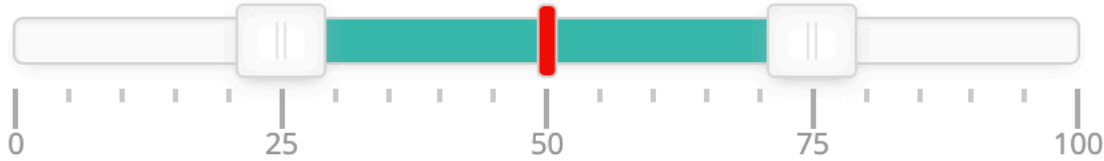


Peers that I want to compare my progress...



Based on your and your peers' progress in the system, the system will update your position in the slider automatically. Also, the average progress of the Peer group will be reflected as shown below based on your comparison peers.

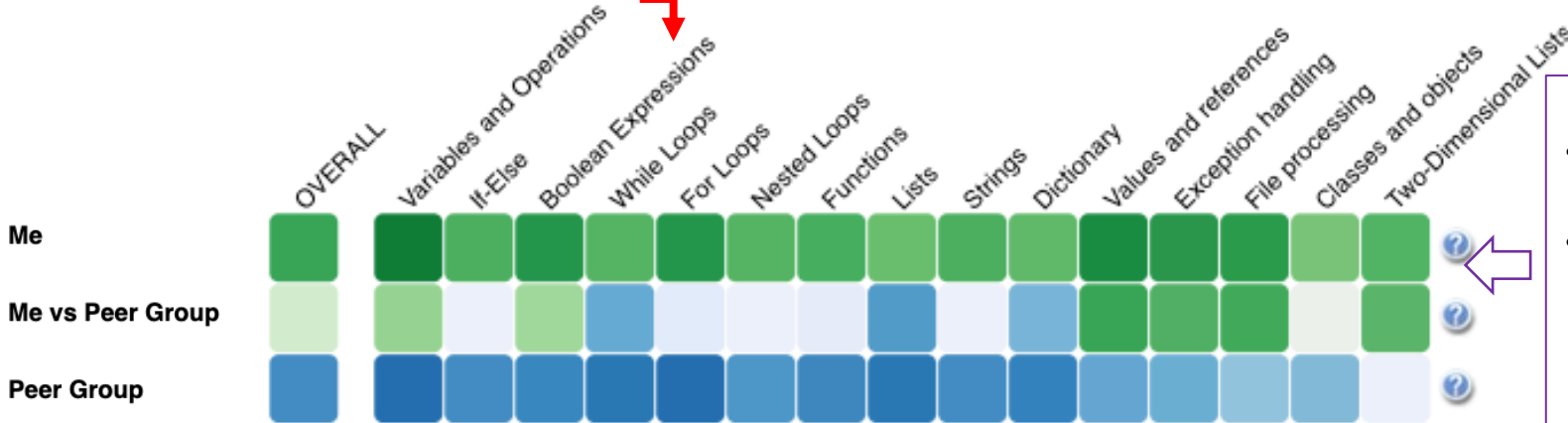


This slider is to select your comparison peers based on the progress in the system.

Red colored vertical bar shows your current position in the class on 0-100 axis. The closer the bar to 100 means that your progress is closer to the highest progress among your peers

To select your comparison peers, you can use the handles or completely drag the **turquoise** colored horizontal bar (the group bar).

When you move the handles, you will notice that the visualization changes accordingly. Also, the system updates your position on the slider based on **your progress** automatically when you practice in the system.



Progress Visualization

- First row (Me) shows **your progress** (Darker **green** means more progress on that topic)
- Second row (Me vs group) **compares your progress with the average progress of the selected peers** (Darker **green** means you have more progress than the Dynamic group; darker **blue** means they have more progress than you; grey means equal progress.
- Third row (Group) shows the **average progress of the selected peers** (Darker **blue** means more progress on that topic)

How to Increase your Progress?

