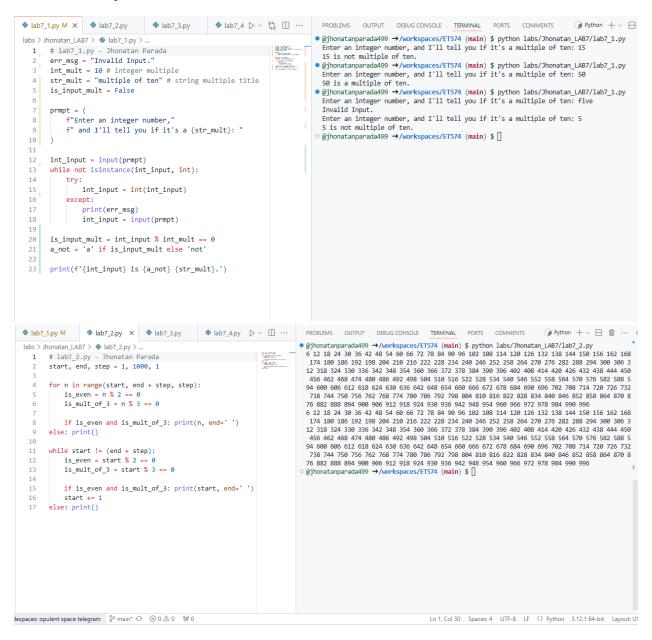
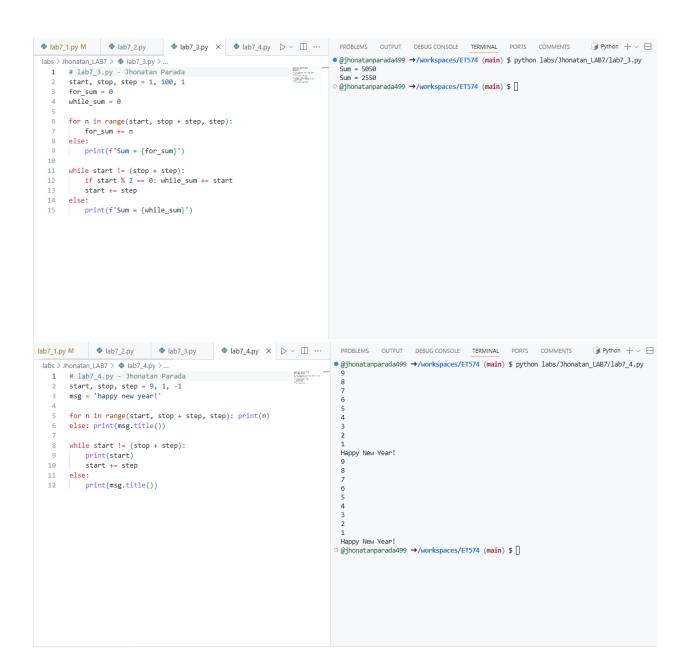
Lab 7 Summary





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PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
  labs > Jhonatan_LAB7 > ♦ lab7_5.py > ...

    @jhonatanparada499 →/workspaces/ET574 (main) $ python labs/Jhonatan_LAB7/lab7_5.py

                                                                                     Enter the number of grades in the list: 10
       # lab7_5.py - Jhonatan Parada
                                                                                     Enter the passing grades: 65
         import random
                                                                                     Updated List: [76, 89, 73]
Original List: [76, 36, 5, 40, 25, 8, 9, 53, 80, 73]
@jhonatanparada499 →/workspaces/ET574 (main) $ [
         prompt_1 = 'Enter the number of grades in the list: '
         prompt_2 = 'Enter the passing grades: '
err_msg = 'Invalid Input.'
         min grade = 1
         max_grade = 100
        1st len = 0
   10
         pass_grade = 0
   11
         all_grades = []
   13
         pass_grades = []
   14
   15
         lst_len = input(prompt_1)
   16
         while not isinstance(lst_len, int):
   17
             try:
                 lst_len = int(lst_len)
   19
                 pass_grade = input(prompt_2)
   20
   21
                while not isinstance(pass_grade, int):
   22
   23
                         pass_grade = int(pass_grade)
   24
                     except:
                        print(err_msg)
   26
                         pass_grade = input(prompt_2)
   27
             except:
                print(err_msg)
               lst_len = input(prompt_1)
   30
         for i in range(lst_len):
   31
             new_grade = random.randint(min_grade, max_grade)
   33
             all_grades.append(new_grade)
           if new_grade >= pass_grade:
                pass_grades.append(new_grade)
   38 print(f'Updated List: {pass_grades}')
         print(f'Original List: {all_grades}'
lab7_4.py
  labs > Jhonatan_LAB7 > 💠 lab7_6.py >
                                                                              • @jhonatanparada499 →/workspaces/ET574 (main) $ python labs/Jhonatan_LAB7/lab7_6.py
                                                                                Enter a number n1: 1
   1 # lab7_6.py - Jhonatan Parada
                                                                  Enter a nubmer n2: 11
        prompt 1 = 'Enter a number n1:
                                                                                1|2|3|4|5|6|7|8|9|10|11|
        prompt_2 = 'Enter a nubmer n2: '

