

Exam Seat No. _____

THAKUR COLLEGE OF SCIENCE & COMMERCE

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Degree College
Computer Journal
CERTIFICATE

SEMESTER 'I' UID No. _____

Class Fy.B.Sc Roll No. 1803 Year 2019-2020

This is to certify that the work entered in this journal is the work of Mst. / Ms. Hemant Law

who has worked for the year 2019-2020 in the Computer Laboratory.


Teacher In-Charge




Head of Department

Date : 26/9/19


Examiner

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PRACTICAL - I

* Arithmetic, logical, Relational, Shift operators.

A) Arithmetic operator :- It comprises of basic operations like

- i) Addition (+)
- ii) Subtraction (-)
- iii) Multiplication (*)
- iv) Division (/)
- v) Modulus (%)
- vi) Float division (//)
- vii) Power (**)

B) Logical operator :- It comprises of three basic operators AND, OR, NOT, it return the value as true or false & accept the value true or false.

C) Relational operator :- It also known as Conditional operator & it is represented by following :-
 $>$, $<$, $=<$, $=>$, $==$, $!=$

D) Shift operator :- It consist of following operations

- i) (\wedge) Exclusive operator
- ii) ($\wedge\wedge$) AND
- iii) (\sim) Complement / tilde
- iv) (\vee) OR
- v) ($>>$) Bitwise Left
- vi) ($<<$) Bitwise Right.

The shift operator take two integers as operands. They return the result of shifting the bits to the left operand by the number of positions specified by the right operand.

The left operator shifts bits to the left; and the right shift operator shifts bits to the right.

02

* Arithmetic operators :-

B) $x = 10$

$y = 20$

Print ("x+y is =", x+y) → outputs 30

Print ("x-y is =", x-y) → -10

Print ("x*y is =", x*y) → 200

Print ("x/y is =", x/y) → 0.5

Print ("x%y is =", x%y) → 10

Print ("x//y is =", x//y) → 2

Print ("x**y is =", x**y) → 10²⁰

B) Relational

$x = 5$

$y = 9$

>>> ($x < y$)

output → True

>>> ($x > y$)

output → False

>>> ($x <= y$)

output → True

>>> ($x == y$)

output → False

>>> ($x != y$)

output → True.

Q) Logical

$x = \text{True}$

$y = \text{False}$

$>>> x \text{ AND } y$

output $\rightarrow \text{False}$

$>>> x \text{ OR } y$

output $\rightarrow \text{True}$

$>>> x \text{ NOT } y$

output $\rightarrow \text{False}$

D) Shift operation

$a = 10$

$b = 4$

Print ($a \gg b$)

Output $\rightarrow 0$

Print (a/b)

Output $\rightarrow 24$

Print ($a \sim a$)

Output $\rightarrow -11$

Print (a^b)

Output $\rightarrow 14$

Print ($a \gg 2$)

Output $\rightarrow 2$

Print ($a \ll 2$)

Output \rightarrow

PRACTICAL - 2

- * Elong operation on list, swapping of two numbers.
- * Algorithm :- (Without temporary variables)
 - Step 1 :- Accept the 2 integers values from the user.
& then display the correct value on screen.
 - Step 2 :- Use the 2 variables separated by Comma,
& get the values assign in the reverse
order of the same 2 variables separated
by Comma.
 - Step 3 :- Display the value correctly corresponding
to variables stated in Step 1.

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* Algorithm :- (With temporary Variables)

Step 1 :- Accept 2 Integers values from the user.

Step 2 :- Display the values entered by the user onto Screen.

Step 3 :- Use a temporary variable to store the value corresponding to the 1st variable.

Step 4 :- Let the 1st variable now take the value corresponding to the 2nd variable.

Step 5 :- Let the 2nd variable now take the value of the temporary variable.

Step 6 :- Display the value corresponding to the variables defining step 1.



Program :- With temporary variables

0.1

Code :-

```
num1 = int(input("Enter the 1st value :"))
num2 = int(input("Enter the 2nd value :"))
print("Value of num1 before swapping : ", num1)
print("Value of num2 before swapping : ", num2)
temp = num1
num1 = num2
num2 = temp
print("Value of num1 after swapping : ", num1)
print("Value of num2 after swapping : ", num2)
```

Program :- Without temporary variables

Code :-

```
a = int(input("Enter the 1st variable :"))
b = int(input("Enter the 2nd variable :"))
a = a+b
b = a-b
a = a-b
print("a is : ", a, " b is : ", b)
```

Output :- Enter value → (5,3)
 >>> (3,5)

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No

Code:- number = int (input ("Enter a number"))
if num%2 == 0:
 print ("{} is even".format (num))
else:
 print ("{} is odd".format (num))

num_sqrt = num ** 0.5

Print (The square root of 16.3f is 4.03f % (num_sqrt))

Output:- Enter no → 45

= Odd numbers

Enter no → 4

Square root = 2

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PRACTICAL-3

Check for odd, even numbers, find square root of numbers.

Algorithm:-

Step 1:- Accept the input from the user.

Step 2:- Use the if Conditional statement, Check where number is modulo by 2 or not.

Step 3:- If it is zero, display even else display the odd.

Step 4:- To find the square root of number use arithmetic operator ie power (**) to 0.5

Step 5:- Use the print statement to show your output ie square root of the number.

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with vivo Arcamera

P.O.

PRACTICAL - 4

- * a) Find largest of three numbers ; b) Check for positive, negative or zero number.

Algorithm :- (a)

Step 1 - Accept the 3 nos from the user.

Step 2 - Implement the type Casting operation so that the data type of the given variable is homogenous in nature.

Step 3 - Apply the condition to check the given no. is the largest no.

Step 4 - Accordingly display each number to the user on the screen.

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Vivo AI camera



06

Code :- num1 = float (input ("Enter the 1st value:"))
num2 = float (input ("Enter the 2nd value:"))
num3 = float (input ("Enter the 3rd value:"))
if (num1 > num2) and (num1 > num3):
 largest = num1
elif (num2 > num1) and (num2 > num3):
 largest = num2
else:
 largest = num3
~~Print ("The largest number is:", largest)~~

Output :- Enter the 1st value : 47
Enter the 2nd value : 69
Enter the 3rd value : 89

The Largest number is : 89

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vivo AI camera

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Code :-

```
num = float(input("Enter a number:"))
if num > 0:
    print("Positive number")
elif num == 0:
    print("zero")
else:
    print("Negative number")
```

Output :-

Enter a number: 2

Positive number

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Algorithm :- (b)

Step 1:- Accept a value from the user whose datatype should be float.

Step 2:- Use the if Condition to Check the given number is positive, negative or zero.

Step 3:- If the number is greater than zero then display on the Screen 'positive' number.

Step 4:- Check if the number is equal to zero then display 'zero' and check whether it is less than zero or not then correspondingly display 'zero' or 'negative' number on Screen.

PRACTICAL - 5

- * Print Sentence without Blank Space using loop:
Program for Student name & Subject offered.

Algorithm :-

Step 1 :- Take the string from user; Initialize the variable with no Blank Space.

Step 2 :- Use the for Conditional Statement to check every character in the given sentence and Sub : Use the if Conditional Statement to check input character is not equal to Blank Space.

Step 3 :- Add all, Each character in the initialize Variable.
Display the Content on the initialize Variable so obtain.

Step 4 :- Use the for Conditional Statement with the Variable name & the Subject in the given Student list.

Step 5 :- Use the list Statement with the String Variable to def name of the Student followed by the name of the Subject.

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shot on vivo Z1 Pro
AI camera



Program :-

08

Sentence = input ("Enter sentence with blank Space")

no-Space = "

For letter in sentence :

 if letter == ' ' :

 no-Space += letter

Print ("Entered Sentence without blank Space")

Print (no-Space)

Output :- Sentence with blank space → Hindi Buffer

Sentence without blank space → HindiBuffer

For student :-

Stud = [[{"Name": "Harihar", "Sub": ["Physics", "Chemistry", "Maths"]}],

 {"Luther", "Sub": ["Finance", "English", "History"]}],

Count = 0

For (name, sub) in Stud :

 For Sub in sub :

 if Sub == "Chemistry"

 Count += 1

Print ("The no. of students obtained for Chemistry = ", Chemistry)

Output :- The no. of students obtained for Chemistry = 2

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Vivo AI camera



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Code :-

```
def fib(n)
    a = 0
    b = 1
    while (b < n):
        print(b)
        a, b = b, a+b
    n = int(input("Enter the number"))
    fib(n)
```

Output :-

Enter value : 1, 2, 3, 4, 5
0 1 1 2 3 5 8 13 21 34

For number is a prime number :-

```
a = int(input("Enter the value"))
a > 1
if a % 1 == 0 or a % 0 == 0:
    print("It is a prime number")
else:
    print("Not a prime number")
```

Output :- Enter value: 69

It is a prime number

PRACTICAL - 6

* For developing fibonacci series and check whether given number is prime number.

Algorithm :- Step 1 :- Define a function which will accept the single parameter from the user.

Step 2 :- Initialize two Variable with the Value 0 & 1 respectively.

Step 3 :- Use the while Conditional Statement to check whether the larger Variable is still less than input parameter.

Step 4 :- Now display the value of the larger variable.

Step 5 :- Now Substitute the value of the second Variable to first Variable & Second Variable take the Subtraction of two values. Accept the value from the user.

Step 6 :- Show the given value is greater than one.

Step 7 :- Use the if Condition statement to show that 'a' is divisible by 1 or divisible by itself.

Step 8 :- Use the print statement to display the output.

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PRACTICAL - 7

* Factorial of a number (Using recursion and iteration method) and for Armstrong number.

⇒ FACTORIAL PROGRAM:-

→ ALGORITHM:-

Step 1:- Define if condition with single function as input.

Step 2:- Use if condition statement to check whether the input parameter value is equal to 1; if yes then return the value 1 or else use the return method to call the same function written above.

Step 3:- Accept a input number from user defined beyond the scope of function declaration.

Step 4:- Check if the number is greater than or equal to 1

Step 5:- Repeat the command in step 1.



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Code :-

```
def recur_fact(x):
    if x == 1:
        return (1)
    else:
        return (x * recur_fact(x))
num=int(input("Enter the number for fact ="))
if num>=1:
    print ("The fact of", num, "=", recur_fact(num))
```

Output:-

Enter the number for fact = 7!

The fact of 7! = 5040.



