#Flow Control Block Exercise

'''

1. Check entered number is positive or negative

num1=int(input('Enter Number:'))

if num1 >= 0:

    print('Entered number is positive')

else:

    print('Entered number is negative')

'''

'''

Output:Enter Number:-1

Entered number is negative

Enter Number:3

Entered number is positive

'''

#===

'''

2. Check whether number is even or odd

num2=int(input('Enter Number:'))

if num2 % 2== 0:

    print('Entered number is even')

else:

    print('Entered number is odd')

'''

'''

Output:

Enter Number:78

```
Entered number is even
Enter Number:107
Entered number is odd
'''
# ================================================================
# 3. Checking Eligibility of voting
'''
age=int(input('Enter Age:'))
if age>=18:
    print('Person is eligible for voting')
else:
    print('Person is not eligible for voting')
'''
'''
Output:
Enter Age:18
Person is eligible for voting
Enter Age:8
Person is not eligible for voting
'''
# ================================================================
# 4. Attendance System
'''
attendance_per=float(input('Enter attendance percentage:'))
if attendance_per>=75.0:
    print('Eligible for Exam')
else:
```

```
    print('Not Eligible for Exam')
'''
'''
Output:
Enter attendance percentage:98.7
Eligible for Exam
Enter attendance percentage:45
Not Eligible for Exam
'''

# ================================================================
# 5. Checking Rainy Weather
'''
weather=input('is raining outside?\n')
if weather == 'Yes':
    print('Stay Home')
else:
    print('Enjoy your day!!!!')
'''
'''
Output:
is raining outside?
Yes
Stay Home
is raining outside?
No
Enjoy your day!!!!
```

'''

==

6. Attendance System

'''

```
student_cnt=int(input('Enter number of students:'))
if student_cnt>=1:
    print('Student is present in a class')
else:
    print('Students are not present')
```

'''

'''

Output:

Enter number of students:1

Student is present in a class

Enter number of students:0

Students are not present

'''

==

 # if elif ladder

7. Grading System

'''

```
avg_marks=float(input('Enter result average:'))
if avg_marks >=85:
    print('Grade=O')
```

```
elif avg_marks<85 and avg_marks>=75:
    print('Grade=A')
elif avg_marks<75 and avg_marks>=65:
    print('Grade=B')
elif avg_marks<65 and avg_marks>=50:
    print('Grade=C')
else:
    print('Grade=F')
'''
'''
Output:
Enter result average:34
Grade=F
'''

# ================================================================
# 8. Display monument of city
'''
cityName=input('Enter City Name:')
if cityName == 'Delhi':
    print('Red Fort')
elif cityName == 'Agra':
    print('Taj Mahal')
elif cityName == 'Mumbai':
    print('Gateway of India')
elif cityName == 'Amritsar':
    print('Golden Temple')
```

```
elif cityName == 'Orissa':
    print('Konark Temple')
else:
    print('Enter valid city name')
'''
'''
```

Output:

```
Enter City Name:Mumbai
Gateway of India
Enter City Name:orisa
Enter valid city name
'''
# ================================================================
# 9. Person Age Categorization
'''
age=int(input('Enter Age:'))
if age >= 60:
    print('Senior Citizen')
elif age>=35 and age<60:
    print('Elder Citizen')
elif age>=15 and age<35:
    print('Youngster')
elif age<15:
    print('Kid')
'''
'''
```

Output:

```
Enter Age:87
Senior Citizen
'''
# ============================================================
# 10. Find maximum between three numbers
'''
num1 = int(input('Enter Num1:'))
num2 = int(input('Enter Num2:'))
num3 = int(input('Enter Num31:'))
if num1 > num2 and num1 > num3:
    print('Num1 is greater')
elif num2 > num3:
    print('Num2 is greater')
else:
    print('Num3 is greater')
'''
'''
Output:
Enter Num1:1
Enter Num2:2
Enter Num3:3
Num3 is greater
'''
# ============================================================
# 11. Read Temperature and display suitable message
'''
temperature = float(input('Enter Temperature:'))
```

```
if temperature >= 40.0:
    print('Its Very Hot')
elif temperature < 40.0 and temperature >= 30.0:
    print('Its Hot')
elif temperature < 30.0 and temperature >= 20.0:
    print('Normal Temperature')
elif temperature < 20.0 and temperature >= 10.0:
    print('Cold Weather')
elif temperature < 10.0 and temperature >= 0.0:
    print('Very Cold weather')
elif temperature < 0.0:
    print('Freezing weather')
'''
'''
Output:
Enter Temperature:-3
Freezing weather
'''
# ================================================================
# 12. Check two numbers are equal or greater or smaller
'''
num1 = int(input('Enter First Number:'))
num2=int(input('Enter Second Number: '))
if  num1 > num2:
    print('First number is greater than second number')
elif num1 < num2:
    print('First number is smaller than second number')
```

```
else:
    print('First number is equal to second number')
'''
'''
```

Output:

```
Enter First Number:10
Enter Second Number: 10
First number is equal to second number

Enter First Number:12
Enter Second Number: 13
First number is smaller than second number
'''


# ================================================================
```

 # nested if else ladder

```
# 13. Grading System
'''
result = float(input('Enter your average marks:'))
if result >=35.0:
    if result >= 85:
        print('Distinction')
    elif result < 85 and result >= 75:
        print('First Class')
    elif result < 75 and result >= 65:
        print('Second Class')
```

```
    elif result < 65 and result>= 50:
        print('Third Class')
else:
    print("Fail")
'''
'''
```

Output:

