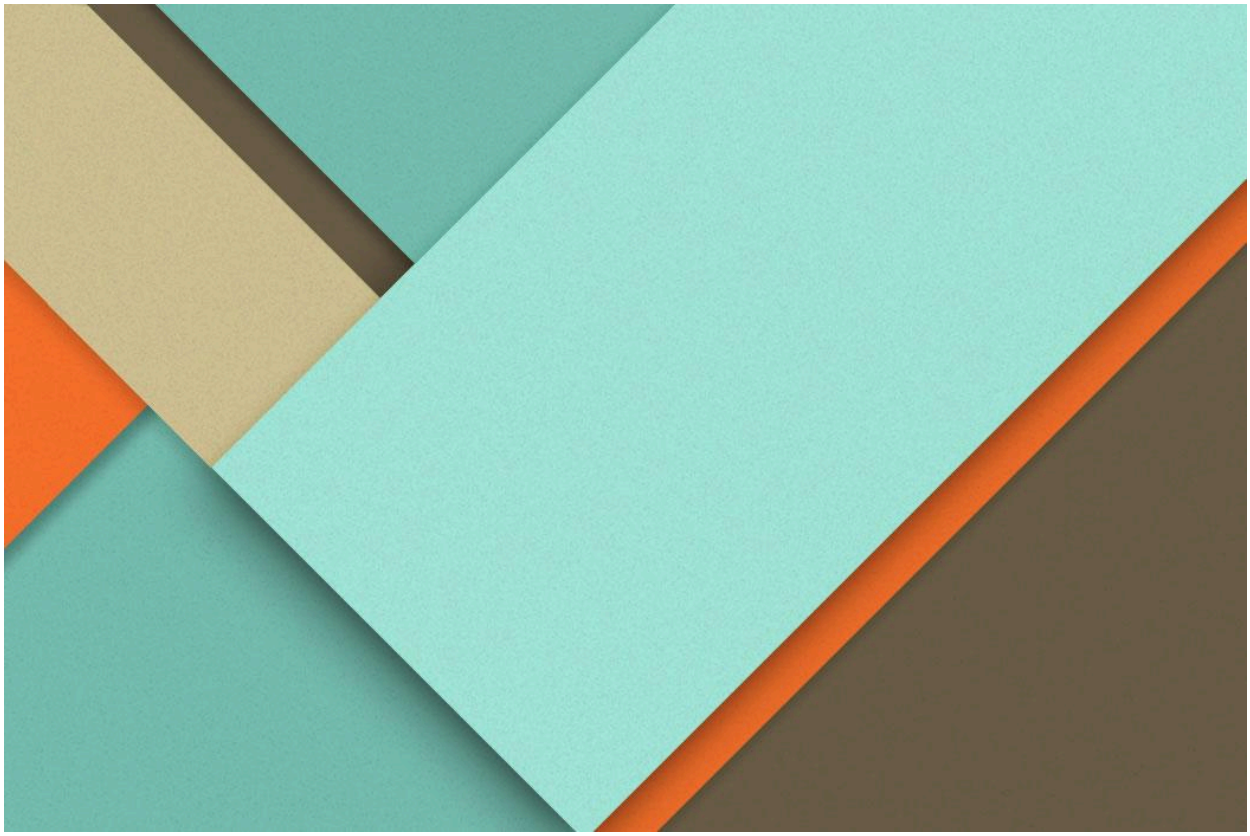

Python Mega Projects

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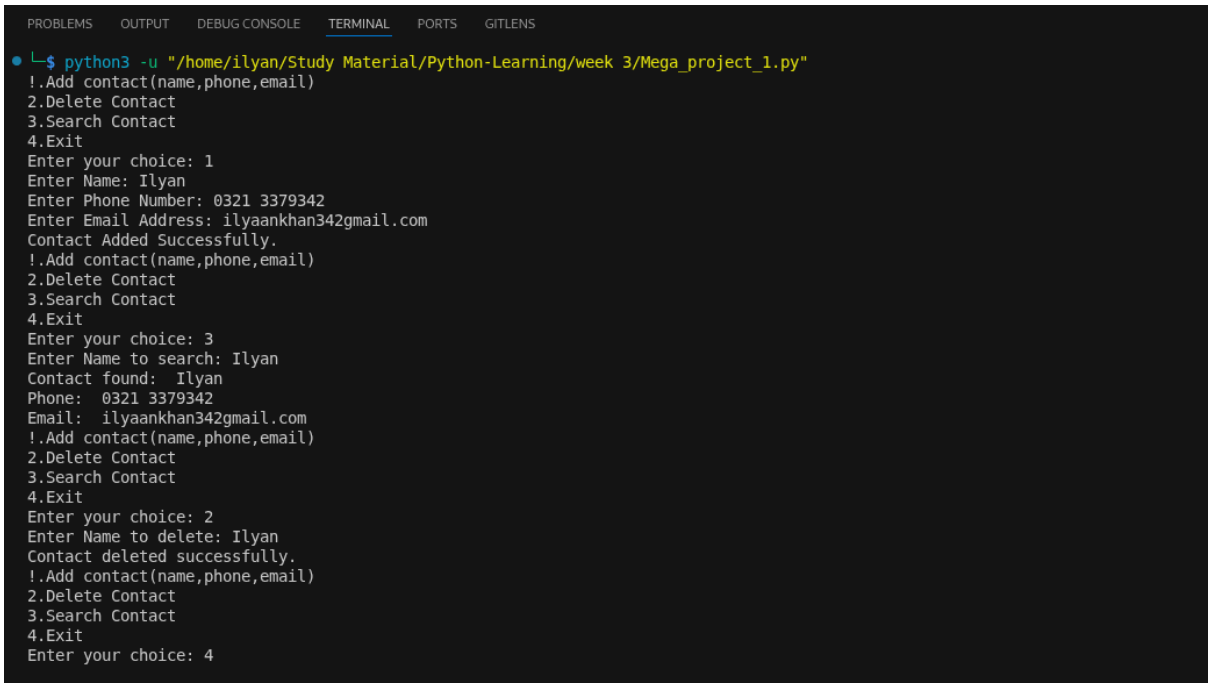
Mega Project 1

Python code:

```
contacts={}
def add(name,phone,email):
   contacts[name]={"phone": phone, "email": email}
   print("Contact Added Successfully.")
def delete(name):
   if name in contacts:
       del contacts[name]
       print("Contact deleted successfully.")
   else:
       print("404: Contact Not Found.")
def search(name):
   if name in contacts:
       print("Contact found: ",name," \nPhone: ",contacts[name]["phone"]," \nEmail:
",contacts[name]["email"])
   else:
       print("404: Contact Not Found.")
while True:
   print("!.Add contact(name,phone,email)\n2.Delete Contact\n3.Search Contact\n4.Exit")
   ch=int(input("Enter your choice: "))
   if ch==1:
       name=input("Enter Name: ")
       phone=input("Enter Phone Number: ")
       email=input("Enter Email Address: ")
       add(name,phone,email)
   elif ch==2:
       name=input("Enter Name to delete: ")
       delete(name)
   elif ch==3:
       name=input("Enter Name to search: ")
       search(name)
   elif ch==4:
       break
   else:
       print("505: Invalid choice.")
```

Output:

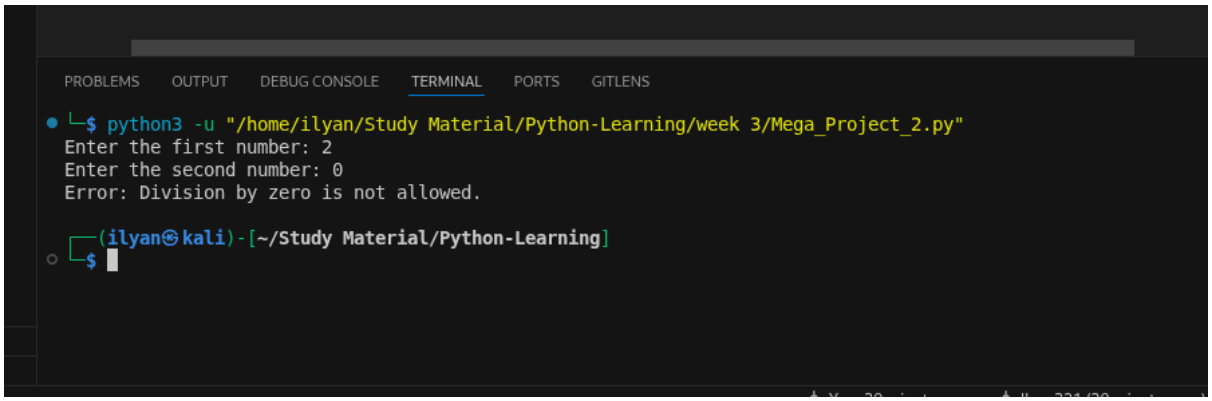


Mega Project 2

Python code:

```python
num1 = input("Enter the first number: ")
num2 = input("Enter the second number: ")
try:
    num1 = float(num1)
    num2 = float(num2)
    result = num1 / num2
except ValueError:
    print("Invalid input. Please enter numeric values.")
except ZeroDivisionError:
    print("Error: Division by zero is not allowed.")
else:
    print("The result of the division is:", result)
```

Output:



