

Python_Assignment Questions

Conversions(Numbers and Datatype):

Classroom Questions

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| 1. Write a program to convert input/value into tuple,list,dict? |
| 2. Write a program to demonstrate quotes(single,double and triple)? |
| 3. Write to program to demonstrate eval function? |

Assignment Questions

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| 1. Write a program to accept decimal number from user and convert that into octal,binary and hexa decimal numbers?(using Built-in functions) |
| 2. Write a program to accept octal number from user and convert that into decimal,binary and hexa decimal numbers?(using Built-in functions) |
| 3. Write a program to accept binary number from user and convert that into octal,decimal and hexa decimal numbers?(using Built-in functions) |
| 4. Write a program to accept hexa decimal number from user and convert that into octal,binary and binary numbers?(using Built-in functions) |
| 5. Write a program to take SET input from user and and perform all SET operations. |

Operators:

Classroom Questions

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| 1. Write an example program using Arithmetic operators (+,-,*,/,//,%) ? |
| 2. Write an example program using Comparision operators (==,!=,>,<,>=,<=,<>) ? |
| 3. Write an example program using Assignment operators (=,+=-,-=,*=,/=,**=) ? |
| 4. Write an example program using Identity operators (is,is not) ? |
| 5. Write an example program using Menmbership operators (in,not in) ? |
| 6. Write an example prgoram using logical operators (and,or,not) ? |
| 7. Write a program to accet two octal numbers from user and perform bitwise operatons? |
| 8. Write a program to accept two strings from the user and perform membership operators? |

Assignment Questions

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| 1. Write a program to accet two decimal numbers from user and perform bitwise operatons? |
| 2. Write a program to accet two binary numbers from user and perform bitwise operatons? |
| 3. Write a program to accet two hexa decimal numbers from user and perform bitwise operatons? |
| 4. Wap to accept a decimal number abd perform set,reset,clear,toggle a bit postitions,here bit position must accept from user. |
| 5. Write a program to accept two dictionaries from the user and perform membership operators? |
| 6. Write a program to accept two float from the user and perform identity operators? |
| 7. Write a program to accept two strings from the user and perform identity operators? |
| 8. Write a program to accept two sets from the user and perform membership operators? |

Conditional Statements:

Classroom Questions

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| 1. Write a program to accept two numbers from user and display greatest number using if loop. |
| 2. Write a program to accept two numbers from user and display greatest and smallest number among them using elif. |
| 3. Write a program to check the data type of the input entered using elseif ladder? |
| 4. Write a program to find largest of 3 given numbers from user using nested if? |

Assignment Questions

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| 1. Write a program to perform arithmetic operations using Conditional statements?(take user input to perform operations..Ex:1 for sum,2 for sub,3 for mul,4 for div 5.exit....) |
| 2. Write a program to implement a Marks based grading system of students using elif ladder. |

Loops:

Classroom Questions

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| 1. Write a simple program with for loop using different forms of range() Eg: (range(3),range(1,10)) |
| 2. Write a program accept three numbers from user(initial value,final value,inc/dec value) and print the values in between that range?(using for loop) |
| 3. Write a program to accept string and substring from user and display substring present in that string or not? |
| 4. Write a program take a list or tuple or any datatype and travel into that datatype for searching particular value or string? |
| 5. Write a program take a list or tuple or any datatype and travel into that datatype for searching particular value or string? |
| 6. Write a program to check all prime numbers in range entered by user. If negative value entered,it should be ignored and prompted to enter positive number. Write using nested while loop |
| 7. Write a program to check prime numbers in given range by user input as tuple. Check whether length of tuple is 2 and start less than stop then run the program else run the program with default start &stop values. |

Assignment Questions

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| 1. Write a program to check whether user entered number is prime using for loop |
| 2. Write a program to accept start value and end value and print the prime numbers in that range using for loop |
| 3. Write a program to print whether user entered number is prime or not using while loop |
| 4. Write a program to accept start value and end value and print the prime numbers in that range using while loop |
| 5. Write a program to accept number from user continuously and check whether prime if its positive and ignore if negative. Prompt asking to enter positive number if a negative number is entered and exit at 0 |
| 6. Write a program to print 11,12,13,14,15,21,22,23,24,25....Take the user input for 4 values or declare the values directly in the program(for demonstrating Nested loops) |
| 7. Write a program to calculate sum of n list/tuple elements using while loop ,n entered by user |
| 8. Write a program to calculate sum of list/tuple elements entered from user using while loop and terminate when 0 entered. (use all positive numbers) |

