Ideas for Pi Labs, Beginner to Intermediate

Beginner Pi Labs: Setting up the Pi and learning the in’s and out’s, Installing the Operating system, creating a basic game or program with Python.

Lab 1.

Setting up the Raspberry Pi

* Installing the OS
* Learning about the features
* Discussing possibilities of the Raspberry Pi

Lab 2.

Installing Programs & Basic Web Coding

* Install Notepad++\*
* Code a simple HTML web page
* Add Basic CSS
* HTML additions
* DOCTYPE explantation
* Body
* Header
* P tag
* Hr tag
* Footer
* BR tag
* A Tag
* HREF
* Unordered List
* Ordered List
* Simple Button
* Text Box
* File naming convention
* Spacing
* Other Entities: ampersand, copyright
* Troubleshooting
* Validator
* Class
* ID
* <https://www.imore.com/how-take-screenshot-raspberry-pi>

Lab 3.

CSS

* Colors
* Backgrounds
* Borders
* Margins
* Padding
* Fonts
* Table Formats
* File naming convention
* Troubleshooting
* Validator

Lab 4.

PHP

* Syntax
* Strings
* Arrays
* <BR> Strings
* Constants
* Variables
* Functions
* Echo
* If statement
* File naming convention
* Validation

Lab 5

Introduction to Python

* File naming convention
* Variables
* Casting
* Strings
* Lists

Lab 6.

* Simple Python Activity

Lab 7.

XML

Lab 8.

Retropie Lab 1

Lab 9.

Retropie Lab 2

Lab 10.

Retropie Lab 3

Intermediate Pi Labs:

Arcade Pi: 4-5 labs for this project.