

<Student Name>

Senior Project Proposal

Terre Haute First Baptist Church Interactive Web Site

Dave Berque

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*Terre Haute FBC
Web Site Proposal*

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Summary:

For my senior project, I will create a website for my hometown church. The project will entail constructing several active server pages, a database, and communicating with the client as the project progresses. At this point, I have conversed with the client about preliminary website specifications. The site will require the implementation of three types of user roles: administrators, site members, and general users. Administrators will have complete access to the website, and will have unrestricted permission to update, delete, and add content. The member user will be able to read church news, access Sunday school class information, join/participate in discussion groups, download files, and view the online church directory. A general user is defined as someone who comes across the site on the web and has no affiliation with the church. This user will have access to general church information (i.e. address, contact information, etc.). Each of these user roles will be further elaborated upon in the functional specification.

Another large feature of this website is that it will be mostly updateable via active server pages. Administrators will have the ability to update web pages/database information without having to edit source code. This will provide easier maintenance capabilities to the user. I will be hosting both the web-server (IIS) and database (SQL Server 2000) from my personal computer. Once the site has been fully developed, it will then be transferred to a remote service provider, which is employed by my clients.

Significance:

The scope of this project fits in well with the course content of the database course offered at DePauw. This class gave us an opportunity to work with an oracle

database and learn how to work with primitive active server pages. The database component of this project will be on the same level of complexity as to what was presented in this course. However, the general complexity of this project will be a good deal larger than what was presented in this course, because of the greater significance of the user interface. The user interface will be of such significance for two reasons. One, to my knowledge a web site of this caliber has never been developed and launched for use by any church, so there is no template to base a site structure. Two, many of the prospective users of this system will not be computer oriented, so an intuitive interface is a necessity.

Required Tools and Availability:

This project will require that I have access to four components: a web server, a database server, a web page editor, and a static IP address. I am currently using Microsoft's Internet Information Service package (IIS) as the web server, Microsoft SQL Server 2000 as the database server, Microsoft Visual InterDev as the page editor, and I have already obtained a static IP address (163.120.128.27) from DePauw's IT department. Each of the mentioned software packages have been installed and tested on the server.

Demonstration Plans:

I will be able to demonstrate the functionality of the web pages and database in the DEBBIE lab just by using the Internet. If it becomes necessary to view any source code I will copy the needed files to the I: drive, as the Debbie lab is already equipped with Microsoft's Visual InterDev.

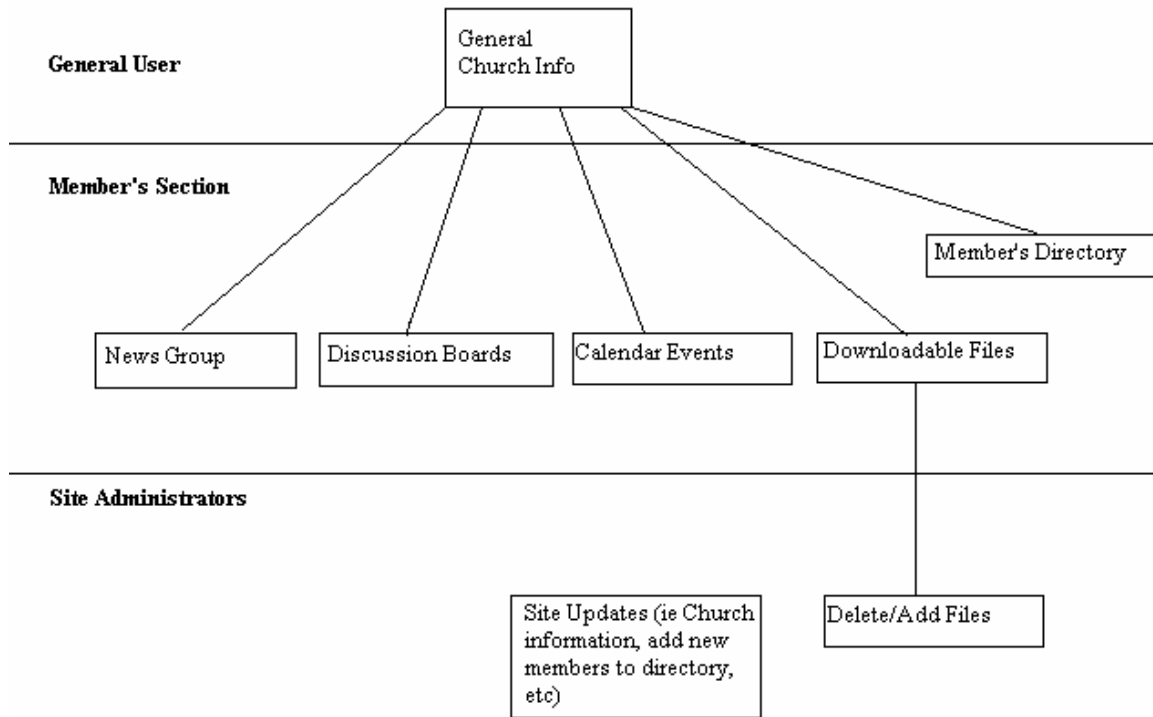
Qualifications:

I am qualified to take on this project for two reasons. As mentioned above, I have taken the database course offered at DePauw in which I learned about database structure and design. For my final project in this course I created an online archive for different types of media for the physics department. I have also worked at Rose-Hulman Ventures for two winter-term periods and a summer. Each of these times I worked closely with SQL Server and have created several database structures from the ground up. I have also gained extensive experience with active server pages. The project that I worked on last summer required that we produce several ASP forms based on templates created in Microsoft Access. During this time I also gained experience using VB Script, Java Script, and IIS.

