

Python String Manipulation & JSON Parsing Cheat Sheet (HackerRank)

1. Python String Basics

- Strings are immutable
- Indexing starts at 0
- Negative indexing supported

2. Common String Operations

`len(s)` → length of string
`s.lower()`, `s.upper()`, `s.title()`
`s.strip()`, `s.lstrip()`, `s.rstrip()`
`s.replace('a','b')`
`s.split(',')`
`','.join(list)`

3. String Slicing

`s[start:end]`
`s[:5]`, `s[2:]`, `s[-3:]`
`s[::-1]` → reverse string

4. Searching & Checking

`s.find('a')` → index or -1
`s.index('a')` → error if not found
'a' in s
`s.startswith('pre')`, `s.endswith('end')`
`s.isdigit()`, `s.isalpha()`, `s.isalnum()`

5. String Formatting

`f"Hello {name}"`
`"{} {}".format(a,b)`
`"%s %d" % (name, age)`

6. JSON Basics

JSON ↔ Python dict/list
`import json`

7. JSON Parsing

`json.loads(str)` → dict
`json.load(file)` → dict

8. JSON Writing

```
json.dumps(obj)
json.dump(obj, file)
indent=2, sort_keys=True
```

9. JSON Access & Manipulation

```
data['key']
data.get('key', default)
for k,v in data.items():
    for item in data['list']:
```

10. HackerRank Tips

- Handle input as string first
- Strip newline characters
- Use try/except for parsing
- Print exact output format
- Avoid unnecessary imports