

A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light mint green. They are positioned diagonally, with the blue one partially covering the green one.

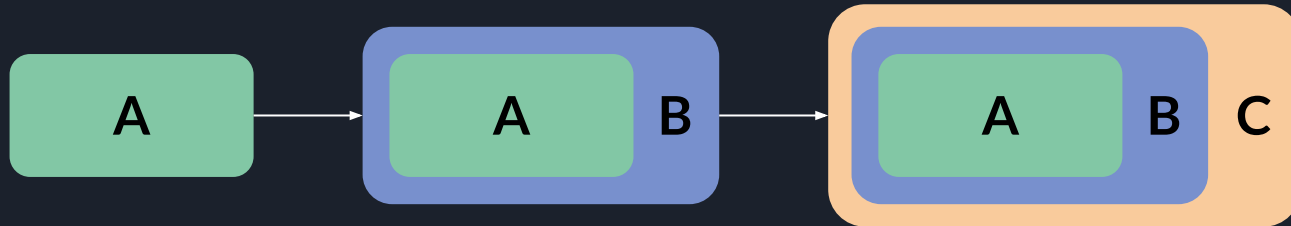
# NFT as a Creator

For MagicEden Hackathon - By Aego

# NFT in an “Open Source” Way

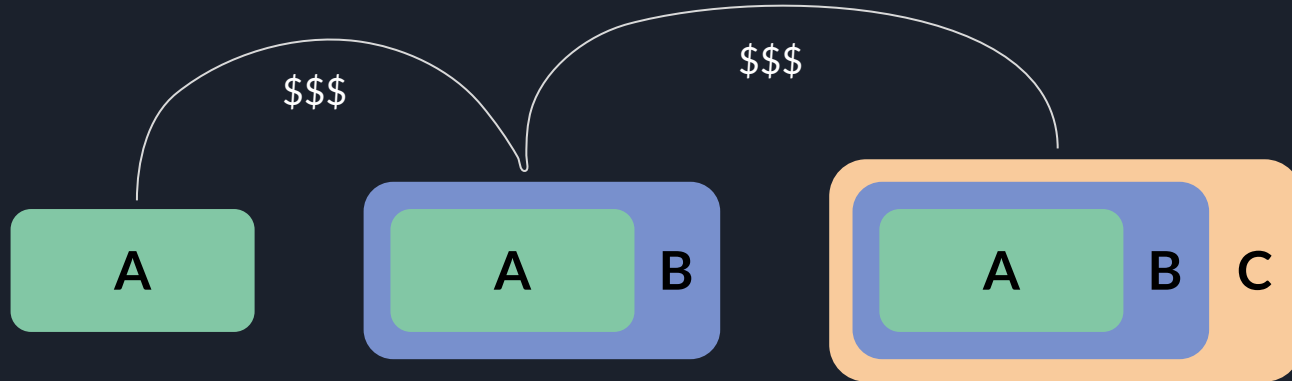
Just thinking about the way how Github works, it invented “pull request” to enable public collaboration on a particular project. The “fork” feature also allows developers to lead a project into different branches and approaches.

What about add an “open source” way to our NFT world? Imagine that you can create your own works based on others’ NFTs while respecting to all royalty strategies. It will definitely make differences to the current NFT market.



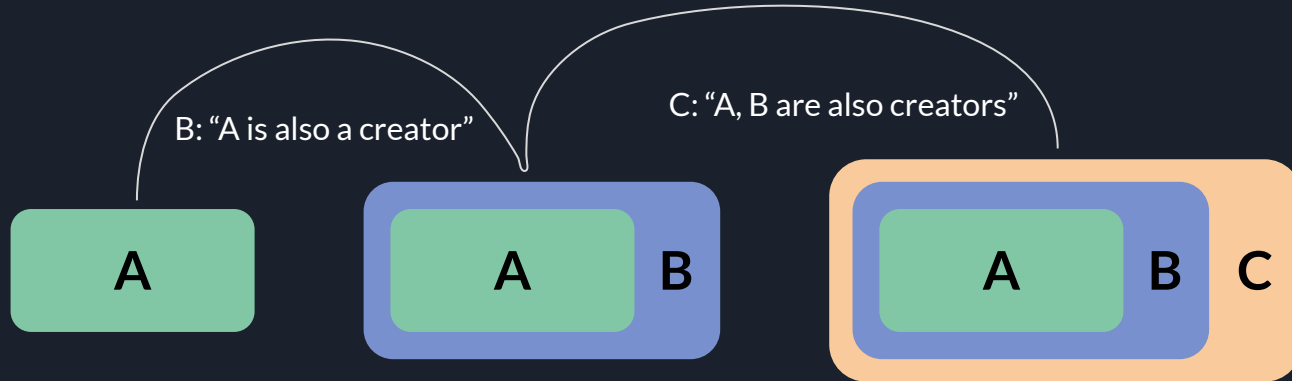
# The Royalty Issue

However, in this case, splitting royalty will somehow become an issue because of the limitation of current design of NFT protocols. Since the current “Token Metadata” program doesn’t support a “chaining” representation of NFTs, it will not allow royalty payments to be correctly splitted to all participated creators.



# The Royalty Issue

So the classical way to solve the problem is that the creator of **NFT C** will have to manually add the creators of **NFT B** into the creator list of **NFT C**. The creator of **NFT B** also has to do so that the creators of **NFT A** can receive the royalty payment in the case.





# A NFT as a Creator

What if a NFT can be a “creator” of another NFT?

Back to the previous example, NFT A could be one of the creators of NFT B, and NFT B will be one of the creators of NFT C.

Wait a minute. Where does the royalty payment go?

The answer is that the royalty payment will be directly sent to the token account of the NFTs which are defined as creators.



# Add a Magic to Token-Metadata

As NFTs can be creators and receive SOL, we can add an instruction that can split the balance of the token account of the Metaplex Token Metadata program. The instruction will be called **SplitRoyalty**.

By calling this instruction from any signers (not necessary to be the owner of the token), the program will automatically transfer exact amount of SOL, **based on the seller\_fee\_basis\_points and creator.share**, to the creators of the NFT.

Such a design will have two advantages:

1. Everyone can enforce the dispersion of royalty payment based on share.
2. No matter how many levels of nesting, the correct amount of royalty payment will always be sent to the particular creator.



# How to Implement

However, it's impossible to implement such a feature at the moment, since Solana's Token Program doesn't support to withdraw partial balance from a Token Account without closing it. Besides, the lack of authorization and permission management for the Token Account will also be a difficulty.

We have known that Solana is building the next token program called Token 2022. It could be a chance to make some improvements on the standard.

Thank You