Project Specifications:

The ultimate goal of this project is to provide my client with a functional web site that meets their specifications. Preliminary specifications have already been gathered so that a base structure may be applied to the site. Features will include event registration, file upload/download capabilities, news groups, prayer requests/praises, and a discussion group.

The site will be structured around three types of user roles; the administrator, site member, and the general user. The following diagram clarifies:



The general user will have very limited access to this web site. The general user will be able to read about the church and some of its members, but will not be able to access items such as the member's directory.

The church member will have fewer restrictions than the general user. Once a valid username/password combination has been entered the user will have access to features such as church news, discussion groups, calendar, downloadable files, and the member's directory.

The site administrators will have the same capabilities as a member user, but with some extended features. For example, the administrator will have the power to delete and add files, which are available for download by the member user. The administrator will be able to update the general site information, the church bulletin, create/edit/delete members, calendar items, church staff, and etc via web pages.

Technical Details:

A copy of my extended relational diagram, along with a list of tables and their respective fields, may be found on the last two pages of this document. I will populate this database structure using a sampling of fifteen of today's church members, including three staff members, and their respective photographs.

The database itself consists of twelve tables; the following is a brief synopsis of each:

1. Website_Members

This table contains general information about each member of the church.

2. Church_Info

A non-relational table that stores general information about the church.

3. Church_Staff

This is a simple relationship that stores information about a user, if they are church staff.

4. SS_Class

This table stores general information about Sunday school classes. It links the church members to a class.

5. Calendar_Items

Calendar Items stores general information about events that will occur on certain days. If registration is required, there is a relationship to event registration.

6. Event_Registration

Event Registration stores the users who sign up for an event and general information about how many people they are bringing, etc.

7. Links

This table will simply store links to members' personal web sites and can also lead to the expandability of this site.

8. Files

This table will store links and general information for all files associated to this site. Whether they be for download, or viewing on the site.

9. News

This table is intended for general postings by members and administrators. It will differ from discussion groups in that it does not have topics and sub categories.

10. Prayer

Used to keep track of the prayer requests and praises of the congregation.

11. Discussion_Grp

Defines a discussion group. This table is related to discussion_msg in that may contain many messages per group.

12. Discussion_Msg

Used to actually store a submitted message.

Timeline:

Checkpoint #1:

- I will login with a valid username/password combination and show that the main member screen is displayed.
- I will login with an invalid username/password combination and report an error message.
- I will demonstrate the general user pages by viewing the main page and the church staff page.
- Database implementation will be completed for this checkpoint as well. I will bring and present a diagram of tables created by SQL Server 2000 to show its completion.

Checkpoint #2:

- I will demonstrate the calendar views and event registration by creating a new event and allowing registration for the event. The event will become present on the calendar view. I will then login to the system as another user and register for the event.
- A prayer request will be added to the list of prayer requests and viewed.

Checkpoint #3:

- I will demonstrate the page/database updating ability via the administrator pages by adding and deleting a member. I will also demonstrate that the site itself may be updated by changing the main page welcoming text that the general user will see.

- I will demonstrate news posting/viewing abilities by adding a new news message and viewing it.

Checkpoint #4:

- I will demonstrate message board functionality by adding a new message group, posting a message, and then replying to the original message three times.
- I will demonstrate file download search ability and by searching for a mp3 sermon file that falls under the topic of 'Mathew'. Once the file has been located I will demonstrate the download feature by downloading the file to a DEBBIE lab machine.

Bibliography:

1. Chris Ullman, et al. Beginning Active Server Pages 3.0. Birmingham, UK Wrox, 2000
2. Ramez Elmasri, Shamkant B. Navathe. Fundamentals of Database Systems. Reading, Massachusetts, 2000

Table Name Field Name Field Type

Website_Members

PK	Login_ID	Int
	Password	varchar
	F_Name	varchar
	M_Initial	varchar
	L_Name	varchar
	Street	varchar
	City	varchar
	State	varchar
	Zip	varchar
	Phone	varchar
	Email	varchar
	SSclassID	Int

Church_Info

Street1	varchar
Street2	varchar
City	varchar
State	varchar
Zip	varchar
Phone	varchar
Fax	varchar

Church_Staff

PK	Position	varchar
	Bio	varchar
	Login_ID	Int
	Web_Admin	bit

SSClass

PK	SSClass_ID	Int
	Name	varchar
	Description	varchar

Calendar_Items

PK	Cal_ID	Int
	Date	Datetime
	Desc	varchar
	Category	varchar
	SSClass_ID	Int
	Registration	Int

Event Registration

Cal_ID	int
Login_ID	int
Num_people	int
Notes	varchar

Links

Link	varchar
Desc	varchar
Category	varchar
Name	varchar
SSclassID	int
Login_ID	int
Link_ID	int

PK

Files

FileType	varchar
Public	int
FileName	varchar
Desc	varchar
Login_ID	int
Category	varchar
Ssclass_ID	int

PK

News

PK

News_ID	int
Topic	varchar
Date	datetime
Body	varchar
SSClassID	int
Login_ID	int
Category	varchar
Author	varchar

Prayer

PK

P_ID	int
Date	datetime
Message	varchar
SSClass_ID	int
Login_ID	int

Discussion_Grp

PK

Group_ID	int
Date	datetime
Description	varchar

Discussion_Msg

Login_ID	int
Date	datetime
Message	varchar
Subject	varchar
Topic_ID	int
msg_ID	int
group_ID	int
Topic_Name	varchar

PK