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Vivo AI camera

III

Code:-

```
a = int(input("Enter a number="))
temp = 0
x = a
while (a > 0):
    n = a % 10
    temp = temp + n * n * n
    a = a // 10
print(temp)
if (temp == x):
    print("Armstrong")
else:
    print("Not a Armstrong")
```

Output:-

Enter a number = 345

216

Not a Armstrong.

Enter a number = 153

153

Armstrong

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camera

⇒ Iteration Method :-

ALGORITHM - Step 1:- Define a function which will accept a single argument as the input parameter.

Step 2:- Initialize a Counter variable as 1 & Initialize a variable for storing factorial as 1. Apply the logic for finding the factorial by using factorial variable and counter variable, then increase the Counter variable.

Step 3:- Execute the loop till the Counter variable becomes equal to the input number.

Step 4:- Return the factorial using the return statement.

Step 5:- Accept the input number from the user outside the scope of the function definition.

Step 6:- Check if the number is greater than 0. If it is greater than 0, then call all the function and display the value of factorial using print, else prompt the user to enter the number greater than 0 & then call the function & print the value of factorial.

II.

PRACTICAL - 8

* Check the frequency of any two numbers say 0 & 5 in a given number & list methods.

→ ALGORITHM :-

Step 1:- Accept the integer number from the user.

Step 2:- Initialize a variable to value 0 for Counting the frequency 0 & 5.

Step 3:- Use the While Conditional Statement till the value of the ordered number is greater than 0.

Step 4:- Obtain the remainder by using module division of the Given number by 10 & Subsequently, use the if Conditional Statement to check either the remainder value is . 0 & 5. & accordingly increase the value of initialised Counting Variable.

Step 5:- Repeat the above step with quotient value obtained from division number by 10.

Step 6:- Display the value of initialised Counting Variable & the frequency of 0 & 5 in given number.

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vivo Ai camera

Code:-

```

n = int(input (" Enter a number:"))
Count = 0
while (n > 0):
    digit = n // 10
    if (digit == 0) or (digit == 5):
        Count += 1
    n = n // 10
print (" The number of 0's & 5's in
given number is: ", Count)

```

Output:-

Enter a number : 32555100

The number of 0's & 5's in given
number is : 5

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camera



Q1

Code:-

`digits = list(input("Enter the sequence of one digit number without commas :"))`

`Count = 0`

`for i in digits`

`if (i==0) or (i==5)`

`Count += 1`

Point C The frequency of 0's & 5's in given list
of digits is : " , Count)

Output:-

Enter the sequence of one digit number without
Comma 1502500

The frequency of 0's & 5's in given
list digit is 5.

→ Checking the frequency of 0 & 5 in a list of digits.

Step 1:- Accept the sequence of the digit number & Convert it into list datatype by using suitable typecasting.

Step 2:- Initialize a variable to value 0 for Counting the numbers of '0' & '5' in given list of digits.

Step 3:- By using for loop check whether the loop variable in list of digits is equal to 0 or 5 & accordingly increment the value of Counting variable.

Step 4:- Display the frequency of 0's & 5's in the given list point method.

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Vivo AI camera



PRACTICAL - 10

* AIM - Write a program to find the Summation upon n numbered.

Step 1:- Accept the integer numbers from user upon where the summation should be done.

Step 2:- Initialize a variable to value 0 for calculation sum.

Step 3:- Initialize a counter variable or loop variables to value 1.

Step 4:- Using while loop find the sum of the consecutive number till the counter variable is equal to input integer number by using appropriate logic.

Step 5:- Increment the counter variable by 1.

Step 6:- Display the summation upon than number outside the scope of while conditional statement using print method.

Code:-

`n=int(input("Enter no upto which you want
summation :"))`

`Sum=0`

`a=1`

`while(a<=n):`

`Sum=Sum+a`

~~`(a=a+1) statement`~~ ~~`(a=a+1) statement`~~

`a+=1`

`Print ("The summation upto {} is {}".format(n,sum))`

Output:-

`Enter no upto which you want summation :5`

`The (Summation of 5 is) 15.`

~~`(a=a+1) statement`~~ ~~`(a=a+1) statement`~~

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Q11 Code:-

```
def lcm (a,b):  
    if a>b:  
        greater = a  
    else:  
        greater = b  
    while (True):  
        if (greater % a == 0) & (greater % b == 0):  
            l = greater  
            break  
        greater = greater + 1  
    return l
```

```
x = input("x = ")  
x = int (input ("Enter 1st no. = "))  
y = int (input ("Enter 2nd no. = "))  
print ("The LCM is = ", lcm(x,y))
```

Output:-

Enter first no = 2

Enter second no = 6

The LCM is = 6



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PRACTICAL - 9

Ques:- To find the factorial of a number ~~using~~ ~~steps~~

Ques:- Find HCF and LCM of two given numbers using function definition.

LCM :- ~~function~~ ~~function~~

ALGORITHM :- Step 1 :- Define a function which will accept two argument values from the user.

Step 2 :- Use if conditional statement to check the Conditions
Check the first value is greater than second
value if yes then store the greater value.
Use while loop to till the condition is True.

Step 3 :- Use if Conditional to check that when both values
when divided by greater number gives remainder 0
or not if yes store in another variable & it
will be lcm of two number return value of
lcm by using return statement.

Step 4 :- Accept two values by the user & the all
defined function & display output using print
Statement.



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HCF :-

ALGORITHM :-

Step 1:- Define a function with name hcf with two arguments.

Step 2:- Use if conditional statement for checking with two arguments.

Step 3:- Use for loop & range method & then use if to check that both numbers are divisible by if yes store the value entered in ask of & then return value using return Statement. both are now reduced by one & then again ask for next no. to make

Step 4:- Accept the two values from user & then call the digital defined function.

Step 5:- Display the output using print

statement. after writing all the code

and making changes take 10 and 15 as

test case number you get 5 as

Now after 10 and 15 is taken out test
cases you can take 10 & 15 as test

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Code:-

```

def hcf (a,b):
    if a>b:
        small = b
    else:
        small = a
    for i in range (1;small +1):
        if (a% i == 0) and (b% i == 0):
            hcf = i
    return (hcf)
x = int (input ("Enter the first no. ="))
y = int (input ("Enter the second no. ="))
print ("The HCF of {} & {} is {}".format(x,y,hcf(x,y)))

```

Output:

Enter the first no. = 6

Enter the second no. = 12

The HCF of 6 and 12 is 12.

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Q1.

Code:-

```
x = input ("Enter a line of string: ")
print (x.lstrip())
print (x.upper())
print (x.split())
print (x.lstrip().upper().split())
```

Output:-

Enter a line of string: Python Css

Python Css

PYTHON CSS

['Python', 'Css']



Practical - 11

* Different String Manipulation Methods.

→ 3 methods defined are:

Method

Description

`lower()` It converts all Capital characters into small characters.

`Upper()` In Converts all Small characters into Capital characters.

`split()` It returns a list of words delimited by the provided substring.

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PRACTICAL -12

- * Developing a program for Quiz and Calculator program using function definition.

ALGORITHM:-

Step 1:- Input the random and subsequently define ~~int~~ ~~list~~ ~~datatype~~ which can take ~~are~~ ~~number of~~ questions and corresponding answer.

Step 2:- Use the ~~shuffle~~ method of the ~~standard~~ class ~~which~~ will change the order of the question.

Step 3:- For i in range(0, n):
 Display question i & answer asking to it the answer.

Step 4:- Convert the input provided by the user into the lower case whether it is equal to the answer and accordingly display.

Step 5:- If answer is not correct for a incorrect and display appropriate & simultaneously display the correct answer to the user.

Code :-

```
Import random
que = [C "What is the Capital of India", "Delhi"),
      ("What is capital of USA", "Washington"),
      ("Who is the national bird of India", "Peacock")]
```

nr=0

random.shuffle(que)

for q, ra in que:

ans = input(q + " ans : ")

if ans.lower() == ra:

print("Well done! Your answer is Correct")

nr+=1

else:
 print("Your answer is incorrect the correct
answer is ", ra)

lq = len(que)

print("right response ", nr)

print("Wrong response", lq)

print("The learner obtain {0} & {1} ".format(nr, lq))

Output:- What is capital of India ans: Gujarat

Your answer is incorrect the correct answer is Delhi

What is national bird of India ans: Peacock

Your answer is correct.

What is the capital of USA ans: Washington

Your answer is correct.

Well done! Your correct answer is correct

Right response 2

Wrong response 1

The learner obtain 2 out of 3.

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vivo AI-camera
WIDE

Step 6:- Now we will find no. of the elements in the list by using the left method & then display the no. of right and wrong response given.

range of numbers this table contains a total of 100 numbers
from 1 to 100 which are 100 in number
range from 1 to 100 which are 100 in number

left method with help of left method
it is required to determine the count of
numbers which are divisible by 3

so the total count of numbers which are divisible by 3
is 33 and remaining numbers are 67

and now for each value of m present
in the list we will check whether
the value of m^2 is right or wrong

so now we will have to calculate again the no. of
right and wrong answers obtained till now



Q1:

* Calculator program - has been done.

beats all out and will not be

ALGORITHM :-

various process steps

Step 1:- Define a function which will accept a argument
& use the return statement for providing
the output onto the main program.

Step 2:- Except the 2 value from the user and
use the typecasting operation to convert it
into integer datatype.

Step 3:- Display the various choice on the screen
for various arithmetic operations like +, -, *,
%, floor division.

Step 4:- Depending on the choice made by the user the
appropriate function will be called and the
corresponding output shall be displayed.

Step 5:- If wrong selection is made by the user then
an appropriate message should be displayed.



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Vivo AI camera

Code:

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```
def add (x,y):
    return x+y
def sub (x,y):
    return x-y
def Mult (x,y):
    return x*y
def div (x,y):
    return x/y
def mod (x,y):
    return x%y

x=int (input ("Enter 1st no."))
y=int (input ("Enter 2nd no."))
print ("1. Addition")
print ("2. Subtraction")
print ("3. Multiplication")
print ("4. Division")
print ("5. Module Division")
choice =int (input ("Enter Selection"))

if choice ==1:
    print ("Addition = ", add(x,y))
if choice ==2:
    print ("Subtraction = ", sub (x,y))
```



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If choice == 3:

print ("Multiplication = ", Mult(x,y))

If choice == 4:

Print ("Division on = ", div (x,y))

If choice == 5:

print ("Module Division = ", Mod (x,y))

else:

print ("Wrong selection on by user")

Output:

Enter 1st value = 5

Enter 2nd value = 2

1. Addition

2. Subtraction

3. Multiplication

4. Division

5. Module division

Enter Selection : 3
Multiplication = 10

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~~Step 5:- Execute the program & display
the correct value.~~

*Jmt
26/9/17*

PRACTICAL - 1 :-

AIM:- Demonstrate the use of different file opening modes & different attributes & read methods.

ALGORITHM:-Steps :-

- 1) Create a file object using open method & use the write access mode followed by writing some contents onto the file & then closing the file.
- 2) Now, Open the file in read mode & then use read(), readline() & readlines() & store the output in variable & finally display the contents of variable.
- 3) Now, use the file object for finding the name of the file, the file name, the file mode in which it's opened whether the file is still open or close & finally the output of the software attribute.



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Write method.

