

AI ASSISTED CODING

LAB-10.4

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BATCH:03

TASK-01:

Identify and fix syntax, indentation, and variable errors in the given script.

```
# buggy_code_task1.py
def add_numbers(a, b)
result = a + b
return reslt
print(add_numbers(10 20))
```

Optimize inefficient logic while keeping the result correct.

```
# buggy_code_task2.py
```

PROMPT:

TASK-02:

Optimize inefficient logic while keeping the result correct.

```
def find_duplicates(nums):
duplicates = []
for i in range(len(nums)):
for j in range(len(nums)):
if i != j and nums[i] == nums[j] and nums[i] not in duplicates:
duplicates.append(nums[i])
return duplicates
numbers = [1,2,3,2,4,5,1,6,1,2]
print(find_duplicates(numbers))
```

PROMPT:

TASK-03:

Refactor messy code into clean, PEP 8–compliant, well-structured code.

```
# buggy_code_task3.py
```

```
def c(n):  
    x=1  
    for i in range(1,n+1):  
        x=x*i  
    return x  
print(c(5))
```

PROMPT:

TASK-04:

Add security practices and exception handling to the code.

```
# buggy_code_task4.py  
import sqlite3  
def get_user_data(user_id):  
    conn = sqlite3.connect("users.db")  
    cursor = conn.cursor()  
    query = f"SELECT * FROM users WHERE id = {user_id};" #  
    Potential SQL injection risk  
    cursor.execute(query)  
    result = cursor.fetchall()  
    conn.close()  
    return result  
user_input = input("Enter user ID: ")  
print(get_user_data(user_input))
```

PROMPT:

TASK-05:

Generate a review report for this messy code.

```
# buggy_code_task5.py
```

```
def calc(x,y,z):  
    if z=="add":  
        return x+y  
    elif z=="sub": return x-y
```

```
elif z=="mul":  
    return x*y  
elif z=="div":  
    return x/y  
else: print("wrong")  
print(calc(10,5,"add"))  
print(calc(10,0,"div"))
```

PROMPT: