PYTHON ASSIGNMENT-3

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1) Write a program to prompt user to enter userid and password. If Id and password is incorrect give him chance to re-enter the credentials. Let him try 3 times. After that program to terminate.

```python
print("enter correct username and password to continue!")
num = 0

while(num < 3):
    username = input("enter user-name= ")
    password = input("enter password= ")

    if(username == "123" and password == "karan"):
        print("access granted!")
        break
    else:
        print("access denied!")
        num +=1
```

2) Enter number of students from user. For those many students accept marks of 5 subject marks from user and calculate percentage. Display all percentage and average percentage of students.

```python
num = int(input("enter num of students= "))

for i in range(1,num+1):
    c = float(input("enter c marks= "))
    cp = float(input("enter cp marks= "))
    java = float(input("enter java marks= "))
    python = float(input("enter python marks= "))
    oop = float(input("enter oop marks= "))

    total = c + cp + java + python + oop
    average = total / 5
    percentage = (total/500)*100

print("total marks = ",total)
print("average marks= ",average)
print("percentage marks= ",percentage)
```

3) 3. Accept no. of passengers from user and per ticket cost. Then accept age of each passenger and then calculate total amount to ticket to travel for all of them based on following condition :
a. Children below 12 = 30% discount
b. Senior citizen (above 59) = 50% discount
c. Others need to pay full.

```python
amount = int(input("enter ticket price= "))
n = int(input("enter the no. of people travelling= "))

total = 0

for i in range(1,n+1):
    age = int(input("enter age of the passanger= "))
    if(age >= 60):
        total += amount-amount*0.5
    elif(age <= 12):
        total += amount-amount*0.3
    else:
        total += amount

print("total ticket price= ",total)
```

4) Write a program to check if given number is Armstrong number or not.
(Hint : 153 = 1*1*1 + 5*5*5 + 3*3*3 , 1634 = 1*1*1*1 + 6*6*6*6 + 3*3*3*3 + 4*4*4*4)

```python
num=int(input("enter no= "))

sum=0

temp=num

while temp>0:
    digit=temp%10
    sum += digit**3
    temp//=10

if num==sum:
    print(num,"is a armtrong number")
else:
    print(num,"is not armstrong number")
```

5) Write a program to accept an integer amount from user and tell minimum number of notes needed for representing that amount. (Use looping to optimise the problem)

```python
amount = int(input("enter amount= "))

notes = [2000,1000,500,200,100,50,20,10]

notesCount = [0,0,0,0,0,0,0,0]

for i,j in zip(notes,notesCount):
    if amount>=i:
        j = amount//i
        amount = amount-j*i
        print(i," = ",j)
```

6) Write a program to print prime numbers between 1 to 100.

```python
for n in range(1,101):
    for i in range(2,n):
        if(n%i == 0):
            break

    else:
        print(n,end=" ")
```

7) Write a program to print first 50 prime numbers.

```python
num = int(input("enter num= "))

for n in range(1,num):
    for i in range(2,n):
        if(n%i == 0):
            break

    else:
        print(n,end=" ")
```