

Assignemt-3

- Q1. Write a python program to declare a list with natural numbers and print each element.
- Q2. Write a python program to declare a list with natural numbers and print each element with index.
- Q3. Write a python program to declare a list with natural numbers and print the length of the list without using len() function.
- Q4. Write a python program to declare a list with natural numbers and print the sum of the list without using sum() function.
- Q5. Write a python program to declare a list with natural numbers and print the max number from the list with using max() function.
- Q6. Write a python program to declare a list with natural numbers and print the min number from the list with using min() function.
- Q7. Write a python program to declare a list with natural numbers and print in ascending and descending order with sort() list method.
- Q8. Write a python program to declare a list called family_members_name and family_members_age. print the family member name and their respective age.

e.g. name=['a','b','c','d']

age=[10,13,45,67]

output: a is 10 old

b is 13 old

- Q9. Write a python program to declare a list with natural numbers and ask user to enter any number and check either number is available or not. If it is available, then print the position of index of that number.
- Q10. Write a python program to declare list and inside list with pair of any two natural numbers and print each element.
- Q11. Write a python program to declare list and inside list with pair of any two natural numbers and print each element.

e.g. numbers=[[1,2] , [4,5], [6,7], [9,10]]

output: 1,2,4,5,6,7,9,10

e.g. numbers=[[1,2, [3,4]] , [4,5, [6,7]], [6,7], [9,10]]

output: 1,2,3,4,4,5,6,7,6,7,9,10

Q12. Write a program to declare a list with original name of your friend names and change the name to nick name for those are become bffs now.

Q13. Write a program to declare a empty list, ask user to enter any data element till given range and append the entered data into the empty list. Print the list.

Q14. Write a python program to declare a empty list called family_members_name and family_members_age. ask user to enter their names and age respectively and append data into the empty list. Print the family members name based age from older to younger.

Q15. Write a python program to following question 13. Change the name of member who is younger.

Q16. Write a program to declare a list random natural numbers, ask user to any other number and index position where user want to insert the entered number. Print the updated list.

Q17. Write a program to declare a list random natural numbers, ask user to any other number and check either that number is available or not. If it is not available, then insert it in a such a way that it will maintain sequence of order in the list.

Q18. Write a program to declare a list with the first 10 natural numbers and remove the element based user input.

Q19. Write a program to declare a list with the first 20 natural numbers and remove the all elements of odd number index.

Q20. Write a python program to create bank account application with following list,

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[ [1001, 'accoun1',5000], [1002, 'accoun2',5000], [1003, 'accoun3',5000],,,,,,]
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1001- account number:

Account1- account holder name

5000- Current Balance

Ask user to enter their bank account number, check either account is available or not, if it is available then give following option to user.

- 1). Check Current balance
- 2). Deposit Balance
- 3). Withdraw Option

Min balance required Rs.1000 and Withdraw amount should not be greater then current balance.

Q21. Write a program to manage employee data using tuples. Store each employee's name, ID, and department in a tuple and maintain a list of these tuples. Add new emp, remove emp, change emp name and search emp.

e.g. [(name, emp_id, department),(name, emp_id, department),(name, emp_id, department)]

Q22. Write a python program to allows the user to add, remove, and view items in a grocery list.

Q23. Write a python program to allows users to add tasks, mark them as completed, and view all tasks. Maintain two separate lists: one for pending tasks and one for completed tasks.

Q24. Write a program to HR manage employee basic details and give increment based on experience and modify list with updated salary

Predefined List is: [[id,empname,yearinexperience,current salary]]

[[1,'emp1',2,18000],[2,'emp2',1,12000],,,,,,,,,,,,,]

Experience	% Increment
1>	5%
2>	10 %
3>	15 %
4>	20 %

Q25. Write a program to ask to enter five student names, age and city, based on unique id of students available in tuple and ask basic details in list and display the students details.

- Define tuple with following id's, ('24BCA001','24BCA002','24BCA003')
- Declare one empty list to store name,age and city.
- in loop, iterate through students id
- Based on the id index, we will store basic details in same index on the list
- final list will be, [['ramesh',23,'Mumbai'],['suresh',20,'Delhi'],['jayesh',21,'Surat']]
- Output:
- Student ID, Student Name,Student Age, Student City should be print

Q26. Write a program to generate proper electricity bill based on previous reading and current reading and calculate total unit usages and count total bill amount

Predefined list is:

[[1001,'ramesh',[Feb-2024'',1200],[May-2025'',1200]],..]

Add total reading of unit usage for July-2024,

Month	Reading of Units	Usages of units
Feb	1200	
May	1550	350
July	2020	470

Q27. Write a python program to extract the data from nested list and give the following answers.

e.g. l= [['user1',8000, (12000,4000,'W') , (17000,5000,'W') , (15000,2000,'D')],
 ['user2',25000, (23000,3000,'D') , (18000,5000,'D') , (16000,2000,'D')],
]

Q27.1 How many users I have?

Q27.2 Print the current balance of each user

Q27.3 Print the last and first transaction details of each user

Q27.4 Add new transaction of any one user

Q27.5 Add new user in the list.

Q27.6 Print the report of transaction of each user just like a bank statement.

Q28. Write a python program to design data structure with list or tuple of your daily expenses of one week and give the following answers.

Q28.1 Print the numbers of expenses of day based. (count)

Q28.2 Print the average numbers of expenses of day based.

Q28.3 Print the highest and lowest expenses you spent on which things.

Q28.4 Print the highest and lowest expenses you spent on which day.

Q28.5 print the total expense of the week.

Q28.6 print the report of expenses of the week.