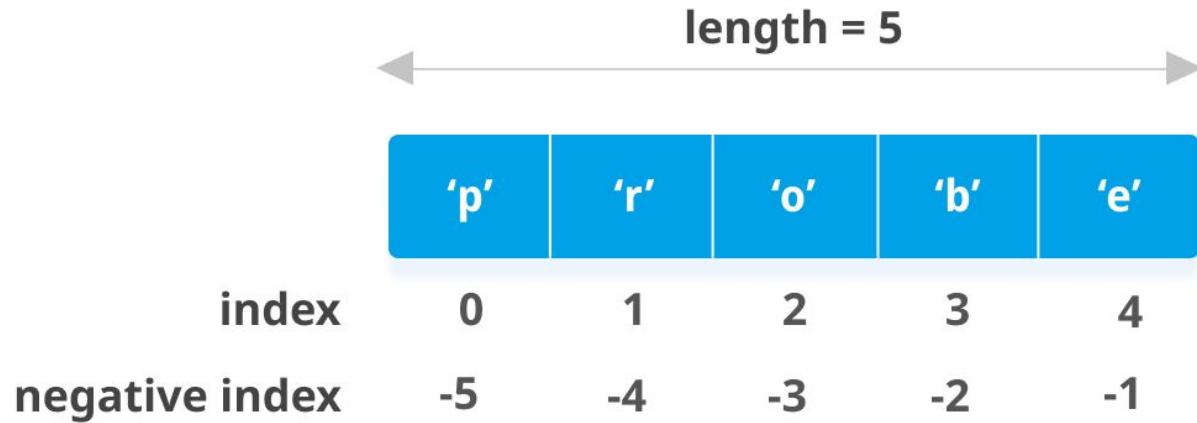




Day 5 : iterable Objects

Scalar Objects ထပ်မံခွဲထုတ်လို့ရ

- Strings
- Lists
- Tuples
- Dictionaries



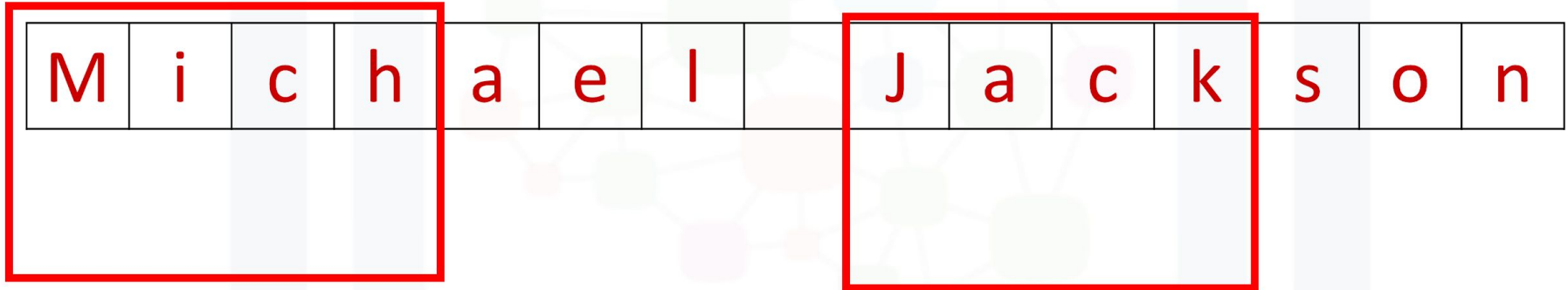
Name= "Michael Jackson"

M	i	c	h	a	e	l		J	a	c	k	s	o	n
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Name= "Michael Jackson"

M	i	c	h	a	e	l		J	a	c	k	s	o	n
-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1

Name= "Michael Jackson"



Name[0:4] = Mich

Name[8:12] = Jack

Name= "Michael Jackson"

M	i	c	h	a	e	l		J	a	c	k	s	o	n
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Name[::2]: "McalJcsn"

Lists

- Ordered sequences of informations
- usually homogeneous (but can also be mixed)
- mutable (create ပြီးမှ modify ပြန်လုပ်လို့ရ)
- သတိပြုရန် - dictionary တခြား type တွေ အကုန် immutable
- indexing and slicing
- list တွေကို data တွေ အပြောင်းအလဲ လုပ်ချင်ရင် သုံးတယ်။
- မပြောင်းလဲချင် safe ဖြစ်ချင်ရင် tuple သုံးတယ်။

```
>>> list_L = [ "H","E","L","L","O" ]
```

```
>>> list_L1 = list_L # list_L1 is not new list
```

```
>>> list_L1 = list_L [ : ] # list_L1 is new list
```

```
>>> list_L [ 0 ] = "Y"
```

```
[ i for i in seq ]
```

```
[ i for i in seq if (condition) ]
```

```
[ i*j for i in seq1 for j in seq2 ]
```

