

Knowledge Sharehouse

By

Tanisha C. Williams

Submitted to
the Faculty of the Information Engineering Technology Program
in Partial Fulfillment of the Requirements for
the Degree of Bachelor of Science
in Information Technology

University of Cincinnati
College of Applied Science

June 2005

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Acknowledgements

I would like to thank Ashley J. Beard, my fellow student at the University of Cincinnati, College of Applied Science, for creating the logo for Knowledge Sharehouse. Ashley, your design talent is truly something to be admired.

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Abstract

Knowledge Sharehouse is a web application that allows any group of individuals with a common interest to have a web location to share knowledge about talents or expertise on a variety of subjects. This web application allows a subject matter expert to create a facility that shares information about a subject such as web sites, abstracts of publications, and relevant documents and files. The subject matter expert also has the capability to respond to questions from the application's users in a forum. An application user would search for and view the information as if browsing a website.

Knowledge Sharehouse is intended for use by small and medium organizations. This tool can be deployable on any web server that the organization has access to. Each instance of the web application (a particular implementation for an organization) is houses several collections of web pages that provide a "First-Stop-Shop" for information regarding different subjects.

Knowledge Sharehouse

1. Opportunity Statement

Most of the world in the 21st century has embraced the current Globalization and Information Revolution. This revolution drives the countries that are considered the economic powerhouses. We have more choices than we have ever had in the past to choose products, services, and solve problems. Often, people can become overwhelmed by the amount of information that gets fed to us daily through information sharing. Certain analysts suggest that a single page in the current New York Times newspaper has more information than the average person living in the 18th century would obtain in their entire lives (4).

One can argue that this exponential increase in access to information (through information sharing) during the history of mankind has ultimately made the world a better place to live. Others argue that this increase in the availability of information has complicated our lives so much that we have evolved to a lowly state in the quest for self actualization (8, p. 22). The latter argument has validity, yet does not explore methods of returning from this lowly state. Unfortunately, no innovative scientist has discovered a method of rewinding time and altering the past so that we never discover technology. The solution lies in the reason that the mass amount of information plagues us:

Organizations can truly benefit from efficient and effective methods of organizing and indexing shared information so that it can be easily realized. This makes the need for a fundamental method to organize the sharing of information within today's organizations of extreme importance. This method should foster the transformation of information into knowledge.

An evident clarification should be made at this point – there is a true difference between information and knowledge. Information is lifeless, formless, and useless without applying processes to it (Figure 1). These processes transform information into knowledge. Knowledge is what creating better solutions and making better decisions is all about (14).

Figure 1 – Transformation of Information into Knowledge



Furthermore, the benefit of sharing information far outweighs the headache that it sometimes causes. Information sharing has been proven to increase employee commitment, improve decision making, quicken an organization's response to potential shortages or delays in production, and predict shifts in organizational structure” (12). Sharing information provides a method for employees or members of organizations to be better informed and therefore able to make better choices for the organization. Decision making with increased quality is an output of information sharing (7, p. 14). Sharing information also promotes unity and collaboration within the organization. An informed organization operates more efficiently. Sharing information can also promote awareness for an organization’s objectives and vision (1).

There are other benefits of sharing information as well. Often the employees or members of the organizations have unrealized talents. Sharing information about one’s workforce can help to develop and harvest these overlooked talents. The sharing of information in large organizations can ensure that the dilemma of “reinventing the wheel” is not encountered. “Sharing of unique information [leads] to greater decision comprehensiveness by allowing teams to consider a wider range of alternatives and approaches to problem solving,” (7, p. 14). Large organizations often unknowing implement the same solution more than once -- due to lack of information.

All organizations have the opportunity to become more effective thru the collaboration and sharing of information.

2. Seizing the Opportunity

To seize this opportunity that all organizations have, Knowledge Sharehouse was created. Knowledge Sharehouse is a web application that allows any group of individuals with a common interest to have a web location to share knowledge about talents or expertise on a variety of subjects. Knowledge Sharehouse is intended for use by small and medium organizations.

Knowledge Sharehouse is deployable on any web server an organization has access to. Each instance of the web application (a particular implementation for a group) houses several collections of web pages that provide a “First-Stop-Shop” for information regarding different subjects.

