

# 4t feb python fun assignment

August 10, 2023

4th Feb python function AAssignment

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

```
[5]: data = [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]

sort_data=sorted(data, key=lambda x:x[0])
for i in sort_data :
    print(i)
```

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

```
[ ]:
```

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]

```
[13]: l= [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
data = list(map(lambda l: l**2,l))
data
```

```
[13]: [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]
```

```
[ ]:
```

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

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

t_data=tuple(map(lambda x: str(x), numbers))

t_data
```

```
[16]: ('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')
```

```
[ ]:
```

```
[18]: from functools import reduce
def multiply(x, y):
    return x * y

# Create a list containing numbers from 1 to 25
numbers = list(range(1, 26))

# Use reduce to compute the product of the list
product = reduce(multiply, numbers)

# Display the product
print("Product:", product)
```

Product: 15511210043330985984000000

```
[ ]:
```

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]

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

# Function to check if a number is divisible by both 2 and 3
def divisible_by_2_and_3(num):
    return num % 2 == 0 and num % 3 == 0

# Use filter to get numbers divisible by both 2 and 3
filtered_numbers = list(filter(divisible_by_2_and_3, numbers))

# Display the filtered numbers
print(filtered_numbers)
```

[6, 60, 90, 120]

```
[ ]:
```

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

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

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

# Lambda function to check if a string is a palindrome
is_palindrome = lambda s: s == s[::-1]

# Use filter to get palindromes from the list of strings
palindromes = list(filter(is_palindrome, strings))

# Display the palindromes
print(palindromes)
```

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

```
[ ]:
```