

assignment=4

July 22, 2023

1 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)]

```
[3]: #Create a python program to sort the given list of tuples based on integer
      ↪value using a lambda function.

l1 = [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis',
      ↪25534), ('Virat Kohli', 24936)]
l1.sort(key = lambda l1: l1[1])
print(l1)
```

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

2 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]

```
[4]: #a Python Program to find the squares of all the numbers in the given list of
      ↪integers using lambda and map functions.

l2 = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
print(list(map(lambda x: x**2, l2)))
```

[1, 4, 9, 16, 25, 36, 49, 64, 81, 100]

3 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')

```
[5]: #a python program to convert the given list of integers into a tuple of strings.
      ↪ Use map and lambda functions
13 = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
print(tuple(map(lambda x: str(x), 13)))
```

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

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

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[6]: #a python program using reduce function to compute the product of a list
      ↪ containing numbers from 1 to 25.
from functools import reduce
14=[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21,
      ↪22, 23, 24, 25]
print(reduce(lambda x, y: x*y, 14))
```

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

[2, 3, 6, 9, 27, 60, 90, 120, 55, 46]

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[7]: #a python program to filter the numbers in a given list that are divisible by 2
      ↪ and 3 using the filter function.
15 = [2, 3, 6, 9, 27, 60, 90, 120, 55, 46]
print(list(filter(lambda x: x%2==0 and x%3==0, 15)))
```

[6, 60, 90, 120]

6 Q6. Write a python program to find palindromes in the given list of strings using lambda and filter function.

['python', 'php', 'aba', 'radar', 'level']

```
[8]: #a python program to find palindromes in the given list of strings using lambda
      ↪ and filter function.
16 = ['python', 'php', 'aba', 'radar', 'level']
print(list(filter(lambda s: s==s[::-1], 16)))
```

['php', 'aba', 'radar', 'level']

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