Each “Room” in Knowledge Sharehouse is a collection of web pages that have many resources for information about one subject. Each Room contains:

- **Information Overview Area** – This feature gives a brief synopsis of the content of the Room.
- **Room Owner Biography** – This feature confirms the expertise of the person who manages the resources in the Room by displaying a biography. This biography is relevant to the Room’s subject.
- **Web Resources** – A content area that provides links to fundamental resources on the Web.
- **Print Resources** – A content area that would provide titles of and informative abstracts for publications. These links are not the actual text of print resources such as books or journals; however they are abstracts and bibliographic information.
- **Document Resources** – A content area that allows for downloading relevant files (i.e. Adobe PDF, Microsoft Word, Excel, Access, PowerPoint, Java, and C #) or documents relevant to the Room’s topic.
- **Forum** – This area allows a user to post a question that will be answered by the Room’s Owner.

3. User Profiles

3.1.1 Room Owner

Individuals in an organization that volunteer to host each Room are called Room Owners. Room Owners are considered to be local experts in the subject area of the Room that he or she hosts. Room Owners need to have only minimal computer literacy. The

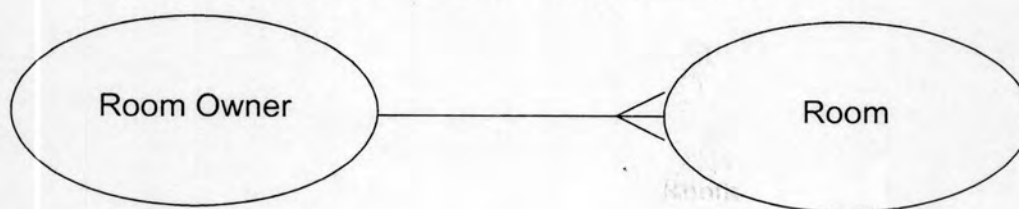
tasks that he or she completes are comparable to completing and submitting a web form and sending an email with an attachment. Room Owners have the following responsibilities:

- Gathering relevant resources for a room
- Populating the resources Room
- Updating the resources in a Room
- Responding to questions in a Room's forum (a particular source)

These responsibilities only apply to the Room(s) that a particular Room Owner administrates. Room Owners would be required to authenticate him or herself to manage a Room.

Note that the relationship between a Room and a Room Owner is one-to-many:

Figure 2 – Relationship between Room Owner and a Room



3.1.2 Learner

A Learner is the person that Knowledge Sharehouse is designed to benefit. A Learner uses their organization's implementation of Knowledge Sharehouse to obtain information. This information comes from the resources a Room Owner has populated in a particular Room. A learner needs to have little or no computer literacy. The tasks that he or she completes are comparable to navigating through a website and filling out and submitting a web form. A Learner can:

- Search for a Room
- View the contents of a Room
- Post in a forum

All Room Owners are Learners but not all Learners are Room Owners. A Learner inherits all of the responsibilities of a Room Owner when the Learner creates his or her first Room.

4. Project Deliverables

1. A simple web application that can be used by an organization to populate and display several collections (Rooms) of subject matter based information.
2. Users that use Knowledge Sharehouse to view information will have the following options:
 - Navigate to a Room.
 - Search by keywords to find a Room that has resources he or she would like to view.
 - View links to websites and web tools relevant to a Room (web resources).
 - View abstracts of publications relevant to a Room.
 - Download documents and files such as Microsoft Office documents and Adobe PDF documents relevant to a Room.
 - View the Room Owner's biography in each Room
 - Post questions to a forum.
 - Become a Room Owner and create Rooms of his or her own.
3. Users that manage Rooms (Room Owners) will authenticate to perform management tasks.
4. Room Owners will have the following options for the Rooms they manage:
 - Create a new Room and populate it with resources.
 - Modify/Add web resources in a Room.
 - Modify/Add print resources in a Room.
 - Modify/Add document resources in a Room.
 - Respond to questions in each Room's forum that he or she manages.
 - Modify his or her user profile.

5. Data Flows

5.1 Room Owner Data Flows

There are several actions that Room Owner can participate in. These events encompass the creation and management of Rooms and a user profile used for authentication. These actions are:

- | | |
|-----------------|--------------------------|
| ▪ Authenticate | ▪ Modify a Room Resource |
| ▪ Create a Room | ▪ Delete a Room |

Samples of these data flows for these actions are depicted below.

