Overview

This document is to help guide various departments at the Health Sciences Center develop and ensure the ongoing maintenance of projects that require web application programming and/or use a database to store information.

Departments that need to develop a web application or a database hire permanent staff, graduate students, or outsourcing the project to an outside firm. Normally short term plans are made for the development of the applications but not for the long term maintenance and support of the projects. When the hired staff leaves, the GA graduates, or the outside firm’s contract is up there is often a void in support for the developed applications. Often times Information Technology Services is called upon to assist in this process. Below are the guidelines that we ask that you follow when developing a new project or database.

Project Development Recommendations

We would recommend developers and project leaders to use Alchemy, a project based ticketing system to log time spent on each project from task level.

Programming Recommendations

1. **Languages**: Visual Basic .Net or C# unless the project requirements preclude this.
2. **Web Development Framework**: ASP.Net MVC3 or later, ASP.Net 4.0 or later, .Net Framework 4.0 or later.
3. **Web Server**: IIS 7.0 or later
4. **Scripting**: JavaScript, HTML, XML, XSL, CSS, JQuery
5. **Development IDE**: Visual Web Developer, Visual Studio 2010 or later.
6. **Reporting**: Reporting tools that work with Microsoft Visual Studio.
7. **Other**: All latest features in web development supported by .Net framework can be used. (Ex: Entity Framework, LINQ etc...)

Database Recommendations

1. Databases should be developed using Microsoft SQL Server 2008 or later. Applications with an Oracle database can be supported but only when required.
2. Database design principles should be followed when designing relational databases. A well designed database would be easy to maintain.

**Equipment Recommendations**

In general ITS will provide server resources needed for web application projects. Projects outside the supported platforms, or projects that involve intense load will need to be evaluated to determine how the application will be supported.

**Project initiation**

Before a project is started it is required that you follow the following steps:

1. Develop a project plan to include requirements
2. Contact ITS to determine if any existing systems would accommodate your needs
3. Determine development and production systems requirements
4. Determine who will be developing the application
5. Determine where the application will be hosted
6. Develop a backup strategy
7. Document support policies
8. ITS must be informed of every major technological change being made to the project.

**Support**

Level 1: The project is being done or completed by following all the technical specifications of ITS. We can give a high priority to these projects when supporting them and we will be able to finish them in less time as they followed all our recommendations.

Level 2: The project has met our recommendations partially. They were not able to meet all the guidelines because of the nature of the project. We can give these a low priority as we may need time to learn new things. We can get to these after we are done supporting Level 1 projects.

Level 3: The project is being developed or has been developed out of our guidelines. We will not support any level 3 projects, until and unless there is an administrative request.