

# Practical Assignment 2

## Use Tuple for the following programs

### 1.Store and display student information (name,age,grade)

```
In [42]: student = ("John Doe", 20, "A")
print("Name:", student[0])
print("Age:", student[1])
print("Grade:", student[2])
```

### 2.List price of grocery items and total them

```
In [20]: grocery_items=(
    ("Milk", 2.50),
    ("Bread", 1.75),
    ("Egg", 3.00),
    ("Apples", 4.50),
    ("Chicken", 7.00)
)

print("Grocery Prices:")
total_cost = 0
for item, price in grocery_items:
    print(f"{item}: ${price:2f}")
    total_cost += price

print(f"Total cost: ${total_cost:.2f}")
```

```
Grocery Prices:
Milk:$2.500000
Bread:$1.750000
Egg:$3.000000
Apples:$4.500000
Chicken:$7.000000
Total cost:$18.75
```

### 3.Pair items with prices using tuples.

```
In [26]: items_prices = [  
    ("Laptop", 1200),  
    ("Mouse", 25),  
    ("Keyboard", 75),  
    ("Monitor", 300)  
  
    ]  
  
for item, price in items_prices:  
    print(f"{item}: ${price}")
```

Laptop: \$1200  
Mouse: \$25  
Keyboard: \$75  
Monitor: \$300

## 4.Store and display train schedule as tuples

("Rajdhani","10:00"), ("Shatabdi","12:30"),  
("Duronto","17:00")

```
In [29]: train_schedule = (("Rajdhani","10:00"), ("Shatabdi","12:30"), ("Duronto","17:00"))  
  
for train, time in train_schedule:  
    print(f"Train: {train}, Time: {time}")
```

Train: Rajdhani, Time: 10:00  
Train: Shatabdi, Time: 12:30  
Train: Duronto, Time: 17:00

## 5.Sort employee records by salary .

("John",40000),("Alice",55000),("Raj",30000)

```
In [31]: employee_records = [("John", 40000), ("Alice", 55000), ("Raj", 30000)]  
  
sorted_employees = sorted(employee_records, key=lambda x: x[1])  
  
print(sorted_employees)
```

[('Raj', 30000), ('John', 40000), ('Alice', 55000)]

## 6.Count how many students scored above 75 marks.

**marks = (67,88,92,74,76,55)**

```
In [32]: marks = (67,88,92,74,76,55)
count = 0
for mark in marks:
    if mark>75:
        count += 1

print(count)
```

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**7.Create a tuple of stock prices and find the max.**

**prices(154.5,160.2,149.8,170.1)**

```
In [33]: prices = (154.5,160.2,149.8,170.1)
max_price = max(prices)
print(f"The maximum stock price is: {max_price}")
```

The maximum stock price is: 170.1

**8.Log temperature readings during the day.Find the average temperature**

**temperatures = (29.5,30.0,32.3,31.5,28.9)**

```
In [34]: temperatures = (29.5,30.0,32.2,31.5,28.9)
average_temp = sum(temperatures) /len(temperatures)
print("Average Temperature:",average_temp)
```

Average Temperature: 30.419999999999998

**9.Schedule appointments(name,time)**

**appointments = ("Doctors","10:00AM"),  
("Meeting","2:00PM")**

```
In [36]: appointments = (("Doctor", "10:00 AM"), ("Meeting", "2:00 PM"))
for name, time in appointments:
    print(f"{name}: {time}")
```

Doctor: 10:00 AM  
Meeting: 2:00 PM

## 10.Store contact info(name,phone number).

```
contacts = ("Anil","9876543210"),  
("Priya","9123456780")
```

In [40]:

```
contacts = (("Anil","9876543210"), ("Priya","9123456780"))  
for name,number in contacts:  
    print(f"{name}: {number}")
```

```
Anil: 9876543210  
Priya: 9123456780
```

## 11.Display exam schedule with subject and time.

```
exams = ("Math","9:00 AM"),("Science","11:30 AM"),  
("English","2:00 PM")
```

In [41]:

```
exams = (("Maths","9:00 AM"),("Science","11:30 AM"),("English","2:00 PM"))  
for subject, time in exams:  
    print(f"{subject}: {time}")
```

```
Maths: 9:00 AM  
Science: 11:30 AM  
English: 2:00 PM
```

In [ ]: