

lab3-py

func.pymain.pyxmov1.pyxmov2.pyxmov3.pyxmov4

EXPLORER

OPEN EDITORS

7.py13.py8.py9.py10.py11.py12.pyfunc.pyxmain.py

LAB3-PY

10.py11.py12.py13.pyclas1.pyclas2.pyclas3.pyclas4.pyclas5.pyclas6.pyfunc.pyxmain.pyxmov1.pyxmov2.pyxmov3.pyxmov4.pyxmov5.py

OUTLINE

TIMELINE

main.py > ...

1 from func import is\_palindrome, sphere\_volume

2

3 word = input("enter: ")

4 print("palindrome:", is\_palindrome(word))

5

6 r = float(input("radius: "))

7 print("volume:", sphere\_volume(r))

8

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

12 23

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

Enter 3 4 5 6 7 8

Prime numbers: [3, 5, 7]

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

Ln 8, Col 1

Spaces: 4

UTF-8

LF

Python

3.9.6 64-bit

lab3-py

func.pymain.py**mov1.py** ×mov2.py ×mov3.py ×mov4 ▶ ▢ ...

EXPLORER

OPEN EDITORS

13.py8.py9.py10.py11.py12.pyfunc.pymain.py× mov1.py

LAB3-PY

10.py11.py12.py13.pyclas1.pyclas2.pyclas3.pyclas4.pyclas5.pyclas6.pyfunc.pymain.py**mov1.py**mov2.py ×mov3.py ×mov4.py ×mov5.py