Figure 3 – Room Owner Authentication Data Flow

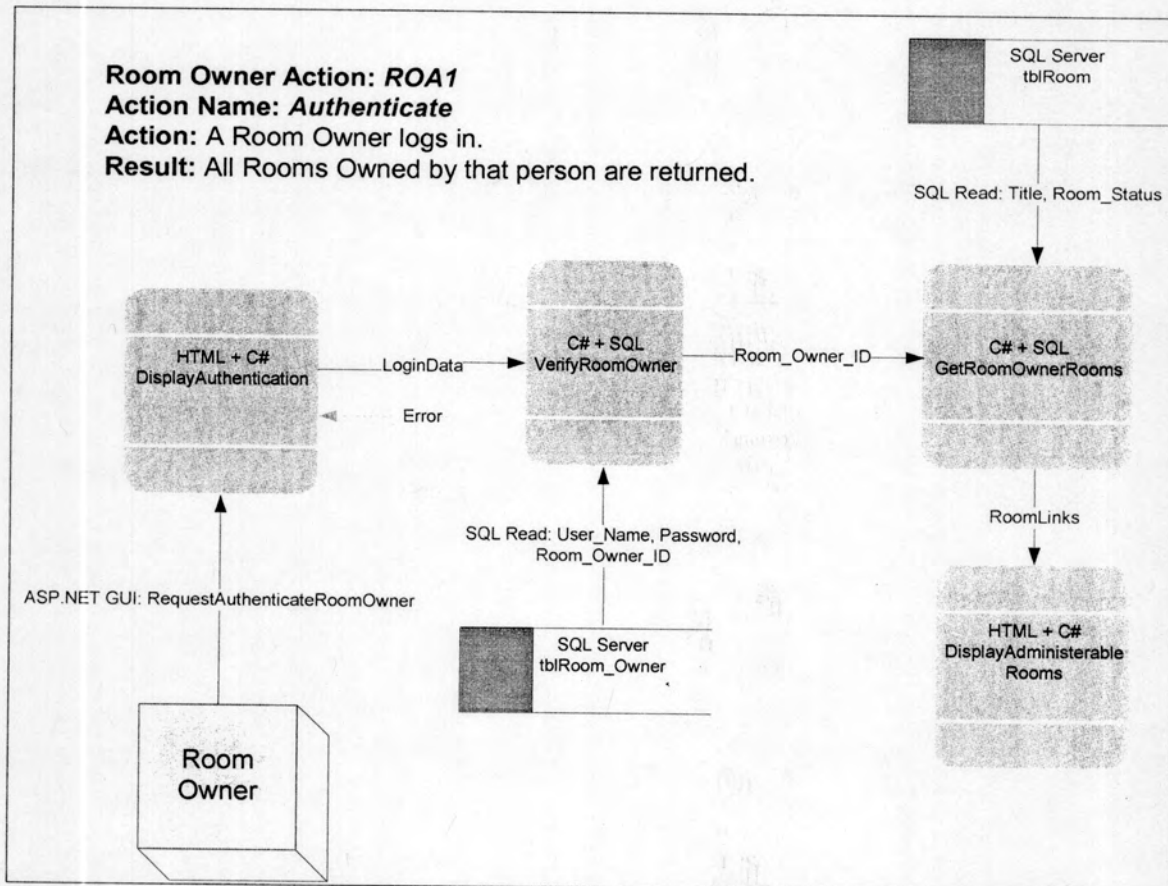


Figure 4 – Delete a Room Data Flow

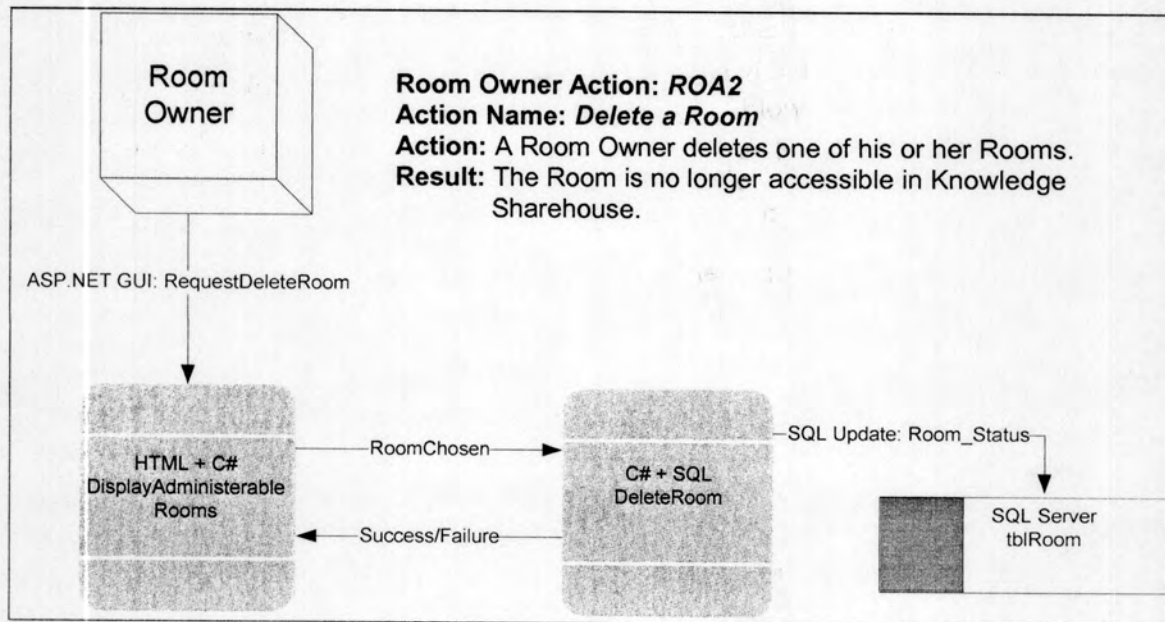
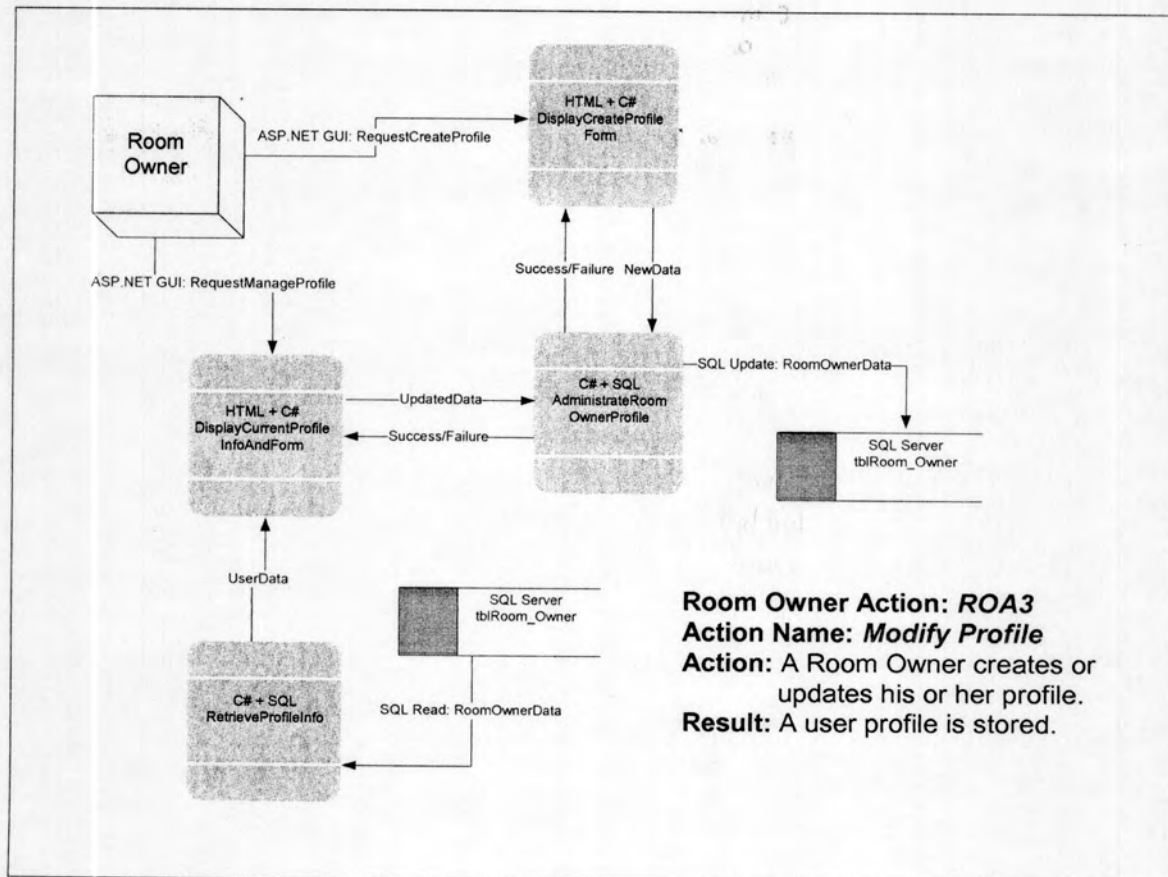


Figure 5 – Modify Profile Data Flow



5.2 Learner Data Flows

The Learner in Knowledge Sharehouse also participates in several actions. These actions encompass the viewing of data and posting to the forum. Posting to the forum is the only instance that a Learner provides any physical information to Knowledge Sharehouse. These actions are:

- Room Search
- View a Room Resource
- Navigate to a Room
- Post a Question

Samples of these data flows for these actions are depicted below.

