

Assignment 7

Match case

1. Write a python script to display the number of days in given month number:

⇒
m = int(input('Enter a month number : \n'))
match m:

```
case 1: print('Number of days = 31')
case 2: print('Number of days = 28')
case 3: print('Number of days = 31')
case 4: print('Number of days = 30')
case 5: print('Number of days = 31')
case 6: print('Number of days = 30')
case 7: print('Number of days = 31')
case 8: print('Number of days = 31')
case 9: print('Number of days = 30')
case 10: print('Number of days = 31')
case 11: print('Number of days = 30')
case 12: print('Number of days = 31')
```

2. Write a menu driven program to perform following operations - Addition, Subtraction, Multiplication, Division.

⇒
n1, n2 = int(input('Enter two number: \n')), int(input())
op = input('Enter the operation : \n')
match op:

```
case '+': print(n1 + n2)
case '-': print(n1 - n2)
case '*': print(n1 * n2)
case '/': print(n1 / n2)
```

4. Write a program which takes user's age and display the category of person. Age
below 10 years- Kid, Age below 20 - Teen, Age below 40 - young, Age below 60 -
Experienced, Age above or equal 60 - Senior Citizen.

```
age=int(input('Enter your age:\t'))
if age<10 and age>0:
    print('You are kid')
elif age<20 and age>=10:
    print('You are Teen')
elif age<40 and age>=20:
    print('You are young')
elif age<60 and age>=40:
    print('You are exprienced')
elif age>60:
    print('You are senior citizen')
```

```
# 3. Write a menu driven program with the following options:  
#     a. Check whether a given set of three numbers are lengths of an isosceles  
#         triangle or not  
#     b. Check whether a given set of three numbers are lengths of sides of a right  
#         angled triangle or not  
#     c. Check whether a given set of three numbers are equilateral triangle or not  
#     d. Exit.
```

```
n1, n2, n3 = eval(input('enter three number:')), eval(input()), eval(input())
```

```
print('1. Check whether the given set of 3 numbers are length of an isoscele triangle or not')  
print('2. Check whether the given set of 3 numbers are length of an right angle triangle or not')  
print('3. Check whether the given set of 3 numbers are equilateral triangle or not')  
print('4. EXIT')
```

```
ch = int(input('Enter your choice'))
```

```
match ch:
```

```
    case 1:
```

```
        if(n1 == n2 or n2 == n3 or n3 == n1):
```

```
            print('This is an isosceles triangle')
```

```
        else:
```

```
            print('This is not an isosceles triangle')
```

```
    case 2:
```

```
        if(n1**2 + n2**2 == n3**2 or n2**2 + n3**2 == n1**2 or n1**2 + n3**2 == n2**2):
```

```
            print('This is an right angle triangle')
```

```
        else:
```

```
            print('This is not an right angle triangle')
```

```
    case 3:
```

```
        if(n1 == n2 and n2 == n3):
```

```
            print('This is an equileteral triangle')
```

```
        else:
```

```
            print('This is not an equileteral triangle')
```

```
    case 4:
```

```
        quit()
```

```
    case _:
```

```
        print('Invalid choice....')
```

```
# 6. Write a python program to check whether a given string is a multiword string or single  
# word string using match case statement
```

```
s=input('Enter a string:\t')  
l=len(s)  
match l:  
    case 1:  
        print('This is single word string')  
    case _:  
        print('This is a multiword string')
```

5. Write a program which takes a number from user. Print Saurabh Shukla if the number is even, print Prateek Jain if the number is negative odd number and print Aditya Choudhary if number is positive odd number.

```
num=int(input('Enter a number:'))
match num%2==0:
    case 1:
        print('Saurabh Shukla')
    case 0:
        match num%2!=0 and num<0:
            case 1:
                print('Prateek Jain')
            case 0:
                print('Aditya Choudhary')
```

```
# 8. Write a python script to check whether two given strings are identical, first string  
# comes before the second in dictionary order or first string comes after the second  
# string in dictionary order using match case statement
```

```
first=input('Enter first string:\t')
```

```
second=input('Enter second string:\t')
```

```
match first>second:
```

```
    case 1:
```

```
        print('Second strign comes before the first string')
```

```
    case 0:
```

```
        match second>first:
```

```
            case 1:
```

```
                print('The frst string comes before the second tring')
```

```
            case 0:
```

```
                print('The strings are identical')
```


7. Write a python program to check whether a given number is positive, negative or
zero using match case statement

```
n=int(input('Enter a number:\t'))
match n>0:
    case 1:
        print('The number is positive')
    case 0:
        match n<0:
            case 1:
                print('The number is negative')
            case 0:
                print('This is zero')
```



```
# 9. Write a python script to check whether a given year is
#     a. Non century leap year
#     b. Century leap year
#     c. Non century non leap year
#     d. Century non leap year
```

```
y = int((input('Enter a year:\t')))
match y % 100 != 0 and y % 4 == 0:
    case 1:
        print('Non century leap year')
    case 0:
        match y % 100 == 0 and y % 400 == 0:
            case 1:
                print('Century leap year')
            case 0:
                match y % 100 != 0 and y % 4 != 0:
                    case 1:
                        print('Non century non leap year')
                    case 0:
                        print('Century non leap year')
```