Endpoint - Present Layer

TranslateController

Service Layer

Domain Service Layer - Where all logic live

OxfordTranslateService

TranslationTrackingCommandServiceImpl

TranslateService

TranslationTrackingCommandService

Application Service Layer - support the domain layer (contain less logic)

TranslationResponseMapper

GeneralControllerAdvice
(Exception Handler)

TranslationTrackingMapper

Utitlity Service Layer - the non-logic services for infrastruture

ClientFactory

LogingHandler

Controller

Mapper

Service

Infrasture-layer

CacheConfiguration

IntegrationConfiguration

DatabaseConfiguration

Data-access layer

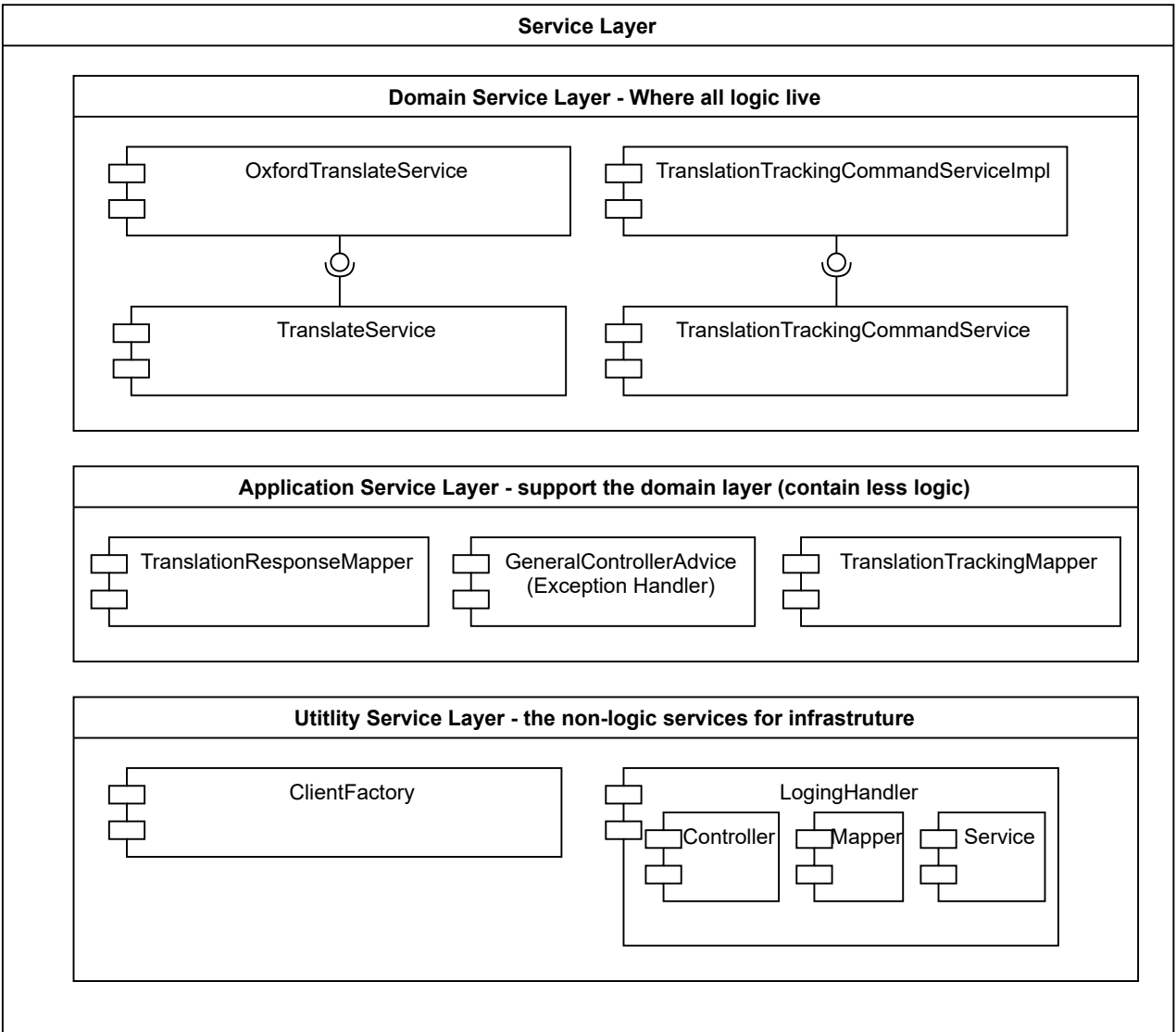TranslationTrackingRepository

TranslationTrackingEntity

Present Layer - Endpoint

This is the outer-most layer which is used to expose the Translation APIs. The controller will receive the request and delegate to service layers to handle the request and get back the response in a standard API responnse (ApiResponseDto)
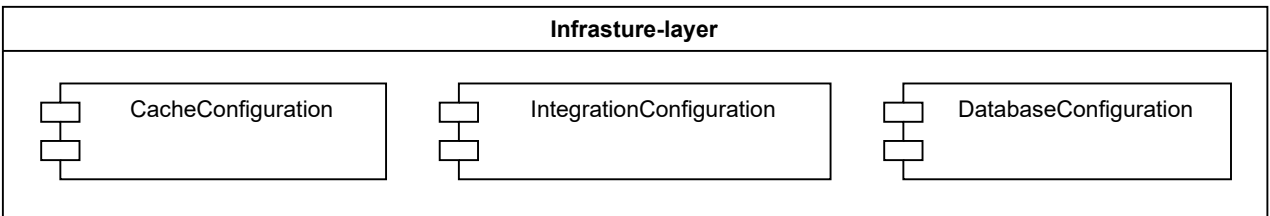
Service Layer - Domain Service

