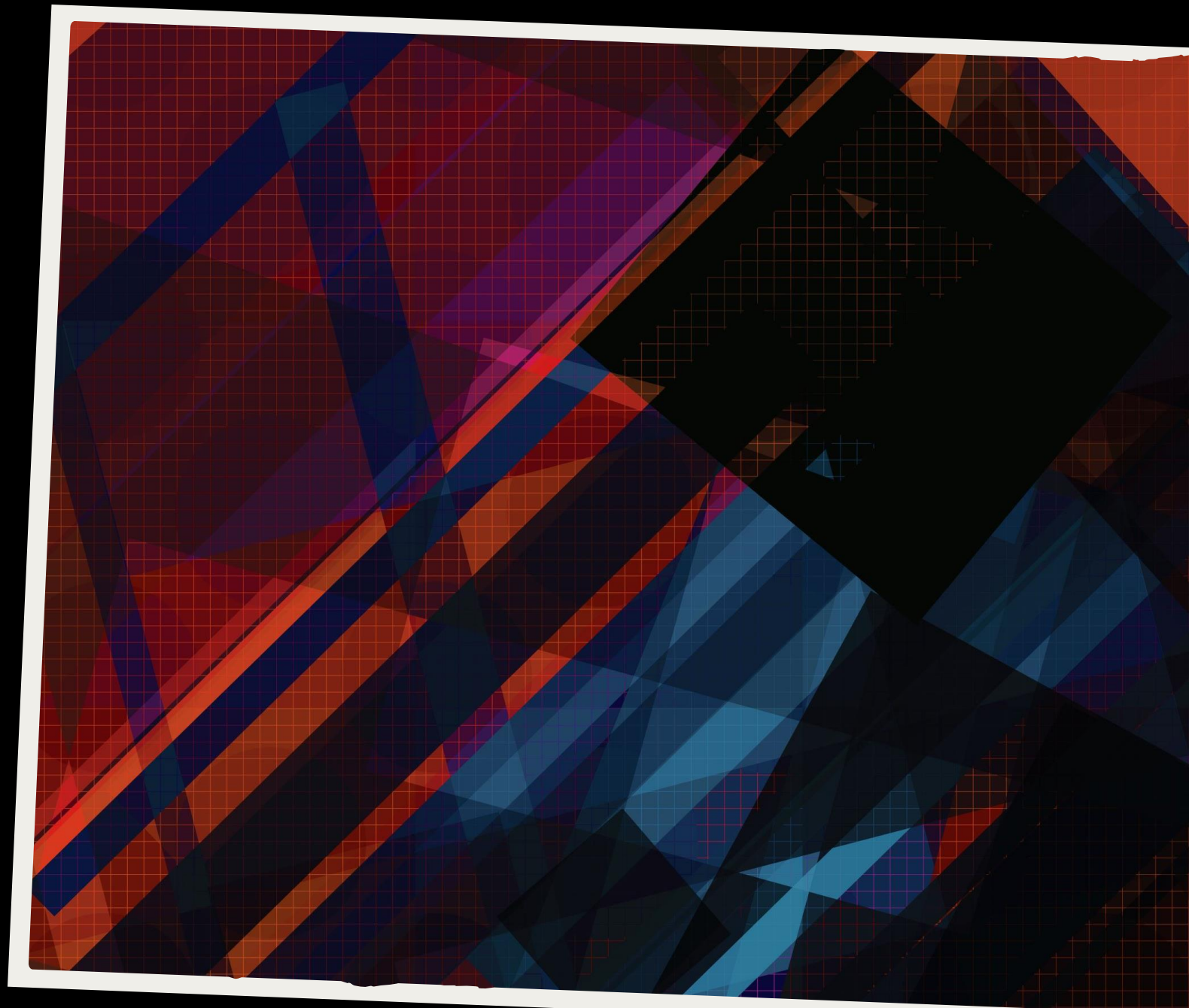
Simple Salary Program



CLASS L1BC

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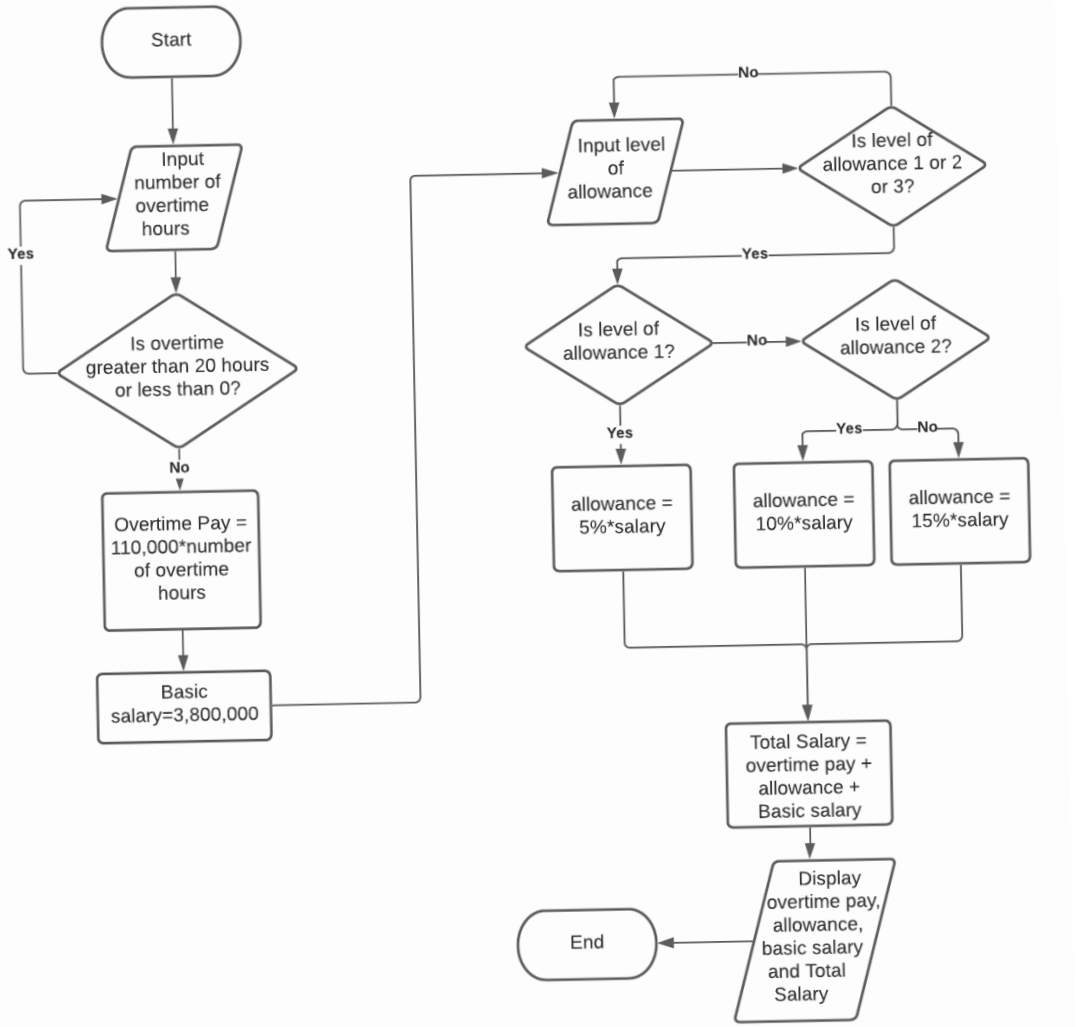
Problem Statements

Goal :	To calculate the total overtime spent and add it to the base salary that will be earned by the employee.
Inputs :	Input number of overtime..... a positive number. Input level of allowance..... a positive number [level 1, level 2, level 3].
Outputs :	Display total salary..... a positive number.
Process :	The total salary is come from the total of overtime pay (if overtime less than 20 hours, so it will be 110.000 multiple by the overtime hour, else, which is the overtime up to 20 or more, it will be 110.000 multiple by 20) plus with allowance (level 1 will be 5% * salary, level 2 is 10% * salary, and level 3 is 15% * salary) and plus basic salary (3.800.000).
Error handling :	The input of overtime pay and level of allowance must be greater than 0, which is must be a positive real number. If it is a negative number or equal to zero, the program will ask the user to input the correct number (positive number).

- Goal
- Inputs
- Outputs
- Process
- Error handling

Flowchart



- Input overtime hour
- Calculate overtime pay
- Initialize basic salary
- Input allowance level
- Calculate allowance
- Calculate total salary
- Display all pay and salaries

Coding and Debugging

```
Input the number of overtime hours: 0
Input the level of allowance: 2

------------------------
Overtime Pay: 0
Basic Salary: 3.800.000
Allowance: 380.000

------------------------
Total Salary: 4.180.000
```

```
Input the number of overtime hours: 20
Input the level of allowance: 1

------------------------
Overtime Pay: 2.200.000
Basic Salary: 3.800.000
Allowance: 190.000

------------------------
Total Salary: 6.190.000
```