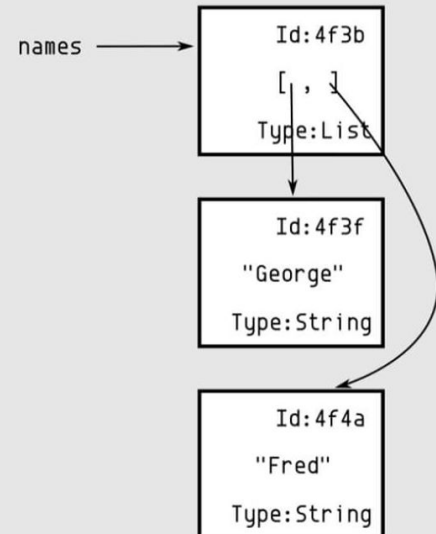
Code

```
names = [ 'George', 'Fred' ]
```

What Computer Does

Variables

Objects



```
# Sample List
```

```
L = ["Michael Jackson", 10.1, 1982, "MJ", 1]  
L
```

```
['Michael Jackson', 10.1, 1982, 'MJ', 1]
```

L = ["Michael Jackson", 10.1, 1982, "MJ", 1]

0	1	2	3	4
---	---	---	---	---

```
# Examine the copy by reference
```

```
print('B[0]:', B[0])  
A[0] = "banana"  
print('B[0]:', B[0])
```

```
B[0]: hard rock  
B[0]: banana
```



A=["hard rock", 10, 1.2]

Names

Reference

List

A

["hard rock", 10, 1.2]

B

Tuples

- Ordered sequences of elements

- heterogeneous ရောထည့်လို့ရ

- () နဲ့ သတ်မှတ်

သတိပြုရန် - function နဲ့ မမှားဖို့ တလုံးထဲဆို ("H",) လို့ရေးပါ။ comma ပါရပါတယ်။

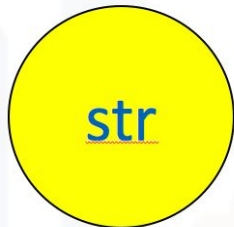
- like strings, can concatenate, repeat and slice

```
>>> t1 = ( 1,2,3 )
```

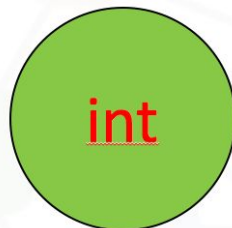
```
>>> t2 = ( "Hello", )
```

```
>>> print( t1 + t2 )
```

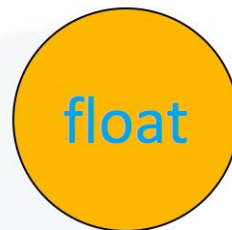
'disco'



10



1.2

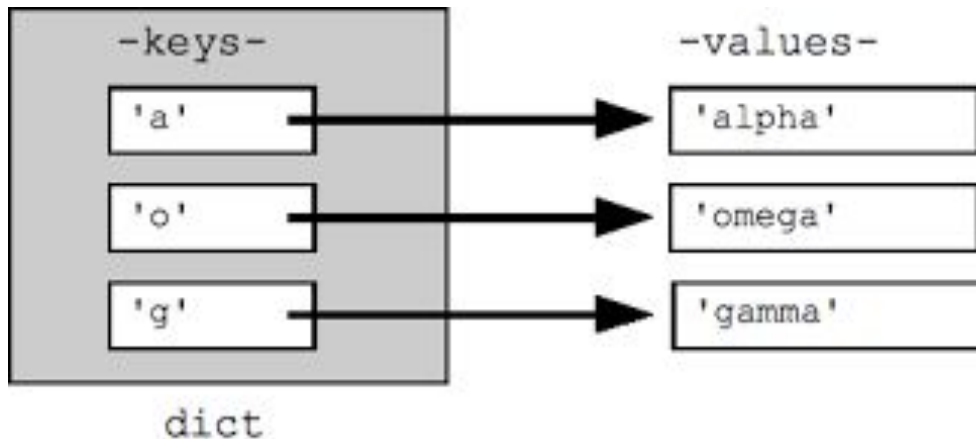


0	"disco"
1	10
2	1.2

Dictionaries

- unordered sequence ဖြစ်တယ်။
- { key : value } အတွဲတွေအဖြစ် သုံးတယ်။
- Hashing နည်းကို သုံးထားတယ်။
- a key must be unique and unchanged
- value လိုချင်ရင် dict_name[key]
- တခုခုရဲ့ Data တွေကို စုထားချင်တဲ့အခါ သုံးတယ်။
- ဖျက်ချင်ရင် keyword - del dict_name[key]

```
ဥပမာ student1 {  
"name" : "Thura"  
"age" : 18  
}
```



List

Index

0	Element 1
1	Element 2
2	Element 3
3	Element 4
.....

Element

Dictionary

Key: is a index by label

Key 1	Value 1
Key 1	Value 2
Key 2	Value 3
Key 3	Value 4
.....

Element/Values