Enter your average marks:89

Distinction

Enter your average marks:32

Fail

```
'''
# ================================================================
# 14. Exam Eligibility System
'''
attendance_per1=float(input('Enter attendance percentage:'))
if attendance_per1>=75.0:
    print('Eligible for Exam')
elif attendance_per1<75.0:
    med_reason = input('is any medical reason:')
    if med_reason == 'Yes':
        print('Eligible for Exam')
    else:
        print('Not Eligible for Exam')
'''
'''
```

Output:

Enter attendance percentage:79

Eligible for Exam

Enter attendance percentage:54

is any medical reason:Yes

Eligible for Exam

Enter attendance percentage:42

is any medical reason:no

Not Eligible for Exam

'''

```
# ================================================================
# 15. Find Greater Number
'''
num1 = int(input('Enter Num1:'))
num2 = int(input('Enter Num2:'))
num3 = int(input('Enter Num3:'))
if num1 > num2:
    if num1 > num3:
        print("Num1 is Greater")
    else:
        print("Num3 is Greater")
else:
    if num2> num3:
        print("Num2 is Greater")
```

```
    else:
        print("Num3 is Greater")
'''
'''
Output:
Enter Num1:3
Enter Num2:2
Enter Num3:1
Num1 is Greater
'''


# ================================================================
# 16. Check numbers are equal
'''
num1 = int(input('Enter Num1:'))
num2 = int(input('Enter Num2:'))
num3 = int(input('Enter Num3:'))
if num1 == num2:
    if num1 == num3:
        print("All numbers are Equal")
    else:
        print("Numbers not equal")
else:
    print("Numbers not equal")
'''
'''
Output:
```

Enter Num1:2

Enter Num2:2

Enter Num3:2

All numbers are Equal

Enter Num1:2

Enter Num2:2

Enter Num3:1

Numbers not equal

'''

```
# ============================================================
# 17. Movie Ticket Booking system
'''
category= input('is tickets available?')
if category == 'Yes':
    ticket_cnt=14
    n=int(input('Enter number of Tickets: '))
    if n<=ticket_cnt:
        print("Tickets Available....Enjoy YOur Movie")
    else:
        print("Sorry!! Tickets are not Avaible")
else:
    print("Sorry!! Tickets are not Available")
'''
'''
```

Output:

is tickets available?Yes

Enter number of Tickets: 4

Tickets Available....Enjoy YOur Movie

is tickets available?no

Sorry!! Tickets are not Available

'''

==

18. Train Reservation system

'''

```
print("Welcome to Train Reservation  Following trains are available\n")
print("1. Mahalakshmi Express\n2. Maharashtra Express\n3. Duronto Express\n4. shatabdi Express")
choice=int(input('Enter your choice:'))
if choice==1 or choice==2 or choice==3 or choice==4:
    print("Express Train is available\n")
    ticket_cnt=int(input('Enter number of Ticket Count:'))
    if ticket_cnt<=100:
        print("Tickets are available.....")
        classDetails=int(input('1.Sleeper class\n2. AC class\n Enter your choice:'))
        if classDetails==1:
            print("Welcome to sleeper class")
        elif classDetails==2:
            print("Welcome to AC class")
        else:
            print("Enter Correct Class Details")
```

```
    else:
        print("Tickets are not available.....")
else:
    print('Enter Correct Choice')
'''
'''
```

Output:

```
Welcome to Train Reservation  Following trains are available

1. Mahalakshmi Express
2. Maharashtra Express
3. Duronto Express
4. shatabdi Express
Enter your choice:1
Express Train is available

Enter number of Ticket Count:12
Tickets are available.....
1.Sleeper class
2. AC class
 Enter your choice:2
Welcome to AC class

Welcome to Train Reservation  Following trains are available

1. Mahalakshmi Express
2. Maharashtra Express
```

3. Duronto Express

4. shatabdi Express

Enter your choice:2

Express Train is available

Enter number of Ticket Count:3

Tickets are available.....

1.Sleeper class

2. AC class

Enter your choice:5

Enter Correct Class Details

'''

==

19. Vehicle Booking system

'''

```
vehicleType=int(input('Vehicle Types\n1. Two Wheeler\n2. Four Wheeler\nEnter your choice?\n'))
if vehicleType==1:
    vehicleCategory=int(input('Vehicle Category\n 1.Bike\n2.Scooter\nEnter Your Choice:'))
    if vehicleCategory==1:
        print("These are Bikes Available in Showroom\nHero Splendor\nRoyal Enfield\nKTM RC 125")
    elif vehicleCategory==2:
        print("These Scooters Available in Showroom\nAccess\nActiva\nJupiter")
    else:
        print("Enter Correct vehicle category")
elif vehicleType==2:
```

```
    vehicleCategory = int(input('Vehicle Category\n 1.Car\n2.Sports Car\nEnter Your Choice:'))
    if vehicleCategory==1:
        print("These are Cars Available in Showroom\nCreta\ni20\nVenue")
    elif vehicleCategory==2:
        print("These Sports cars Available in Showroom\nSpider\nArrow")
    else:
        print("Enter Correct vehicle category")
else:
    print('Enter correct Vehicle Type')
'''
'''
```

Output:

```
Vehicle Types
1. Two Wheeler
2. Four Wheeler
Enter your choice?
1
Vehicle Category
 1.Bike
2.Scooter
Enter Your Choice:1
These are Bikes Available in Showroom
Hero Splendor
Royal Enfield
KTM RC 125
'''
```

```
# ================================================================
# 20. Check Leap Year
'''
leapYear=int(input('Enter Year:'))
if leapYear % 4==0:
    if leapYear % 100==0:
        if leapYear % 400==0:
            print('Year is Leap Year')
        else:
            print('Year is not Leap Year')
    else:
        print('Year is Leap Year')
else:
    print('Year is not Leap Year')
'''
'''
Output:
Enter Year:2000
Year is Leap Year

Enter Year:2023
Year is not Leap Year
'''
```