# API for Code Execution

## Implementation Plan

* Create an execution service directory in the backend service.

## User Flow

* Client sends request to the execution enclave to redeem DRT.
* Execution enclave sends DRT metadata (Asset ID & transaction ID) to Oracle nodes for authorization.
  + If authorization fails, the execution enclave sends the client an error message.
* If authorization is successful: call a second API (might be a method/function) to get the data and send it to the execution enclave.
  + Retrieve data from DB and send it to the enclave along with what function(s) to execute on the data given details of the DRT.
* The API returns a result (from the execution enclave) that is sent back to the client.

## Questions

* For the purpose of the MVP, are we using code that is written in-house, publicly available code, or a mix of both?
  + For MVP, we use codes that are built internally.
* The role of the oracle nodes is to authorize code execution requests allowed by a DRT.
  + Oracle Node = A function/method that queries a blockchain about the authenticity of a DRT. Client sends a DRT Asset ID, transaction ID to obtain DRT, oracle node checks and returns a response.
  + How & where are the oracle node results stored?
  + Why are oracle nodes sent to the enclave?
  + According to the NTC research notes, with the first API, oracle nodes sends the results to the enclave:
    - What is the data structure of the responses?
    - Where and how are responses stored?

## Notes