"चला तर, python शिकू आपल्या भाषेत!"

Marathi Coding Shala

@MarathiCodingShala · 7.71K subscribers · 54 videos

नमस्कार मित्रांनो! 👋 🙏 ...more

youtube.com/channel/UCUc5mUOo3xqzlgXFCaIFkbw and 2 more links

Customize channel   Manage videos   Visit Community

Home   Videos   Shorts   Live   Courses   Playlists   Posts
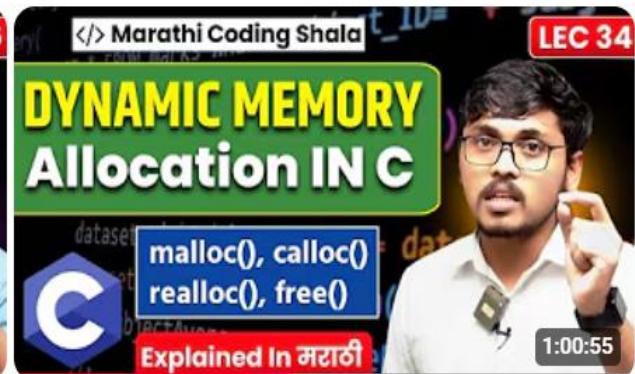
For You

🚀 Next 3 Years FULL FREE SERIES | Marathi Coding
Shala | Full Stack + AI Engineer Roadmap Planning

L26 | LCM आणि HCF Program in C (Marathi) |
Marathi Coding Shala

L-34 Dynamic Memory Allocation in C मराठीत |
malloc(), calloc(), realloc(), free()

👉 जर तू AI Engineer, Data Scientist, Web Developer किंवा Hacker व्हायचं ठरवलं असेल —

तर Python हा पहिला आणि सर्वात महत्त्वाचा step आहे 💻 🔥

🧠 **Set in Python**

⭐ **1. What is a Set?**
👉 **Set म्हणजे unordered, unindexed, unique elements चा collection.**
👉 **म्हणजेच set मध्ये duplicate values allowed नसतात.**

📌 **Important points:**
•**Elements unique असतात**
•**Order fixed नसतो**
•**Index नसतो (list प्रमाणे `set[0]` वापरता येत नाही)**
•**Mutable (data बदलू शकतो)**
•**Elements must be immutable (numbers, strings, tuples allowed — but list/dict not allowed)**

⭐ **2. Creating a Set**

```
myset = {1, 2, 3, 4}
print(myset)
```

Duplicate automatically remove होतात:

```
s = {1, 2, 2, 3, 3}
print(s)
```

{1, 2, 3}

Empty set तयार करताना {} वापरू नका

```
s = {}      # This creates an empty dictionary
```

```
s = set()
```

⭐ 3. **Adding Elements**

➤ add()

```
s = {1, 2, 3}
s.add(4)
print(s)
```

➤ update() (Multiple items add)

```
s.update([5, 6, 7])
print(s)
```

⭐ 4. **Removing Elements**

➤ **remove()**
Key not found असल्यास error

s.remove(2)

➤ **discard()**
Key नसली तरी error नाही

s.discard(10)

➤ **pop()**
Random element remove करतो

s.pop()

➤ clear()

s.clear()

⭐ **5. Set Operations (Math Operations)**
Python set हे **mathematical set operations** ला support करतात.

1. Union (| or union())
दोन्ही set मधले सर्व unique elements

```
A = {1, 2, 3}
B = {3, 4, 5}
print(A | B)        # OR
print(A.union(B))
```

2. Intersection (& or intersection())
दोन्हीत common असलेले

```
print(A & B)
print(A.intersection(B))
```

3. Difference (- or difference())
फक्त A मधले, B मध्ये नसलेले

```
print(A - B)
print(A.difference(B))
```

4. Symmetric Difference (^ or symmetric_difference())
A किंवा B मधले पण दोन्हीत नसलेले

```
print(A ^ B)
print(A.symmetric_difference(B))
```

⭐ 6. **Check Membership (`in`)**

```python
s = {10, 20, 30}
print(20 in s)   # True
print(40 in s)   # False
```

⭐ 7. **Iterate Over Set**

```python
for item in s:
    print(item)
```

⭐ 8. Useful Set Methods

Method	Description
add()	Add element
update()	Add multiple elements
remove()	Remove element (error if not found)
discard()	Remove element (no error)
pop()	Remove random element
clear()	Empty set
union()	Combine sets
intersection()	Common items
difference()	Only A not B
symmetric_difference()	Uncommon items
copy()	Copy set

🧩 Real-Life Example of Set

Example 1: Remove Duplicates from List

```
numbers = [1, 2, 3, 2, 1, 4]
unique = set(numbers)
print(unique)
```