```
fileobj = open ("abc.txt", "w")
fileobj.write ("Subject in " + "CS")
fileobj.write ("\n C \n Calculus \n stats \n python")
fileobj.close()
```

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Read method.

```
fileobj = open ("abc.txt", "r")
str1 = fileobj.read()
print ("The output of read method is : ", str1)
fileobj.close()
```

>>> The output of read method is : Subject in CS -

C
Calculus
stats
python

readline method

```
fileobj = open ("abc.txt", "r")
str2 = fileobj.readline()
print ("The output of readline method is : ", str2)
```

[>>> The output of readline method is : Subject in CS.

fileobj.close()

readlines method

```
fileobj = open ("abc.txt", "r")
```

```
str3 = fileobj.readlines()
```

print ("The output of readlines method is : ", str3)

fileobj.close()

>>> The output of readlines method is : ['Subject in
CS\n', 'C', 'Calculus \n', 'stats\n', 'python']

SS

file attributes.

```
a = fileobj.name  
b = fileobj.closed  
c = fileobj.mode  
print ("The file Name is : ", a)  
print ("closed ", b)  
print ("filemode : ", c)
```

>>> Alarms

```
>>> The file Name is : abc.txt  
>>> closed : True  
>>> filemode : r
```

Write mode

```
fileobj = open ("abc.txt", "w")  
fileobj.write ("C")  
fileobj.close()
```

Read mode

```
fileobj = open ("abc.txt", "r")  
L = fileobj.read()  
print ("The output of read mode is : ", L)  
>>> The output of read mode is : C
```

~~RE~~ wt mode

```
fileobj = open ("abc.txt", "w+")  
file.write ("Hemant")  
file.close()
```



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- 4) Now open the fileobj in write mode, write some another class subsequently then again open the fileobj in 'wt' mode that is update mode & write contents.
- 5) Open fileobj in read mode display update written contents & close, again in 'rt' mode that is parameter passed & display the output subsequently.
- 6) Now, open fileobj in append mode open write method, write contents close the fileobj again; open the fileobj in read mode & display the append outputs.

ES

→ Open the fileobj in read mode declare
a variable and perform file object
dot method tell & store the output
Consequently in variable.

→ Use the seek method with the
argument with opening the fileobj
in read & closing subsequently.

→ Open fileObj with read mode also
use readlines () and store the
output consequently in & print
the same for counting the
length use the for conditional
statement & display the
length.

file
pos
posn
fil.
>>>

#



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```

# r+ mode
fileobj = open ("abc.txt", "r+")
s1 = fileobj.read(6)
print ("Output of r+ mode : ", s1)
fileobj.close()
>>> ('Output of r+' , "state")  

# Append mode
fileobj = open ("abc.txt", "a")
fileobj.write ("data structure")
fileobj.close()
fileobj = open ("abc.txt", "a")
s3 = fileobj.read()
print ("Output of append mode : ", s3)
fileobj.close()
>>> ('Output of append mode : ', "python data structure")
# tell()
fileobj = open ("abc.txt", "r")
pos1 = fileobj.tell()
print ("tell() : ", pos1)
fileobj.close()
>>> ("tell() : ", 0)

# Seeking
fileobj = open ("abc.txt", "r")
str4 = fileobj.seek(0,0)
str8 = fileobj.read(10)
print ("The beginning of the file : ", str8)

```

Finding length of the different lines exist within lines.

```

fileobj = open ("abc.txt", "r")
str9 = fileobj.readlines()
print ("Output : ", str9)
for line in str9:
    print (len(line))
fileobj.close()
>>> ('Output : ', ['College database'])

```



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iter() and next()

```
mytuple1 = ("banana", "orange", "apple")
myiter1 = iter(mytuple)
print(next(myiter1))
mytuple2 = iter(mytuple)
print(next(myiter2))
myiter3 = iter(mytuple)
print(next(myiter3))
>>> banana
orange
apple
```

for loop.

```
mytuple1 = ("kevin", "student", "bob")
for x in mytuple1:
    print(x)
>>> kevin
student
bob
```

square and cube

```
def square(x):
    y = x * x
    return y
def cube(x):
    z = x * x * x
    return z
[square, cube]
```



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PRACTICAL - 2OBJECTIVE :- ITERABLE AND ITERATORS.

STEP 1:- Create a tuple with elements that we need to iterate using the iter & next method. The number of time we use the iter & next method we will get the next iterating element in the tuple. Display the same.

STEP 2:- The similar output can be obtained by using for Conditional Statement. An iterable variable is to be declared in for loop which will iterate.

STEP 3:- Define a function name square with a parameter which will return output of square value of a given number. In similar fashion declare cube to get the value raised 3 & return the same.

STEP 4:- Call the defined function using function call.

STEP 5:- Using for Conditional Statement specifying the range use the list type casting with



PS

map method declare a 'lambda' ie anonymous function and point the same.

STEP 6:- Declare a list variable and declare some elements then use the map method with help of lambda function give two argument and display the output.

STEP 7:- Define a function even with a parameter then using Conditional statements to check whether the number is even & odd and return respectively.

STEP 8:- Define a class and within that define the `__init__()` method which will initialise the first element within the container object.

STEP 9:- Now, we have the `next()` & define the logic for displaying odd value.

STEP 10:- Define an object of a class.

STEP 11:- Accept an number from the user till which we want to display the odd numbers.



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```
for n in range (5):
    value = list (map (lambda x:x (x) , funct1)) 26
    print (value)
>>> [0,0]
[1,1]
[4,8]
[9,27]
[16,64]
```

```
# map()
listnum = [0,4,5,7,9,11,13,15, 20,19,25]
listnum = list (map (lambda x:x / 5 , listnum))
print (listnum)
def even(x):
    if (x % 2 == 0):
        return "EVEN"
    else:
        return "ODD"
list (map (even, listnum))
```

```
# odd numbers
class Odd:
    def __iter__(self):
        self.num=1
        return self
    def __next__(self):
        num=self.num
        num+=2
        self.num+=2
        return num
```

```
myobj=odd()
myiter=iter(myobj)
x=int (input ("Enter a no:- "))
for i in myiter:
    if (i < x):
        print (i)
```

```
>>> Enter a no:- 19
```

```
1
3
5
7
9
11.
```



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~~35~~ Code:-

```
class fact:  
    def __iter__(self):  
        m.value = 1  
        return self  
    def __next__(self):  
        if m.value < 15:  
            m.value += 2  
            return m.value  
        else:  
            raise StopIteration  
y = iter(fact())  
while True:  
    print(next(y))
```

Code of factorial:

```
class fact:  
    def __iter__(self):  
        m.value = 1  
        return self  
    def __next__(self):  
        facto = 1  
        for i in range(1, m.value + 1):  
            facto = facto * (i)  
        print("The factorial of ", m.value, "is", facto)  
        m.value += 1  
        if (m.value == 7):  
            raise StopIteration  
y = iter(fact())  
while True:  
    next(y)
```



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Program: Factorial of number till 10.

Algorithm:-

Step 1:- Create a class within that define a `for` method with an argument , initialize a value & return it.

Step 2:- Define a next method with an argument.

Step 3:- Create a variable fact with value 1 & use for Condition loop to calculate factorial till value of variable factored in Step 1.

Step 4:- Print the fact's value & increase the value of variable in step by 1.

Step 5:- Use if Conditional Statement to raise Stop iteration if the range of variable in step 1 is bigger than 10.

Step 6:- Create a object this class & pass it to `for` method & use while loop to use next method.

Program :- Power of number taken from user.

Algorithm:-

Step 1:- Create a class and define a `for` method with an argument , initialize a value & return it. Also take a input from user.

Step 2:- Define a next method with an argument.



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Step 3:- If the initialized value or input variable is bigger than 5 then just stop iteration or else return the multiplication of argument by itself.

Step 4:- Create a object of given class & pass it to iter method & use while loop to use next method.

Program :- To display the number in range 10

Algorithm:-

Step 1:- Create a class and define iter method with an argument, initialize a value & return it.

Step 2:- Now define next method check whether the initialized value is smaller than 10 ; if yes then print the value

Step 3:- Increase the value by 1 ; if the initialized value is bigger than 10 Stop the iteration.



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Output:

The factorial of 1 is 1
The factorial of 2 is 2
The factorial of 3 is 6
The factorial of 4 is 24
The factorial of 5 is 120
The factorial of 6 is 720
The factorial of 7 is

28

Code for power of number taken from wren

class power:

```
def __iter__(pow):
    pow.num=1
    pow.num=int(input("Enter number:"))
    return pow

def __next__():
    if pow.num<=6:
        m4=pow.num**2
        pow.num+=1
        return m4
    else:
        raise StopIteration.
```

y=iter(power(2))

while True:
 print(next(y))

JT

Output:

Enter number: 2

2
4
8
16
32
64

WIDE



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Code to display number upto range 10.

