



junebatch > tasks > matrix.py

Project
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 - > whileloop

```
1 x = [[1, 1, 2],
2     [1, 2, 3],
3     [3, 2, 2]]
4
5 y = [[5, 1, 2],
6     [1, 2, 3],
7     [3, 2, 2]]
8
9 result = [[0, 0, 0],
10          [0, 0, 0],
11          [0, 0, 0]]
12
13 product = [[0, 0, 0],
14            [0, 0, 0],
15            [0, 0, 0]]
16
17 diff = [[0, 0, 0],
18          [0, 0, 0],
19          [0, 0, 0]]
20
21 for i in range(len(x)):
22     for j in range(len(x[0])):
23         result[i][j] = x[i][j] + y[i][j]
24         diff[i][j] = x[i][j] - y[i][j]
25
26 print("sum")
27 for x in result:
28     print(x)
```

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```
result = [[0,0,0],
          [0,0,0],
          [0,0,0]]

product = [[0,0,0],
           [0,0,0],
           [0,0,0]]

diff = [[0,0,0],
        [0,0,0],
        [0,0,0]]

for i in range(len(x)):
    for j in range(len(x[0])):
        result[i][j] = x[i][j]+y[i][j]
        diff[i][j] = x[i][j] - y[i][j]

print("sum")
for x in result:
    print(x)

print("Difference:")
for m in diff:
    print(m)
```

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Editor: **matrix.py**

```
8  
9 result = [[0,0,0],  
10           [0,0,0],  
11           [0,0,0]]  
12  
13 product = [[0,0,0],  
14            [0,0,0],  
15            [0,0,0]]  
16  
17 diff = [[0,0,0],  
18          [0,0,0],  
19          [0,0,0]]  
20
```

Run: **matrix**

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sum

[6, 2, 4]

[2, 4, 6]

[6, 4, 4]

Difference:

[-4, 0, 0]

[0, 0, 0]

[0, 0, 0]

Process finished with exit code 0

```
for i in range(len(x)):
    for j in range(len(x[0])):
        result[i][j] = x[i][j] + y[i][j]
        diff[i][j] = x[i][j] - y[i][j]
```

```
# print("sum")
# for x in result:
#     print(x)
#
# print("Difference:")
# for m in diff:
#     print(m)
```

```
for i in range(len(x)):
    for j in range(len(y[0])):
        for p in range(len(y)):
            product[i][j] += x[i][p] * y[p][j]
```

```
print("Product:")
for pro in product:
    print(pro)
```

Run: matrix x



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Product:

[12, 7, 9]

[16, 11, 14]

[23, 11, 16]

Process finished with exit code 0

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matrix.py

pattern.py

search.py

selectionsort.py

▼ test

> exam2_answers

12345.py

dem1.txt

demo1.txt

eg.py

eq2.py

```
1 # Number of rows
2 n = 5
3 # Loop through rows
4 for i in range(1, n+1):
5     # Loop through columns
6     for j in range(1, n+1):
7         # Printing Pattern
8         if (i == j) or (j == 1) or (i == n):
9             print("*", end=" ")
10        else:
11            print(" ", end=" ")
12    print()
```

un: pattern ×

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*
* *
* *
* *
* * * * *

Process finished with exit code 0

junebatch > tasks > search.py

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```
1  mylist =[1,6,5,7,8]  
2  if 5 in mylist:  
3      print("element found")  
4  if 100 not in mylist:  
5      print("element not found")  
6  
7
```

Run: search

D:\pythonProject\luminar\module\software\Python311\python.exe D:\pythonProject\luminar\junebatch\tasks\se
element found
element not found

Process finished with exit code 0

junebatch > tasks > selectionsort.py

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```
1 usage
2 def selection_sort(arr):
3     for i in range(0, len(arr)-1):
4         min = i
5         for j in range(i+1, len(arr)):
6             if arr[j] < arr[min]:
7                 min = j
8             arr[i], arr[min] = arr[min], arr[i]
9     return arr
10 arr = [4, 5, 3, 2, 8, 1]
11 print(selection_sort(arr))
```

Run: selectionsort.py

D:\pythonProject\luminar\module\software\Python311\python.exe D:\pythonProject\luminar\junebatch\tasks\selectionsort.py
[1, 2, 3, 4, 5, 8]

Process finished with exit code 0