MODULE 1 Exercises.ipynb - Colaboratory

Google Account

PARVATHAM MANASA VU21CSEN0101226

mparvath@gitam.in

This notebook is open with private outputs. Outputs will not be saved. You can disable this in Notebook settings

Open notebook settings

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MODULE 1 Exercises.ipynb_ Rename notebook

Rename notebook

Star

Star/unstar notebook in Google Drive

File

Edit

View

Insert

Runtime

Tools

Help

All changes saved

Comment

Open comments pane

Share

Share notebook

Open settings

Code

Insert code cell below

Ctrl+M B

Text

Add text cell

Toggle header visibility

Notebook

```
# Accept input from user and store it in variable and print the value
a=int(input("Enter the value"))
print(a)
```

```
Enter the value 89
89
```

```
# Use of print statements and use of (.format )for printing different
data types.
price=150
quantity=3
```

```
item=1
name="Thumbsup"
myorder="I bought {3} with {0} having {1} and purchased {2}"
print(myorder.format(price,quantity,item,name))
```

```
I bought Thumbsup with 150 having 3 and purchased 1
```

Code Text

---

import builtins

Take 2 numbers as user input and add, multiply, divide, subtract, remainder and print the output using int

a=int(input("Enter the value"))

b=int(input("Enter the value"))

add=a+b

print(add)

subtract=a-b

print(subtract)

multiply=a*b

print(multiply)

divide=a/b

print(divide)

rem=a%b

print(rem)

Enter to Rename, Shift+Enter to Preview

```
Enter the value 67
Enter the value 89
156
-22
5963
0.7528089887640449
67
```

Code Text

```
#  Take 2 numbers as user input and add, multiply, divide, subtract, remainder and print th
e output using float

a=float(input("Enter the value"))

b=float(input("Enter the value"))

add=a+b

print(add)

subtract=a-b

print(subtract)

multiply=a*b

print(multiply )

divide=a/b

print(divide)

rem=a%b

print(rem)
```

Enter to Rename, Shift+Enter to Preview

```
Enter the value 88
Enter the value 66
154.0
22.0
5808.0
1.3333333333333333
22.0
```

Code Text

```
#Conversion of one unit to another (such as hours to minutes, miles to
km and etc)
a=float(input("enter hours"))
```

```
print("minutes are= ",a*60)
b=float(input("enter miles"))
print("km are= ",b*1.6)
```

```
enter hours5.0
minutes are=  300.0
enter miles6.0
km are=  9.600000000000001
```

