ESSAY

1. Lists

Definition: A list is like a container where you can store multiple things. These things can be numbers, words, or even other lists.

Key points:

- You can **change** items in a list.
- The order matters—items stay in the order you put them in.

Example:

```
fruits = ['apple', 'banana', 'cherry']
print(fruits[1])  # Output: 'banana'
```

Here, `fruits` is a list, and you can see that 'banana' is the second item.

2. Dictionaries

Definition: A dictionary is like a real dictionary. You look up a word (called a **key**) and find its meaning (called a **value**). In Python, it's a collection of key-value pairs.

Key points:

- **Keys** must be unique, but **values** can be anything.
- You can **change** the values.

Example:

```
person = {'name': 'John', 'age': 25}
print(person['name'])  # Output: 'John'
```

In this example, `name` is the key, and `'John'` is the value.

3. Tuples

Definition: A tuple is like a list, but once you create it, you **can't change** it. It is fixed and ordered.

Key points:

- You **cannot** add or remove items after creating a tuple.
- The order of items stays the same.

Example:

```
coordinates = (10, 20)
print(coordinates[0])  # Output: 10
```

Here, `coordinates` is a tuple, and `10` is the first item.

Summary

- **List**: A flexible collection that you can change (add, remove, or modify items).
  - Example: `fruits = ['apple', 'banana']`
- **Dictionary**: A collection of key-value pairs, where you look up values using keys.
  - Example: `person = {'name': 'John', 'age': 25}`
- **Tuple**: A fixed collection where you can't change the items after creating it.
  - Example: `coordinates = (10, 20)`