VMware Hackathon

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Idea

Our project aims to use Serverless functions to provide a layer of abstraction to database functions to provide users an endpoint that lets them communicate with the database of their choice with a unified language without setting up their own backend for simple database functions.

This will be helpful for people who have no backend experience but need simple database functions like INSERT, SELECT, and more.

Solution

This solution we're building helps users set up applications that require database functions without having to build and host their own server. Since we run each database function call as a serverless function, the application can deal with a lot of requests and scale efficiently without having to worry about load on their own server or take care of allocating resources.

We plan to build a platform that lets users connect their database to it and build endpoints for database requests that they can call through a REST API. For example, the user can connect the database of their choice, define a schema and then create an endpoint for a fixed database function like INSERT or SELECT. Now, from their application, the user can create a request to the endpoint with some data and based on the pre-defined function each database request is run as a serverless function on Tanzu with the data the user sent to manipulate the database. Thus, the user doesn't have to write and host their own backend for CRUD operations and instead run them against the database as serverless functions making their application highly scalable. They can connect SQL or NoSQL databases, and still make requests in a similar fashion to any kind of database, and the platform handles scheme checking, sanitation, and all the other required tasks

User

Connects SQL/NoSQL DB → Our Platform

Sets up DB for user

Returns endpoint to user to query

App / Website

Sends Query → Our Platform

Returns data

Makes DB Query

Serverless Function