Example 2: Common Students in Two Classes

```
classA = {"Rahul", "Sneha", "Amit"}
classB = {"Amit", "Neha", "Sneha"}

print(classA & classB)   # Intersection
```

Example 3: Find Unique Characters in a String

```python
name = "programming"
print(set(name))
```

🎯 **Practice Questions (with Answers)**
Q1: Create a set and add 5 numbers using update().

```
s = set()
s.update([10, 20, 30, 40, 50])
print(s)
```

Q2: Remove item safely using discard().

```python
s = {1, 2, 3}
s.discard(5)
print(s)
```

Q3: Find union of two sets.

```python
A = {1, 2, 3}
B = {3, 4, 5}
print(A.union(B))
```

Q4: Remove duplicates from a list using set.

```python
lst = [1, 2, 2, 3, 3, 4]
print(set(lst))
```

Q5: Check if a value exists in set.

```
s = {100, 200, 300}
print(200 in s)
```

Python Collections

Feature	List	Tuple	Set	Dictionary
Definition	Ordered collection of items	Ordered & immutable collection	Unordered collection of unique items	Collection of key-value pairs
Syntax	[ ]	( )	{ }	{ key: value }
Order Maintained?	✓ Yes	✓ Yes	❌ No	✓ Yes (Python 3.7+)
Mutable?	✓ Yes	❌ No	✓ Yes	✓ Yes
Duplicate Allowed?	✓ Yes	✓ Yes	❌ No	❌ Keys no, values yes
Indexing/ Slicing	✓ Supported	✓ Supported	❌ Not supported	✓ Keys accessed using indexes (indirect)
Use Case	Changing data frequently	Fixed data, secure data	Unique values, membership test	Mapping real-world data (key-value)
Performance	Slower than tuple	Fastest (immutable)	Very fast membership checking	Fast lookup using keys
Example	[10, 20, 30]	(10, 20, 30)	{10, 20, 30}	{'a': 10, 'b': 20}
Methods	append, insert, pop, remove	count, index	add, remove, discard	keys, values, items, update

- **List:** Ordered + Mutable + Duplicates allowed
- **Tuple:** Ordered + Immutable + Duplicates allowed
- **Set:** Unordered + Mutable + Unique items
- **Dictionary:** Ordered + Mutable + Key-Value pairs + Keys unique
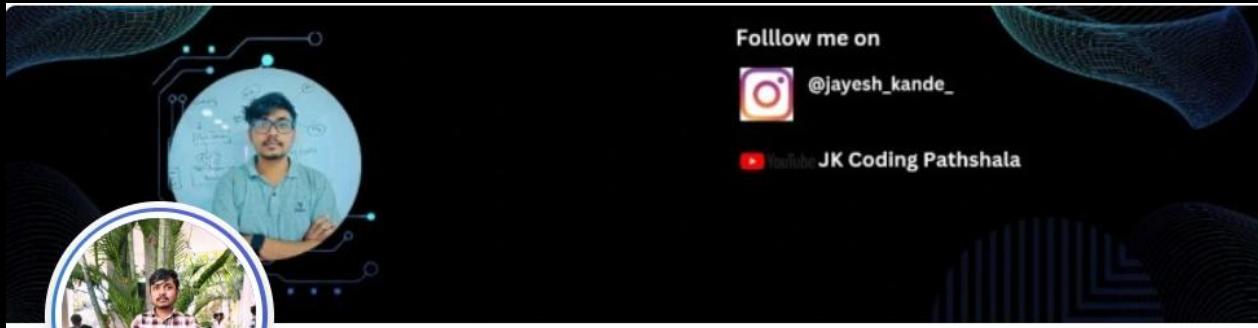
marathi_coding_shala   Follow   Message   ...

48 posts   5,221 followers   360 following

jayesh kande
🧑‍🏫 Faculty @ CoDing SeeKho
🖥️ Coding | College Exams | Placement Prep
🎥 YouTuber –Marathi Coding shala
-Jk Coding... more
🔗 yt.openinapp.co/0y0qd + 3

Folllow me on

@jayesh_kande_

JK Coding Pathshala

...

Kbt engineering college nashik

Jayesh Kande

Faculty at Coding Seekho (Offline + Online)|IT Engineering |
Aspiring Web Developer | Java Enthusiast | Data Structures
& Algorithms | Proficient in C, C++, Java, and MERN Stack |
AI + Web Dev

Nashik, Maharashtra, India · **Contact Info**

725 followers · 500+ connections

JK Coding Pathshala

@jayeshkande9215 · 1.16K subscribers · 149 videos

🎓 Welcome to JK Coding Pathshala! ...more

youtube.com/channel/UC474QOAov9dTP9Y1nZwupqw and 3 more links

🔔 Subscribed ⌄   Join   View channel stats