Code Text

```
# Usage of mathematical functions in python like math.ceil, floor, fab
s, fmod, trunc, pow, sqrt etc.
import math
my_int=4.5678
print(math.ceil(my_int))
my_int=4.5678
print(math.floor(my_int))
my_int=4.5678
print(math.fabs(my_int))
print(math.fmod(4.5678, 7.8976))
my_int=4.5678
print(math.trunc(my_int))
print(math.pow(4.5678, 7.8976))
my_int=4.5678
print(math.sqrt(my_int))
```

```
5
4
4.5678
4.5678
4
162219.3423504213
2.1372412124044398
```

```
# Building a mathematical calculator that can perform operations accor
ding to user input. Use decision making statement.
# This function adds two numbers
def add(x, y):
    return x + y
```

```
# This function subtracts two numbers
def subtract(x, y):
    return x - y

# This function multiplies two numbers
def multiply(x, y):
    return x * y

# This function divides two numbers
def divide(x, y):
    return x / y


print("Select operation.")
print("1.Add")
print("2.Subtract")
print("3.Multiply")
print("4.Divide")

while True:
    # take input from the user
    choice = input("Enter choice(1/2/3/4): ")

    # check if choice is one of the four options
    if choice in ('1', '2', '3', '4'):
        num1 = float(input("Enter first number: "))
        num2 = float(input("Enter second number: "))

        if choice == '1':
            print(num1, "+", num2, "=", add(num1, num2))

        elif choice == '2':
            print(num1, "-", num2, "=", subtract(num1, num2))

        elif choice == '3':
            print(num1, "*", num2, "=", multiply(num1, num2))

        elif choice == '4':
            print(num1, "/", num2, "=", divide(num1, num2))

        # check if user wants another calculation
        # break the while loop if answer is no
        next_calculation = input("Let's do next calculation? (yes/no):
")
        if next_calculation == "no":
          break
```

```
    else:
        print("Invalid Input")
```

```
Select operation.
1.Add
2.Subtract
3.Multiply
4.Divide
Enter choice(1/2/3/4):  4
Invalid Input
Enter choice(1/2/3/4): 4
Enter first number:  67
Enter second number:  78
67.0 / 78.0 = 0.8589743589743589
Let's do next calculation? (yes/no): No
Enter choice(1/2/3/4):  4
Invalid Input
Enter choice(1/2/3/4): 4
Enter first number: 67
Enter second number:  89
67.0 / 89.0 = 0.7528089887640449
Let's do next calculation? (yes/no): no
```

```
# Accepting 5 different subject marks from user and displaying the gra
de of the student
a=int(input("Enter the cse marks"))
b=int(input("Enter the maths marks"))
c=int(input("Enter the english marks"))
d=int(input("Enter the chemistry marks"))
e=int(input("Enter the physics marks"))
average=(a+b+c+d+e)/5
print(average)
if average>90:

  print("O grade")

elif 80<average<90:

  print("A grade")

elif 70<average<80:

  print("B grade")
```

```
elif 60<average<70:

  print("C grade")

elif 50<average<60:

  print("Pass")

else:

  print("Fail")
```

```
Enter the cse marks 89
Enter the maths marks 54
Enter the english marks 67
Enter the chemistry marks 32
Enter the physics marks 99
68.2
C grade
```

Code Text

```
# Printing all even numbers, odd numbers, count of even numbers, count
of odd numbers within a given range.
n=int(input("enter range "))
c=0
for i in range(1,n+1):
 if i%2==0:
   c+=1
   print(i)

print("even count is ",c)

d=0
for i in range(1,n+1):
  if i%2!=0:
    d+=1
    print(i)

print("odd count is ",d)
```

```
enter range 20
2
4
6
8
10
12
14
16
18
20
even count is  10
1
3
5
7
9
11
13
15
17
19
odd count is  10
```

Code Text

```
#Compute the factorial of a given number.
n=int(input("enter a number "))
fac=1
for i in range(1,n+1):
  fac=fac*i

print(fac)
```

```
enter a number 6
720
```

Code Text

Compute GCD of two given

a=int(input("enter a number"))

```
b=int(input("enter a number"))
k=a if a<b else b
while True:
   if a%k==0 and b%k==0:
    break
   k -=1
print(k)
```

Enter to Rename, Shift+Enter to Preview

"Compute" is not defined(reportUndefinedVariable)

SyntaxError: invalid syntax

View Problem (Alt+F8)

No quick fixes available

```
enter a number60
enter a number20
20
```

Code Text

Locate in Drive

Open in playground mode

New notebook

Open notebook

Upload notebook

Rename

Move

Move to trash

Save a copy in Drive

Save a copy as a GitHub Gist

Save a copy in GitHub

Save

Save and pin revision

Revision history

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Download .ipynb

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Undo

Redo

Select all cells

Cut cell or selection

Copy cell or selection

Paste

Delete selected cells

Find and replace

Find next

Find previous

Notebook settings

Clear all outputs

Table of contents

Notebook info

Executed code history

Comments sidebar

Collapse sections

Expand sections

Save collapsed section layout

Show/hide code

Show/hide output

Focus next tab

Focus previous tab

Move tab to next pane

Move tab to previous pane

Code cell

Text cell

Section header cell

Scratch code cell

Code snippets

Add a form field

Run all

Run before

Run the focused cell

Run selection

Run after

Interrupt execution

Restart runtime

Restart and run all

Factory reset runtime

Change runtime type

Manage sessions

View runtime logs

Command palette

Settings

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