Linux Basic Commands Cheat Sheet

Basic Syntax

```
print('Hello, World!')                  - Output to console
# This is a comment                     - Single-line comment
'''This is a
multiline comment'''       - Multiline comment
x = 5                                   - Variable assignment
if x > 0:
    print(x)                  - Conditional statement
```

Data Types & Structures

```
int, float, str, bool                   - Basic data types
list = [1, 2, 3]                        - List
tuple = (1, 2, 3)                       - Tuple
set = {1, 2, 3}                         - Set
dict = {'a': 1, 'b': 2}                 - Dictionary
```

Loops & Functions

```
for i in range(5):                      - For loop
while x < 10:                           - While loop
def func():
    return 'hi'              - Function definition
lambda x: x*2                           - Lambda function
```

File Handling

```
open('file.txt', 'r')                   - Open file for reading
open('file.txt', 'w')                   - Open file for writing
file.read()                             - Read file content
file.write('data')                      - Write to file
file.close()                            - Close file
```

Modules & Libraries

```
import math                             - Import module
from math import sqrt                   - Import specific function
pip install package                     - Install package
```

OOP in Python

Linux Basic Commands Cheat Sheet

```
class MyClass:                          - Define class
def __init__(self):                     - Constructor
self.attribute                          - Class attribute
object = MyClass()                      - Create object
```

Error Handling

```
try:
    ...
except Exception as e:      - Try-except block
finally:                                - Execute always
raise ValueError('error')               - Raise exception
```