**Project Management**

**----------------------------------------------------------------------------------------------------------------------------------------Important**

**GitHub URL :** [**https://github.com/nagarajapm/ProjectManagement**](https://github.com/nagarajapm/ProjectManagement)

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**1. Open "SQL Server Management Studio"**

**2. Connect to the database.**

**3. In the "** **ProjectManagement.SQLScripts " folder, execute the following in order.**

**1.CreateDB.sql (This will create the "ProjectManagement" database)**

**2.Users**

**3.Projects**

**4.ParentTask**

**5.Tasks**

**Steps to build Web API project**

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**1. Open Visual Studio in Administrator mode.**

**2. Browse to the solution file i.e. "ProjectManagement.sln"**

**3. If there is any change in the database server, you need to change in the connection string in 4 projects**

**a. ProjectManagement.API - Web.config**

**b. ProjectManagement.DAL - App.config (not necessary unless you are adding an Entity migration from Package Manager Console)**

**c. ProjectManagement.PerformanceTest (ProjectManagement.NBench) - App.config**

**d. ProjectManagement.NUnitTests - App.config**

**e. ProjectManagement.Tests - App.config**

**Connection String:**

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**<add name="ProjectManagementContext" connectionString="Data Source=<Add\_Your\_Server\_Here>;Initial Catalog=ProjectManagement;Integrated Security=True" providerName="System.Data.SqlClient" />**

**4. Right-click on the solution and click "Build Soultion". The necessary packages would be downloaded.**

**5. The Web API project is configured with the local IIS. Make sure you open the solution in Visual Studio Administrator mode.**

**6. If you want to run the project on IISExpress, then follow the steps given below:**

**a. Double-click on the "Properties" of "ProjectManagement" project.**

**b. Click on the "Web" tab on the left-pane.**

**c. Select "IISExpress" under "Servers" section.**

**d. Uncheck "Enable Edit and Continue" in the "Debuggers" section.**

**7. Right-click on "ProjectManagement" project and select "Set as StartUp project"**

**8. Click on "Run" to launch the API application.**

**9. You can access the API configured in IIS via http://localhost/ProjectManagement/api/<apiname>**

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**Steps to build Angular SPA project**

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**11. Open Visual Studio Code (VSCode) and browse to the "ProjectManagement.SPA" folder.**

**12. In VSCode menu, click on View -> Integrated Terminal. Integrated Terminal will be displayed.**

**13. Type the command "npm install" and click "Enter" key. The node packages will be downloaded.**

**14. Type the command "ng serve". The project will be built successfully.**

**15. Open "Google Chrome" browser and type in "http://localhost:4200" in the address bar.**

**16. The "Project Management" application would be launched.**

**Note: For the Web API project, if you have changed from localhost to IISExpress, you need to change the**

**"baseApiUrl" key in the "environment.ts" file of the Angular project as follows**

**export const environment = {production: false, baseApiUrl: 'http://localhost/ProjectManagemet/api/'};**

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**Miscellaneous Information:**

**Load Testing: (Using Jmeter Tool)**

**a. The "ProjectManagement.LoadTest" folder has a "Readme.txt" file which includes details on how to run the process.**

**b. I have generated an actual Report and Test Plan in the "Reports" and "TestPlan" folders respectively.**

**PerformanceTest Testing: using NBENCh**

**a. The "ProjectManagement.NBench" folder has a "Readme.txt" file which includes details on how to run the process.**

**b. I have generated an actual Performance Test Report which is available in the "PerformanceReport" folder.**

**Continuous Integration:(Using Cruise Control)**

1. **The "ProjectManagement.Build" folder has a "Readme.txt" file which includes details on the build process.**

**Code Coverage: (using OPENCOVER Tool)**

**The ProjectManagement.OpenCover folder has Readme.txt file which includes details to run opencover code coverate tool.**