The Dissemination of Good Practices in Database Development Work

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Though the concept of sharing good practices regarding database development is not new, many organizations lack an effective sharing mechanism. A typical problem occurs when a work assignment is concluded without properly gathering and storing good practices. Good practices that have been identified during development work may be lost or become inaccessible for future use.

Ideally, there is an organizational process whereby good practices are gathered, stored, and disseminated. This may include organizational meetings where good practices are shared among personnel. It may also require a final report that gathers learning experiences from developers that are made available for future reference. The overall goal is to disseminate good practices in order to promote “what works” in terms of fewer defects, improved performance, and enhanced functionality, among others.

What constitutes a good practice? A good practice is one in which the organization will benefit in terms of its goals (e.g., process improvement, resource utilization, completion time, quality, and system functionality). A good practice is a learning experience shared by a developer, team, project, or support personnel as a result of development work. These learning experiences may be technical or process-driven. A good practice could be a SQL query construct that improves system performance. It could also be a process improvement such as a review mechanism for ensuring correctness and efficiency in the use of indexes.

A Repository of Good Practices

It is important to identify an effective means of storing good practices for future use. What may be needed is a repository designed for fast data retrieval with search capabilities. The benefits of developing a repository for sharing good practices may include (but are not limited to):

- *Developers have ready access to learning experiences.* Many good practices are repeatedly discovered by developers. Developer learning time could be minimized by ready access to lessons learned by others.
- *Developers are more likely to search for good practices.*

Though good practices may be disseminated in the organization, it may be difficult or impossible to retrieve this information on an as needed basis. A common complaint by developers is that there is no easy way of finding data related to learning experiences.

- **New employees have a support mechanism.** New or inexperienced employees would have a resource for answering questions related to their work assignments. This would free experienced developers from providing solutions that could be found in a common repository.
- **Widespread dissemination.** Information sharing on a broad scale is promoted because the boundaries of time and geographic dispersion no longer exist.

Though the benefits of developing a repository are great, there may be issues that need to be addressed. These issues may include:

- **Data Redundancy** - The development of a repository may require the replication of information that already resides in legacy systems, manual file systems, etc. If it is not possible to develop easy and quick access to existing systems, data duplication may be worth the additional cost.
- **Data Representation and Retrieval Mechanisms** - Though organizations have begun to develop repositories to store their learning experiences, there may be storage and retrieval issues that need to be addressed.
- **Training** - The use of a repository to search for potential solutions may require training support and reward mechanisms.
- **Maintenance** - The ongoing maintenance of a repository would require resources to support data quality, integrity, and consistency, among others.

A Set of Good Practices

A set of good practices is presented in Table 1 to illustrate database development experiences that could appear in a repository. These good practices may be considered routine by experienced database developers but this may not
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