OUTLINE

TIMELINE

mov1.py > ...

```
56     "imdb": 7.2,
57     "category": "Comedy"
58 },
59 {
60     "name": "What is the name",
61     "imdb": 9.2,
62     "category": "Suspense"
63 },
64 {
65     "name": "Detective",
66     "imdb": 7.0,
67     "category": "Suspense"
68 },
69 {
70     "name": "Exam",
71     "imdb": 4.2,
72     "category": "Thriller"
73 },
74 {
75     "name": "We Two",
76     "imdb": 7.2,
77     "category": "Romance"
78 }
79 ]
80 def is_highRated(movie):
81     return movie["imdb"] > 5.5
82
83 print(is_highRated(movies[1]))
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

**TERMINAL**

PORTS

zsh

Python

Ln 83, Col 34

Spaces: 4

UTF-8

LF

Python

3.9.6 64-bit



lab3-py

lab3-py

EXPLORER

OPEN EDITORS

12.py  
func.py  
main.py  
mov1.py  
mov2.py  
mov3.py  
mov4.py  
mov5.py  
clas1.py

LAB3-PY

10.py  
11.py  
12.py  
13.py  
clas1.py  
clas2.py  
clas3.py  
clas4.py  
clas5.py  
clas6.py  
func.py  
main.py  
mov1.py  
mov2.py  
mov3.py  
mov4.py  
mov5.py

OUTLINE

TIMELINE

clas1.py

clas2.py

clas3.py

clas4.py

clas5.py

clas6.py

clas1.py > ...

1 class string:  
2 def getString(self):  
3 self.text = input("Enter: ")  
4  
5 def printString(self):  
6 print(self.text.upper())  
7  
8 s = string()  
9 s.getString()  
10 s.printString()  
11

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
12 23  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py  
Enter 3 4 5 6 7 8  
Prime numbers: [3, 5, 7]  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh  
Python

< 0 0 0

Ln 11, Col 1 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit

lab3-py

1.py2.py3.py4.py5.py6.py

EXPLORER

OPEN EDITORS

1.py2.py3.py4.py5.py6.py7.py13.py8.py

LAB3-PY

\_\_pycache\_\_\_.vscode1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.pyclas1.pyclas2.pyclas3.py

OUTLINE

TIMELINE

4.py > ...

1 numbers = input("Enter ")  
2 numbers = list(map(int, numbers.split()))  
3  
4 def is\_prime(n):  
5 if n < 2:  
6 return False  
7 for i in range(2, n):  
8 if n % i == 0:  
9 return False  
10 return True  
11  
12 def filter\_prime(numbers):  
13 prime\_numbers = []  
14 for num in numbers:  
15 if is\_prime(num):  
16 prime\_numbers.append(num)  
17 return prime\_numbers  
18  
19 print(filter\_prime(numbers))  
20

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
12 23  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py  
Enter 3 4 5 6 7 8  
Prime numbers: [3, 5, 7]  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh  
Python

Ln 18, Col 1 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit



lab3-py

1.py2.py3.py4.py5.py6.py

EXPLORER

OPEN EDITORS

1.py2.py3.py4.py5.py6.py7.py13.py8.py

LAB3-PY

\_\_pycache\_\_

.vscode

1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.py

clas1.py

clas2.py

clas3.py

OUTLINE

TIMELINE

5.py > string\_permutations

1 s = input("Enter ")

2 def string\_permutations(s):

3 if len(s) == 1:

4 return [s]

5

6 result = []

7 for i in range(len(s)):

8 char = s[i]

9 remaining\_chars = s[:i] + s[i+1:]

10 for perm in string\_permutations(remaining\_chars):

11 result.append(char + perm)

12

13 return result

14 permutations = string\_permutations(s)

15 for p in permutations:

16 print(p)

17

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

12 23

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

Enter 3 4 5 6 7 8

Prime numbers: [3, 5, 7]

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

Ln 2, Col 1

Spaces: 4

UTF-8

LF

Python

3.9.6 64-bit

lab3-py

7.py13.py8.py9.py10.py

EXPLORER

OPEN EDITORS

1.py2.py3.py4.py5.py6.py7.py13.py8.py

LAB3-PY

\_\_pycache\_\_

.vscode

1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.py

clas1.py

clas2.py

clas3.py

OUTLINE

TIMELINE

6.py > reverse\_words

1 s = input("Enter ")

2 def reverse\_words(sentence):

3 words = sentence.split()

4 reversed\_sentence = " ".join(words[::-1])

5 return reversed\_sentence

6 print(reverse\_words(s))

7

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

12 23

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

Enter 3 4 5 6 7 8

Prime numbers: [3, 5, 7]

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

< 0 0 0

Ln 5, Col 29 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit

lab3-py

6.py7.py13.py8.py9.py10.py

EXPLORER

OPEN EDITORS

LAB3-PY

OUTLINE

TIMELINE

1.py

2.py

3.py

4.py

5.py

6.py

7.py

13.py

8.py

\_\_pycache\_\_

.vscode

1.py

2.py

3.py

4.py

5.py

6.py

7.py

8.py

9.py

10.py

11.py

12.py

13.py

clas1.py

clas2.py

clas3.py

7.py > ...

1 def has\_33(nums):

2 for i in range(len(nums) - 1):

3 if nums[i] == 3 and nums[i + 1] == 3:

4 return True

5 return False

6

7 numbers = list(map(int, input("Enter: ").split()))

8 print(has\_33(numbers))

9

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

zsh

Python

Ln 8, Col 7 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit



lab3-py

6.py7.py13.py8.py9.py10.py

EXPLORER

OPEN EDITORS

1.py2.py3.py4.py5.py6.py7.py13.py8.py

LAB3-PY

\_\_pycache\_\_\_.vscode1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.pyclas1.pyclas2.pyclas3.py

OUTLINE

TIMELINE

8.py > ...

1def spy\_game(nums):  
2 pattern = [0, 0, 7]  
3 index = 0  
4  
5 for num in nums:  
6 if num == pattern[index]:  
7 index += 1  
8 if index == len(pattern):  
9 return True  
10 return False  
11  
12 print(spy\_game([1, 2, 4, 0, 0, 7, 5])) # True  
13 print(spy\_game([1, 0, 2, 4, 0, 5, 7])) # True  
14 print(spy\_game([1, 7, 2, 0, 4, 5, 0])) # False  
15

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
12 23  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py  
Enter 3 4 5 6 7 8  
Prime numbers: [3, 5, 7]  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

Ln 15, Col 1Spaces: 4UTF-8LFPython 3.9.6 64-bit



lab3-py

6.py7.py13.py8.py9.py10.py

EXPLORER

OPEN EDITORS

2.py3.py4.py5.py6.py7.py13.py8.py9.py

LAB3-PY

\_\_pycache\_\_

.vscode

1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.py

clas1.py

clas2.py

clas3.py

OUTLINE

TIMELINE

9.py > ...

1import math

