1) Check if a number is positive, negative, or zero

```
a=int(input("enter a number :")) if (a>0):
   print("number is positive") elif (a<0):
   print("number is negative") else :
   print("number is zero")
```

o/p:

enter a number :-9 number is negative

2) Find the largest among three numbers

```
 a=int(input("enter a number :")) b=int(input("enter a number :"))
c=int(input("enter a number :")) if (a > b) and (a > c) :
   print("a is a largest number",a) elif (b > a) and (b > c)
:
   print("b is a largest number",b) else :
   print("c is a largest number",c)
```

o/p:

enter a number :9 enter a number :8 enter a number :6 a is a largest number 9

3) Check if a character is a vowel

```
 vowels ="a","e","i","o","u" character=str(input("enter a
character :")) if character in vowels :      print("it is a
vowel") else :
   print("it is a constant")
```

o/p:

enter a character :u it is a vowel

4) Check whether a number is even and divisible by 5

```
a=int(input("enter a number:")) if a % 2 == 0 and a % 5 == 0 :     print("it
is even number") else :
   print("it is not even")
```

o/p:

enter a number:20 it is even number

5) Electricity Bill Calculator

```
bill=int(input("enter a total number of bill :"))
if bill>0 and bill<=100 :
```

```
    print(" 5 units consumed")
    total=bill*5
    print(total)
elif  bill>=101 and  bill<=200 :
    print("7 units consumed")
    total2=bill*7
    print(total2)
elif bill>200 :
    print("10 units consumed")
    total3=bill*10
    print(total3)
else :
    ("you have to enter only integer value")
```

o/p :

```
enter a total number of bill :300
10 units consumed
3000
```

7) Check Login Credentials

```
username="sravani" password="sravani@2914" user_name=str(input("enter your user name :")) pass_word=str(input("enter your password :")) check=username==user_name
 checkk=password==pass_word match=check*checkk matchh="login successfull"*match+"login failed"*(1-match) print(matchh)
```

o/p:

```
enter your user name :sravani enter your password
:sravani@2914 login successfull
```

8) Simple Calculator

```
 a=8 b=9 print("addition :",a+b) print("substraction :",a-
b) print("division :",a/b) print("multiplication :",a*b)
```

o/p : addition : 17 substraction : -1 division : 0.8888888888888888 multiplication : 72

9) Check if number is in a list

```
data=["1","2","sravani","5","67"] num=str(input("enter a
number :" )) if num in data :
   print("number exists in the list") else :
   print("it is not")
```

o/p:

enter a number :1 number exists in the list

6. StudentGradCalculation

```
per = int(input("enter your grade:-- "))
percentage = per >= 90
check = per >= 75
at = per >= 50
tt = per < 50
task = [percentage,check,at,tt]
take = ["A","B","c","fail"]
tell = task.index(True)
print(take[tell])
```

o/p:

enter your grade:--20

fail

10) Check if a string is a palindrome

```
10) pal=str(input("enter name or value :"))
check=pal==pal[::-1]
print("it is palindrome"*check +"it is not a
palindrome"*(1-check))
```

o/p:

enter name or value :level

it is palindrome

11. Check if a number is within a range

enter name or value :level

it is palindrome

```
num=int(input("enter your number:"))
if (10 <= num <= 50):
```

```
    print("this is  number lies between 10 and
50")
else :
    print("this  is not number lies between 10 and
50")
```

o/p:

```
enter your number:60
this  is not number lies between 10 and 50
```

12)Categorize age into: - <13 → Child- 13–19 → Teen- 20–59 → Adult- 60+ → Senior

Expected Understanding:

Use range checks with if-elif-else to classify age into defined groups.

```
age=int(input("enter your age :"))
if age<13 :
    print("you are a child")
elif age>=13 and age<=19:
    print("you are a Teen")
elif age>19 and age<=59 :
    print("you are a Adult")
else :
    print("you are a senior")
```

o/p:

```
enter your age :22
you are a Adult
```

13) Compare two strings ignoring case

```
name=str(input("enter a word :"))
name1=str(input("enter a word :"))

check=name.lower()==name1.lower()
print(check)
```

o/p:

enter a word :sravani

enter a word :sravani

True

14) Traffic Light Simulator

```
a=str(input("enter color :"))
signal=a
if signal=="red" :
    print("wait")
elif signal=="yellow" :
    print("go slow")
elif signal=="green" :
    print("ready start")
else :
    print("stop")
```

o/p:

enter color :red

wait

15. ATM Withdrawal Simulation

```
amount=5000
atm=int(input("enter withdraw amount : "))
check=atm==amount
withdraw=amount-atm
print(" available balance:",withdraw)
```

o/p:

enter withdraw amount : 400

available balance: 4600