Exercise 9

May 16, 2022

1 Exercise 9 PBF

1.1 1

Buat program untuk menghitung deret bilangan prima dari 2 hingga N menggunakan HOF filter dan map.

Contoh **primes(100)**:

2 3 5 7 11 13 17 .... 83 89 97

[1]:
```
factor = lambda n: list(filter( lambda i: n % i == 0, range(1, n+1)))
primes = lambda n: list(filter( lambda i: len(factor(i)) == 2, range(1, n+1)))

print( *primes(100) )
```

```
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
```

1.2 2

```
employee = {
    'Nagao':35,
    'Ishii':30,
    'Kazutomo':20,
    'Saito':25,
    'Hidemi':29
}
```

Terdapat dictionary employee berisi nama dan umur pegawai, lakukan filter untuk mengetahui pegawai yang berumur > 25 tahun!

[2]:
```
employee = {
    'Nagao':35,
    'Ishii':30,
    'Kazutomo':20,
    'Saito':25,
    'Hidemi':29
}

print( employee.items() )
```

```
dict_items([('Nagao', 35), ('Ishii', 30), ('Kazutomo', 20), ('Saito', 25),
('Hidemi', 29)])
```

[3]:
```
print( *filter( lambda x: x[1] > 25, employee.items() ))
```

```
('Nagao', 35) ('Ishii', 30) ('Hidemi', 29)
```

[4]:
```
filter_by_age = lambda age, employee: list( filter(lambda x: x[1] > 25,␣
 ↪employee.items() ) )
print(*map( lambda x: x[0], filter_by_age(25, employee)))
```

```
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```