TopUp Beneficiary Solution - NET6

Created a robust backend solution for the topup beneficiary application, enabling users to efficiently manage their top-up beneficiaries, explore available top-up options, and execute top-up transactions for their UAE phone numbers. Implements a maintainable enterprise-level API application with Middleware, EntityFrameworkCore, Serilog, and Swagger using Domain Driven Design (DDD) and architecture princliples.

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Prerequisites

You will need the following tools:

- Visual Studio Code or Visual Studio 2022 (version 17.5.0 or later)
- .NET Core SDK 6.0
- Microsoft SQL Server

Architecture Overview

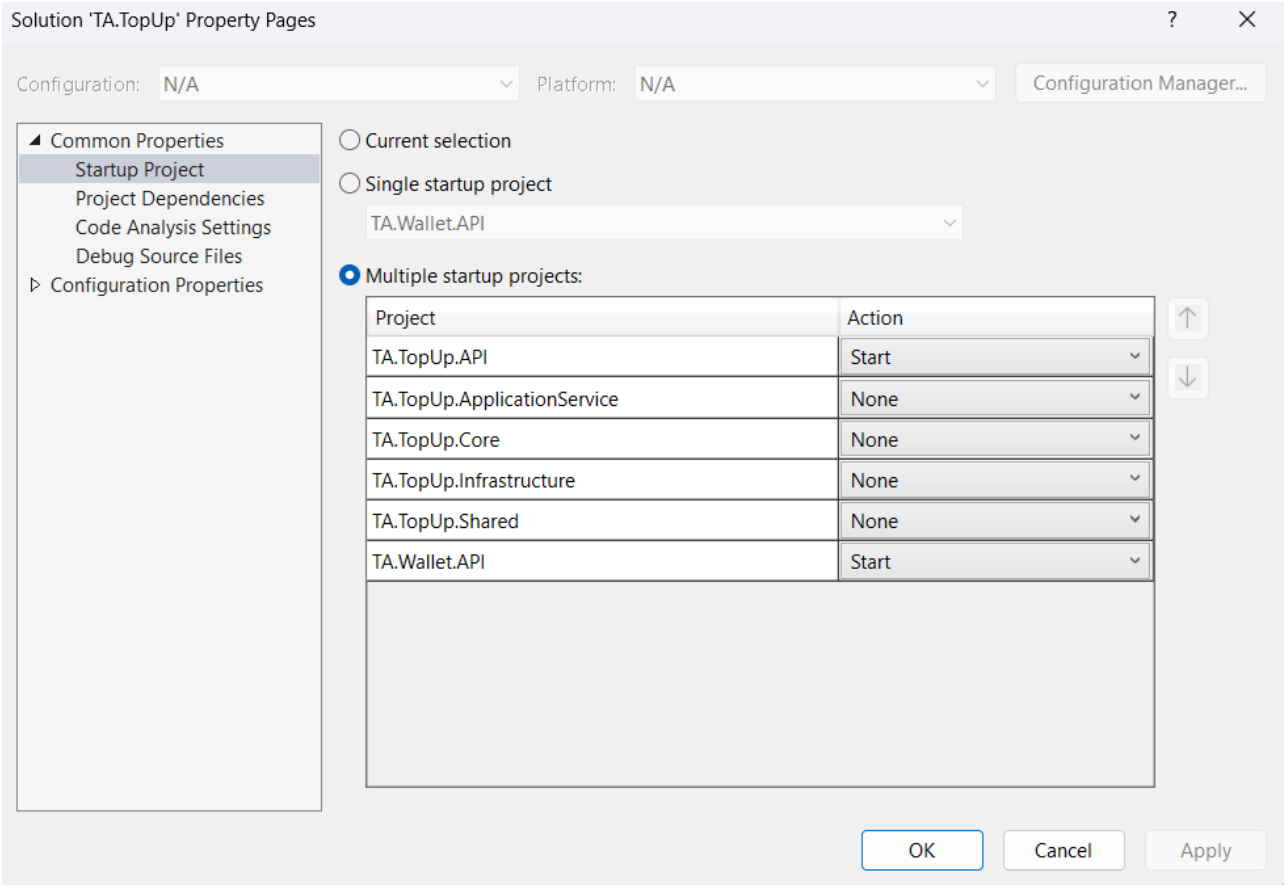
This is a multi-project solution that utilizes Domain Driven Design (DDD) and CQRS patterns to create a maintainable web API application using .NET 6 that allows it to run on Linux or Windows and in Docker environments.

Instructions

Installation:

1. Install the latest .NET Core 6 SDK.
2. Used Database first approach, so kindly execute the attached SQL script.
3. Clone Github repo https://github.com/Shivvvvvvvvv/TechnicalAssessment.git
4. Restore Nuget Packages

5. Rebuild and run the program by setting below projects as startup,



You should be able to browse to the application by using the below URL :

```
Swagger - TopUp Service: https://localhost:7024/swagger/index.html
Swagger - Wallet Service: https://localhost:7085/swagger/index.html
```

Database Setup

To setup the SQL Server database following the instructions below:

1. Reveiw the **connection string** in **appsettings.json** and update the database name.
2. Run `dotnet ef migrations add Initial --context <ProjectName>DbContext` to add migation with EF Core
3. Run `dotnet ef database update Initial` to create application database.

Third Party Libraries

- Swagger
- Serilog

Future Enhancements

- Implement migration concept to create application database on initial run
- Implement polly
- Implement ciruit breaker

- Refractor Topup Service
- Write Unit test and Integration test