2r = float(input("radius: "))

3def sphere\_volume(radius):

4| return (4/3) \* math.pi \* (radius \*\* 3)

5

6print(sphere\_volume(r))

7

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

12 23

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

Enter 3 4 5 6 7 8

Prime numbers: [3, 5, 7]

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

< 0 0 0

Ln 6, Col 24 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit

lab3-py

6.py7.py13.py8.py9.py10.py

EXPLORER

OPEN EDITORS

3.py4.py5.py6.py7.py13.py8.py9.py10.py

LAB3-PY

\_\_pycache\_\_\_.vscode1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.pyclas1.pyclas2.pyclas3.py

OUTLINE

TIMELINE

10.py > ...

1 numbers = list(map(int, input("Enter ").split()))  
2 def unique\_elems(lst):  
3 unique\_list = []  
4 for item in lst:  
5 if item not in unique\_list:  
6 unique\_list.append(item)  
7 return unique\_list  
8  
9 print(unique\_elems(numbers))  
10

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
12 23  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py  
Enter 3 4 5 6 7 8  
Prime numbers: [3, 5, 7]  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh  
Python

< 0 0 0

Ln 9, Col 29 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit



lab3-py

8.py9.py10.py11.py12.pyfunc.py

EXPLORER

OPEN EDITORS

4.py5.py6.py7.py13.py8.py9.py10.py11.py

LAB3-PY

\_\_pycache\_\_\_.vscode1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.pyclas1.pyclas2.pyclas3.py

OUTLINE

TIMELINE

11.py > ...

1def is\_palindrome(word):  
2 word = word.replace(" ", "").lower()  
3 return word == word[::-1]  
4  
5word = input("Enter: ")  
6if is\_palindrome(word):  
7 print("palindrome")  
8else:  
9 print("not palindrome")  
10

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
12 23  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py  
Enter 3 4 5 6 7 8  
Prime numbers: [3, 5, 7]  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zshPython

< 0 0 0

Ln 9, Col 28 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit

lab3-py

8.py9.py10.py11.py12.pyfunc.py

EXPLORER

OPEN EDITORS

5.py6.py7.py13.py8.py9.py10.py11.py12.py

LAB3-PY

\_\_pycache\_\_

.vscode

1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.py

clas1.py

clas2.py

clas3.py

OUTLINE

TIMELINE

12.py > ...

1 numbers = list(map(int, input("Enter: ").split()))

2 def histogram(lst):

3 for num in lst:

4 print("\*" \* num)

5

6 histogram(numbers)

7

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

12 23

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

Enter 3 4 5 6 7 8

Prime numbers: [3, 5, 7]

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

Ln 7, Col 1

Spaces: 4

UTF-8

LF

Python

3.9.6 64-bit



lab3-py

7.py13.py8.py9.py10.py11.py

EXPLORER

OPEN EDITORS

5.py6.py7.py13.py8.py9.py10.py11.py12.py

LAB3-PY

\_\_pycache\_\_

.vscode

1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.py

clas1.py

clas2.py

clas3.py

OUTLINE

TIMELINE

13.py > ...

1import random

2

3def guess\_the\_number():

4 name = input("Hello! What is your name? ")

5 print(f"\nWell, {name}, I am thinking of a number between 1 and 20.")

6

7 number = random.randint(1, 20)

8 attempts = 0

9

10 while True:

11 guess = int(input("Take a guess: "))

12 attempts += 1

13

14 if guess < number:

15 print("Your guess is too low.")

16 elif guess > number:

17 print("Your guess is too high.")

18 else:

19 print(f"Good job, {name}! You guessed my number in {attempts} guesses!")

20 break

21

22 guess\_the\_number()

23

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

12 23

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

Enter 3 4 5 6 7 8

Prime numbers: [3, 5, 7]

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

< 0 0 0

Ln 23, Col 1 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit

lab3-py

1.py 2.py 3.py 4.py 5.py 6.py

EXPLORER

OPEN EDITORS

1.py 2.py 3.py 4.py 5.py 6.py 7.py 13.py 8.py

LAB3-PY

\_\_pycache\_\_ .vscode 1.py 2.py 3.py 4.py 5.py 6.py 7.py 8.py 9.py 10.py 11.py 12.py 13.py clas1.py clas2.py clas3.py

OUTLINE

TIMELINE

1.py > func

1 grams=int(input("Enter: "))  
2 def func(grams):  
3     ounces = 28.3495231 \* grams  
4     print(ounces)  
5  
6 func(grams)  
7

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py  
12 23  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py  
Enter 3 4 5 6 7 8  
Prime numbers: [3, 5, 7]  
(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh Python

Ln 3, Col 29 Spaces: 4 UTF-8 LF Python 3.9.6 64-bit



lab3-py

1.py2.py3.py4.py5.py6.py

EXPLORER

OPEN EDITORS

1.py2.py3.py4.py5.py6.py7.py13.py8.py

LAB3-PY

\_\_pycache\_\_

.vscode

1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.py

clas1.py

clas2.py

clas3.py

OUTLINE

TIMELINE

2.py > ...

1 F=int(input("enter F:"))

2 def temp(F):

3 C = (5 / 9) \* (F-32)

4 print(C)

5 temp(F)

6

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

12 23

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

Enter 3 4 5 6 7 8

Prime numbers: [3, 5, 7]

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

Ln 1, Col 22

Spaces: 4

UTF-8

LF

Python

3.9.6 64-bit

lab3-py

1.py2.py3.py4.py5.py6.py

EXPLORER

OPEN EDITORS

1.py2.py3.py4.py5.py6.py7.py13.py8.py

LAB3-PY

\_\_pycache\_\_

.vscode

1.py2.py3.py4.py5.py6.py7.py8.py9.py10.py11.py12.py13.py

clas1.py

clas2.py

clas3.py

OUTLINE

TIMELINE

3.py > solve

1 numheads=35

2 numlegs=94

3 def solve(numheads, numlegs):

4 rabbits=(numlegs-2\*numheads)//2

5 chickens=numheads-rabbits

6 print(rabbits,chickens)

7 solve(numheads, numlegs)

8

9 # 2chickens+4rabbits=numlegs

10 # chickens+rabbits=numheads

11 # r=numlegs-2numheads)//2

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

/usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/3.py

12 23

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

Enter 3 4 5 6 7 8

Prime numbers: [3, 5, 7]

(base) aluaw@Aluas-MacBook-Air lab3-py % /usr/bin/python3 /Users/aluaw/Desktop/lab3-py/4.py

zsh

Python

Ln 4, Col 36

Spaces: 4

UTF-8

LF

Python

3.9.6 64-bit