

SI No.	Name of the Experiment	Page No.	Date of Experiment	Date of Submission	Remarks
File			•		7
01.	Write a program to	01		THE WAY	
	demonstrate basic				
	data type in python.		101		
		1	10		
02.	Write a beingram to	202			
	Compute distance between	to			
	two points taking input	03			
	Penny the Usey.	-		124 4 4	
3.	ONIC				
03.	Write a pythan pungeron	04			
	Using loutoop, Webt &	10			
	pergeran that paints	05			
	Did the derival equivalent				
	1+1/2+1/3 ~~ /n				
(1)	17				
04.	as Write a program	06			
V	to find fless o prime	to			
	numbers.	70			
Sking	b) Write a program to	08			
	bl Write a program to de Nonstrate list & tuble in bython	15			
	tuble in bython				
Alle L					



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	a) A program using a fouloop	09to			
05.	that loop over à Sequence	10		A. THE	
	b) A program using a while	11	101		
	loop that asks the wer lova	10	2		
	b) A program using a while loop that asks the user lova the number & prints a countdown from the number to D.	12	7	0.1.23	de Caron
060	A bython blingram to	13		17/2	The District
	A bython pluggam to nulliply matrices.	4014	上		Des Properties
	O'				AMAGAR CAS
67.	Write a program fore	15 to			国际创业公司
	lineau Seauch.	16			
I I				Part of the	
		FIEL	10		Editation (
		E	元子,在 14	经过度	
(ter H			
		114		A SECTION	
(3)					
		31111113		1000	
OF IN				Danie	
Mar at					
				A DISTRIB	

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Expt. No\	Page No	or
· ·		11/19
Airy: Weite a benneram to demons	strate b	sic data
Ain: Weite a pergram to demons		
Program:~	1	
	1	
925	<u> </u>	
print la, "is of type" type	(a))	· · · · · · · · · · · · · · · · · · ·
print (a, "is of type", type (211	
a = 1 + 2;	<u>a))</u>	
print (a, "is complex number?"	isinstan	(e \$1
(1+21, complex)		
Output:		
5 is of type < class	ss. int's	
2.0 is of type < cl	ass' float	5
(1+2j) is complex	honbox ?	12100.
	,	
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Expt. No	Page No
	Call a
Airi- Write a	pengeram to compute distance between taking input from the User Prythagorican theorem
two points	taking input lawy the User Pytha govern
	9-theoriem
Description:~	
The p	ythagoriean then yen is the basis for
Computing dista	nce between two points. Let (x, y,) &
	De the co-audinates of the points
on xy-plo	me. From bythagonaus theorem, the
the formula	between two points is calculated using
The londing	
d = 10	Dx12 + (Dy12
- VI	x2-x1)2 + (42-41)2
	12 11
	the distance we need to use the method
Sgrt U.	This Method is not occessible disactly
So We nee	d to imposet moth module & then
	to call this nethod using noth static
Object.	
	To find the power of a number, we use ** operator.
need to	Use * * Operator.
	٠.
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Expt	2. No. 2 Page No. 03
	Algorithm:~
	Inbut' x, y x, & x,
	Dutput: Distance between two points.
	· ·
	5kb-1 - Stout
	5teb-2 Imposet nath Module
	Steb-3 Read the Values of x1, y, 1x, &y.
	Step-4 Calculate the distance using the founda
	Math. syrt (x2-x1) 2 + (y2-y1) 2 & Storic
	the yesult in distance.
	Step 5 - Paint distance.
	Step-6- Stop:
	For example:
	Colon M. Malus to To
	Enter X, Value: 5 Enter Y, Value: 18
	Entere 12 Value: 7
	Enter y value: 9
n	Distance between two point is: 92195
	>>>
	Tanahan'a Sidantana i
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Expt. No. 3 Page No. 04
Ain: Using for loop, write a program that prints out the decinal equivalent of 1+ 1 - 10.
Description:~
A loop statement allows us to concate
excute a Statement of a Seroup of a Statement
Multiple times. We can use for loop to calculat
the decinal equivalents of given set of number
for 100p Statement.
It has the ability to iterate over
the items of any sequence, such as a list
Ose a Steering Herenating Overe a Sequence is called France Teraversal. The general france of
loop stakenent is as follows:
Pose iterating-Vario Sequence:
Statements (5):~
To find the decimal equivalents, we
need to use the nethod power. This nethod
is not accessible dispelly so we need
to imposet noth module & then we need to call this method using
need to call this Method Using
The state of the s
Teacher's Signature :

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Expt. No'3'	Page No. 05
	Alla
Algorithm:~	
Output: Decimal equivalent	lo f
1+1+1+1+1+	1 + 1 + 1 + 1 + 1 + 1
1+1+1+1+	6 7 8 9 10
Step 1: Start	
Step 2 : Impact night mode	le
Steb 3 = Initialize i= 2	/
Step 4: Repeat 5teps 5, 1	o, unit iall
Step 5: Print Math powll	,-1)
Step 6: Increment i by 1.	
Stp 7: 5top.	
Fou example:	
1/2 = 0.5	
1/3 = 0.33	
1/4 = 0.25	
115 = 0.20	
1/6 = 0.16	
1/7 = 0.14	
1/8 = 0.125	
1/9 = 0:11	
1/10 = 0.1	
Adding this all values is	¿· 2.915.
>>>	(to extend
Teacher's S	Signature:

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Expt. No. 4(a)	Page No06	
Ain: Write a Python P	exparam to Find First	
n prime number.		
Algoritm:~		
V		
1. Read the value of	0	
2. for num in stange!	0, n+1), penform the following	
3. If numil is 15 D	then bueak	
close print the value of num		
	· · · · · · · · · · · · · · · · · · ·	
4. Repeat Step 3 for	er i in Hange (2 num)	
Programin		
Program:	ve - the upper limit: "))	
	number are")	
for num in se		
	numbers are greater than!	
: 1 < mun Ji	U	
fox in r	lo 1: == 0	
if (nun'	1001==0	
	eal	
else'.		
	print (num).	
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Expt. No. 4'3'	Page No
Sample Output:~ \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
13	
1q.	
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Expt. No. 4 161 Page No. 08
Ain: A program to de monstrate list & tuble in Python. Algorithm: # Python program to cueate a list of tubles # From given list baving number &
its Cube in Each tuble.
the Creating list list 1 = [1, 2, 5, 6]
Using list comprehensions to itemate each values in list & careate a tuble as specified res: [(val, pow(val, 3)) for val in list!]
print the result print (res).
author :
(1,1), (2,8), (5,125), (6,016)].
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	Date
Expt. No. 5 1 a'	Page No
Ain: Write a bengerary using las	y loop that loops over a
Ain: Write a program using los Sequences.	
,	
Description: A sequence is-	the generic form for an
Ordered Sel. There are Se	everal types at Sequences
in python. The following	2 de Most impossanto
lists: There are the yest yes	satile sequence type.
Lists: There are the most vere The elements of a list	can be any object & lists
aue Mutable.	
Tuples: There are like lister	5, But Tuples are innutable.
Strings's There are a She	cial tube of Sequence
Strings: There are a spe that can store only	Charackers & having
Special notations.	Q
7.8	
Algorithm:	
Out put:~	
Elements	Of Sequence (list)
Step 1 2 Stoot	D:1 - 1 1 10 - 1 10 05
Step 2 = Initalize the	list named a as ["Ran=19.85]
Skb 3 = Repeat 3k	n the list is Heached.
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Expt. No. 5'8"	Page No
Step 4 =	Printh ith element
5kb 5:	Printh ith element Stop.
0.11	
Outfut's	
>>>	
Ran	
19	5.75
	>77
1, 1,0	
TO Y	
7/3	
N	
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Exp	t. No. 5'b' Page No. 11
	Ain: Write a perogram using a while look that
	asks the User for a number, & prints
	a Countdown; from that number to zero.
	a constant. The transfer of
	Description:~
	A loop Statement allows us to excute
	a statement on group of Statements
	Multiple times, House we are using While
	loops.
	It subjectedly executes a larget statement as
	long as the given condition is true. The
	14 supertedly executes a larget statement as long as the given condition is true. The general from while statement is
	as follows:
	While experessions:
	Statement (5);
	V.X.
	House the State Ment 13) May be a single a statement
	of a block of Blakeyent. The condition may be any expension & is true for any
0	be any expension & 15 laure you any
	non- your value. The loop Henates white
	the Conditions is true. When the
	conditions becomes false, program
	Control passes to the line inneadable
	following the loop.
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	Date	
Expt. No. 5'b'	Page No	
Algorithm:~		
, Garante		
Input: A number		
Dutbutin Print H	e values from given number	
to zero.		
0	12	
Step 1 = Start		
Step 2 = Read nu	У	
Step 3 = Repeat	sleps 485 While num >=0	
Steb 4 = Display	NOW	
Step 5 = Decreement numby 1.		
Step 6 = Stop		
The state of the s		
- Fou example:		
Enter a numb	η · Γ	
C11 (60° d 11019)		
6		
5		
Ч		
3		
2		
0		
>>>	N. Comments of the second of t	
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Expt. No. 6	Page No					
Δ.						
Alm:						
	To write a python perogeram to multiply moduces					
Algorithe	7;~					
	1. Define two Matrices X &Y.					
20 Careate a presultant madrix named ! presult!						
	3. fair in range (len(x)):					
i foer jin ronge (len (YCOI)):						
	a) for thin some range (len (Y))					
	b) result CiJC() += X CiJCKJ * Y CKJCj)					
13	4. Par er in sesult, point the value of r.					
Progr	an, '~					
0	X = L[1, 2, 7, 3]],					
	[4,5,6]					
-	[7, 8, 9]					
	Y = [[5,8,12]]					
	[6,7,3,0]					
[4, 5, 9, 1)]						
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Expt. No. 6	Page No. 14
result = $C(0,0,0,0]$, C(0,0,0,0) C(0,0,0,0). for in stange (len(x)): C(0,0,0,0)	
fox Kin songe (kn (Y):	
result[i][j] + = X[i][K] * Y	[k]Cj].
print (r).	
Sample output:	
[114, 160, BD, 27] [74, 97, 73, 14]	
[119, 157, 112, 23]	
X	
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Expt. No. 07 Page No. 15			
	-		
Ain: Weite a perogram for lineau Beauch.	0.0		
Al gorithm:			
1. Read of elements into the list.			
2. Read the element to be seauched			
3. If alist [bos] == item, then print the position			
of the item.			
4. else increment the position & elepeat 5tep 3			
until pos seaches the length of the l	ist.		
Program.			
items = [5,7, 10,12, 15]			
brint ("lists of items is", items)			
print ("lists of items is", items) x = int linguat ("enter item to Search")			
i=flag=D			
While is len literys):			
if ikys [1] == x:			
flag = 1 break			
Teacher's Signature:			

Expt. No. 07 Page No. 16 i = i + 1 if flag == 1 print l''ikey found at position:", i + 1) clse: print l''itens not found" Sample Outhut: \$\frac{1}{2}\$ they sis: (57, 10, 12, 15) enter iken to Seasch: 7 (ikey found at position; 2).		Date
if flag == 1 print ("iky found at position:", i+1) else: print ("iky found at position:", i+1) Sample Output: \$\psi \psi \psi \psi \psi \psi \psi \psi	Expt. No07	Page No
	i= i+1 if flag == 1 print l"item for else: print l"items Sample Outfut: \$\frac{\p}{\p}\p \p \	not found" not found" tens is: [5,7, 10,12,15] ikn to search: 7 nd at position; 2).
Teacher's Signature:		Teacher's Signature :