

Project Achievement Report

Project Title: Azure Client API

Project Duration: 14/8/2023 – 18/8/2023

Project Overview:

Create Azure API that is Representational State Transfer (REST) API, so the API can change the state of the Azure organization by create new projects, get projects, add work items to it and make operations on the work items.

Project has two parts, one is to make synchronous client and other is make asynchronous client that can make requests in parallel.

Also, project has part that to create telegram bot API that used to send notifications on each operation that made on the user organization.

Objectives:

- Learn more about http protocol.
- Learn more about network.
- Learn about REST API.
- Learn more about Authorization and configuration file.
- Learn about python data classes.
- Learn and use httpx.
- Use HTTP request methods.
- Learn about Azure DevOps.
- Learn to create async client.
- Learn about asyncio python library.

Result:

Command line application that can control Azure organizations using its APIs.

Challenges:

- Read documentation for each API.
- Get all expected errors and handle them.
- Recognize what is variables needed in settings data class.
- make async unit testing.

What's new:

- REST API that can change state of data by HTTP request methods.
- make Authorization and configuration file using settings.init file.
- Use python data classes that can implement all needed methods to use the class.
- Use httpx library to create synchronous and asynchronous http client.
- Azure DevOps and using its website to control organizations.
- Async and await keywords usage.
- asyncio python library that can create async tasks.