

Dictionary Methods & Looping

Dictionary:

- Dictionary stores **key-value pairs**.
- Keys must be **unique & immutable**.
- Values can be of **any type**.

Common Dictionary Methods:

- Accessing Keys & Values
- Adding & Updating Values
- Removing Items
- Update Dictionary

Looping Through Dictionary:

1. Loop through keys

```
for key in student:  
    print(key)    # prints all keys
```

2. Loop through values

```
for value in student.values():  
    print(value)  # prints all values
```

3. Loop through items

```
for key, value in student.items():  
    print(key, ":", value)
```

Importance of Dictionary Methods & Looping:

- Makes dictionaries **dynamic** (easy to add/update/remove data).
- Looping helps in **data processing**, e.g. reading JSON data, API responses, or structured data.
- Used in **real-world applications**: login systems, databases, web apps.