Project 2: Create an SPL-Token

👑 Solana Blockchain: Web3 Developer Guide

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▼ Step 1: Create an account for mint authority

- This account will be the **owner** of the token we will create.
- This account is also a **real Solana wallet** that you can use to send and receive tokens.
- This command will create a wallet:

```
solana-keygen grind --starts-with MIN:1

# Note: We use "grind" to create a wallet that starts with MIN
```

▼ Step 2: Set the account as the default keypair

- The following command will tell the Solana CLI that we wish to use this newly created keypair was our default keypair:

  ```
  solana config set --keypair MIN-your-token-acount.json
  ```

▼ Step 3: Change to Devnet

- This command will change to Devnet, to make sure we create a test token.

  ```
  solana config set --url devnet
  ```

▼ Step 4: Airdrop Solana in our "MIN" account

- In order to mint new tokens, you will need SOL. On Devnet, you can just airdrop Solana using the faucet.
- Go out to this URL https://faucet.solana.com/ to airdrop SOL into your account.
- This command will show your public address:

  ```
  solana address

  # Run the following command to check your balance:

  solana balance
  ```

▼ Step 5: Create your mint address (token)

- This will be your mint address.
- It will also be the official address of your token.

```
solana-keygen grind --starts-with TOK:1

# Note: We use "grind" to create a wallet that starts with TOK
```

▼ Step 6: Mint your token (create)

- The following command will mint your token:

  ```
          spl-token create-token \
  --program-id TokenzQdBNbLqP5VEhdkAS6EPFLC1PHnBqCXEpPxuEb \
  --enable-metadata \
  ```

```
--decimals 9 \
TOK-your-token-acount.json
```

- We will use the default token program from Solana specified by "--program-id".
- The "--enable-metadata" flag means that we can add pictures and additional information to our token.
- The "--decimals 9" specifies how many fractional units a token can have. (9 is default Solana)

▼ Step 7: Add the metadata to the token

- Create a meta data file:

```
   {
  "name": "Hunter Token",
  "symbol": "HUNTER",
  "description": "Official Hunter Token",
  "image": "https://link-to-our-ipfs-uploaded-picture"
}
```

- Upload the file to a cloud ipfs provider such as: https://app.pinata.cloud/
- The following command will add metadata to our token:

```
spl-token initialize-metadata \
TOK-MINT-ADDRESS \
"Hunter Token" \
"HUNTER" \
https://link-to-our-ipfs-meta-data
```

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Congratulations! You have now created a token with metadata

▼ Step 8: Create a token account

- In order to mint new tokens, we need a token account in our wallet.
- Every token hold by a wallet has an individual token account for that.
- The following command will create a token account for our wallet, for our new token: Hunter.

```
spl-token create-account TOK-MINT-ADDRESS
```

Step 9: Lets make some “Fake” Money

- Now that we have a token account, for our token, in our wallet, we can create as many supply as we want.
- Because we are the mint authority.
- Remember, only the mint authority account can do this.
- The following command will mint tokens for our token:

```
spl-token mint TOK-MINT-ADDRESS 1000
```

- Check our token balance with the following command:

```
spl-token balance TOK-MINT-ADDRESS
```

Step 10: Send our token

- To show, that is actually real, we can send to any Solana wallet.
- The following command will send our token

```
spl-token transfer TOK-MINT-ADDRESS 100 MINT-ADDRESS --fund-recipien
```

Congratulations! You have now created a real token with an actual supply.

Next Steps to make it legit

- The following commands will disable minting of new tokens and disable freezing accounts.

```
spl-token authorize TOK-MINT-ADDRESS mint --disable
spl-token authorize TOK-MINT-ADDRESS freeze --disable
```

- Next, we need to create a Liquidity pool for out token so that it can be traded.
- This we can do via: https://raydium.io/liquidity/create-pool/
- Finally, to make it a serious project, we also have to burn our tokens via: https://sol-incinerator.com/