Beginner Python 2 – Attempt 1

Gross Salary

Problem Description

Take an integer **A** as input denoting the basic salary of an employee, you have to calculate the gross salary (in Rs.) with the help of the below conditions:

- If **A** <= **Rs 10,000** then **HRA = 20%, DA = 80%**
- If **A** is between **Rs 10,001** to **Rs 20,000** then **HRA = 25%, DA = 90%**
- If **A** >= **Rs 20,001** then **HRA = 30%, DA = 95%**

For a given basic salary(**BS or A**), **HRA** and **DA**, Gross Salary is given by:

Gross Salary = BS + HRA + DA

NOTE: As the gross salary can have any real value (floating point), you have to tell the floor value of the gross salary.

Floor value of a floating point is the closest integer less than or equal to that value.

For eg, Floor value of 2.91 is 2.

Problem Constraints

1 <= **A** <= 50,000

Input Format

First line of the input contains a single integer **A**.

Output Format

Print an integer denoting the floor value of the gross salary.

Example Input

Input 1:

22000

Input 2:

100

Example Output

<div id=example_output_markdown_content_value style=”background-color: #f9f9f9; padding: 5px 10px; “> Output 1:
49500
Output 2:
200

Example Explanation

<div id=example_explanation_markdown_content_value style=”background-color: #f9f9f9; padding: 5px 10px; “> Explanation 1:
As A >= 20,001, Gross Salary = BS + HRA + DA = A + 30% of A + 95% of A
= Rs 49500
Explanation 2:
As A <= 100, Gross Salary = BS + HRA + DA = A + 20% of A + 80% of A
= Rs 100 + Rs 20 + Rs 80 = Rs 200

User Code

```
from math import floor
def main():
    # YOUR CODE GOES HERE
    # Please take input and print output to standard input/output (stdin/stdout)
    # E.g. 'input()/raw_input()' for input & 'print' for output
    A = int(input())
    if A <= 10000:
        print(floor(A + (A*0.2) + (A*0.8)))
    elif A > 10001 and A <= 20000:
        print(floor( A + (A*.25) + (A*.90)))
    else:
        print(floor(A + (A*.30) + (A*0.95)))
    return 0
```

Remove Duplicates

Given a string without spaces, the task is to remove duplicates from it.

Note: The original order of characters in the output string should be the same as the input string

Input Format:

s: str

Output Format:

str

Input Sample - 1:

interviewbit

Output Sample - 1:

intervwb

Sample Explanation - 1

i, e, t occour twice so their second occourances are removed.

Input Sample - 2:

aaaa

Output Sample - 2:

a

Sample Explanation - 2

a occours more than once hence we keep only the first occurrence of a

Input Sample - 3:

aabccbdc

Output Sample - 3:

abcd

Sample Explanation - 3

a, b, and c all occour more than once hence we only keep their first occurrences, in the same order they appear in the given string.

User Code

```
def solve(s):
  #write code
    lst = list(s)
    new_list = []
    for character in lst:
        if character not in new_list:
            new_list.append(character)
    new_list = ''.join(new_list)
    return new_list
```

Reverse words in a given string

Given a String S, reverse the order of words present in S. Words are separated by dots.

Refer to examples for better understanding.

Input Format:

s: str

Output Format:

str

Input Sample - 1:

"i.like.this.program.very.much"

Output Sample - 1:

"much.very.program.this.like.i"

Explanation - 1:

After reversing the order of words, the input string becomes

much.very.program.this.like.i

Input sample - 2

hello.world

Output sample - 2

world.hello

Explanation - 2

After reversing the order of words, the input string becomes

world.hello

User Code

```
 def solve(s):
    lst = s.split('.')
    new_list = lst[::-1]
    new_list = '.'.join(new_list)
    return new_list
```

Bool or not Bool

What will be the output of the code snippet given below?

```
x = 1
indicator_1 = True
indicator_2 = False
if indicator_1:
    indicator_1 = indicator_2
    indicator_2 = indicator_1
    if indicator_2:
        x = x - 1
    else:
        x = x / 1
print(x)
```

1.0

While I less than N

What do the printed values represent at the end of execution?

```
n = int(input())
i = 1
while (i <= n):
    if (n % i == 0):
        print(i)
    i = i + 1
```

Factors of N

String Slice

```
s1 = "ab"
s2 = "cd"
s3 = ""
for i in range(len(s1)):
```

```
    for j in range(len(s2)):
        if i == j:
            s3 += s1[i] + s2[j]
        else:
            s3 += s2[j] + s1[i]
print(s3)
```

What will be the output of the above code?

acdacbbd

All vals same

We want to write a function that returns True if the values of all the elements in an **integer** list L are the same, else it should return False. Which of the following function definition from the options below help us achieve this?

```
def func(L):
    return L.count(L[0]) == len(L)
```