Mega Project 3

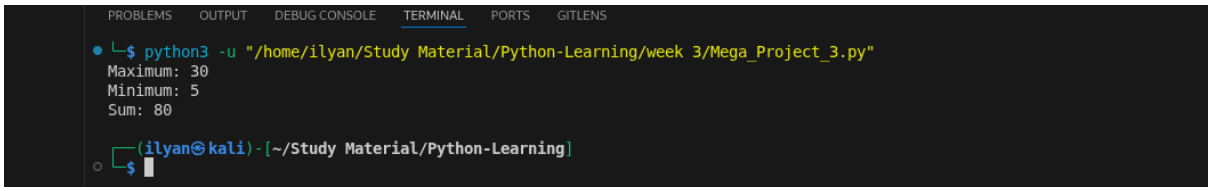
Python code:

```
def tuple_operations(numbers):
    maximum = max(numbers)
    minimum = min(numbers)
    total_sum = sum(numbers)

    return maximum, minimum, total_sum

tuple_numbers = (10, 20, 5, 30, 15)
result = tuple_operations(tuple_numbers)
print("Maximum:", result[0])
print("Minimum:", result[1])
print("Sum:", result[2])
```

Output:



Mega Project 4

Python code:

```
def list_operations(numbers):
   numbers.sort()
   numbers.reverse()
   return numbers
list_numbers = [10, 20, 5, 30, 15]
result = list_operations(list_numbers)
print("Modified List:", result)
```

Output:

Modified List: [30, 20, 15, 10, 5]

Mega Project 5

Python code:

```
contacts={}
def add(name,phone,email):
   contacts[name]={"phone": phone, "email": email}
   print("Contact Added Successfully.")
def delete(name):
   if name in contacts:
       del contacts[name]
       print("Contact deleted successfully.")
   else:
       print("404: Contact Not Found.")
def search(name):
   if name in contacts:
       print("Contact found: ",name," \nPhone: ",contacts[name]["phone"],"
\nEmail: ",contacts[name]["email"])
   else:
       print("404: Contact Not Found.")
while True:
   print("1.Add contact(name,phone,email)\n2.Update Contact\n3.Delete
Contact\n4.Search Contact\n5.Exit")
   ch=int(input("Enter your choice: "))
   if ch==1:
       name=input("Enter Name: ")
       if name in contacts:
           print("Contact already exists.")
```

```
        else:
            phone=input("Enter Phone Number: ")
            email=input("Enter Email Address: ")
            add(name,phone,email)
    elif ch==2:
        name=input("Enter Name to update: ")
        phone=input("Enter new Phone Number: ")
        email=input("Enter new Email Address: ")
        add(name,phone,email)
    elif ch==3:
        name=input("Enter Name to delete: ")
        delete(name)
    elif ch==4:
        name=input("Enter Name to search: ")
        search(name)
    elif ch==5:
        break
    else:
        print("505: Invalid Choice.")
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  GITLENS

└─$ python3 -u "/home/ilyan/Study Material/Python-Learning/week 3/Mega_Project_5.py"
1.Add contact(name,phone,email)
2.Update Contact
3.Delete Contact
4.Search Contact
5.Exit
Enter your choice: 1
Enter Name: Ilyan
Enter Phone Number: 0321 3379342
Enter Email Address: ilyaankhan342@gmail.com
Contact Added Successfully.
1.Add contact(name,phone,email)
2.Update Contact
3.Delete Contact
4.Search Contact
5.Exit
Enter your choice: 1
Enter Name: Ilyan
Contact already exists.
1.Add contact(name,phone,email)
2.Update Contact
3.Delete Contact
4.Search Contact
5.Exit
Enter your choice: 5

┌──(ilyan㉿kali)-[~/Study Material/Python-Learning]
└─$
```

Assignment - Day 5

Python code:

```
while True:
   try:
       num1=int(input("Enter first number: "))
       num2=int(input("Enter second number: "))
       op=input("Enter operation (+, -, *, /): ")
       if op not in ['+', '-', '*', '/']:
           print("Invalid operation")
           continue
       if op=='+':
           result=num1+num2
       elif op=='-':
           result=num1-num2
       elif op=='*':
           result=num1*num2
       elif op=='/':
           try:
               result=num1/num2
           except ZeroDivisionError:
               print("Error: Division by zero is not allowed.")
               continue
       print("Results: ",result)
       break
   except ValueError:
       print("Invalid input.Input integer.")
```

Output:

```
└─$ python3 -u "/home/ilyan/Study Material/Python-Learning/week 3/class_5_Assignment.py"
Enter first number: 2
Enter second number: 3
Enter operation (+, -, *, /): w
Invalid operation
Enter first number: 1
Enter second number: w
Invalid input.Input integer.
Enter first number: 1
Enter second number: 3
Enter operation (+, -, *, /): +
Results:  4
```