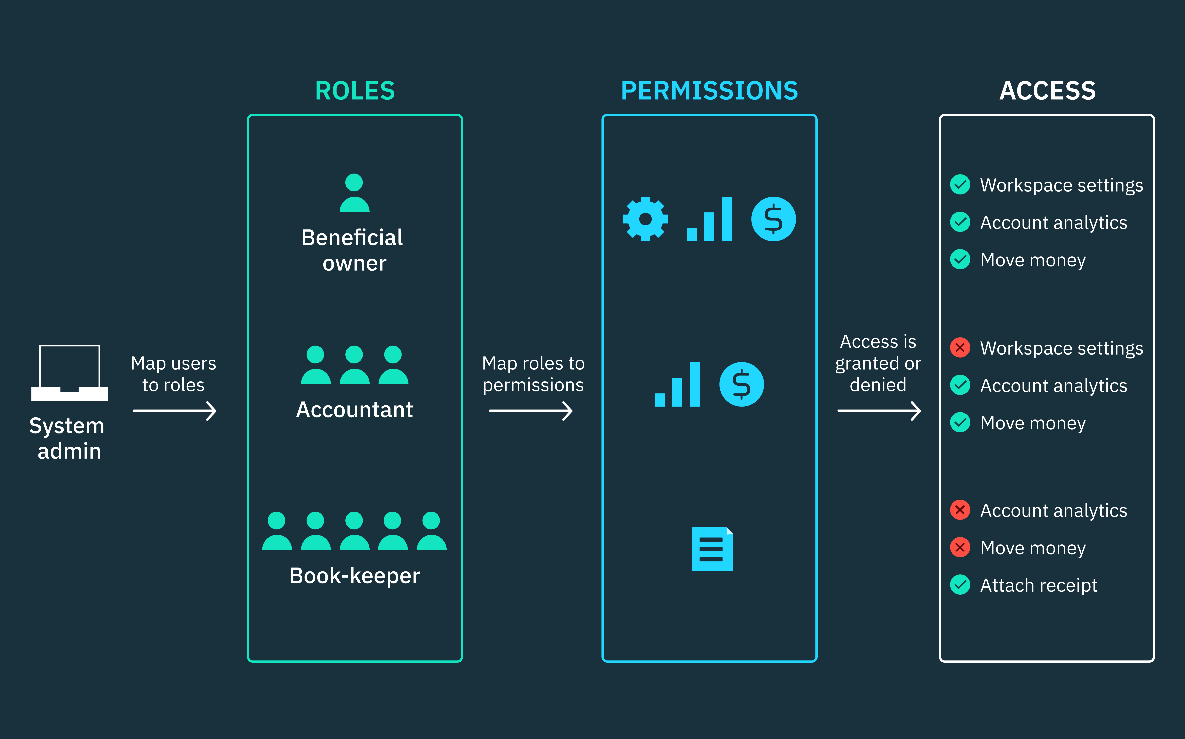
**RBAC + MFA - LizardLock**

Practical 2  
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**My PC Specifications**

* Windows 11 Home with DirectX 12
* Intel Core i7-10700, 8 cores and 16 threads, base clock 2.90GHz
* 16GB RAM
* 1TB SSD
* NVIDIA GeForce GTX 1650 SUPER with 1280 CUDA cores, 4GB GDDR6 memory
* There are some overclocks present on the RAM and GPU
* Python 3.13.5

**Commands**

These are just all general commands I either made or used during development…

pip install -r requirements.txt

python manage.py makemigrations

python manage.py migrate

python manage.py createsuperuser

python manage.py runserver

python manage.py encrypt\_mfa\_secrets (I forgot that plaintext MFA secrets are vulnerable – so I just made a quick script to encrypt existing users – “lizards” mfa\_secret – the codebase now does this automatically)

python manage.py populate\_user\_fields (Same thing here I was just using usernames – as that’s Djangos default form – made a custom one – this just populated my existing users with some rudimentary filler stuff)

Dev-Note   
I plan on changing the codebase around quite a bit because I want to host this on my own Linode server, this is also why I spent quite some time styling it exactly how I want it – because if Felix is degoogling his life then so can I – We don’t need em!

**TASK 1**

**TASK 1**

**TASK 2**

**TASK 3**

**REFERENCES**

I used a lot of design principles for Django from this awesome playlist – beforehand I had never used Django, so this was quite a big “breakthrough” in terms of deeper understanding of the framework which helped me understand my errors a lot more, instead of just coding some dumb stuff in random files and hoping it works.  
  
I had also had a full time job in software development – All massive PHP Laravel projects – So the core ideas in my head helped.  
  
I did acknowledge that it was 5 years old (Django 3.0) and when something that sounded deprecated or I knew other frameworks had these features already existing I just did a google search.  
  
**Django Framework (3.0) Crash Course Tutorial**

<https://youtube.com/playlist?list=PL-51WBLyFTg2vW-_6XBoUpE7vpmoR3ztO&si=KARgeYAtrxktLVts>