

LESSON_08 FOR LOOPS + USER INPUT

Objectives

Students should be able to:

- Effectively use FOR loops to simplify repetitive tasks
- Understand how the for loop works with the input user

STANDARDS

- 7-8.CT.7, 7-8.CT.8, 7-8.CT.9

ACTIVITY 1_FOR LOOPS & INPUT (WORK IN PAIRS)

Your Task

1. Click on the link to test the code below repl.it
2. Read and discuss the code with your partner. Then answer the check for understanding questions below

FOR Loops & Input

```
num = int(input("How many numbers are you adding?"))
total = 0
for i in range(num):
    total = total + int(input("Give me a whole number"))
print("Your total for all five numbers is:",total)
```



CHECK FOR UNDERSTANDING

- What is the name of the variable that stores the user input?
- What code do you want to repeat? How many times?
- comment out the line of code that says total=0. What happens? What error message did you get?

```
total = total + int(input("Give me a whole number"))
NameError: name 'total' is not defined
```
- Remove the indent inside the loop. What happens? What error message did you get?

- ```
total = total + int(input("Give me a whole number"),
^
IndentationError: expected an indented block
```
- 

### Formative Assessment ERROR ANALYSIS (work in pairs)

#This program is supposed to determine the average height of your students

#There are FOUR (4) ERRORS in this program. Can you debug those errors?

```
num = input("How many students do you have?")
for i in range (num)|
 student_height = int(input("What is the student's height? "))
 total = total + student_height
print("The average height of your students is " + str(total))
```

[Solution Link](#)

### **HOMEWORK**

Explain in writing the four errors in the above program

### **OPTIONAL\_ ADDITIONAL PRACTICE**

#### **FIND the 6 ERRORS**

```
for i in range 5:
 add = input("Give me a whole number")
total + add
print("Your total for all five numbers is:" + total)
```

#### **Errors:**

- 1) Initialize total
- 2) Parentheses around Range
- 3) White space
- 4) Use int() to convert input
- 5) Recursive: total = total + add
- 6) Use str() to convert total

## SUMMARY

### BIG IDEA

- Be mindful of the Syntax and structure of for loops (syntax errors)
- We can use the for loops with the user input