Loop Control Statements:

Assignment Questions

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| 1. Write a program to demonstrate break?Ex:Take a list of 20 elements (user input) and ask user to enter range to break? |
| 2. Write a program to calculate sum of list/tuple elements taken from user. If entered value is positive calculate sum else if negative ignore and exit if 0 using while loop |
| 3. Write a program using pass in loop. |
| 4. Write a program to demonstrate continue?Ex:Take a list of 20 elements (user input) and ask user to enter element to skip and skip that element during display? |
| 5. Accept strings from the user and display length of string until user enters quit?(should contain break and continue) |
| 6. Write a program to find sum of integers continuously entered by user. Negative value entered is ignored. Exit the loop after count reached upto n numbers. N entered from user. |

Functions:

Classroom Questions

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| 1. Write a program to pass a list to function and append a value to list and print the list |
| 2. Write a program to pass a tuple to function and append a value to it by converting to list and finally convert to tuple to return. |
| 3. Write a program to pass a dictionary to a function and append a value to it and print the dictionary in both function and outside |
| 4. Write a program to pass a set to function and append a value to set and print the set in and out of function |
| 5. Write a program using functions to calculate sum of all arguments passed to the function and print result in function. |
| 6. Write a program to pass a list to a function by call by value type |
| 7. Write a program to take 2 lists and append the values to the list within the function and print the list within the function and after the function |

Assignment Questions

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| 1. Write a function to pass a list of numbers,in the function,it has to add the numbers and to print the sum.Print the list in main after function call and observe it ...perform call by value. |
| 2. Write a function to pass number(int and float)in the function and also a string.Print the number in the function and after the function call and observe it ...perform call by value. |
| 3. Write a function to pass a tuple,in the function,it has to add the numbers and to print the sum.Print the tuple in main after function call and observe it ...perform call by value. |
| 4. Write a function to pass a list of numbers,in the function,it has to multiply each number by 2.Print the list in main after function call and observe it ...perform call by reference. |
| 5. Write a function to pass number(int and float) and also a string.Print the list in main after function call and observe it ...perform call by reference. |
| 6. Write a function to pass a tuple in the function,it has to multiply each number by 2.Print the list in main after function call and observe it ...perform call by reference. |

Function Arguments :

Classroom Questions

1. Write a program to demonstrate Required Arguments For Ex: (def argument)Without passing the argument to the function and observe the output?
2. Write a program to using functions and Keyword arguments to calculate sum of arguments?
3. Write a program to using functions and Required arguments to calculate sum of arguments?
4. Write a program to pass list and tuple as arguments and print—using Keyword arguments?
5. Write a program to multiply function argument multiple times. Use default argument condition in function call.
6. Write a program to demonstrate variable length arguments?
7. Write a program to pass the default and keyword arguments to the function and display the result?
8. Write a program to pass different number of keyword arguments with different data types?

Assignment Questions

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| 1. Write a program to pass the tuple in to the function and add the elements and print the result – using variable length arguments? |
| 2. Write a program to pass two tuples and two dictionaries(one tuple,one dictionary and then one tuple and one dictionary) to the function and display the tuples and dictionaries ?--- observe the result |

Variables (Local & Global)

Classroom Questions

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| 1. Write a print to assign the value out of the function and pass into the function and then print the value in the function and out of the function? |
| 2. Write a print to assign the value out of the function and pass into the function use global then print the value in the function and out of the function? |
| 3. Write a print to assign the value out of the function and pass some numbers into the function and them.print the sum in the function and out of the function? |

Iterators:

Classroom Questions

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| 1. Write a program to accept list elements from the user and print the list elements using iter protocol(Iterators)? |
| 2. Write a program to take tuple and print the list elements using iter protocol(Iterators)? |
| 3. Write a program to take dictionary and print both keys and values using iterrators? |
| 4. Write a program to take a string and print all the substrings using iterators? |

Generators:

Classroom Questions

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| 1. Wap to pass a string to function and print its reverse value using generators |
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Assignment Questions

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| 1. Write a program to print series of user entered range numbers using generators? |
| 2. Write a program to sum of list elements(user input) using generators? |
| 3. Write a program to accept range from the user and print the fibnoicc series in between that range using generators? |

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| 4. Write a program to display user entered string using generators? |
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Data Types:

a)Numbers:

Assignment Questions

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| 1. Accept two complex numbers from the user or take two complex numbers using assignment and do all arithmetic operations and display the result? |
| 2. Write a program to take variables and perform arithmetic operations on that(just add,sub) and delete one variable using del keyword,do same operations observe the result(Just to demonstrate del keyword)(also take list,tuple and do the same)? |
| 3. Modf,round,squareroot byusing math module |
| 4. Wap to demonstrate builtin functions of list,tuple |

b)Strings:

Classroom Questions

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| 1. Write a program to take one string and apply slicing on that string to print the string or substring..(Ex: printing from 3 rd element to end of the string like that) ? |
| 2. Write a program to perform string operations(+,[],[:],%,in,not in..) |
| 3. Write a program to apply string attributes (Built in functions) and display the result ? |

Assignment Questions

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| 1. Wap to accept string and print reverse of its |
| 2. Wap to accept two strings viz str1,str2 and write a function to search str2 in str1 and return the index where str2 is found(dont use built in functions) and also implement for no.of occurrences |
| 3. Wap to accept a string in binary form and convert it to octal(dont use built in functions) |
| 4. Wap to accept a string and remove the duplicates |
| 5. Wap to accept a string and implement user defined string compare function |
| 6. Wap to accept a string and implement user defined max,min of string |

c)Lists,Tuple,Dictionaries:

Classroom Questions

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| 1. Write a program to add the elements in the empty list and delete particular element from the list and also replace the particular element and display the resultant list?(Take user input for list elements and delete element) |
| 2. Write a program to perform slicing operation on list(assignmnet/user input) --> try with all combinations(one arg,two args,three args,one and two,two and three)Ex:[1:], [1:4], [1:3:2], [1:9:1], [9:1:-1], [-2:-6:-1] |
| 3. Write a program to perform list operations (len,concatination(addition),multiplication(repetition),membership operator,iteration) on two lists(assignment/user input)? |
| 4. Write a program use list built in functions (Cmp,max,min,len,list)? |
| 5. Write a program use List methods (append,extend,insert,pop,sort...) ? |

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| 6. Write a program for randomly generated numbers and sort the numbers in an order then display the result in the list? |
| 7. Implement selection sort using lists? |
| 8. Write a program to accept the users inputs and display that tuple? |
| 9. Write a program to take one dictionary and display keys,values and items? |
| 10. Wap to prefix words in a list with '--' using mapfunction alone and using map,lambda functions together |
| 11. Wap to demonstrate list comprehensions |
| 12. Wap to demonstrate filter,reduce |
| 13. Wap to print the max value of a list using reduce |
| 14. Wap to demonstrate tuple unpacking |

Assignment Questions

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| 1. Wap to filter all even numbers in a range of 20 numbers using tuples. |
| 2. Wap to filter the strings containing special characters from all the strings.use filter with lambda. |
| 3. Wap to filter the strings with numerics from strings with alphanumerics and alphabets. Use filter with lambda |
| 4. Wap using map function to find sum of all list elements |
| 5. wap to generate a random string and filter uppercase and lower case letters |
| 6.Wap to perform binary search using recursive functions |

Command Line Arguments:

Classroom Questions

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| 1. Write a python pogram to accept numbers and accept operator from the user and perform that operation and display using comman line arguments? |
| 2. Write a python program to display fibnoicc series from 0 to N..., (N should take through command line arguments)? |
| 3. Write a python program append the elements to the list, Elements should take through command line arguments? |
| 4. Write a python program to accept numbers from user and display sum using command line arguments? |
| 5. Write a program to read the file and sum the numbers in the file and write the output into the file (Input and output file should be given by command line arguments)? |

Assignment Questions

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| 1. Write a program to run another py file as command line argument |
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Modules & Packages

Classroom Questions

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| 1. Write a python program to arrange same extension files into one folder using inbuilt module? |
| 2. Write a python program to print fibnoic series and series of numbers using packages? |
| 3. Write a python program to create some files with programs and display those files output by using packages? |

Assignment Questions

1. Creating sumofsquares of positive numbers(sumsquarenums) as follows:
 - Module positivenum.py to have functions of positivenums() and getpositivenums()
 - module sumpositivenums.py to contain functions namely sumnumsfunc() and getsumofsquarenumbers()
 - module squares.py to contain functions namely squarenumsfunc() and getsquarenumbers()
 - module __init__.py to contain all importing details
2. Write a program to perform stack (LIFO) operation on list ?
3. Write a program to perform queue (FIFO) operation on list ?

