errors prevented further checking)
application_for_post.py:104: error: Missing parentheses in call to 'print'. Did you mean print(...)? [syntax]
Found 1 error in 1 file (errors prevented further checking)
PS C:\Users\Public\Lab5\mutualExclusion_DistributedSystems> python -m mypy application_for_post.py
application_for_post.py:123: error: Missing parentheses in call to 'print'. Did you mean print(...)? [syntax]
Found 1 error in 1 file (errors prevented further checking)
PS C:\Users\Public\Lab5\mutualExclusion_DistributedSystems> python -m mypy application_for_post.py
application_for_post.py:142: error: unexpected indent [syntax]
Found 1 error in 1 file (errors prevented further checking)
PS C:\Users\Public\Lab5\mutualExclusion_DistributedSystems> python -m mypy application_for_post.py
application_for_post.py:36: error: Need type annotation for "clientDic" (hint: "clientDic: Dict[<type>, <type>] = ...") [var-annotated]
Found 1 error in 1 file (checked 1 source file)
PS C:\Users\Public\Lab5\mutualExclusion_DistributedSystems> █
```

Here the errors identified by the tool.

Error-1 : The syntax error: As the syntax error, there is a ':' sign that wasn't there.

Error-2 : print function error where the whatever string we want to print have to be in ( ) after the print.

Error-3 : The same error as error 2

Error-4 : Unexpected indent error - The following error occurs because the python throws syntax depends on space as well, all the lines of one block have to be in the same space. This error occurs when it doesn't follow.

Error-5 : The same print error as explained in error 2 and error 3.

Error-6 : Type annotation error. The error message indicates that the variable "clientDic" needs a type annotation.