```
class range1:  
    def __iter__(self):  
        self.num = 1  
        return self  
    def __next__(self):  
        if self.num <= 10:  
            num = self.num  
            self.num += 1  
            return num  
        else:  
            raise StopIteration  
y = iter(range1())  
while True:  
    print(next(y))
```

Output:

1
2
3
4
5
6
7
8
9
10.

↓
call 11



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PRACTICAL - 3

Aim:- Program to demonstrate exception handling.

Write a program using the exception method of ~~nature~~
value arithmetic error.

Step 1:- Use the try block and except the input
using the raw input method and convert
it into the integer datatype & subsequently
terminate the block.

Step 2:- Use the except block with the exception name
as value error and display the appropriate
message if the ~~suspicious~~ code is part of the
try block.

Write a program for accepting the file in a given
mode and use the environment error as an
exception for the given input.

Step 1:- Written the try block operator open the file
using the write mode and write some content
on the file.

Step 2:- Use the except block with IOError and display the
message regarding missing of the file or incompatibility
of the mode use the else block to display a
message that the operation is carried out successfully.



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Code:-

While True :

```
try:  
    x = int(input("Enter class:"))  
    break  
except ValueError:
```



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Code:-

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While True:

try:

x = int(input("Enter class:"))

break

except ValueError:

print("Enter Numeric value: ")

OUTPUT :-

Code:-

try:

f0 = open("abc.txt", "w")

f0.write("Hello World")

except IOError:

print("Error writing onto the file")

else:

print("Operation Carried out successfully")

f0.close()

OUTPUT :-

Operation Carried out successfully.



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Q8

Code :-

```
def assert_(n):  
    assert (len(n) == 0):  
        print ("List is empty")  
var1 = []  
print (assert_(var1))
```

OUTPUT:-

List is empty.

#

Code :-

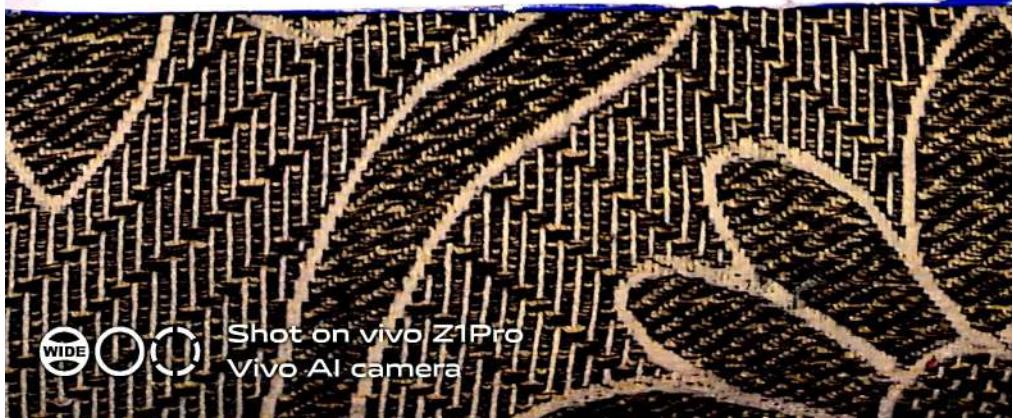
```
def acceptage():  
    age = int (input ("Enter age = "))  
    if age > 30 or age < 16:  
        raise ValueError  
    return age  
Valid = False  
while not valid:  
    try:  
        age = acceptage()  
        valid = True  
    except ValueError:  
        print ("not a valid age")
```

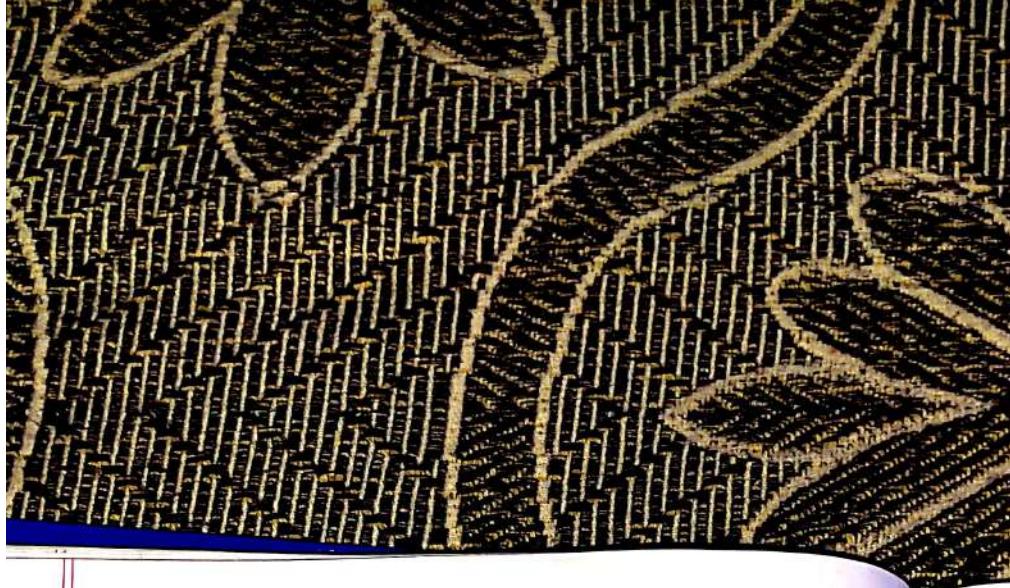


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- * Write a program using assert () method to check if the list elements are empty.
- Step 1:- Define a function which accepts an argument & then check using assert statement whether the given list is an empty list & accordingly return the message.
- Step 2:- Close the function and in the body of the program define certain elements in the list & take some appropriate action.
- * Write a program to check the range of the age of the students in a given class & if the age do not fall in the given range use the Value error exception otherwise return the valid number.
- ~~Step 1:- Define a function which will accept the age of the student input.~~
- Step 2:- Use the if Condition to check whether the input age fall in the given range and if so return the age of the student else use the value error exception.





18

Step 3:- Define the while loop to check whether the boolean expression holds true we the try block to accept the age of the Student & terminate the Looping Condition.

Step 4:- Use the accept with a value Error and print the "Message" Not a valid age".





OUTPUT :-

32

Enter age : 4

Not a valid age

✓ Jan 10



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Q8:

Code 1:-

```
import re
string = " hello1234 abc4567"
result = re.findall (" \d+ ", string)
result1 = re.findall (" \D+ ", string)
print (result)
print (result1)
```

Output :

```
>>> ['1234', '4567']
```

```
>>> [' hello', 'abc']
```

P

PRACTICAL - 4

Aim:- Demonstrate the use of Regular Expression.

Theory :- Regular expression represents the sequence of characters which is mostly used for finding & replacing the given pattern in a string. For this we import re module & common usage of regular expression involves following functionalities :-

- Searching a given string.
- finding a string.
- Breaking a string into smaller substrings.
- Replacing part of string.

Write a program of regular expression numeric & alphanumeric values from a given string.

Algorithm :-

Step 1: Apply string & pattern in findall() & step by step the output.

Step 2: \d is used for matching all decimal digits whereas D is used to match non-decimal digits.



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Q2

P2) Write a regular expression for finding the Match string at the beginning of given sequence.

Algorithm:-

Step 1:- Import re module & apply on string.

Step 2:- Use search () with " \A Python " & string as two reg parameters.

Step 3:- Now display the output.

Step 4:- Now use if Conditional Statement for user to know whether the match is found or not.



Code 2 :-

```
import re
string = "python is an important language"
result = re.search(r"\A python ", string)
print(result)

if result:
    print("match found")
else:
    print("match not found")
```

Output

```
>>> <re.Match object: span=(0, 6);  
      match='python'>
```

>>> Match found.



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Q3

```
# Code 3:-  
import re  
li = ["123456789", "987654321"]  
     "00001111", "11110000"]  
for element in li:  
    result = re.match ("[8-9]{1}[0-9]{9}", element)  
    if result:  
        print ("Correct mobile no.")  
        print ("Result - group(1)")  
    else:  
        print ("Incorrect mobile no.")
```

Output:

>> Correct mobile no.

123456789

Correct mobile no.

987654321

Incorrect
Mobile no.

Incorrect
mobile no.



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Write a regular expression to check whether the given mobile number starts with 8 or 9 & the total length of digit should be atleast 10:

Algorithm:-

Step 1:- Import re module & apply a string of mobile nos

Step 2:- Now use for Conditional statement to find if the number starts with 8 or a length is the total number should length of 10. Use match() inside for statement to find the match in given string.

Step 3:- Use if Conditional Statement to know whether we have a match or not if we have we group to display the output & if we don't display incorrect mobile no.





Q4) Write a regular expression for extracting a word from given string along with space character in between the word & subsequently extract the word without space character.

Algorithm

Step 1:- Import re module & apply a string.

Step 2:- Use findall() to extract a word from given string.

Step 3:- Use "W*" to extract word along with space & use "/W+" to extract word without space.

Step 4:- Now display the output.

Q5) Write a regular expression for extracting first & last word from a string.

X²⁰ Step 1:- Import re module & apply a string.

Step 2:- Use findall() in which use to find first & last word of string. then use "/W+/" as parameter.

Step 3:- Now apply the result.



Code 4:-

```
import re
string = "Python is important"
result1 = re.findall ("^w+", string)
result2 = re.findall ("wt+", string)
print (result1)
print (result2)
```

Output :-

```
>>> ['python', ' ', 'is', ' ', 'important,']
['python', 'is', 'important']
```

Code 5:-

```
import re
string = "python is important"
result = re.findall ("^wt+", string)
result1 = re.findall ("wt$", string)
print (result)
print (result1)
```

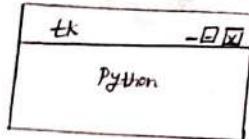
Output:-

```
>>> ['python']
>>> ['Important']
```

J 110



```
# Source code.
if
    from Tkinter import *
    root = Tk()
    l = Label (root, text = "python")
    l.pack()
    root.mainloop()
# Output.
```



#1

