Greetings Everyone & Happy New Year! 👋

For those learning about this curriculum/cohort for the first time, this is an initiative led by Will Little (https://www.linkedin.com/in/wclittle/) in collaboration with BanyanDAO and Prota Ventures. You can learn more and apply to be a part of the free private cohort in Q1 2023 here.

Feel free to suggest/comment anywhere below to add resources / edits / ask questions / etc… We'll keep this open to the public as long as it doesn't get too unruly. :)

This is meant to be a meta-level curriculum that points to a variety of other tutorials/videos/screencasts to learn more about a particular subject.

Feel free to go at your own pace through this - at any order that best suits you - and ask questions in BanyanDAO's Discord server here or the private Slack group (if you are part of the cohort).

We'll be covering **Product** and **Code,** in parallel, at the timing/pacing that makes sense for you.

Product

Our scope here is to help teach modern Web2, Web2.5, and Web3 product development and management. What we mean by "product" is usually - in our context here - a web and/or mobile application.

- **Web2** - "Read/Write" (e.g. what most people think of the Web today, apps like Instagram and Google and such)
- **Web2.5** - Companies like OpenSea, which are standard Web2 companies that interact - to some degree or another - with Web3 things.
- **Web3** - These are DAOs and protocols like Lens that are dominantly blockchain-based, but still - of course - need "Web2" things to function (e.g. a web app with a private database as well as a public blockchain).

Begin by reading Eshita's Web3: in a nutshell, this will give you a historical overview as well of Web1/2. For those who prefer video, you can also watch https://www.youtube.com/watch?v=FExp9YuTzbY (i.e. HBR's "What is Web 3.0")

When building a product, the name of the game is all about ***testing*** whether your idea has demand (i.e. the people want it). The book ***The Lean Startup*** popularized this idea, and many other books/resources have followed since to teach the same basic thing…i.e. *create/build the least possible thing to test whether your thing has demand.*

So, when creating a digital product, the best thing to do is design and sketch it out. I usually suggest starting with writing out your idea, a 3-sentence description, and a full overview story.

I've actually written a full set of articles on *"How to create, grow, and fund a tech startup: an operational framework*" - you can check that series out here. I'll be referring to these articles a fair amount as we go.

For now, the product topics to dive into are:

- Create an Overview Story
  - Bounce this off close friends for feedback
  - Revise and then try to find people in your target audience to give you feedback.
- Create a UI Spec
  - This is a page-by-page, element-by-element description of what you are trying to build. The more you can put this in writing, the better.
- Create a UX Flow Chart
  - The gold standard these days is to use Figma to do this (highly recommended).
- Establish your Brand Foundations
- Pick a Name
  - You can use ChatGPT these days to ask the AI for a good name
- Use AI to make a quick Logo
  - E.g. https://www.logoai.com/
- Use Figma to sketch out some wireframes.
- Turn these wireframes into mockups (you may need to hire a designer for this, which you can do on any freelancer website).
- Turn the mockups into a clickable prototype on Figma.

At this point - from a "Web2" perspective - you are ready to merge your "Product" skills and develop your **Code** below. If you want to dive into Web3 things, keep reading.

***(Advanced)* Web3 Product Things**

For those looking to build something beyond Web2, you'll likely be interacting with one or more blockchains. I've written an initial primer on Web3 here → Web3 :: An Introduction to the New Internet (Book Draft)

BanaynDAO itself, for example, has on-chain voting and treasury management, which you can view here.

In April 2022, BanyanDAO hosted an all-day Web3 Product Manager Training Day where we had product managers from top Web3 companies/communities teach us about things like tokens, NFTs, DAOs, protocols, blockchains, and more. You can watch those videos here on BanyanDAO's website (scroll down a bit and you'll see them).

Furthermore, the best way to "Learn web3" is - beyond watching videos and reading books/articles/tutorials - join a DAO, learn how to write smart contracts (we'll cover this in the "Code" section below), and participate in blockchain and/or NFT communities that fit your interests. By participating in these projects and communities, you'll gain a much better understanding of "Web3 product skills" than by reading/watching material out there (ideally, do both!)

Code

Learning to build web applications - which will be the initial scope of this section - enables you to create value in an extremely powerful way (e.g. enough to ask people to pay for your software, and/or pay to access the users of your software).

Obviously this is an overwhelming amount of work, so just start wherever you feel comfortable and ask questions in Discord or Slack. We're here to help!

- Know your computer/OS well enough to install and run Ruby/Rails/Postgres/Redis/etc... locally (e.g. w/ Homebrew for MacOS)
  - Visit this GoRails page and select your operating system.
  - Follow the tutorial to install Ruby, Git, Rails, and PostgreSQL on your machine
- Shell / command line
  - Getting to Know the Command Line (Tutorial)
  - Absolute BEGINNER Guide to the Mac OS Terminal - YouTube
  - https://www.codecademy.com/learn/learn-the-command-line
- IDE (VSC, Rubymine, etc..)
  - Download https://code.visualstudio.com/ (it's free and has become an industry standard)
- Git / Github (PR & code review etiquette and such)
  - Get yourself an account at GitHub if you haven't yet. You should have done this as part of your setup
  - "Git and GitHub for Beginners Tutorial" on YouTube https://www.youtube.com/watch?v=tRZGeaHPoaw
- Ruby
  - Ruby in 20 Minutes
  - "Ruby Programming Language - Full Course" (4hrs) https://www.youtube.com/watch?v=t_ispmWmdjY
- Core HTML / CSS / JavaScript things of course
  - Learn HTML
  - Learn CSS
  - Learn Javascript
- Core Rails things (routing, controllers, models, views, etc...)
  - Ruby on Rails Tutorial
  - Rails for Beginners Part 1: Installing Ruby on Rails https://www.youtube.com/watch?v=wkNR1hG4yOk
- Testing w/ Rspec
- StimulusJS
- ViewComponent

- Turbo
- Linting / Prettier
- CI / CD
- Basic DevOps w/ a cloud provider (like AWS + Render, or Heroku)
- Monitoring (Sentry/Scout/etc..)
- TailwindCSS
- Docker
- Caching with Rails
- How to best look up things w/ Google and ChatGPT when you are stuck

(Advanced) Web3 code

- Learn Solidity
- Learn Rust
- Learn COSMWasm

Solidity is the main programming language in the Ethereum ecosystem (which includes “Layer 2s” like Polygon, Gnosis Chain, Optimism, etc…).

Questions? Feel free to “suggest” a question below if it would be helpful for others and/or ask us a question directly on Discord and/or Slack.