

Technology Recommendation

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**Recommendations for Enhancing the Municipal Services Application**

1. Use of a Database Management System

A database can preserve much of the data even when the program goes off allowing for persistance.

Databases also introduce some methods that assist in proving the integrity of data in relation to the constraints, indexing and transactions on the data itself. Therefore the data is kept intact and free from any distortion.

Database also allows uses to query it.

Compatibility:

· The application is capable of working with a database like SQL Server using the Entity Framework, which is within the .NET Framework 4.8. This integration will require minimum rework of the existing code and has so many advantages.

2. Implementing Caching

Caching common data such as service request status and event data can help to avoid reading and writing to the database too often and also speed up the application response.

When data is stored in memory, it eliminates the latency associated with the fetch of that information, which leads to better speed of the application for the end user.

Compatibility:

Approaches such as MemoryCache can be used in combination with the .NET Framework to offer effective caching solutions.