# assignment-2

June 22, 2023

[2]:
```
products = [
    {'name': 'Product 1', 'price': 10},
    {'name': 'Product 2', 'price': 20},
    {'name': 'Product 3', 'price': 30}
]
```

[ ]:
```
#create a tuple of dictionaries
customers = (
    {'name': 'Customer 1', 'age': 25},
    {'name': 'Customer 2', 'age': 30},
    {'name': 'Customer 3', 'age': 35}
)
```

[ ]:
```
#from collections  function with a key function that returns the count of each␣
 ↪productimport Counter

sales = ['Product 1', 'Product 2', 'Product 1', 'Product 3', 'Product 2']

product_count = Counter(sales)

most_popular_product = max(product_count, key=product_count.get)

print(most_popular_product)
```

[ ]:
```
#function with a key function that returns the count of each customer's␣
 ↪purchases
from collections import defaultdict

purchases = ['Customer 1', 'Customer 2', 'Customer 1', 'Customer 3']

customer_purchases = defaultdict(int)

for purchase in purchases:
    customer_purchases[purchase] += 1

most_purchases_customer = max(customer_purchases, key=customer_purchases.get)
```

```
print(most_purchases_customer)
```

[ ]:
```
#list comprehension to filter the customers by gender and then use the len()␣
 ↪function to get the count
customers = [
    {'name': 'Customer 1', 'gender': 'Male'},
    {'name': 'Customer 2', 'gender': 'Female'},
    {'name': 'Customer 3', 'gender': 'Male'}
]

female_customers = [c for c in customers if c['gender'] == 'Female']

num_female_customers = len(female_customers)

print(num_female_customers)
```