Setup:

This document helps to setup the EE Quote Generator Application. EE Quote Generator Application is a web-based application developed in .NET Framework Core. It uses ASP.NET MVC Core application development framework, Entity Framework core and many other dependencies.

The detailed description of requirements, design and implementation of the application is given in application report shared along with the project.

Mapping data upload application is a desktop application used to upload the Region Postcode Mapping data and Irradiance data into the database. This is a one-time activity and application is designed to run on the empty tables once the database is setup. The application will not update the data if it is already present in the database.

Please find database setup, connectivity, and deployment details of the setup below:

Database Setup and Connectivity:

1. Setup a SQL server and a database for this application.
2. Get the connection string of the database.
3. Update the connection string in both EE Quote Generator Application and Mapping Data Upload Application.
   EE Quote Generator Application – Connection string will be available in appsettings.json under ConnectionStrings. The file path for the appsettings.json is \EEQuoteGenerator\EEQuoteGenerator\appsettings.json.

```
appsettings.json  ⊹ ×   UserController.cs    HomeController.cs    HistoryController.cs    Dashboard.cshtml    GenerateQuoteController.cs
Schema: https://json.schemastore.org/appsettings.json
 1    {
 2        "Logging": {
 3            "LogLevel": {
 4                "Default": "Information",
 5                "Microsoft": "Warning",
 6                "Microsoft.Hosting.Lifetime": "Information"
 7            }
 8        },
 9        "AllowedHosts": "*",
10        "ConnectionStrings": {
11            "DefaultConnection": "Server=(local)\\SQLEXPRESS;Database=ee_master;Trusted_Connection=True;MultipleActiveResultSets=True"
12        }
13    }
14
```

Mapping Data Upload Application – Connection string will be available in the EEDbContect.cs file. The path for the cs file is as follows: \EEMappingDataUpload\Models\EEDbContext.cs.
Please use the provided excel sheets to upload the Region Postcode Mapping and Irradiance Datasets as the application is automated for the provided templates.

```
namespace EEMappingDataUpload.Models
{
    public class EEDbContext:DbContext
    {

        protected override void OnConfiguring(DbContextOptionsBuilder optionsBuilder)
        {
            optionsBuilder.UseSqlServer(@"Data Source=(local)\SQLEXPRESS;Initial Catalog=ee_master;Integrated Security=True");
        }
    }
```

4. This step is about creation of data tables in the database after connection string is updated. Using Entity Framework core code first migrations, the creation of tables and its

relationships is two step process. It involves executing two commands in the Package Manager Console of the project in Microsoft Visual Studio IDE.

Step 1: Add – Migration {Database Version}

Step 2: Update – Database

The Detailed information of EF Core Code first migrations is available in the below given link:

https://docs.microsoft.com/en-us/ef/core/managing-schemas/migrations/?tabs=vs

After executing these two commands in the Package Manager Console, the tables for the required models will be created in the given database (as updated in the connection string).

In case of any detailed information, please refer to the application report.

Deployment of the Application:

1. Please refer the below link to publish and deploy this application on IIS Server:
   https://docs.microsoft.com/en-us/aspnet/core/tutorials/publish-to-iis?view=aspnetcore-6.0&tabs=visual-studio

2. Please refer the below link to deploy this application to Azure App Service:
   https://docs.microsoft.com/en-us/aspnet/core/host-and-deploy/azure-apps/?view=aspnetcore-6.0&tabs=visual-studio

The detailed description on deploying and publishing the application is not given as it depends on the server of the deployment. But the above provided links will guide you in a smooth deployment process.