

Sn	List of Python Program	Page No	Date	Remark	Sign
1.	A school maintains the records of its students using a Python dictionary. The Roll Number is used as the key, and the corresponding value is another dictionary containing the student's Name, Class, and Marks. For example: <pre>students = { 101: {"Name": "Amit", "Class": "12A", "Marks": 88}, 102: {"Name": "Priya", "Class": "12A", "Marks": 91}, 103: {"Name": "Rahul", "Class": "12B", "Marks": 76} }</pre> Write Python code to create and add above items to dictionary students. Ask the user to input key value pairs. Continue as long as the user wishes. Also perform the following operations using appropriate dictionary methods: 1. Display the complete details of a student by entering the Roll Number. 2. Update the marks of an existing student using the update() method. 3. Add a new field "Phone" for a student only if it does not already exist using the.setdefault() method. 4. Display all Roll Numbers, student details, and key-value pairs using suitable dictionary methods. 5. Remove the record of a student whose Roll Number is entered by the user using the pop() method. 6. Create a copy of the dictionary and then remove all records from the copied dictionary using appropriate dictionary methods.				
2.	A school stores the official email ID of a student as a string. The Computer Science teacher wants to perform various string operations to verify and analyze the email ID. <pre>email = "Prabhat.Singh2026@school.edu"</pre>				

	Questions Write a Python program to perform the following tasks: 1. Display the original email ID. 2. Display the total number of characters in the email ID. 3. Convert the email ID into uppercase and lowercase. 4. Check whether the email ID ends with ".edu". 5. Count the number of times the character 'a' appears in the email ID. 6. Find the position (index) of the '@' symbol. 7. Extract and display the username (before @) and the domain name (after @) using string slicing. 8. Replace the word "school" with "cbse" and display the updated email ID. 9. Check whether the word "Singh" is present in the email ID. 10. Display the email ID in reverse order using string slicing.				
3.	A weather department records the average temperatures (in °C) of a city for seven consecutive days. Since the recorded temperatures should not be modified, they are stored in a tuple. temperature = (34, 36, 35, 37, 33, 36, 35) Questions Write a Python program to perform the following tasks: 1. Display all the temperature values stored in the tuple. 2. Display the total number of temperature readings. 3. Display the highest and the lowest temperature recorded. 4. Calculate and display the average temperature. 5. Count how many times the temperature 36°C was recorded. 6. Display the index (position) of the first occurrence of 37°C. 7. Check whether the temperature 32°C is present				

	in the tuple or not. - Display the first three temperature readings using tuple slicing. - Display the last two temperature readings using negative indexing. - Create a new tuple by adding the temperature 38°C at the end and display the updated tuple.				
4.	Write a python program that performs the following: Ask a user to enter a number. If the number is between 5 and 15, write the word GREEN. If the number is between 15 and 25, write the word BLUE. if the number is between 25 and 35, write the word ORANGE. If it is any other number, write that ALL COLOURS ARE BEAUTIFUL.				
5.	A school stores the marks of students in a Python list. The Computer Science teacher wants to perform different operations on the list to analyze and update the marks. marks = [78, 85, 92, 67, 88, 74, 90] Questions - Display the total number of students whose marks are stored in the list. - Display the highest and the lowest marks obtained. - Calculate and display the average marks of all students. - Add the marks 95 to the end of the list. - Insert the marks 80 at the third position in the list. - Remove the marks 67 from the list. - Display the marks in ascending order. - Display the marks in descending order. - Count how many students have scored 90 marks. - Write Python code to find whether the given item is present in the given list using for loop. Write a Python program to perform the above tasks using appropriate list methods and functions.				

6.	ABC School has allotted unique token IDs from (1 to 600) to all the parents for facilitating a lucky draw on the day of their Annual day function. The winner would receive a special prize. Write a program using Python that helps to automate the task. (Hint: use random module)				
7.	Write a program that uses a user defined function that accepts name and gender (as M for Male, F for Female) and prefixes Mr/Ms on the basis of the gender.				
8.	Input a string having some digits. Write a function to return the sum of digits present in this string.				
9.	Write a program to read a list of elements. Modify this list so that it does not contain any duplicate elements, i.e., all elements occurring multiple times in the list should appear only once.				
10.	Write a program to input your friends' names and their Phone Numbers and store them in the dictionary as the key-value pair. Perform the following operations on the dictionary: a) Display the name and phone number of all your friends b) Add a new key-value pair in this dictionary and display the modified dictionary c) Delete a particular friend from the dictionary d) Modify the phone number of an existing friend e) Check if a friend is present in the dictionary or not f) Display the dictionary in sorted order of names				
11.	Write Python program and define a function ChangeGender() in Python, which reads the contents of a text file "BIOPIC.TXT" and displays the content of the file with every occurrence of the word 'he' replaced by 'she'. For example, if the content of the file "BIOPIC.TXT" is as follows : Last time he went to Agra, there was too much crowd, which he did not like. So this time he decided to visit some hill station. The function should read the file content and display the output as follows : Last time she went to Agra, there was too much crowd, which she did not like. So this time she decided to visit some hill station.				
12.	Write a python program and define function Show_words() to read the content of a text file 'NOTES.TXT' and display only such lines of				

	the file which have exactly 5 words in them. Example, if the file contains : 2 This is a sample file. The file contains many sentences. But needs only sentences which have only 5 words. Then the function should display the output as : This is a sample file. The file contains many sentences :				
13.	Write a program to accept string/sentences from the user till the user enters “END” to. Save the data in a text file and then display only those sentences which begin with an uppercase alphabet.				
14.	Write a program to read contents from the text file mydiary.txt and count number of lines with ending letter “r”.				
15.	Write a program to read contents from the text file diary.txt and count number of lines with Starting letter “T” or “M”				
16.	Write a program to read contents from the text file myfile.txt and find average word count.				
17.	Write a Python program to help Julie as She has created a dictionary containing names and marks as key value pairs of 6 students. Write a program, with separate user defined functions to perform the following operations: ● Push the keys (name of the student) of the dictionary into a stack, where the corresponding value (marks) is greater than 75. ● Pop and display the content of the stack. For example: If the sample content of the dictionary is as follows: R={"OM":76, "JAI":45, "BOB":89, "ALI":65, "ANU":90,"TOM":82}				
18	Write a Python program and define functions in Python for PushS(List) and for PopS(List) for performing Push and Pop operations with a stack of List containing integers.				
19.	Write the definition of a user-defined function PushNV (N) which accepts a list of strings in the parameter N and pushes all strings which have no vowels present in it, into a list named NoVowel. Write a program in Python to input 5 words and push them one by one into a list named All. The program should then use the function PushNV () to create a stack of words in the list Novowel so that it				

	stores only those words which do not have any vowel present in it, from the list All Thereafter, pop each word from the list NoVowel and display the popped word. When the stack is empty display the message "EmptyStack".				
20.	Write the definition of a user-defined function Push3_5(N) which accepts a list of integers in a parameter N and pushes all those integers which are divisible by 3 or divisible by 5 from the list N into a list named Only3_5. Write a program in Python to input 5 integers into a list named NUM. The program should then use the function Push3_5() to create the stack of the list of Only3_5. Thereafter pop each integer from the list only3_5 and display the popped value. When the list is empty, display the message "StackEmpty". For example If the integers input into the list NUM are [10, 6, 14, 18, 30] Then the stack Only3_5 should store [10, 6, 18, 30] And the output should be displayed as 30 18 10 StackEmpty				