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Day1 programs to execute in Mojo

1. Write a Mojo program to evaluate all arithmetic operations.


MOJO >  arithmetic.mojo

```
1  fn main():  
2      var age: Int = 25  
3      var score = 100  
4      var sum = 10+5  
5      var diff = 20-12  
6      var prod = 10*3  
7  
8      print("sum",sum)  
9      print("diff",diff)  
10     print("prod",prod)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
chocku@imperio: /mnt/c/Users/chock/OneDrive/Desktop/MOJO$ mojo arithmetic.mojo  
sum 15  
diff 8  
prod 30  
chocku@imperio: /mnt/c/Users/chock/OneDrive/Desktop/MOJO$
```

2. Write a program to print the factorial of a number using control statements.


MOJO >  fact.mojo

```
1  fn main():  
2      var n = 10  
3      var ans = 1;  
4      for i in range(1,10):  
5          ans = ans*i  
6  
7      print(ans)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$ mojo fact.mojo  
362880  
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$
```

3. WAP to print the first 20th Fibonacci Number using control statements in Mojo.

MOJO >  fibo.mojo

```
1  fn main():
2      var n = 20;
3      var a = 0;
4      var b = 1;
5      print(a)
6      for i in range(1,20):
7          var temp = a
8          a=a+b
9          b = temp
10     print(a)
11
```


PROBLEMS

OUTPUT


DEBUG CONSOLE

TERMINAL

PORTS

89
144
233
377
610
987
1597
2584
4181



4. WAP to print the greatest of 3 numbers.

```
MOJO >  greatestof3.mojo
1  fn main():
2      var a = 20
3      var b = 30
4      var c = 40
5
6      if a<b and c<b:
7          print(b)
8      elif c<a and b<a:
9          print(a)
10     else:
11         print(c)
12
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$ mojo greatestof3.mojo
40
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$
```

5. WAP to print odd and even numbers from 1-100.

```
MOJO >  odd_even.mojo
1  fn main():
2      var st = 1
3      var end = 100
4
5      for i in range(st,end+1):
6          if i%2==0:
7              print(i,"even")
8          else:
9              print(i,"odd")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
92 even
93 odd
94 even
95 odd
96 even
97 odd
98 even
99 odd
100 even
█
```

6. WAP to print the substring form the given string using slice operator and strtuple.

MOJO >  slice.mojo

```
1 fn main():
2     var str = String("MojoWorld")
3     print(str[0:4])
4     var strTuple = slice(0,4);
5     print(str[strTuple])
6     print(str[0:8:2])
7     var str2Tuple = slice(0,4,2)
8     print(str[str2Tuple])
9
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

chocku@imperio: /mnt/c/Users/chock/OneDrive/Desktop/MOJO\$ mojo slice.mojo

Mojo


Mojo

MjWr

Mj

chocku@imperio: /mnt/c/Users/chock/OneDrive/Desktop/MOJO\$

7. WAP to calculate the grade of a student by reading 5 subject marks and calculate average.


MOJO >  subavg.mojo

```
1  fn main():
2      var maths = 99
3      var sci = 99
4      var eng = 99
5      var social = 100
6      var mojo = 100
7
8      var avg = (maths+sci+eng+social+mojo)/5
9
10     if avg>90:
11         print("Grade S",avg)
12     elif avg>80:
13         print("Grade A",avg)
14     else:
15         print("Fail",avg)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$ mojo subavg.mojo
Grade S 99.400000000000006
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$
```


8. WAP to read two numbers and using Boolean variables print the relationship between two numbers(=, <, >)


MOJO >  bool.mojo

```
1 fn main():
2     var a=200
3     var b=35
4     if a==b:
5         print("Equal")
6     elif a>b:
7         print(a,">",b)
8     else:
9         print(a,"<",b)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$ mojo bool.mojo
200 > 35
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$
```


9. Evaluate an expression using python evaluate function in mojo.

```
MOJO >  eval.mojo
1  from python import Python as py
2  def main():
3      var eval = py.evaluate
4      print(eval("3+5"))
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
chocku@imperio: /mnt/c/Users/chock/OneDrive/Desktop/MOJO$ mojo eval.mojo
8
chocku@imperio: /mnt/c/Users/chock/OneDrive/Desktop/MOJO$
```

10. WAP to take input from the user and display the same.

MOJO >  input.mojo

```
1 from python import Python as py
2 def main():
3     input = py.import_module("builtins").input
4     print(input())
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$ mojo input.mojo
chocku
chocku@imperio:/mnt/c/Users/chock/OneDrive/Desktop/MOJO$
```