```
# Source code.
```

```
from Tkinter import *
root = Tk()
l = Label (root, text = " python")
l.pack()
l1 = Label (root, text = "CS!", bg = "grey",
            fg = "black", font = "10")
l1.pack()
l2 = Label (root, text = "CE!", bg = "light blue",
            fg = "black", font = "10")
l2.pack()
l3 = Label (root, text = "CE", bg = "yellow",
            fg = "black", font = "10")
l3.pack (side = TOP, ipady = 40)
l4 = Label (root, text = "CE", bg = "orange",
            fg = "black", font = "10")
l4.pack (side = TOP, ipady = 50)
root.mainloop()
```

#2



PRACTICAL-5GUI COMPONENTS

#1) Creation of parent window.

S1:- Use the tkinter library for importing the features of the text widget.

S2:- Create an object using the tk()

S3:- Create a variable using the widget label & use the text method.

S4:- Use the mainloop() for triggering of the corresponding above mentioned events.

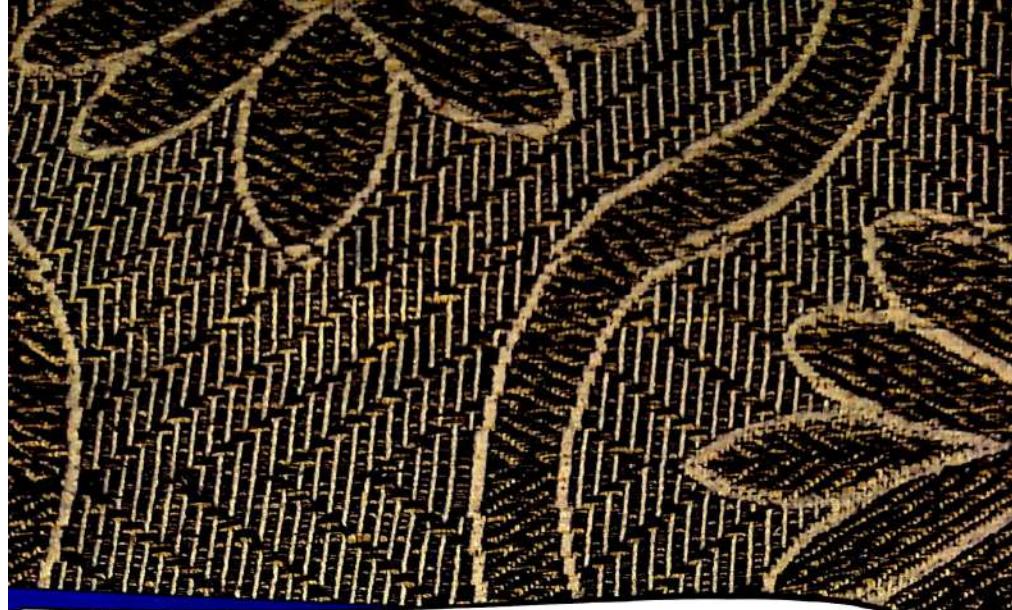
#2) Use of Attributes.

S1:- Use the tkinter library for importing the features of the text widget.

S2:- Create a variable from the text method & position it onto the parent window.

S3:- Use the pack() along with the object created from the text() & use the parameters.





VB.

- 1) side = LEFT, padx = 20
- 2) side = LEFT, pady = 30
- 3) side = TOP, padx = 40
- 4) side = TOP, pady = 50

54:- Use of mainloop() for the triggering of the corresponding events.

55:- Now repeat above steps with the label() which takes the following arguments:

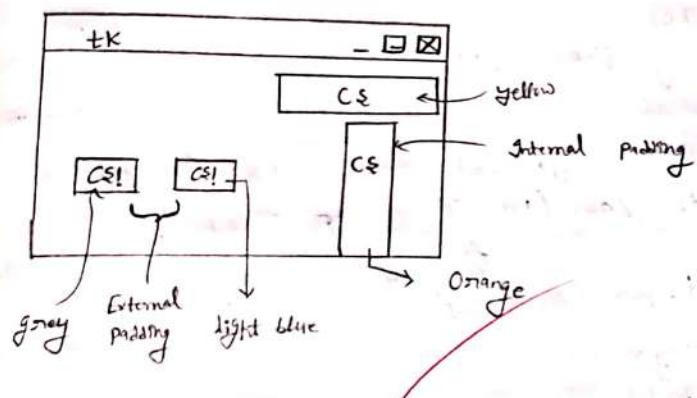
- 1) Name of the parent window.
- 2) Text attributes which defines the string.
- 3) The background color (bg)
- 4) The foreground color (fg) & then use the pack() with a relevant padding attributes.





Output.

38



```

## RadioButton
#8
from Tkinter import *
root = Tk()
root.geometry ("500x500")
def select():
    selection = "You just selected " + str(var.get())
    t1 = Label (text=selection , bg = "white" ,
                fg = "green")
    t1.pack (side = TOP)
var = StringVar()
l1 = Listbox()
l1.insert (1, "List 1")
l1.insert (2, "List 2")
l1.pack (anchor = N)
r1 = Radiobutton (root, text = "Option 1", variable = var ,
                  value = "option 1" , command = select)
r1.pack (anchor = N)
r2 = Radiobutton (root, text = "Option 2", variable = var ,
                  value = "option 2" , command = select)
r2.pack (anchor = N)
root.mainloop ()

```



#3 Program for Radiobuttons.

- 51) Import the relevant methods from the tkinter library. Create an object with the parent window.
- 52) Use the parent window object along with the geometry() declaring specific pixel size of the parent window.
- 53) Now, defines a function which tells the user about the given selection made from multiple options available.
- 54) Now, define the parent window & options with the Grid variable.
- 55) Use the listbox() & insert objects to the parent window along with the pack() with specifying anchor attribute.
- 56) Create an object from radio button which will take following arguments parent window object, text variables, which will take the values option no. 1, 2, 3... variable argument, corresponding values & trigger the function declared.
- 57) Now, call the pack() for radio object so created & specify the argument using anchor attribute.



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58) finally make use of the mainloop() along with parent window.

#4) 51) Import relevant methods from the tkinter library.

52) Create a parent object corresponding to the parent window.

53) Use the geometry() for laying off the window.

54) Create an object & use the scrollbar().

55) Use the pack() along with the scrollbar() object with side & fill attributes.

56) Use the mainloop with the parent object.

#5) 57) Import relevant methods from the tkinter library.

58) Use the geometry() for laying of the window.

59) Create an object & use the scrollbar().

60) Use the pack() along with the scrollbar object with side & fill attributes.

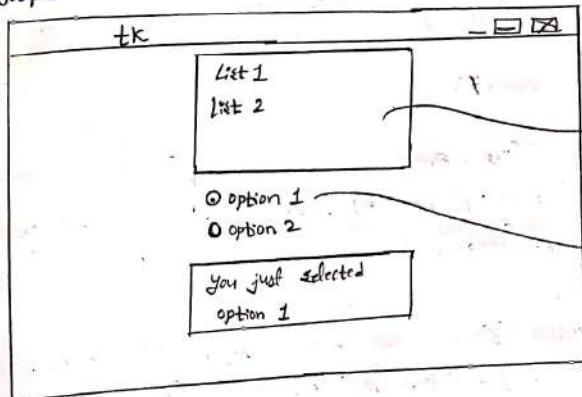
61) Use the mainloop with the parent object.

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Output



40

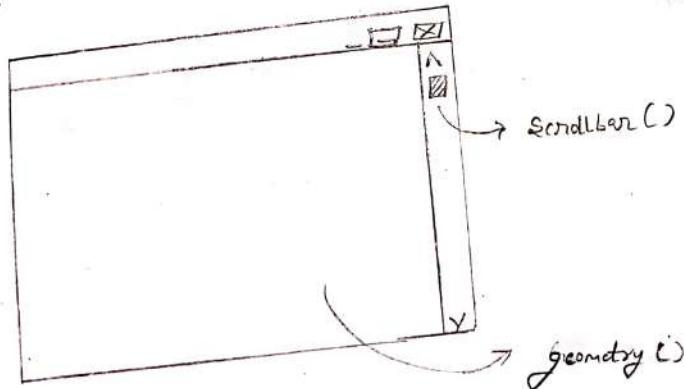
Listbox()

RadioButton

Source code

```
from Tkinter import *
root = TK()
root.geometry ("500x 500")
S=scrollbar()
S.pack (side = "right", file = "y")
root.mainloop()
```

Output

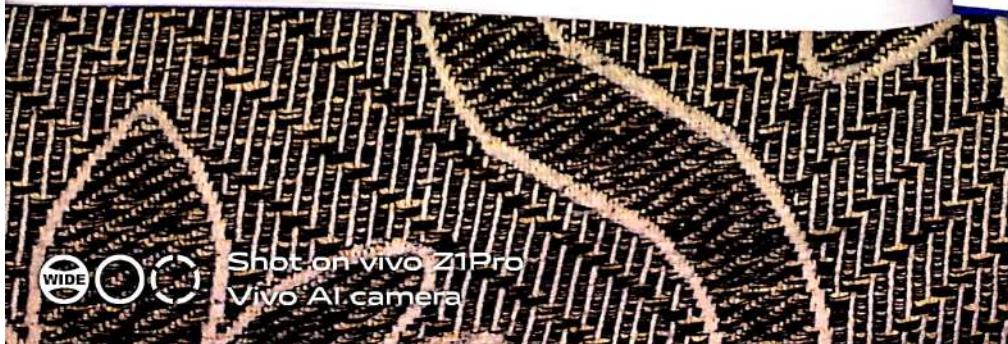
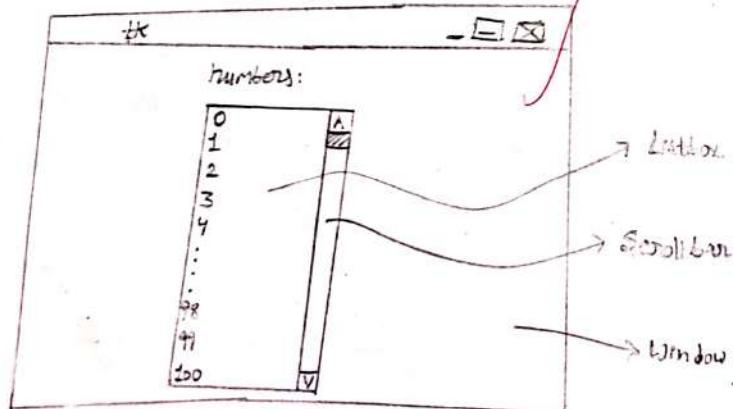