To have more greener cells on **Me** row, you need to interact with the learning activities inside each topic.

Click on a topic cell as shown below and access the contents. Viewing animation steps, clicking on example lines or solving challenges, questions and Parsons problems to increase your progress.

Me and group (Class Average students)



Show progress

Animated Examples

Examples-Challenges

Tracing Problems

Parsons Problems

close

Animated Examples

Play animation steps to how the program executed

```
1 account1 = 2540
2 account2 = 13250
3 price = 3400
4
5 can_afford = account1 >= price or account2 >= price
6 can_afford = account2 >= price or account1 >= price
7
8 account2 = account2 - price
9
10 money_left = account1 > 0 and account2 > 0
11 limit_exceeded = account1 < 0 and account2 < 0
```

Stack

Stack frame

account1
2540

account2
13250

Literals

>= or - > and

<

Text console

Fetching value 13250 - ready.

⏮ ⏪ ⏩ ⏭

Tracing Problems

Predict the output of the program. It is either the console output or the value of **result** variable.

Tester.py

```
account1 = 186
account2 = 186 + 50
price = 250
can_afford = account1 >= price or account2 >= price
account2 = account2 - price
money_left = account1+account2 > 0
result = money_left
```

What is the final value of **result**?

CORRECT!

Your Answer is:
True

Correct Answer is:
True

Try Again

Examples-Challenges

Check how a program is constructed line by line in examples and challenge yourself with challenges and complete the missing lines.

Example: Determining When to Buy a New Phone (Case 1)

Construct a program that determines whether it is time to buy a new phone based on the inputs that it receives from the user. A new phone should be bought if the phone breaks or the phone is at least 3 years old.

1 #Step 1: Read the user inputs
2 text = input("Enter the phone age in years:")
3 phone_age = int(text)
4 text = input("Enter 1 if the phone is broken, otherwise enter 0:")
5 input_num = int(text)
6 #Step 2: Determine whether the phone is broken or not
7 if input_num == 1:
8 is_broken = True
9 else:
10 is_broken = False
11 #Step 3: Write the boolean expression to determine whether the student needs to buy a new phone
12 need_phone = is_broken or phone_age >= 3
13 #Step 4: Print the result
14 if need_phone == True:
15 print("Yes! It is time to buy a new phone.")
16 else:
17 print("No! It is not yet the time to buy a new phone.")

PREVIOUS NEXT

To determine whether the phone is broken, we need to compare the integer

Challenge: Determining When a Student Fails a Course (Case 2)

Construct a program that determines whether a student fails the course based on the inputs that it receives from the instructor. The student fails the course if the exam score is less than 55 or when the student has cheated.

Drag a tile to each missing field to construct this program.

1 #Step 1: Read the instructor inputs
2 text = input("Enter the exam score:")
3 exam_score = int(text)
4 text = input("Enter 1 if the student has cheated, otherwise enter 0:")
5 input_num = int(text)
6 #Step 2: Determine whether the student has cheated
7 if input_num == 1:
8 has_cheated = True
9 else:
10 has_cheated = False
11 #Step 3: Write the boolean expression to determine whether the student fails the course
12 is_failing = not (exam_score >= 55) or has_cheated
13 #Step 4: Print the result
14 if is_failing == True:
15 print("Yes! The student fails the course.")

Back

Drag a tile from here

CHECK

is_failing = exam_score < 55 or not has_cheated

is_failing = exam_score < 55 or has_cheated

is_failing = exam_score < 55 and not has_cheated

Parsons Problem

Reorder the program lines to solve the given task at the bottom of the screen. Pay attention to indentation.

Drag from here

else:

elif input_a == 0 and input_b == 0:

print(??)

print(??)

Construct your solution here

if input_a == 1 and input_b == 1:

print(??)

[New instance](#) [Get feedback](#)

Construct a program that mimics a XOR gate (exclusive or). When input_a and input_b are the same, it should print out 0 and in other cases print out 1.