{} JSON Cheat Sheet

JSON syntax, data types, validation rules, and common patterns. Includes examples for objects, arrays, and nesting.

Data Types

Type	Example	Notes
String	"hello"	Must use double quotes
Number	42, 3.14, -1	Integer or float, no quotes
Boolean	true, false	Lowercase only
Null	null	Lowercase only
Object	{"key": "value"}	Key-value pairs
Array	[1, 2, 3]	Ordered list

Syntax Rules

- Keys MUST be double-quoted strings
- No trailing commas after last item
- No comments allowed
- Strings must use double quotes (not single)
- Top-level value can be any type
- Numbers: no leading zeros, no NaN/Infinity

Object Example

```
{
  "name": "Alice",
  "age": 30,
  "active": true,
  "score": null,
  "tags": ["dev", "api"],
  "address": {
    "city": "Kyiv",
    "zip": "01001"
  }
}
```

Common Errors

Error	Wrong	Fixed
Trailing comma	{"a": 1,}	{"a": 1}
Single quotes	{'key': 'val'}	{"key": "val"}
Unquoted key	{key: "val"}	{"key": "val"}
Comment	// comment {"a":1}	{"a": 1}

Python Quick Reference

```python
import json

# Parse JSON string
data = json.loads(json_string)

# Convert to JSON string
json_str = json.dumps(data, indent=2)

# Read from file
with open('data.json') as f:
    data = json.load(f)

# Write to file
with open('out.json', 'w') as f:
    json.dump(data, f, indent=2)
```