GLvNext

# High level estimates

**Objective**

Create management portal and Web API (referred as GLvNext API below) to serve retail offers for mobile and SPA clients.

Considerations:

1. Admin portal authentication/authorisation can be mocked and not required to be fully implemented at this stage or focused at;
2. Initial focus should be on backend and Web API implementation rather than front-end and UI/UX;
3. No user login required to use GLvNext API;
4. ***Please show usage of HttpClient in the solution;***
5. The system should be able to handle high load especially on API side but also handle possible large datasets coming from external sources, consider that this might be a part of large system and integrating with multiple data providers;
6. Choice of frontend stack is not important (we usually do standard ASP.net Core MVC, jquery or vue.js rather than SPA type of web apps)
7. Backend stack preferably .NET Core, any version 2.1 to 3.1;
8. Use Azure stack if familiar;
9. Data persistence / ORM, the choice is yours, preference would be MS SQL and EF Core;

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| Task | Phase | Description | Tight | Mid | High |
| Planning | Planning | Identify goals and objectives. Allocate time for high level meetings and project kick off if necessary. | 1 | 2 | 2 |
| Setup Project Management System | Initialization | Setup Jira Project or other system to document progress of project and include all stake holders. Plot sprint tasks. | 2 | 3 | 3 |
| Setup Version Control | Initialization | Setup remote repository if needed. Ensure gitignore, readme, license files | .5 | 1 | 1 |
| Create Project from Template | Construction | Include a test project, data repo library, web api / mvc project | .5 | 1 | 1 |
| Authentication | Construction | Allow users to be identified via username and password at minimum. Create script to seed admin user. | 2 | 4 | 5 |
| Backend Code | Construction | Create storage backend for portal | 3 | 4 | 5 |
| Unit Testing | Construction | Create Unit Tests and Mocks targeting 70% to 90% of functionalities | 3 | 6 | 7 |
| Portal and Web API | Construction | Main project create web portal and expose web api from multiple sources | 8 | 9 | 9 |
| Web API lookup | Construction | Backend code to connect to external api. | 1 | 1 | 2 |
| API Testing | Test | Use tools to Load / Stress / Soak test system | 3 | 6 | 6 |
| Integration Testing | Test | Test system from multiple channels (web, mobile.. etc) | 3 | 4 | 5 |
| Documentation | Documentation | (Optional) Other than swagger, if needed, create help files or quickstarts | 3 | 4 | 4 |
| **Total in Hours** |  |  | **30** | **45** | **50** |

\* There is low chance (10% - 15%) of completing the project in 30 Hours

\* There is about 70% - 80% chance it will be completed in 45 Hours

\* There is 95% chance it will be completed in 50 Hours