**System Design and Architecture for Thesaurus:**

The system has three components:

**Frontend**: An independent deployable UI (Angular app).

**Backend**: REST endpoints developed using .NET 5 (Core) (web API)

**Database**: SQL Server

The system is designed as highly decoupled and distributed system so that any layer can be replaced without disturbing the other component. The rest-based end points allow any front end to connect with the system. Within the backend component there are layers those are completely replaceable.

To enable fast search, auto suggestion and fuzzy logic for front ends a nuGet package [symspell](https://www.nuget.org/packages/symspell/) is used.

To better use the REST End points we have used swagger which will provide the details about each end pints exposed.

Back end

Angular UI

Data Access layer

cv

Business Logic Services

cv

cvvcvcv

cvvcvcv

REST based Web API Endpoints

SQL Server