**DOCUMENTATION**

**CREATE A FUNCTION APP AND CREATE A FUNCTION WITH CRUD OPERATIONS USING REST API**

Through Vs Code I Have Created Function and Function App with Http Trigger Integrated and Also, I Have Attached Cosmos Db Which Will Store the Value Which we can get or add using Post and Get Method.

import logging

import azure.functions as func

import os

from azure.cosmos import CosmosClient

# from azure.core.credentials import AzureKeyCredential

from azure.identity import ClientSecretCredential

connection\_string = os.getenv('CosmosDbConnectionSetting')

cosmos\_client = CosmosClient.from\_connection\_string(connection\_string)

# Initialize Cosmos DB client

database\_name = "my-database"

container\_name = "my-container"

container = cosmos\_client.get\_database\_client(database\_name).get\_container\_client(container\_name)

def get\_items(req: func.HttpRequest) -> func.HttpResponse:

    logging.info('Getting items from Cosmos DB.')

    items = list(container.read\_all\_items())

    return func.HttpResponse(body=str(items), status\_code=200)

def add\_item(req: func.HttpRequest) -> func.HttpResponse:

    logging.info('Adding item to Cosmos DB.')

    try:

        req\_body = req.get\_json()

        container.create\_item(body=req\_body)

        return func.HttpResponse("Item added successfully", status\_code=201)

    except ValueError as ve:

        logging.error(f"ValueError occurred: {ve}")

        return func.HttpResponse("Invalid request body", status\_code=400)

    except Exception as e:

        logging.error(f"An error occurred: {e}")

        return func.HttpResponse("Internal server error", status\_code=500)

def main(req: func.HttpRequest) -> func.HttpResponse:

    logging.info('Python HTTP trigger function processed a request.')

    if req.method == "GET":

        return get\_items(req)

    elif req.method == "POST":

        return add\_item(req)

    else:

        return func.HttpResponse(

            "Invalid request method",

            status\_code=405

        )

Code for CRUD operation and for integrating cosmosDB, we have to add connection string for which I have used environment variable for security purposes .

Also, for authentication I have used authentication using bearer token I was unable to use key vault as I am using free trial which restricted my access.

Endpoint- <https://login.microsoftonline.com/3d022973-06c2-413e-9081-7492bd1e8085/oauth2/token>

Application ID- d99dca66-3a03-4077-9f1b-9ba160901990

Client Secret- hU~8Q~ga34egbi1YH5LrFtf5FfWl8hZhPb0uLbqs

Bearer token-eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsIng1dCI6IlhSdmtvOFA3QTNVYVdTblU3Yk05blQwTWpoQSIsImtpZCI6IlhSdmtvOFA3QTNVYVdTblU3Yk05blQwTWpoQSJ9..pzZ1PxK-ZcKhnvMkMWE6nkCRK28DHLkgY-2ZvpwgXBWhHLZtjaiyaC1F0nYHBvvMBejz5tpYy-7YzU3O1n3ApvDmv2-6M093fWdBM4Yv7T28\_Pj45pCdcoCOKXt2SaO-dOgu40p8x2rFtfTrS1sZaaVVmyfLt9NS187nJ\_zS5hNNwJL1Df6lWD5\_NebinGnO\_9G5qngVR4maMA7v4W-HqZcHkCqUMtgsS1cJGRF2Mc0K86ALdOYydTZNc1SJ38yMSa4s5UeuBPofUX-D8o4sTyp5K1-ZMfi8BpkFgfB6S7IKdCpK139ah0hT5xTX2VAxbw5WKSXa78fmRs20po-4Bg