```python
def calculate_salary():
    x = -1
    y = 0
    #inputing the numbers
    while x<0 or x>20:
        try:
         x = int(input("Input the number of overtime hours: "))
        except ValueError:
            print("Input only accepts integer")

        if x >= 0 and x<=20:
            break
        else:
         print("Should be a positive integer below 21")
    while y<=0 or y>3:
        try:
         y = int(input("Input the level of allowance: "))
        except ValueError:
            print("Input only accepts integer")
        if y > 0 and y<=3:
            break
        else:
         print("Should be an integer between 0 and 4")
    basic = 3800000
    #finding how many percent
    if y == 1:
        percent = 5
    if y == 2:
        percent = 10
    if y == 3:
        percent = 15

    #counting the salary
    overtimePay = 0
    result = 0
    if x>0:
         overtimePay = 110000 * x
         result += overtimePay
    allowance =basic*percent/100
    result = result + allowance + basic

    def group(number):#Adding zero for Thousands
        s = '%d' % number
        groups = []
        while s and s[-1].isdigit():
            groups.append(s[-3:])
            s = s[:-3]
        return s + '.'.join(reversed(groups))
    print("_____________________")
    print("Overtime Pay: {}".format(group(overtimePay)))
    print("Basic Salary: {}".format(group(basic)))
    print("Allowance: {}".format(group(allowance)))
    print("_____________________")
    print("Total Salary: {}".format(group(result)))

if __name__ == '__main__':
    calculate_salary()
```

Testing

Overtime	Allowance	Output
20	1	6190000
20	2	6380000
15	3	6020000
15	1	5640000
3	2	4510000
1	1	4100000
1	2	4290000
1	3	4480000
27	3	6570000
27	4	Exception

- Valid Input = Result
- Invalid Input = No Result


Thank You