```

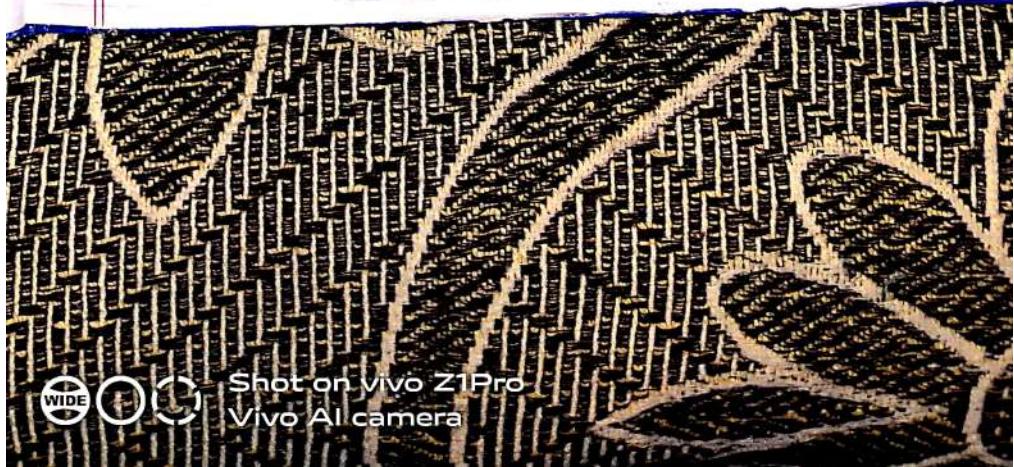
# Output { Frame widget }. Source code
#1
from Tkinter import *
window = Tk()
window.geometry ("600x600")
label (window, text = "numbers").pack()
frame = frame (window)
frame.pack()
listNodes = Listbox (frame, width = 20, height = 20,
                    font = "times New Roman", 10)
listNodes.pack (side = "LEFT", fill = "y")
scrollbar = Scrollbar (frame, orient = "vertical")
scrollbar.config (command = listNodes.yview)
scrollbar.pack (side = "right", fill = "y")
for x in range (100):
    listNodes.insert (END, str(x))
window.mainloop()

```

Output.



- 51:- Import the relevant libraries from the tkinter method.
- 52:- Create an corresponding object of the parent window.
- 53:- Use the geometry manager with pixel size (600x500) or any other suitable pixel value.
- 54:- Use the label widget along with the parent object created & subsequently use the pack().
- 55:- Use the frame widget along with the parent object created & use the pack method.
- 56:- Use the button method along with the attributes like width, height font. Do create a button method object use pack for the same.
- 57:- Use the scrollbar() with an object use the attribute of vertical then configure the same with object created from scrollbar() & use pack().
- 58:- Trigger the events using mainloop().



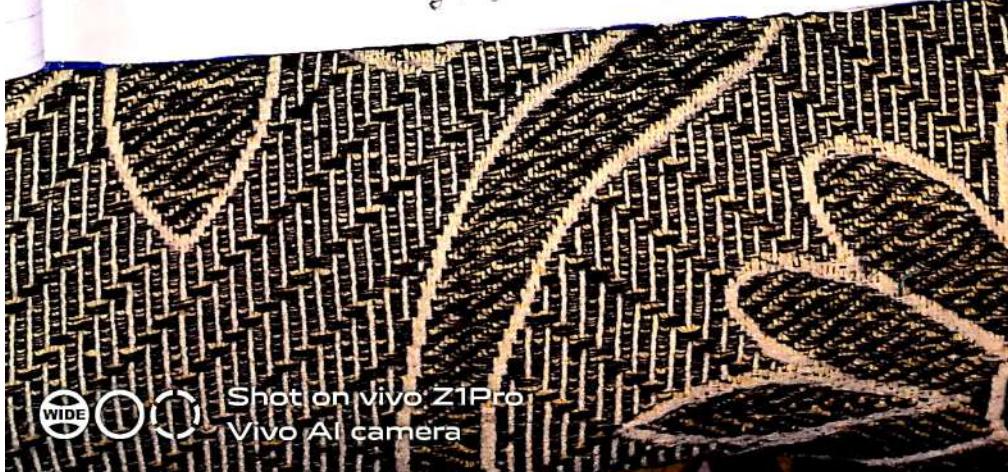
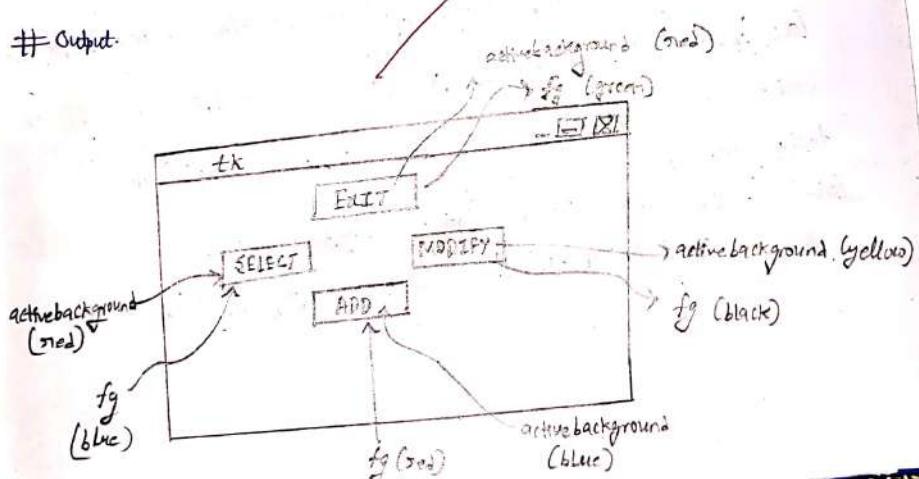


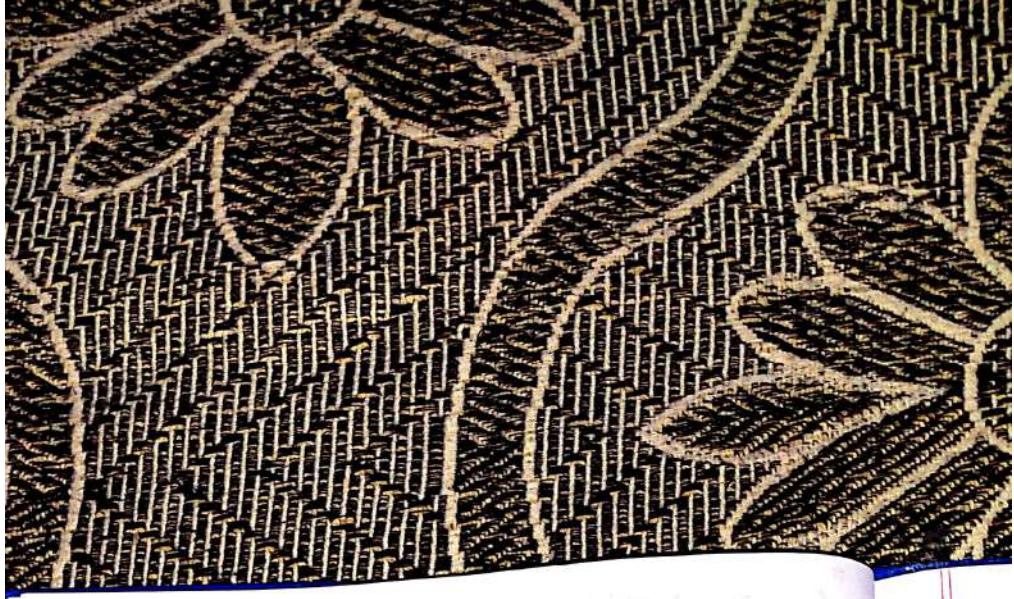
- # 5
fr
- \$7) 51:- Import relevant methods from tkinter Library.
- 52:- Define the object corresponding to the parent window & define the size of parent window in terms of no of pixels.
- 53:- Now define the frame object from the method & place it on the parent window.
- 54:- Create another frame object termed as the left frame & put it on the parent window on its LEFT side.
- 55:- Similarly, define the RIGHT frame & sequentially define the button object place it on the given frame with the attribute as text, active background & foreground.
- 56:- Now use the pack() along with the side attribute.
- 57:- Similarly create the button object corresponding to the MODIFY operation put into frame object on side = "right".
- 58:- Create another button object & place it on right frame & label the button as ADD. & add EXIT button on Top of the frame. & use the pack () simultaneously and finally use the mainloop.



```
# Source code
from Tkinter import *
window = Tk()
window.geometry ("600x500")
frame = Frame (window)
frame.pack ()
leftframe = frame (window)
leftframe.pack (side = "Left")
rightframe = frame (window)
rightframe.pack (side = "Right")
b1 = Button (frame, text = "select", activebackground = "red", fg = "blue")
b2 = Button (frame, text = "Modify", activebackground = "yellow", fg = "black")
b3 = Button (frame, text = "ADD", activebackground = "blue", fg = "red")
b4 = Button (frame, text = "EXIT", activebackground = "red", fg = "green")
b1.pack (side = "LEFT", padx = 20)
b2.pack (side = "RIGHT", padx = 30)
b3.pack (side = "BOTTOM", pady = 20)
b4.pack (side = "TOP")
```

Output:





```
SA
from tkinter import *
root = Tk()
root.title ("Python")
root.minsize (400, 900)
root.config (bg = "black")
leftframe = Frame (root, bg = "pink", height = 400, width = 200)
leftframe.grid (row = 0, column = 0)
rightframe = Frame (root, bg = "green", height = 400, width = 250)
rightframe.grid (row = 0, column = 1)
label (leftframe, text = "Photo", height = 2, width = 20).grid (row = 0, column = 0)
image1 = PhotoImage (file = "danny.gif")
image1.subsample (1, 2)
image2 = PhotoImage (file = "danny.gif")
image2.subsample (3, 4)
label (leftframe, image = image1).grid (row = 0, column = 0, padx = 20, pady = 20)
label (rightframe, image = image2).grid (row = 0, column = 1, padx = 10, pady = 10)
toolbox = Frame (leftframe, width = 200, height = 400, bg = "white")
toolbox.grid (row = 2, column = 0)
label (toolbox, text = "Personal Info", height = 2, width = 20,
      relief = RAISED).grid (row = 0, padx = 20, pady = 20, column = 0)
```



→ Program for Displaying the Snippet

Algorithm:-

Step 1:- Create an obj corresponding to the parent window
 & use the following 3 methods → i) Title
 ii) Maxsize iii) Config.

Step 2:- Create a leftframe object from the frame method
 & place it onto the parent window with the
 height, width & the bg Specified. Subsequently
 Use the grid method with the row, column, posx,
 posy Specified.

Step 3:- Now Create a rightframe object from the frame
 method with the height, width, row & column
 Specified.

Step 4:- Create a label object from the label method
 & place it onto the leftframe with the text
 attribute denoting the original image with
 relief attribute used as RAISED. value and
 subsequently use grid method with row, column
 value Specified as (0,0) with some
 internal padding values.





Ex

Step 5:- Now, use the `photoImage` method with the `file` attribute specified.

Step 6:- Use the `Subsample` method with the object of the image & give the `x,y` coordinate values.

Step 7:- Use the `label` method & position it onto the left frame & placing the image after the sampling & use the `grid` method for the positioning in the first row.

Step 8:- Create another object positioning it onto the right frame & specifying `image` & `background` attribute with `row` & `column` attribute specify it as `(0,0)`.

Step 9:- Now create a `Tolbox` object from ^{frame} `method` & position it onto the parent window on the second row.

Step 10:- Now, define the various function for different tool bar options provided in the left frame.

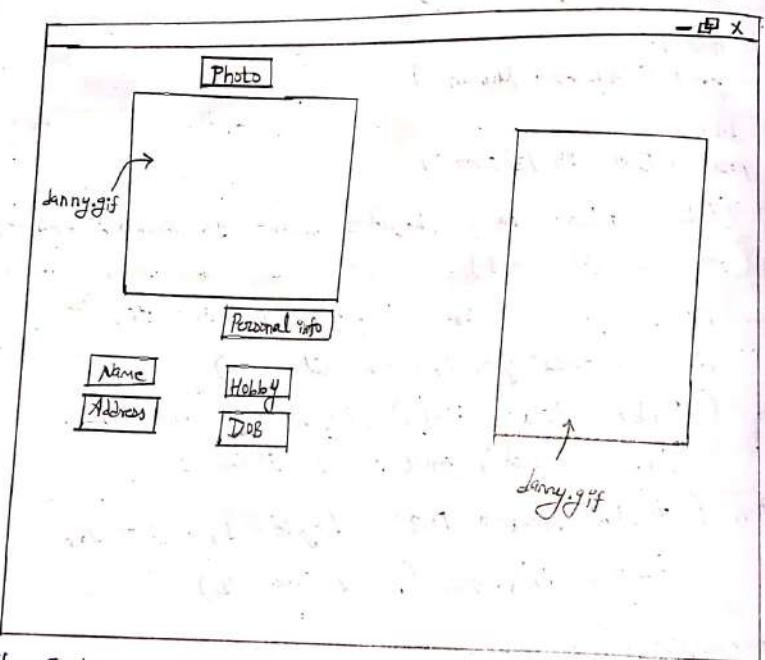
Step 11:- From the `label` method position the text on the toolbox use the `belief` attribute & corresponding grid value & incorporate the internal padding as used.



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```
def name():
    print ("Name: ")
def hob():
    print ("Hobby: ")
def add():
    print ("Address: Mumbai")
def dob():
    print ("DOB: 24/03/2002")
Button (toolbox ,text="Name", height=1, width= 16, Command =name)
grid (row =1, Column=1)
Button (toolbox ,text = "Address", height =1, width = 16,
        Command =add).grid (row=2, column=0)
Button ( toolbox, text= "Hobby", height = 1, width = 15,
        Command =hob).grid [row=1, Column=1]
Button ( toolbox ,text=" DOB", height= 1, width= 16,
        Command= dob).grid (row=2, Column=2)
root.mainloop()
```





