**DataBase**

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**Advantages of Using Stored Procedures**

Stored procedures are so popular and have become so widely used and therefore *expected* of Relational Database Management Systems (RDBMS) that even MySQL finally caved to developer peer pressure and added the ability to utilize stored procedures to their very popular [open source](http://www.seguetech.com/blog/2013/03/27/open-source-best-for-your-company) database. The list below details why stored procedures have gained such a stalwart following among application developers (and even Database Administrators for that matter):

* **Maintainability** 
  + Because scripts are in one location, updates and tracking of dependencies based on schema changes becomes easier
* **Testing**
  + Can be tested independent of the application
* **Isolation of Business Rules**
  + Having Stored Procedures in one location means that there's no confusion of having business rules spread over potentially disparate code files in the application
* **Speed / Optimization**
  + Stored procedures are cached on the server
  + Execution plans for the process are easily reviewable without having to run the application
* **Utilization of Set-based Processing**
  + The power of SQL is its ability to quickly and efficiently perform set-based processing on large amounts of data; the coding equivalent is usually iterative looping, which is generally much slower
* **Security**
  + Limit direct access to tables via defined roles in the database
  + Provide an "interface" to the underlying data structure so that all implementation and even the data itself is shielded.
  + Securing just the data and the code that accesses it is easier than applying that security within the application code itself