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Introduction

This document aims to be a comprehensive guide to the GitBook command line tool, version **3.2.3**. This is the same toolchain used by the legacy GitBook platform, living at legacy.gitbook.com. Help for using the platform can be found at help.legacy.gitbook.com. If you are looking for the new GitBook service, head to gitbook.com.

Phase 1

For our first pilot, this would run weekly for three (3) months, with each session lasting for approximately two (2) hours with breaks. The **technical material** to be covered during this phase would involve:

- Introduction to Programming
- Introduction to Python

This is our core program, introducing the idea of a programming language and what it means to tell a computer what to do. We'll cover basic interaction with the Python console using statements to manipulate numbers and text. Next, we'll move on to introducing loops and functions.

Finally, all the students would collectively build a biography app that collects basic information about you and gives you back a summarized story of yourself. Throughout the class, students will learn not just the code, but the **why** behind the code, setting a strong foundation for future growth.

Syllabus

Introduction to Programming

Here we provide the students with some videos and practical examples of the impact of programming to the world and the Tech industry

Python Installation

We would have an installation session where all members of the club would install the required apps/packages for their tutorials.

My First Program

After successful installation of the programs/apps we would take the scholars through their very first program `"Hello World"` etc

Functions

We would introduce them to the different types of functions they would come by in their journey in programing (print, len etc)

Variables & Types

We would introduce the scholars to variables and their types, declaration, Re-declare etc

User Input

We would introduce them to different ways they can request for information from their shell and provide them

Comments

We would introduce the scholars to the importance of comments in codes and the basics of writing comments in Python.

Naming Guidelines

We would take the scholars through the basics on naming in Python, such as naming styles for variables, classes, functions etc and when to use them.

Conditional Statements

We would introduce the scholars to the different conditional statements such as if/else, while loop etc

Project on a Biography Bot

We would build a project with the club members where they would make use of all they've learnt to make a Biography bot that asks for users input and gives back a summarized story of the user.

Quiz Day

We would have a little quiz for the members where badges would be given depending on their performance

Phase 2

This would also run weekly for three (3) months. Here, we would delve in a little deeper. We will build on what kids learned in "Intro to Programming" and build on it to strengthen skills. Through practical examples, students will gain a deeper understanding of programming and how it is applied in the real world. Example projects will reinforce understanding of fundamentals while encouraging experimentation and exploration.

Programming is a lot like speaking a foreign language or playing a musical instrument. In order to become proficient, the student needs to practice - and the more practice the better, so our goal is to keep them coding. We would start off by building various applications such as games, calculators etc. Next, for those interested, we would have an introduction to basic hardware components.

Phase 3

Also running for three months, this would focus more on students' interests. The class would be divided into two parts:

- Hardware focused: This would involve the building of basic robotics, and hardware components such as Raspberry Pi.
- Software focused:

FAQ

Some questions are frequently asked. If you have a problem you should check this out first.

Contribute to this documentation

You can contribute to improve this documentation on GitHub by signaling issues or proposing changes.