PYTHON CHEAT SHEET

VARIABLES + STRINGS

```
# Hello world
print( "Hello world!" )
# Hello world with a variable
msg = "Hello world! "
print(msg)
# Concatenation (combining strings)
first_name = "hack"
last_name = "einstein"
full_name = first_name + " " + last_name
print(full_name)
```

DICTIONARIES

```
# A simple dictionary
person = { "age": "21", "gender": "female" }
# Accessing a value
print("The person's age is " + person["age"])
# Adding a new key-value pair
person["height"] = 170
# Looping through all key-value pairs
ages = { "Stacy": 20, "Michelle": 21 }
for name, age in ages.items():
        print(name + " is " + str(age))
# Looping through all keys
ages = { "Stacy": 20, "Michelle": 21 }
for name in ages.keys():
        print(name + " is a name")
# Looping through all the values
ages = { "Stacy": 20, "Michelle": 21 }
for age in ages.values():
        print(str(num) + " is my age")
```

coding pythonic
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LISTS

```
# Make a list
colors = ["red", "green", "blue"]
# Get the first item in a list
first_color = colors[0]
# Get the last item in a list
last_color = colors[-1]
# Looping through a list
for color in colors:
        print(color)
# Adding items to a list
colors = []
colors.append("red")
colors.append("green")
colors.append("blue")
# Making numerical lists
flag = []
for x in range(1, 12):
        flag.append(x**2)
# List comprehensions
flag = [x**2 for x in range(1, 12)]
# Slicing a list
hackers = ["jonathan", "loryn", "kim"]
first_two = hackers[:2]
# Copying a list
copy_of_hackers = hackers[:]
```

USER INPUT

```
# Prompting for a value
name = input("What's your name? ")
print("Hello, " + name + "!")
# Prompting for numerical input
age = input("How old are you? ")
age = int(age)
pi = input("What is the value of pi? ")
pi = float(pi)
```

IF STATEMENTS

```
# Conditional tests
equals              h == 10
not equal           h != 10
greater than        h > 10
or equal to         h >= 10
less than           h < 10
or equal to         h <= 10
# Conditional test with lists
"red" in colors
"green" not in colors
# Assigning boolean values
is_active = True
can_enter = False
# A simple if test
if age >= 21:
        print("You can drink!")
# If-elif-else statements
if age < 13:
        person = "child"
elif age < 20:
        person = "teenager"
else:
        person = "adult"
```

TUPLES

```
# Making a tuple
couple = ("bonnie", "clyde")
```