Monroe Township Library Coding Bootcamp

Class 6 Notes

**Review – Key concepts from each class**

**Class 1 – Intro:**

* What is coding in a general sense? What is Python?
* How to use IDE (VS Code)
* Basic data types
  + Strings, integers, floats, Booleans, and NoneType
* Variables
  + How to initialize, naming conventions
  + How variables work in Python (can be reassigned, are dynamically-typed)
* Printing to terminal with print() function
* Comments
  + How to create a comment, how to “comment out” blocks of code

**Class 2 – Basic data types:**

* How to get user input with input() function
* Doing operations with ints and floats
* Working with strings
  + len() function to get length of string
  + some important string methods like find(), count(), replace()
* String concatenation and f-strings
* What are “truthy” and “falsey” values? And what are these values for each data type?
* How to convert data types

**Class 3 – Conditional statements & loops:**

* Conditional statements (if statements)
  + How to construct
  + Comparison operators (<, <=, >, >=, ==, !=)
  + How indented code blocks work in Python
* How to set up alternative conditions with elif, else
* How to use Boolean operators, combining conditional statements (and, or, not)
* Two kinds of loops in Python (while, for)
  + continue and break keywords
  + how to use ranges in a for loop

**Class 4 – Complex data types:**

* Python complex data types (lists, tuples, sets, dictionaries)
  + How to initialize each of these
* How to loop through data with a for loop
* Add/remove elements from a list
* How to get certain elements of a list or tuple using numbered index
* Indexing a dictionary using keys

**Class 5 – Functions:**

* Defining your own functions and calling functions
* How to define functions with parameters
  + How to pass in arguments to a function when calling it
* Return statement, how to return and use values from a function
  + What None represents in regards to functions
* Default arguments
  + What position do default values go when defining functions
* Why you should use functions in your code

**Check class files at** [**github.com/monroecoding**](https://github.com/monroecoding)

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