

Python

A **Variable** can be used to store and retrieve values

Example: Hello World

```
print("Hello World")
```

Example: Hello World with Variable

```
message = "Hello World"
print(message)
```

A **List** is a variable that can store other variables

Example: List & Print

```
names = ["Bob", "Jane", "Alex"]
print(names[0])
print(names[1])
```

A **module** is a collection of code that provides extra features

Example: Roll a dice

```
import random
print(random.randint(1,6))
```

Conditional Execution runs code based on condition

Example: Win on Heads (Coinflip)

```
import random
flip = random.randint(0,1)
if(flip == 0):
    print("You win!")
```

Terminal

To navigate, CMD can be used instead of Windows Explorer

Example: Navigate to folder

```
cd Demo
```

Example: Navigate to parent folder

```
cd ..
```

Example: Open a file with notepad

```
notepad eightball.py
```

Example: Make a folder

```
mkdir testfolder
```

To execute a python program, the terminal can be used

Example: Run python program in /demo

```
cd test
python eightball.py
```

Example: Open Python IDLE in folder

```
python -m idlelib
```

Example: Open file with Python IDLE

```
python -m idlelib eightball.py
```

Shell mode is like the IDLE, but within the terminal

Example: Start the shell

```
python
```

If you want to stop a terminal command, use CTRL + C

Git & GitHub

Keep track of changes, with a git repository (repo)

Example: Setup a repo and commit

```
git init
git add -A
git commit -m "Commit Message"
git log --oneline --graph --all
--decorate
```

Branch a program to create different versions, such as for new features

Example: New branch and commit

```
git branch loop
git checkout loop
```

Merge a branch to combine code from one commit into another

Example: New branch and commit

```
git checkout master
git merge loop
```

Establish a remote to push files to and pull files from

Example: Add a remote and pull/push

```
git remote add origin
https://github.com/noah-dev/talk_1
git pull master origin
git push master origin
```