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- 1) Write a menu driven program for addition, subtraction, multiplication and division using function and case statements.

```
menu driven maths program.py > multiply
1 def add(num1, num2):
2     return num1 + num2
3
4 def subtract(num1, num2):
5     return num1 - num2
6
7 def multiply(num1, num2):
8     return num1 * num2
9
10 def divide(num1, num2):
11     return num1 / num2
12
13 while True:
14     print("Select operation:")
15     print("1. Add")
16     print("2. Subtract")
17     print("3. Multiply")
18     print("4. Divide")
19     print("5. Exit")
20
21     choice = input("Enter choice (1/2/3/4/5): ")
22
23     if choice == '1':
24         num1 = float(input("Enter first number: "))
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

esktop/Semester 3/Prgramming and Algorithms 2/menu driven maths program.py"

Select operation:  
1. Add  
2. Subtract  
3. Multiply  
4. Divide  
5. Exit  
Enter choice (1/2/3/4/5): 4  
Enter first number: 10  
Enter second number: 5  
Result: 2.0  
Select operation:  
1. Add

```
Result: 2.0
Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
5. Exit
Enter choice (1/2/3/4/5): 5
PS C:\Users\user\Desktop\Semester 3\Prgramming and Algorithms 2>
```

2. Write a menu driven program for finding maximum and minimum between any two numbers; maximum and minimum among three numbers.

Maximum and minimum between two numbers:

```
maximum.py > ...
1  def maximum(num1, num2):
2      if num1 > num2:
3          return num1
4      else:
5          return num2
6
7  def minimum(num1, num2):
8      if num1 < num2:
9          return num1
10     else:
11         return num2
12
13     num1 = float(input("Enter first number: "))
14     num2 = float(input("Enter second number: "))
15
16     while True:
17
18         print("Select operation:")
19         print("1. Find maximum")
20         print("2. Find minimum")
21         print("3. Exit")
22
23         choice = input("Enter choice (1/2/3): ")
24
```

```
if choice == '1':
    result = maximum(num1, num2)
    print("Maximum: ", result)
elif choice == '2':
    result = minimum(num1, num2)
    print("Minimum: ", result)
elif choice == '3':
    break
else:
    print("Invalid choice")
```

```

PS C:\Users\user\Desktop\Semester 3\Programming and Algorithms 2> & C:/Users/user/AppData/Local/Programs/Python/Python310/python.exe "c:/Use
Enter first number: 88
Enter second number: 77
Select operation:
1. Find maximum
2. Find minimum
3. Exit
Enter choice (1/2/3): 1
Maximum: 88.0
Select operation:
1. Find maximum
2. Find minimum

```

```

Enter choice (1/2/3): 2
Minimum: 77.0
Select operation:
1. Find maximum
2. Find minimum
3. Exit
Enter choice (1/2/3): 3
PS C:\Users\user\Desktop\Semester 3\Programming and Algorithms 2>

```

Maximum and minimum between three numbers:

```

maximum and minimum in three numbers.py > maximum
1  def maximum(num1, num2, num3):
2      if num1 > num2 and num1 > num3:
3          return num1
4      elif num2 > num1 and num2 > num3:
5          return num2
6      else:
7          return num3
8
9  def minimum(num1, num2, num3):
10     if num1 < num2 and num1 < num3:
11         return num1
12     elif num2 < num1 and num2 < num3:
13         return num2
14     else:
15         return num3
16
17  num1 = float(input("Enter first number: "))
18  num2 = float(input("Enter second number: "))
19  num3 = float(input("Enter third number: "))
20
21  while True:
22      print("Select option:")
23      print("1. Maximum")
24      print("2. Minimum")
25      print("3. Exit")
26
27      choice = input("Enter choice (1/2/3): ")
28      if choice == '1':
29          result = maximum(num1, num2, num3)
30          print("Maximum: ", result)
31      elif choice == '2':
32          result = minimum(num1, num2, num3)
33          print("Minimum: ", result)
34      elif choice == '3':
35          break
36      else:
37          print("Invalid option")

```

```
PS C:\Users\user\Desktop\Semester 3\Prgramming and Algorithms 2> & C:/Users/user/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/user/Desktop/Semester 3
/Prgramming and Algorithms 2/maximum and minimum in three numbers.py"
Enter first number: 6
Enter second number: 98
Enter third number: 112
Select option:
1. Maximum
2. Minimum
3. Exit
Enter choice (1/2/3): 2
Minimum: 6.0
Select option:
1. Maximum
```

```
1. Maximum
2. Minimum
3. Exit
Enter choice (1/2/3): 1
Maximum: 112.0
Select option:
1. Maximum
2. Minimum
3. Exit
Enter choice (1/2/3): 3
PS C:\Users\user\Desktop\Semester 3\Prgramming and Algorithms 2> & C:/Users/user/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/user/Desktop/Semester 3
/Prgramming and Algorithms 2/maximum and minimum in three numbers.py"
Enter first number: []
```