# Architecture diagram

Web App

Angular SPA

SQL Server DB

Web API (.net core 3.1)

# Components

1. Angular SPA web app

Web app developed in Angular8 using bootstrap and angular material.

* Angular reactive forms are used to handle user inputs. Validations are performed at client side using form validators.
* Basic Unit testing implemented using Karma libraries.

1. WebAPI developed in .net core 3.1

Web api developed in .net core 3.1 which uses entity core ORM in the persistency layer.

* Repository pattern is used in the persistency layer.
* Middleware used for handling global exceptions
* Serilog used for logging information to DB.
* Automapper used for mapping entities to API model.

1. SQL database

Simple SQL database with 2 tables storing the occupation and rating details. It also has the Log table used by Serilog

1. Unit testing and Integration testing

* Unit testing is implemented at the API and repository layer using NUnit libraries
* Integration testing implemented for API using xUnit libraries.