Spinbox.

```
from tkinter import *
root = Tk()
S = Spinbox (root, from_ = 0 ,to = 10)
S.pack (anchor = N)
root.mainloop()
```

OUTPUT:-



Step 12:- Create the label method position it on the toolbar with the next title as person information & position it on same row but next column.

Step 13:- Now, make use of reinloop method.

→ Spin Box:-

Step 1:- Create an object from the tkmethod & sub -
Sequentially Create an object from Spinbox method.

Step 2:- Make the object so, created onto the parent window & trigger the corresponding events.

Jan 22 h.



Shot on vivo Z1Pro
VIVO AI camera

→ Paned Window

Step 1:- Create an object from the paned window meth & use the pack method with the other fill & expand.

Step 2:- Create an object from the label method & put it onto the paned window with the attribute & use the add method to embed the new object.

Step 3:- Similarly Create a second paned window object & add it onto the first paned window with orientation specified.

Step 4:- Now create another label object & place it onto the second paned window object & add it pane.

Step 5:- Trigger minlogo.



Shot on vivo Z1 Pro
Vivo AI camera

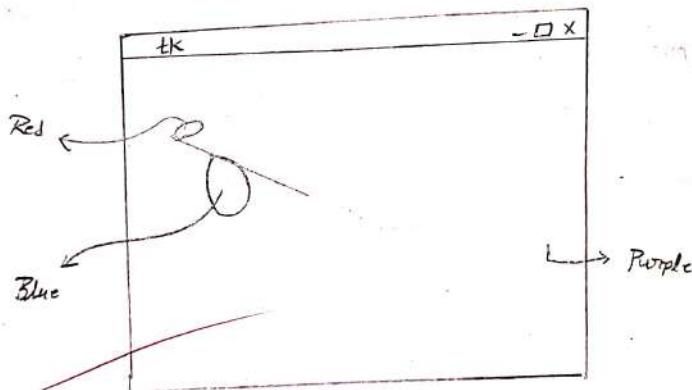


Canvas:

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```
from tkinter import *
root = Tk()
C = Canvas(root, height = 200, width = 250, bg = "purple")
C.create_arc(50, 20, 30, 40, fill = "red", start = 10, extent = 50)
line = C.create_line(20, 31, 45, 89, fill = "black")
oval = C.create_oval(15, 98, 36, 45, fill = "blue")
C.pack()
root.mainloop()
```

OUTPUT:-



Scanned with CamScanner

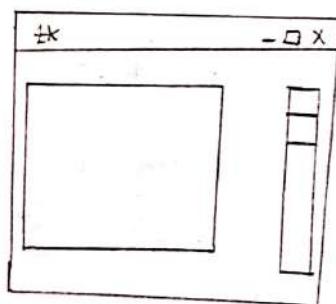


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Paned Window:

```
from tkinter import *
root = Tk()
P = PanedWindow()
P.pack (fill= BOTH, expand = 1)
e = Entry (P, bd=11, bg = "Red")
P.add (e)
top = Scale (P1 , orient= VERTICAL)
P1.add (top)
root.mainloop ()
```

OUTPUT :-



→ Canvas Widget:

Step 1:- Create an object from the Canvas method & use the attribute height, width, & the parent window object.

Step 2:- Use the methods Create_line, Create_Oval, and Create_arcs, along with the Canvas object so created & use the co-ordinate values.

Step 3:- Similarly write the other methods and all the pack methods and the main loop method.

27/12/2022



PRACTICAL - 6

Step Database Connectivity

- 41 → Step 1:- Import the (DBM) dbm library & run the open () for creating the database by specifying the name of the database along with the corresponding flag.
- Step 2:- Use the object so created for displaying the given website & corresponding regular name for the website.
- Step 3:- Check whether the given address matches with the regular name of the page is not equal to none then display the message that particular found/not or else not found/ unmatched.
- Step 4:- Use the close () library to terminate database

Code:-

```
>>> import dbm  
>>> db = dbm.open ("database", flags='c', mode = 438 )  
>>> db ["name"] = "name"  
>>> if db ["name"] != None:  
    print ("database not empty ||match!")  
else:  
    print ("database empty!" || not match)  
>>> match  
>>> db.close ()
```



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#2
→

Source Code :-

import os, sqlite3

Conn = sqlite3 . connect ("employee.db")

Cur = Conn.cursor()

Cur.execute ("Create table da (Name char, Roll no int)

Cur.execute ("Insert into da values ('OM', 1803),
(Harry', 1206)")

Conn.commit()

Cur.execute ("select * from da")

print (Cur.fetchall())

Conn.close()

OUTPUT:-

[('OM', 1803), ('Harry', 1206)]

- #2 →
- Step 1:- Import Corresponding library to make database connection, as of `sqlite3`
 - Step 2:- Now Create the Connection object using `sqlite3` library & this the `connect()` for corresponding new database.
 - Step 3:- Now Create Cursor Object using the `cursor()` & from the Connection object created.
 - Step 4:- Now use the `execute()` for creating the table with the column name of respective datatype.
 - Step 5:- Use the `commit()` to complete the transaction using the Connection object.

Prashant



04

PROJECT



QuizGame

START >

Read The Rules And
Click Start Once You Are ready

This quiz contains 10 questions
You will get 20 seconds to solve a question
Once you select a radio button that will be a final choice
hence think before you select

QuizGame

Which of The Following is must to Execute a Python Code ?

TURBO C

Py Interpreter

Notepad

None



Shot on vivo Z1 Pro

```
Source_code
# The json module to work with json files
import json #Javascript Object Notation
import tkinter
from tkinter import *
import random

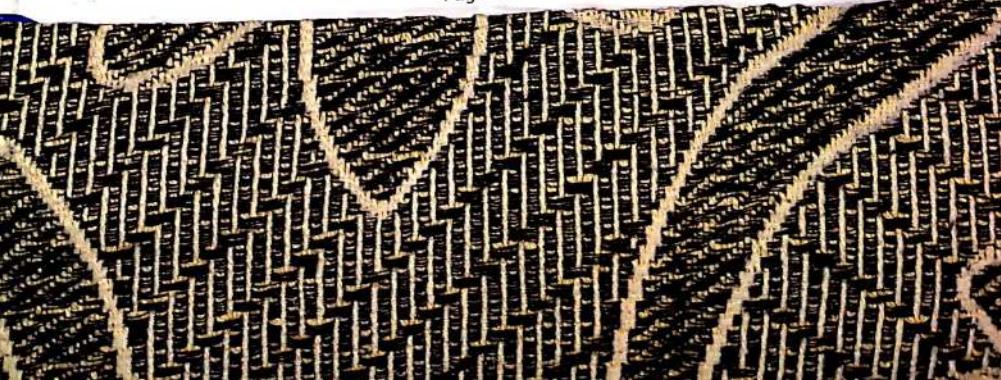
#JSON objects starts and ends with curly braces{}
#JSON array starts and ends with square brackets[]
#In JSON each obejct is seperated by comma(,)

# questions = [
#     "How many Keywords are there in C Programming language ?",
#     "which of the following functions takes A console Input in Python ?",
#     "Which of the following is the capital of India ?",
#     "Which of The Following is must to Execute a Python Code ?",
#     "The Taj Mahal is located in ?",
#     "The append Method adds value to the list at the ?",
#     "Which of the following is not a costal city of india ?",
#     "Which of The following is executed in browser(client side) ?",
#     "Which of the following keyword is used to create a function in Python ?",
#     "To Declare a Global variable in python we use the keyword ?",
# ]
#
# answers_choice = [
#     ["23", "32", "33", "43"], 
#     ["get()", "input()", "gets()", "scanf()"], 
#     ["Mumbai", "Delhi", "Chennai", "Lucknow"], 
#     ["TURBO C", "Py Interpreter", "Notepad", "IDE"], 
#     ["Patna", "Delhi", "Benaras", "Agra"], 
#     ["custom location", "end", "center", "beginning"], 
#     ["Bengluru", "Kochin", "Mumbai", "vishakhapatnam"], 
#     ["perl", "css", "python", "java"], 
#     ["function", "void", "fun", "def"], 
#     ["all", "var", "let", "global"],
# ]
#
# load questions and answer choices from json file instead of the file
# with open('./data.json', encoding='utf8') as f: # We are using encoding as utf8
# Bcoz the data contains Non-ASCII characters
#     data = json.load(f) # Load JSON data from file (or file-like object)
# #json.loads(s): This is used to load JSON data from a string
# #json.dump(j): This is used to write JSON object to file
# #json.dumps(j): Output JSON object as string
#
# convert the dictionary in lists of questions and answers_choice
questions = [v for v in data[0].values()]
answers_choice = [v for v in data[1].values()]
answers = [1,1,1,1,3,1,0,1,3,3] #This is the answer key list
user_answer = []

indexes = []      #Empty list
def gen():
    #Generating a random list and the random num. created must be
    #from the given number of Questions
    global indexes #It means that whatever changes u will do in this funx
    indexes = []
    while(len(indexes) < 5): #Bcoz of the condition it will only show 5Q. at a
        time
            x = random.randint(0,9) #Bcoz of this no Question will repeat more than
        once's
            if x in indexes:
                continue
            else:
                indexes.append(x)

def showresult(score):
    lblQuestion.destroy()
    score_label.config(text="Score: "+str(score))

