



# From Zero To Superhero (Website): Easy Enough a 7 Year Could Do It



## Introduction

Creating a quick start to get my nieces and nephews excited to learn programming. After failing to keep the interest of the eldest two, I got the 7 year old hooked on programming during HourOfCode. At that point it was clear: it wasn't the topic, it was the approach.

## Problem

I was 0 for 2 getting my 21 yr old niece Rayah and 14 yr old nephew Cameron interested in programming even when they had talked about their **ideas for building apps**. They were not excited by the online tutorials I referred and even after both took computer/web design classes at school, both declared it boring.

## Observations

**time and effort** - learning concepts did not translate into building their apps

**pay off too small** - static html websites took too much coding and effort

**impatience** - too many pre-requisites until they could build their own apps

## Goals

Get these kids building something that they could show off to their friends from the first lesson.

- Zero Configuration
- Iterative Development - working site at the end of each lesson
- Beginner Accessible - targeted toward non-technical
- Hands on- minimal lecture or reading
- Customizable - components coders can make their own
- More engaging learning resources to **motivate further learning**



8 year old

## Super Heroes Real Name

correct

James Howlett is Wolverine

SCORE: 4 out of 7



What is the real name of Spider-Man?

Peter Parker



14 year old

## Challenges

- Limiting scope to **pre-introduction** material
- Keeping it easy enough a 7 year old could do it, **and 14-21 year olds would want to**

## Princess Parents

Correct

Tiana is the daughter of Eudora and James



21 year old

## Decendant Parents

Correct

Mal is the daughter of Maleficent



What is the real name of Mal?

## Purpose

For the community to create more **fun** content:

- Quick Start - the Flask Quick Start is a great model
- Project Based
- Consumable on the web

## My Approach

I tried online resources and bought a few books aimed at kids and tried to work through them with my youngest niece but she got bored with having so much reading and there were too many lessons before she got to make something concrete. The problem with these materials was they started introducing concepts with exercises, but after an hour or more it was **difficult for a beginner to share what they learned with others** or see how this knowledge would turn into a web app. Several of the kid focused browser based learning systems were **not accessible on phone or tablet** for showing what we built. With that in mind, I set out to distill those materials and pull out only what was absolutely needed to build something fun which would get them excited about learning more.

Limited concepts to creating a flask website in a series of bite sized lessons that teach just enough to encourage further learning.

## Tools and Resources

- Python 3 and Flask
- HTML and CSS
- Pythonanywhere.com - free hosting, browser based, text editor and git hub access
- PyCharm CE - code completion and correction features with easy github integration
- Codementor.io
- **GitHub - project code:** [https://github.com/rcmadden/pycon\\_poster](https://github.com/rcmadden/pycon_poster)

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