    @jhonatanparada499 →/workspaces/ET574 (main) $ python labs/Jhonatan_LAB7/lab7_6.py
    Enter a number n1: 11

        err_msg = 'Invalid Input'
   5 equality = 'n1 = n2'
                                                                                Enter a nubmer n2: 1
                                                                                11|10|9|8|7|6|5|4|3|2|1|
        n1 = 0
                                                                              • @jhonatanparada499 → /workspaces/ET574 (main) $ python labs/Jhonatan_LAB7/lab7_6.py
                                                                                Enter a number n1: 10
Enter a nubmer n2: 10
        n2 = 0
        n_step = 1
   10
        sprtr = '|'
                                                                                n1 = n2

    @jhonatanparada499 →/workspaces/ET574 (main) $ python labs/Jhonatan_LAB7/lab7_6.py

   11
        n1 = input(prompt_1)
                                                                                Enter a number n1: -1
                                                                                Enter a nubmer n2: -11
-1|-2|-3|-4|-5|-6|-7|-8|-9|-10|-11|
   13
        while not isinstance(n1, int):
   14
            try:

    @jhonatanparada499 → /workspaces/ET574 (main) $ python labs/Jhonatan_LAB7/lab7_6.py
    Enter a number n1: -3

               n1 = int(n1)
   16
                n2 = input(prompt_2)
                                                                                Enter a nubmer n2: 9
                while not isinstance(n2, int):
                                                                                -3|-2|-1|0|1|2|3|4|5|6|7|8|9|
   18
                    try:
                                                                               ● @jhonatanparada499 →/workspaces/ET574 (main) $ python labs/Jhonatan_LAB7/lab7_6.py
                       n2 = int(n2)
   19
                    except:
                                                                                Invalid Input
                    print(err_msg)
n2 = input(prompt_2)
                                                                                Enter a number n1: 1
Enter a nubmer n2: c
   21
   22
           except:
                                                                                Invalid Input
                                                                                Enter a nubmer n2: 5
            print(err_msg)
n1 = input(prompt_1)
   24
                                                                                1[2[3]4[5]
   25
                                                                                @jhonatanparada499 →/workspaces/ET574 (main) $ [
   27
        if n1 == n2: print(equality)
   28
        else:
           if n1 > n2: n_step = -n_step
   30
   31
            for n in range(n1, n2 + n_step, n_step):
               print(n, end=sprtr)
            else:
   33
              print()
```

```
py 🏺 lab7_4.py 🔷 lab7_5.py M 💜 lab7_6.py M 💜 lab7_6.py M 🖈 South M x D x 🐧 🛄 ··· PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
                                                                                                                                                                                                                                                                           • @jhonatanparada499 →/workspaces/ET574 (main) $ python labs/Jhonatan_LAB7/lab7_7.py
     labs > Jhonatan LAB7 > 💠 lab7 7.pv >
                                                                                                                                                                                                                                                                               Enter a number or 0 to stop: 1
                        err_msg = 'Invalid Input'
                                                                                                                                                                                                                                                                              Enter a number or 0 to stop: -10
Enter a number or 0 to stop: 2.34
                                                                                                                                                                                                                                    BEHEEF
BEHEEF
                        stop_char = '0'
                         prompt = f'Enter a number or {stop_char} to stop: '
                                                                                                                                                                                                                                                                               Enter a number or 0 to stop: 56.78
                       nums_lst = []
                                                                                                                                                                                                                                                                              Enter a number or 0 to stop: 0
                      input val = input(prompt)
                                                                                                                                                                                                                                                                               Sum = 173.12
                       while input_val != stop_char:
                                                                                                                                                                                                                                                                               Average = 34.62
                                                                                                                                                                                                                                                                               Number(s) entered:
                                               input_val = int(input_val)
                                                                                                                                                                                                                                                                              @ihonatanparada499 →/workspaces/ET574 (main) $ []
                                               nums_lst.append(input_val)
input_val = input(prompt)
                                 except:
          15
                                                          input_val = float(input_val)
                                              input_val = ilout(input_val)
nums_lst.append(input_val)
input_val = input(prompt)
                                      except:
                                           print(err_msg)
input_val = input(prompt)
                       else:
                                    if not nums_lst:
          24
                                               pass
                                              1st sum = sum(nums 1st)
                                            lst averg = lst sum / len(nums lst)
                                       # minimumm float value is 0.1 (1 decimal) (3 characters)
if len(str(lst_averg)) <= 3;</pre>
                                                          lst_averg = int(lst_averg)
          32
          33
                                                         lst_averg = round(lst_averg, 2)
                                               print(f'Sum = {lst_sum}')
                                             print(T SUM = \langle \la
                                                 for n in nums_lst: print(n, end=' ')
```

- 2. a. One of my main problems was choosing the type of code structure I was going to use for each lab, since almost all of them required me to use try-except statements. Instead of writing everything inside the try statement, I decided to leave inside of it only the error-risk code that converted the input variables to the data types I wanted to improve readability.
- b. Secondly, regarding the code structure as well, I was unsure whether to declare all the variables of the code at the beginning of it or along the body of the code as needed. This time I sacrificed some memory by declaring all variables with their values (even 'empty' to some of them) at the beginning to improve readability by giving the readers a hint about the type of data the variable will carry along the code.