dict kya h?

Python mein dict (dictionary) hoti hai, jo ek tarah ka data structure hai. Ye key-value pairs mein data store karti hai, jaise ek dictionary mein shabdon ke meanings hote hain.

- Syntax:

```python
student = {
    "name": "Rahul",
    "age": 21,
    "city": "Delhi"
}
# Values ko access karna
print(student["name"])   # Output: Rahul
print(student["age"])    # Output: 21
```

Key Points:

- Keys: Unique hote hain (jaise "name", "age").
- Values: Keys se linked data hote hain (jaise "Rahul", 21).
- Mutable: Aap dictionary ke data ko update ya change kar sakte ho.

dict ke methods

- 1 clear()
- Dictionary ko saaf (empty) kar deta hai.
- Example

```python
student = {"name": "Amit", "age": 20}
student.clear()
print(student)  # Output: {}
```

- 2 copy()
- Dictionary ki ek copy banata hai.
- Example

```python
student = {"name": "Amit", "age": 20}
new_student = student.copy()
print(new_student)  # Output: {'name': 'Amit', 'age': 20}
```

- 3 fromkeys()

- Nayi dictionary banata hai ek list of keys aur ek common value ke saath.
- Example

```python
keys = ["name", "age", "city"]

default_dict = dict.fromkeys(keys, "unknown")

print(default_dict)  # Output: {'name': 'unknown', 'age': 'unknown', 'city': 'unknown'}
```

- 4 get(key)
- Key ka value return karta hai; agar key na mile to default value de sakte ho.
- Example

```python
student = {"name": "Amit", "age": 20}

print(student.get("name"))        # Output: Amit

print(student.get("city", "N/A"))  # Output: N/A
```

- 5 items()
- Dictionary ke key-value pairs ko ek list of tuples mein return karta hai.
- Example

```python
student = {"name": "Amit", "age": 20}
print(student.items())  # Output: dict_items([('name', 'Amit'), ('age', 20)])
```

- 6 keys()
- Sirf keys ka list return karta hai.
- Example

```python
student = {"name": "Amit", "age": 20}
print(student.keys())  # Output: dict_keys(['name', 'age'])
```

- 7 values()
- Sirf values ka list return karta hai.
- Example

```python
student = {"name": "Amit", "age": 20}
print(student.values())  # Output: dict_values(['Amit', 20])
```

- 8 pop()
- Di gayi key ka value return karta hai aur us key-value pair ko dictionary se delete kar deta hai.
- Example

```
student = {"name": "Amit", "age": 20}


age = student.pop("age")


print(age)          # Output: 20


print(student)      # Output: {'name': 'Amit'}
```

- 9 popitem()
- Last key-value pair ko remove karke return karta hai.
- Example

```
student = {"name": "Amit", "age": 20}


item = student.popitem()


print(item)         # Output: ('age', 20)


print(student)      # Output: {'name': 'Amit'}
```

- 10 setdefault(key, default)
- Agar key exist karti hai, to uska value return karta hai; agar nahi karti, to default value set karke return karta hai.
- Example

```
student = {"name": "Amit"}


city = student.setdefault("city", "Delhi")


print(city)         # Output: Delhi


print(student)      # Output: {'name': 'Amit', 'city': 'Delhi'}
```