

ASSIGNMENT-1

SK

PYTHON METHODS

① Reduce()

Reduce is a python function that applies a binary function to the items of an array/list and reduces them to a single cumulative result.

⑥X from functools import reduce

numbers = [1, 2, 3, 4, 5]

result = reduce(lambda x, y: x * y, numbers)

print(result).

② Map()

In python, map function is used to apply a function to all items in a iterable (like list) and

and returns an iterator that produces results. Two arguments: function to apply and iterable

```
numbers = [1, 2, 3, 4, 5]
```

```
squared = map(lambda x: x * x 2,  
               numbers);
```

```
print(list(squared)).
```

③ Filter

The filter function used to construct an iterator from elements of an iterable for which a function

returns true. Two arguments: function to apply and iterable.

```
numbers = [1, 2, 3, 4, 5]
```

```
even_numbers = filter(lambda x: x % 2 == 0,  
                      numbers)
```

```
print(list(even_numbers))
```

④ Zip

function used to combine items from 2 or more iterables to tuples. Returns an iterator of tuples where i th tuple contains i th element from each iterable

```
names = ['Alice', 'Bob', 'Charlie']
```

```
ages = [25, 30, 35]
```

```
zipped_data = zip(names, ages)
```

```
print(list(zipped_data))
```

⑤ ID

id() function is used to get the identity (memory address) of an object.

```
x = 42
```

```
print(id(x))
```

op: unique memory address