Assignment - 4

① Case Study 1 : online Shopping cart :

coding :

```
price1 = int (input ("enter price of first item:"))
price2 = int (input ("enter price of second item:"))
price3 = int (input ("enter price of third item:"))
total = price1 + price2 + price3
If total > 500 :
    dis = tot + 0.10
    bill = tot - dis
else :
    bill = tot
print (" total bill is:", bill)
```

output :

```
price
enter price of first item $ : 200
enter price of second item : 200
enter price of third item : 200
        total bill is : 540
```

② case study 2 : grading system :

```
marks = []
for i in range (1,6):
    mark = int (input ("enter mark for subject {i}:"))
```

```python
        marks.append(mark)
avg = sum(marks) / len(marks)
If avg >= 90:
        grade = "A+"
elif avg >= 80:
        grade = "A"
elif avg >= 70:
        grade = "B"
elif avg >= 60:
        grade = "C"
else:
        grade = "fail"
print ("\n Average percentage :", avg)
print (" grade:", grade)
```

output :

```
        enter mark for subject 1 : 40
        enter mark for subject 2 : 70
        enter mark for subject 3 : 40
        enter mark for subject 4 : 85
        enter mark for subject 5 : 95

        Average percentage : 62
        grade : c
```

③ case study : 7 electricity bill calculator.

```python
units = int (input ("enter no. of electricity units:
```

```python
If  units <= 100:
    bill = units + 0 5
elif units <= 300:
    bill = 50 + (units - 100) + 0.75
else:
    bill = 200 + (units - 300) + 1
print ("total bill:", bill)
```

output:

enter no. of electricity units : 500
    total bill : 400

case study 12 : leap_year checker :

```python
year = int (input ("enter a year:"))
If (year % 4 == 0 and year % 100 != 0) or
                            (year % 400 == 0):
        print ("leap year")
else:
        print ("Not a leap year")
```

output:

1. enter a year : 2024
        leap year

2. enter a year : 2015
        Not a leap year

⑤
⑥ case study 13: Age group classifier

```
age = int (input ("enter your age"))
if (age <= 12:
    category = "child"
elif age <= 19:
    category = "teenager"
elif age <= 59:
    category = "Adult"
else:
    category = "senior citizen"
print ("you belong to", category)
```

output:

1. enter your age : 9
   you belong to child

2. enter your age : 48
   you belong to Adult