



Python Practical's

Practical 1 -

```
# Create a program that asks the user to enter their name and their age. Print out a message addressed to them that tells them the year tha

name = input("Enter your name: ")
age = int(input("Enter your age: "))
year = 2022 + (100-age)

print(name, "you will turn 100 in", year, "years")
```

```
# Enter the number from the user and depending on whether the number is even or odd, print out an appropriate message to the user.

num = int(input("Enter any integer number: "))
mod = num%2

if mod > 0:
    print("Your number is odd")
else:
    print("Your number is even")
```

```
# Write a program to generate the Fibonacci series.
```

```
def fib(n):
    a = 0
    b = 1

    print(a)
    print(b)

    for i in range(2, n):
        c = a+b
        a = b
        b = c

        print(c)

n = int(input("How many terms you wants: "))
fib(n)
```

```
# Write a program that reverses the user defined value and check whether that number is palindrome or not
```

```
n = int(input("Enter any number: "))
temp = n
rev = 0

while(n>0):
    dig = n%10
    rev = rev*10+dig
    n = n//10
if(temp==rev):
    print("The number is palindrome")
else:
    print("The number is not palindrome")
```

```
# Write a program to check the input value is Armstrong.
```

```
# Write a program to print the factorial for a given number.
```

```
a = int(input("Enter any number: "))  
fact = 1
```

```
for x in range(1, a+1):  
    fact = fact*x  
print(fact)
```

Practical 2 -

```
# Write a function that takes a character (i.e. a string of length 1) and returns True if it is a vowel, False otherwise
```

```
def vowel(x):  
    if x in ["a", "e", "i", "o", "u", "A", "E", "I", "O", "U"]:  
        return "True"  
    else:  
        return "False "
```

```
a = input ("Enter the letter: ")  
print (vowel(a))
```

```
# Define a function that computes the length of a given list or string.
```

```
def collen(n):  
    count = 0  
    for i in n:  
        count += 1  
    return count
```

```
print("The lenght of the list is ", collen[1,2,3,4,5])  
print("The lenght of the string is ", collen("Kamal"))
```

```
# Define a procedure histogram() that takes a list of integers and prints a histogram to the screen.
```

```
def histogram(n):  
    for i in n:  
        print(i*''')
```

```
n = 1, 4, 9  
histogram(n)
```

Practical 3 -

```
# A pangram is a sentence that contains all the letters of the English alphabet at least once, for example: The quick brown fox jumps over
```

```
import string
```

```
def check(sentence):  
    alphabet = "abcdefghijklmnopqrstuvwxyz"  
    for letter in alphabet:  
        if letter not in sentence:  
            return print(sentence + ": is not a pangram")  
    return print(sentence + ": is a pangram")
```

```
s = input("Enter a sentence: ")  
check(s.lower())
```

```
# Take a list, say for example this one: a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89] and write a program that prints out all the elements of
```

```
a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
```

```
for num in a:  
    if num<5:  
        print(num)
```

Practical 4 -

Write a Python script to sort (ascending and descending) a dictionary by value

```
from audioop import reverse
import operator
```

```
dic = {1:'c', 2:'b', 3:"a"}
print(dic)
```

```
sort = sorted(dic.items(), key=operator.itemgetter(0))
print(sort)
```

```
sort = sorted(dic.items(), key=operator.itemgetter(0), reverse = True)
print(sort)
```

Write a Python script to concatenate following dictionaries to create a new one. Sample Dictionary : dic1={1:10, 2:20} dic2={3:30, 4:40}

```
dic1 = {1:10, 2:20}
dic2 = {3:30, 4:40}
dic3 = {5:50, 6:60}
```

```
dic1.update(dic2)
dic1.update(dic3)
```

```
print(dic1)
```

Practical 5 -

Write a program that takes two lists and returns True if they have at least one common member

```
l1 = [1,2,3,4,5,6]
l2 = [9,8,7]
```

```
for x in l1:
    for y in l2:
        if x==y:
            print('True')
        elif x!=y:
            print('false')
```

```
# def check(list1, list2):
#     result = False
```

```
#     for x in list1:
#         for y in list2:
#             if x==y:
#                 return True
#     return result
```

```
# print(check([1,2,3,4,5,6], [9,8,7,6,5,4]))
```

Write a Python program to print a specified list after removing the 0th, 2nd, 4th and 5th element

```
list = ['Kamal', 'Nishant', "Om", 'Santosh', 'Amit']
newlist = []
```

```
for i in list:
    if list.index(i) == 1 or list.index(i) == 3:
        newlist.append(i)
```

```
print(newlist)
```

```
# list = ['1', '2', '3', '4', '5']
# Newlist = []
```

```
# for i in list:
#     if list.index(i) == 1 or list.index(i) == 3:
#         Newlist.append(i)
```

```
# print(Newlist)
```

```
# Write a python program to clone or copy a list
```

```
L1=['1', '2']
L2=list(L1)

print("L1: ",L1)
print("L2: ",L2)

# def Copy(list1):
#     list_copy = list1[:]
#     return list_copy

# list1 = [4, 8, 2, 10, 15, 18]
# list2 = Copy(list1)
# print("Original List:", list1)
# print("After Cloning:", list2)
```

Practical 6 -

```
# Write a Python program to read an entire text file
```

```
f = open("1.txt", "r")
t = f.read()
print(t)
f.close()
```

```
# Write a Python program to append text to a file and display the text
```

```
f = open("1.txt", "a+")
f.write("Anything")
f = open("1.txt", "r")
t = f.read()
print(t)
f.close()
```

```
# Write a Python program to write text to a file and display the text
```

```
f = open("1.txt", "w")
f.write("Kamal Jaiswar")
print("content copied")
f.close()
```

```
# Write a program to accept the name from user and write it in file
```

```
f = open("1.txt", "w")
x = input("Enter your name: ")
f.write(x)
print("content copied")
f.close()
```

```
# Write a program to accept employee name and salary from user and write the content in file
```

```
name = input("Enter your name: ")
salary = input("Enter your salary: ")
f = open("1.txt", "w")
f.write(name+" "+salary)
print("content copied")
f.close()
```

Practical 7 -

```
# Write a python program to create a simple GUI
```

```
import tkinter as tk
```

```
w = tk.Tk()
w.title("1st GUI app")
w.mainloop()
```

```
# Write a Python program to create a GUI using pack(), grid() & label()
```

```
import tkinter as tk
from tkinter import *
```

```
w1 = tk.Tk()
w1.title("My App")
l1 = tk.Label(w1, text='Pikachu',bg='yellow',height=10,width=19, fg='black')
l1.pack()
w1.mainloop()
```

```
# Write a python program to use a button widget
```

```
from tkinter import *
```

```
root = Tk()
def callback():
    print("clicked")

b1 = Button(root, text="Click Here",bg="yellow", command=callback)
b1.grid(row=0, column=1)
root.mainloop()
```

```
# Write a python program for entry widget
```

```
from tkinter import *
```

```
w = Tk()
def put():
    print (E1.get())
L1 = Label(w, text="Username")
L1.grid(row=1, column=1)
E1 = Entry(w, bd =5)
E1.grid(row=1,column=2)
B1 = Button(w, text="Insert", command=put)
B1.grid (row=3, column=2)
w.mainloop()
```

Practical 8 -