Python API Cheat Sheet

Python API Cheat Sheet (Standard Library Only)

1. HTTP Requests using urllib

```python
from urllib import request, parse


# Simple GET request
url = 'http://localhost:8000/data'
response = request.urlopen(url)
print(response.read().decode())


# POST request with data
data = parse.urlencode({'name': 'Alice', 'age': 30}).encode()
req = request.Request('http://localhost:8000/submit', data=data)
resp = request.urlopen(req)
print(resp.read().decode())
```


2. Parsing JSON

```python
import json


json_string = '{"name": "Bob", "age": 25}'
data = json.loads(json_string)
print(data['name'])


# Convert Python dict to JSON string
person = {'name': 'Eve', 'age': 40}
json_data = json.dumps(person)
```


3. Parsing XML (ElementTree)

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```python
import xml.etree.ElementTree as ET


tree = ET.parse('data.xml')

root = tree.getroot()

print(root.tag, root.attrib)

for child in root:

print(child.tag, child.attrib)
```


4. Simulating an API Server (http.server)

```python
from http.server import BaseHTTPRequestHandler, HTTPServer


class SimpleHandler(BaseHTTPRequestHandler):

def do_GET(self):

self.send_response(200)

self.send_header('Content-type', 'application/json')

self.end_headers()

self.wfile.write(b'{"message": "Hello from local server!"}')


httpd = HTTPServer(('localhost', 8000), SimpleHandler)

httpd.serve_forever()
```


5. Useful HTTP Status Codes

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200 OK   - Request successful

201 Created   - New resource created

400 Bad Request- Malformed request

404 Not Found - Resource not found

500 Server Err - Internal error on server

End of Cheat Sheet.