Data Structures:-

Data structures are a way of storing and organizing data efficiently. This will allow you to easily access and perform operations on the data.

There are four types of data structures. They are:-

* List
* Tuple
* Dictionary
* set

| List | Tuple | Dictionary | set |
| --- | --- | --- | --- |
| List are used to store multiple items or values in a single variable | Tuples are also used to store multiple values in a single variable | Dictionary are used to store data values in  Key:-values pairs | Set is an unordered collection of items every element is unique |
| List can store different data types | Tuple can also store different data types | Dictionary can store different data types | Sets can store different data types |
| Lists are created using square brackets[ ] | Tuples are created using round brackets ( ) | Dictionary are written with curly brackets, and have keys and values:{} | Set are written with curly brackets { } |
| List items (or)values are ordered ,changeable, and allows duplicate values | Tuple values are ordered,and allow duplicate values | Order doesn’t matter ,keys should be unique, and does not allow duplicate values | Order doesn’t matter,duplicate values are not allowed |
| Indexing and slicing is possible in the list | Indexing and slicing is not possible | Indexing and slicing is not possible | Indexing and slicing is not possible |
| It is a mutable | It is immutable | It is mutable | It is immutable |
| ex:-[1,2,3,cherry,2.1] | ex:-(“mango”,2.1,1,”cat”) | ex:-{name:ramya,fruit:”mango} | ex:-seta={1,2,”cherry”} |