

Q1. Create a python program to sort the given list of tuples based on integer value using a lambda function.

[('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]

Ans. Here's a Python program that sorts a list of tuples based on the integer value using a lambda function:

Given list of tuples

players_runs = [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]

Sorting the list based on the second element of each tuple (runs) using a lambda function

sorted_players = sorted(players_runs, key=lambda x: x[1])

Printing the sorted list

print(sorted_players)

Q2. Write a Python Program to find the squares of all the numbers in the given list of integers using lambda and map functions.

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

Ans. Here's a Python program that uses lambda and map functions to find the squares of all the numbers in the given list of integers:

Given list of integers

numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

Using lambda and map to find the squares of numbers

squares = list(map(lambda x: x2, numbers))**

Printing the list of squares

print(squares)

Q3. Write a python program to convert the given list of integers into a tuple of strings. Use map and lambda functions

Given String: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

Expected output: ('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')

Ans. Here's a Python program that uses `map` and a `lambda` function to convert a given list of integers into a tuple of strings:

Given list of integers

```
integer_list = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

Use map and lambda to convert each integer to string

```
string_tuple = tuple(map(lambda x: str(x), integer_list))
```

Print the result

```
print(string_tuple)
```

This program will output:

```
('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')
```

Q4. Write a python program using reduce function to compute the product of a list containing numbers from 1 to 25.

Ans. Here's a Python program that uses the `reduce` function to compute the product of a list containing numbers from 1 to 25:

```
from functools import reduce
```

Generate a list of numbers from 1 to 25

```
numbers = list(range(1, 26))
```

Use reduce to compute the product of the list

```
product = reduce(lambda x, y: x * y, numbers)
```

Printing the product

```
print("Product of numbers from 1 to 25:", product)
```

Q5. Write a python program to filter the numbers in a given list that are divisible by 2 and 3 using the filter function.

Ans. Here's a Python program that uses the `filter` function to filter numbers in a given list that are divisible by both 2 and 3:

```
# Given list of numbers
numbers = [2, 3, 6, 9, 27, 60, 90, 120, 55, 46]

# Use filter to get numbers divisible by 2 and 3
filtered_numbers = list(filter(lambda x: x % 2 == 0 and x % 3 == 0,
numbers))

# Printing the filtered numbers
print("Numbers divisible by 2 and 3:", filtered_numbers)
```

Q6. Write a python program to find palindromes in the given list of strings using lambda and filter function.
['python', 'php', 'aba', 'radar', 'level']

Ans. Here's a Python program that uses the `filter` function with a lambda function to find palindromes in the given list of strings:

```
# Given list of strings
words = ['python', 'php', 'aba', 'radar', 'level']

# Use filter and lambda to get palindromes
palindromes = list(filter(lambda x: x == x[::-1], words))

# Printing the palindromes
print("Palindromes in the list:", palindromes)
```