Exception Handling:

Classroom Questions

1. Write a program to perform exception handling ?
2. Write a program to print error type ?

Assignment Questions

1. WaP to take input from user and print it's factorial, Handle all possible error types ?

File I/O:

Classroom Questions

1. Write a python program to write data into the file?
2. Write a python program using r+ and w+ (try to write into not existing file) and observe the difference?
3. Write a python program to append the data into already existing file?
4. Write a python program to read data from one file and write the data into another file?
5. Write a python program to read the data line by line from the file and print on terminal(hint : use readline)?
6. Write a python program using w+ and a+ and observe the difference?
7. Wap to create a file with 2 lines : Python \n files concepts . Use readline() with and without arguments and check the file read operation.
8. Wap to create a file with 1 line : Python files concepts . Use readline() with and without arguments and check the file read operation.
9. Wap to perform invalid seek operations and check its return value
10. Wap to open a employee record file containing S.No,emp id,emp name. Display the particular employee details asked by the user using fseek. File should contain atleast 20 lines
11. Write a program to read the first ten characters and starting from 30 to 50 charcaters and print that on to the terminal?
12. Write a program to write 10 lines of data into the file and close after that try to add the data at the end of the file?
13. Wap to write text in file after current EOF position using seek Eg: seek(10,2)
14. Write a python program to check the current cursor position of the file and move cursor to some other position and check the cursor position in the file again?

Assignment Questions

1. Write a program to write 10 lines of data into the file and close after that try to add the data at the end of the file?
2. Write a program to read the first ten characters and starting from 30 to 50 characters and print that on to the terminal?

Socket Programming:

Classroom Questions

1. Write a program to establish the communication between one server and multiple clients and print one message like "Welcome"?
2. Write a program to copy a file from server to client
3. Write a program to accept the input from the client (Either numbers or strings) until user enters 0 and sum the inputs in the server and display output in client side?
4. Write a program that to read the input file from the server and display that in the client (use UDP protocol)

Assignment Questions

1. Write a program to print the length of the string (Client should send the input and process/calculation done by server and return output to the client)?
2. Write a program to find 1. factorial, 2. fibonacci series, 3. prime num. (First you need to send the operation to be performed to server from client then server will reply with the "enter input" then you need to send the input to server then server has to return the result to client and client should print the result)

OOPS:

Classroom Questions

1. Write a program to accept employee details from the user and display the results using class?
2. Write a program to create a BankAccount class, with deposit, withdraw and status functionality. Ask user to enter choice according to that display details?
3. Write a program to maintain school record using oops concepts (Ask user to enter details and display according to user's choice)?
4. Write a program to create a class 'car' which has attributes for basic features of any car, like registration number, Engine chassis number. Then, write two child classes 'bmw' and 'volvo', which inherit the basic car features from the class 'car'.

Assignment Questions

1. Write a program to accept employee details from the user and display the results using class?
2. Implement three functions in base and derived class try to call the functions and check the output?
3. Write a program to maintain school record using oops concepts (Ask user to enter details and display according to user's choice)?

Regular Expressions:

Classroom Questions

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| 1. Take a regular expression and search for a specific word in a string using Match and Search? |
| 2. Write a program to take a specific string and perform Group operations on that? |

Assignment Questions

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| 1. Write a program to match the pattern to the given string and display whether that pattern is present or not |
| 2. Write a program to search for the pattern using search and findall and display the output and list out the difference? |
| 3. Write a program to display all Email IDs present in the file (Take input as file and that file should contain multiple records with (name, Email id and phone number)?) |
| 4. Write a program to change the phone numbers in the file? |

Multi threading

Classroom Questions

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| 1. Write a program for displaying the time using threads and without using thread ? |
| 2. Write a program for thread lock and unlock using command line arguments? |
| 3. Write a program to demonstrate thread synchronization? |
| 4. Write a program for creating a new process using fork? |
| 5. Write a program for child process creation using fork and print the process id of both child and parent? |

Assignment Questions

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| 1. Write a program to print square of a number in parent and cube in child using fork? |
| 2. Write a program to perform arithmetic operations using threads & synchronization? |
| 3. Write a program to display for 5 mins with some delay using multithreading? |
| 4. Write a program to implement multithreading with two threads. First thread does incrementing and second thread does decrementing of a global value. Both the threads should be of same thread sub-class. print val in main after the threads are completed |
| 5. Write a program to implement multithreading with 2 threads, both the threads increment a global value. The incrementation count is entered through command line argument. |

Eg: if 100 entered, global value should be 200 since two threads used.

Try this program with and without thread locks

Class Programs: 101

Assignment Programs: 78

Total Programs: 179