This heart of the logic live in here. The Translate service will handle the request to Thrid-party API (Oxford API in our case) and mapping back the response to the upper layer. While the Tran slate service handle request, the Tracking service will track down the translation from the request and store it to Database.

Service Layer - Application Service

The less important work flow and mission including transfor the data response and handle the exceptions will be operate in this layers.
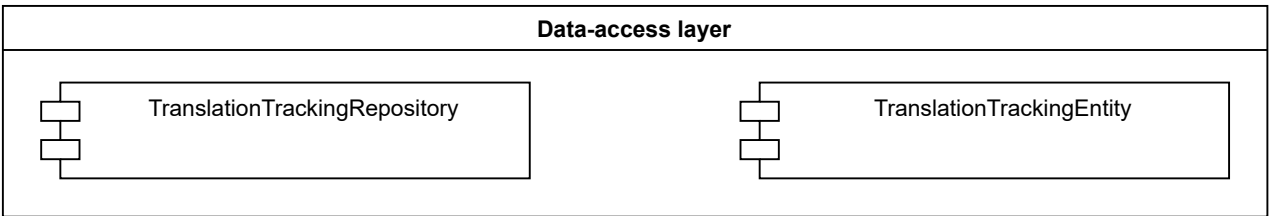
Service Layer - Utility Service

These services contain no logic from the domain. In details, the Logging Handler will use Aspect Oriented approach to log down the detail information as well the elapsed time. The client factor make use of Astract factory pattern to create the Http Client and Web client for the Translation service
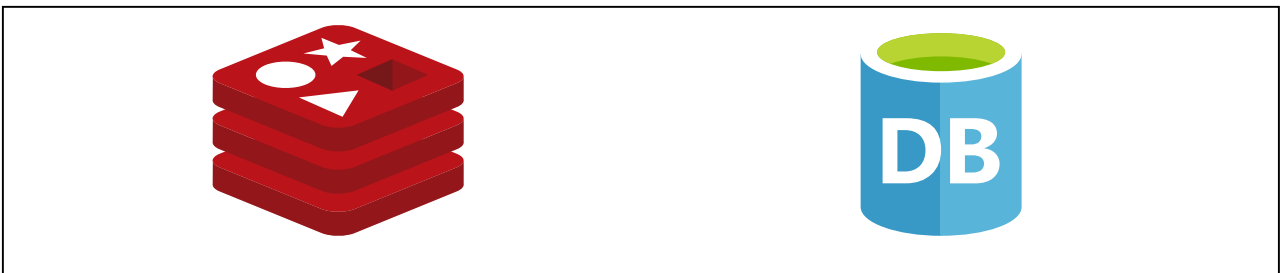
Infrastructure Layer

The database configuration support the config of Mongo Database. The cache configuration support the config of Redis Cache. The integration configuration support the data to request ther Oxford API v2

Data-access Layer

The ORM: Repository and Entity for tracking translation

Infrastructure Provider

Mongo Database and Redis Cache