PYTHON

```
# Variables
full_name = "Jane Hacker"
pi = 3.14
# lists ("Arrays" in JS)
names = ["John", "Paul", "G"]
# dicts (similar to "Objects")
translation = {
    "ola": "Hello",
    "oi": "hi",
# For loops
for name in names:
    print("name:", name)
# While loops
x = 0
while x < 3:
    print("X:", x)
    x = x + 1
# If-statements
if full_name == "Jane":
    print("Hi, Jane!")
elif full_name == "Alice":
    print("Hey Alice")
else:
    print("Don't know you")
# Functions
def greeter(name):
    print("Hi", name)
greeter("Bob")
# Conjunctions
if age < 18 and drink == "beer":
    print("Too young kiddo")
if age > 18 or drink == "soda":
    print("Great choice")
# Class syntax
class User(BaseUser):
    def __init__(self, name):
        self.name = name
        self.logged_in = False
    def log_in(self):
        self.logged_in = True
user = User("janeqhacker")
# Making request (Synchronous)
response = requests.get("cnn.com")
data = response.json()
print("Resp:", data)
```

JAVASCRIPT

```
// Variables
let fullName = "Jane Hacker";
const pi = 3.14;
// Arrays ("lists" in Py)
let names = ["John", "Paul", "G"]; DOM MANIPULATION
// Objects (similar to "dicts")
let translation = {
    ola: "Hello",
oi: "Hi",
};
// For loop
for (let name of names) {
    console.log("name:", name);
// While loops
let x = 0;
while (x < 3) {
    console log("X:", x);
    x++;
// If-statements
if (fullName === "Jane") {
    console.log("Hi, Jane!");
} else if (fullName === "Alice") {
    console.log("Hey Alice");
    console.log("Don't know you");
                                    let greeter = (name) => {
// Functions
function greeter(name) {
    console.log("Hi", name);
                                    DOM TERMINOLOGY
greeter("Bob")
// Conjunctions
if (age < 18 && drink === "beer")
    console log("Too young kiddo");
if (age > 18 || drink === "soda") {DOM traversal Finding elements in
    console.log("Great choice");
// Class syntax
class User extends BaseUser {
    constructor(name)
        this.name = name;
        this.loggedIn = false;
    logIn() {
        this.loggedIn = true;
let user = new User("janeqhacker");
// Making request (Asynchronous)
fetch("http://cnn.com")
.then(response => response.json())
.then(data => {
    console.log("Resp:", data);
});
```

VARIABLE DECLARATION

```
let Declare a variable (block)
const Like let, cannot be reassigned.
var Legacy — similar to let, unscoped.
```

```
// Creating elements
let p = document
   .createElement("p");
p.textContent = "New Paragraph";
// Inserting elements into page
let d = document
    .querySelector("#some_id");
d.appendChild(p);
// Fetching many elements
let allImages = document
    .querySelectorAll("img");
// Add a class to all images
for (let img of allImages)
    img.classList.add("Thumb");
ALTERNATE FUNCTION SYNTAX
```

DOM Initially generated from HTML, the Document Object Model is the current state of the page in the browser.

console.log("Hi", name);

the DOM with JS

DOM manipulation Modifying the DOM with JS

event An interaction with the DOM (most common: click)

Asynchronous Terminology

asynchronous Instead of pausing ("blocking") for a slow operation, the asynchronous approach is to put-off starting the slow operation, then call a function ("callback") at a later time to signal it's done callback A function passed as an argu-

ment to be called later when an event is triggered

promise Another popular way to do callbacks, with a .then syntax