Month One Learning Notes

**Month 1 Timeline:**

**Week 1**: CryptoZombies "Beginner to Intermediate"

* Weekday sessions: Progress through lessons
* Weekend: Finish up and review key concepts

**Week 2**: Environment Setup + First Token

* Foundry installation and setup
* Create your first basic ERC-20 token
* Local testnet deployment and testing

**Week 3**: Second Token + Learning DEX Concepts

* Create your second ERC-20 (maybe with slightly different properties?)
* Start researching how token swaps work (Uniswap V2 study)
* Test interactions between your tokens

**Week 4**: Refinement + Testnet Deployment

* Deploy both tokens to a public testnet (Sepolia)
* Document what you've learned
* Plan Month 2 (swap contract design)

 **ERC-20 learning goal**: Understanding the interface and how approve/transferFrom works will be crucial for your swap contract later

Work done so far

* Set up dev environment with forge
* Created and deployed ERC20 smart contract
* Interacted with smart contract
  + Made transfers
  + Checked balances
* Create a Faucet contract to distribute tokens
  + Work with approve and transferFrom

Quesitons

* AMM vs order books
* Basic slippage protection

Working on next

* Consume events
* Trade History Worker: ├── Store trade in database ├── Update current price in cache (Redis/in-memory)
* Sync reserve
* Periodically sync from blockchain

Things to research

* Event replay ability