#-----Page 1-----
```



Source_code

```
r1.destroy()
r2.destroy()
r3.destroy()
r4.destroy()
labelimage = Label(
    root,
    background = "#fffff",
    border = 0,
)
labelimage.pack(pady=(50,30))
labelresulttext = Label(
    root,
    font = ("Consolas",20),
    background = "#fffff",
)
labelresulttext.pack()
if score >= 20:
    img = PhotoImage(file="great.png")
    labelimage.configure(image=img)
    labelimage.image = img # It wasn't displaying the image
    labelresulttext.configure(text="You Are Excellent !!")
elif (score >= 10 and score < 20):
    img = PhotoImage(file="ok.png")
    labelimage.configure(image=img)
    labelimage.image = img
    labelresulttext.configure(text="You Can Be Better !!",fg="violet")
else:
    img = PhotoImage(file="bad.png")
    labelimage.configure(image=img)
    labelimage.image = img
    labelresulttext.configure(text="You Should Work Hard !!",fg="red")

def calc():
    global indexes,user_answer,answers
    x = 0
    score = 0 # We used score in only two funx's namely calc and showresult
    for i in indexes:
        if user_answer[x] == answers[i]: # This will check if the user's 1st
            answer if correct or not
            score = score + 5 # If the answer is correct add plus 5
        x += 1
    print(score)
    showresult(score)

ques = 1 # By default question is done
def selected():
    global radiovar,user_answer #The basic meaning of global is that if we are
    changing the value at one place then it should be changed at other places too
    global lblQuestion,r1,r2,r3,r4 # Multiple funx are using it and changing its
    values
    global ques
    x = radiovar.get() # Here x is a local var
    user_answer.append(x)
    radiovar.set(-1) # Bcoz of this no options will pre-selected
    if ques < 5:
        lblQuestion.config(text= questions[indexes[ques]]) # Bcoz of this after
        once's clicking the radio-button the question will be changed
        r1['text'] = answers_choice[indexes[ques]][0] # Answer choice will
        show which question is choosed and
        r2['text'] = answers_choice[indexes[ques]][1] # accordingly it will
        display the options
        r3['text'] = answers_choice[indexes[ques]][2]
        r4['text'] = answers_choice[indexes[ques]][3]
        ques += 1
    else:
        # print(indexes)
        # print(user_answer)
        # these two lines were just development code
Page 2
```

51

Which of the following keyword
is used to create a function in
Python ?

- function
- void
- fun
- def

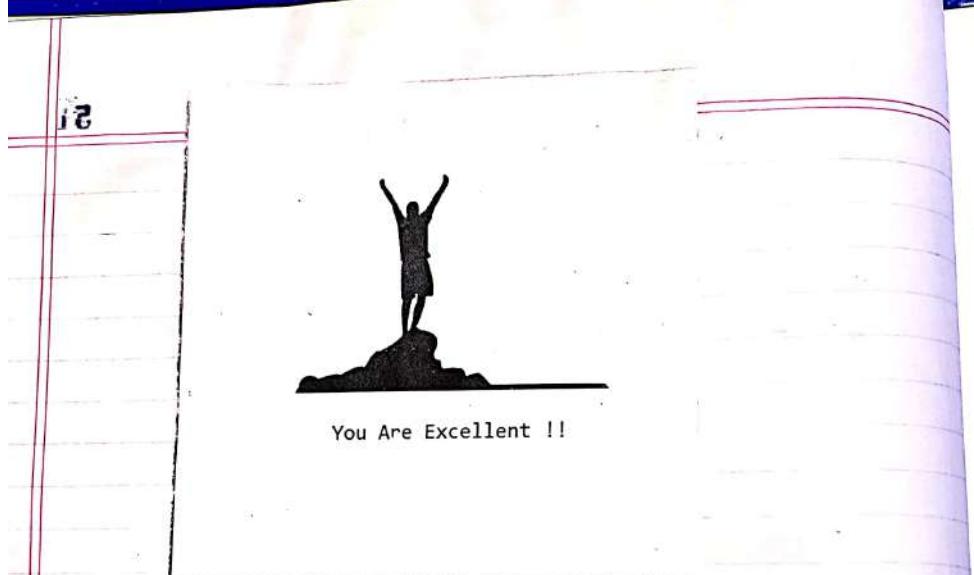


You Can Be Better !!

```
QuizGame.py
QuizGame
C:\Users\admin\PycharmProjects\Mycode\venv\Scripts\python.exe D:/FVCS_1983/Hemant Project/Quiz/QuizGame.py
28
Process finished with exit code 0
```



Shot on vivo Z1 Pro
VivoAI camera



```
QuizGame
C:\Users\admin\PycharmProjects\Mycode\venv\Scripts\python.exe D:\FYCS_1883\Hemanth_Project\Quiz\QuizGame.py
10

Process finished with exit code 0
```



Source_code

```
# we don't need them
calc()

def startquiz():
    global lblquestion,r1,r2,r3,r4
    lblquestion = Label(
        root,
        text = questions[indexes[0]],
        font = ("Consolas", 16),
        width = 500, #The text will be of width 500 in the center
        justify = "center",
        wraplength = 400, #If the letter width is more than 400 then it will be
        displayed on the next line
        background = "#ffffff",
    )
    lblquestion.pack(pady=(100,30))

    global radiovar # Bcoz radio variable is in startquiz funx but we need it
    in the selected funx so we made it a gloabl variable
    radiovar = IntVar()
    radiovar.set(-1) # Bcoz of this no button 'll be by default checked

    r1 = Radiobutton(
        root,
        text = answers_choice[indexes[0]][0],
        font = ("Times", 12),
        value = 0,
        variable = radiovar,
        command = selected,
        background = "#ffffff",
        foreground="red",
    )
    r1.pack(pady=5)

    r2 = Radiobutton(
        root,
        text = answers_choice[indexes[0]][1],
        font = ("Times", 12),
        value = 1,
        variable = radiovar,
        command = selected,
        background = "#ffffff",
        fg="blue",
    )
    r2.pack(pady=5)

    r3 = Radiobutton(
        root,
        text = answers_choice[indexes[0]][2],
        font = ("Times", 12),
        value = 2,
        variable = radiovar,
        command = selected,
        background = "#ffffff",
        fg="green"
    )
    r3.pack(pady=5)

    r4 = Radiobutton(
        root,
        text = answers_choice[indexes[0]][3],
        font = ("Times", 12),
        value = 3,
        variable = radiovar,
        command = selected,
        background = "#ffffff",
        fg="orange"
    )
    r4.pack(pady=5)
```

Page 3



Source_code

```
r4.pack(pady=5)

def startIspressed():
    labelimage.destroy()      #Once we clicked start button all the components in
    the main window 'll br destroyed and calling the gen() funx
    labeltext.destroy()
    lblInstruction.destroy()
    lblRules.destroy()
    btnstart.destroy()
    gen()                      #so that llist is generated
    startquiz()                #Calling the function

root = tkinter.Tk()
root.title("quizgame")
root.geometry("700x600")
root.config(background="#fffff") #white color
root.resizable(0,0) #Bcoz of this now the final window is not resizable

img1 = PhotoImage(file="transparentGradhat.png")

labelimage = Label(
    root,
    image = img1,
    background = "#fffff",
)
labelimage.pack(pady=(40,0))

labeltext = Label(
    root,
    text = "QuizGame",
    font = ("Comic sans MS",24,"bold"),
    background = "#fffff",
)
labeltext.pack(pady=(0,50))

img2 = PhotoImage(file="Frame.png")

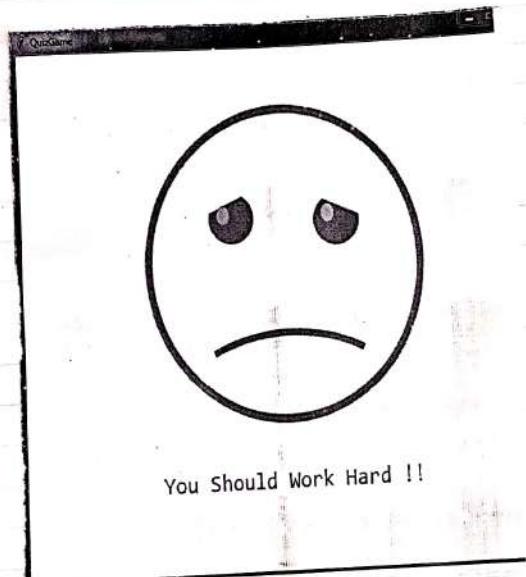
btnStart = Button(
    root,
    image = img2,
    relief = FLAT,
    border = 0,
    command = startIspressed,
)
btnStart.pack()

lblInstruction = Label(
    root,
    text = "Read The Rules And\nClick Start Once You Are ready",
    background = "#fffff",
    font = ("consolas",14),
    justify = "center",
)
lblInstruction.pack(pady=(10,100))

lblRules = Label(
    root,
    text = "This quiz contains 10 questions\nYou will get 20 seconds to solve a
question\nonce you select a radio button that will be a final choice\nhence think
before you select",
    width = 100,
    font = ("Times",14),
    background = "#000000", #black color
    foreground = "#FACAF", #yellow color
)
lblRules.pack()

root.mainloop()
```





```
QuizGame
C:\Users\admin\PycharmProjects\Vtcode\venv\Scripts\python.exe D:/FYCS_1803/Hemant_Project/Quiz/QuizGame.py
5
Process finished with exit code 0
```

A screenshot of a terminal window. The title bar says 'QuizGame'. The main area shows the command 'C:\Users\admin\PycharmProjects\Vtcode\venv\Scripts\python.exe D:/FYCS_1803/Hemant_Project/Quiz/QuizGame.py' followed by the number '5'. At the bottom, it says 'Process finished with exit code 0'. There are icons for file operations (copy, paste, delete) at the bottom of the terminal window.