Full stack web development using python

dict

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Agenda

1. dict introduction
2. creating dict object
3. Accessing dict elements
4. built-in methods
5. Concatenation and Repetition
6. Comparison operator
7. dict object methods
8. dict comprehension

dict

dict is a class
dict is mutable
dict is not hashable
dict is iterable
dict is not a sequence
dict cannot have duplicate keys (not data values)
indexing is not applicable to dict object
slicing operator is not applicable
dict elements are pair of key-value and data-value

one dict element is (key, data)

How to create dict object?

Rollno	Student name
102	"Rahul"
105	"Payal"
106	"Arjun"
107	"Prachi"

```
d1 = {102: 'Rahul', 105: 'Payal', 106: 'Arjun', 107: 'Prachi'}

d1 = {}          #empty object

d1 = dict (a=10, b=20, c=30)
```

key	data
'a'	10
'b'	20
'c'	30

Accessing dict elements

```
d1 = {102: 'Rahul', 105: 'Payal', 106: 'Arjun', 107: 'Prachi'}
```

① `print(d1)`

② `print(d1[102], d1[105], d1[106], d1[107])`

③
```
for k in d1:
    print(k)
```
⟶ only Keys

④
```
for k in d1:
    print(k, d1[k])
```

How to edit dict element ?

Editing dict element means you want to change data-value of the element and not the key-value

dictObject [key-value] = new data value

del d1[102]

How to add new element in the dict?

dictObject [new-key-value] = data-value

methods

items() ⟶ Collection dict elements

Keys() ⟶ Collection of Keys only of the elements

values() ⟶ Collection of data-values only of the dict elements

All these methods are dict class attributes

built-in methods

len()

min()

max()

sum()

sorted()

Concatenation and Repetition Operator

dict + dict not supported

dict * int not supported

Comparison Operator

```
d1 > d2
d1 >= d2
d1 < d2
d1 <= d2
```

} not supported

```
d1 == d2
d1 != d2
```

} supported

Two dict objects are equal if their items are equal. Elements can be stored in any order.

dict object methods

pop(key)

popitem()

clear()

dict Comprehension

```
dl = { Key-expression : data-expression  for v in seq }
```