Figure 6 – Room Search Data Flow

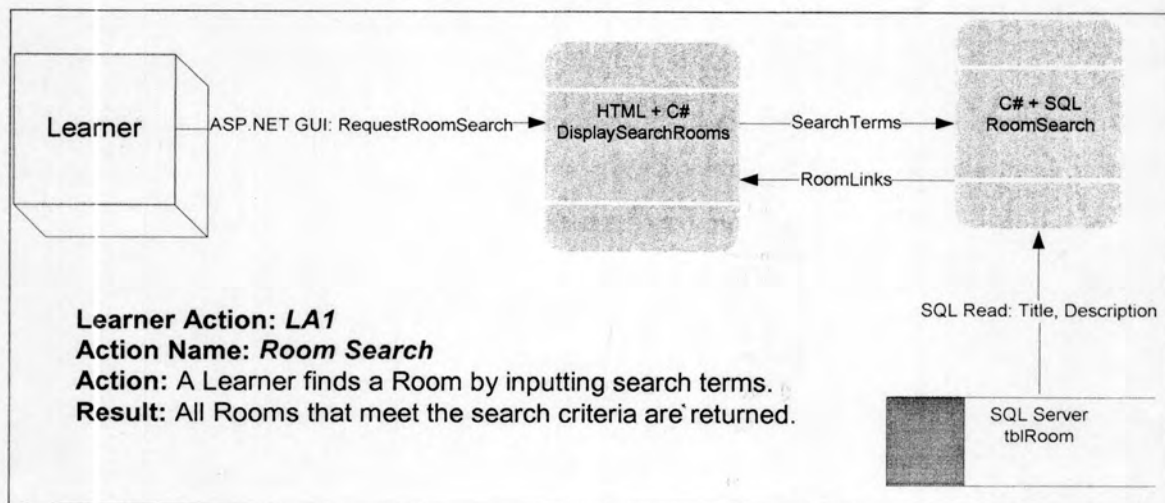


Figure 7 – Navigate to a Room Data Flow

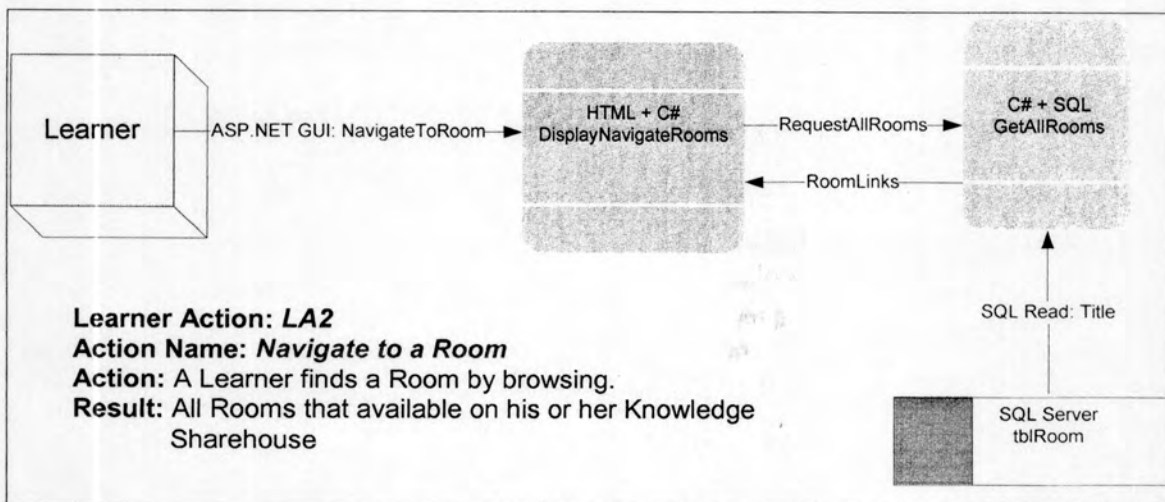
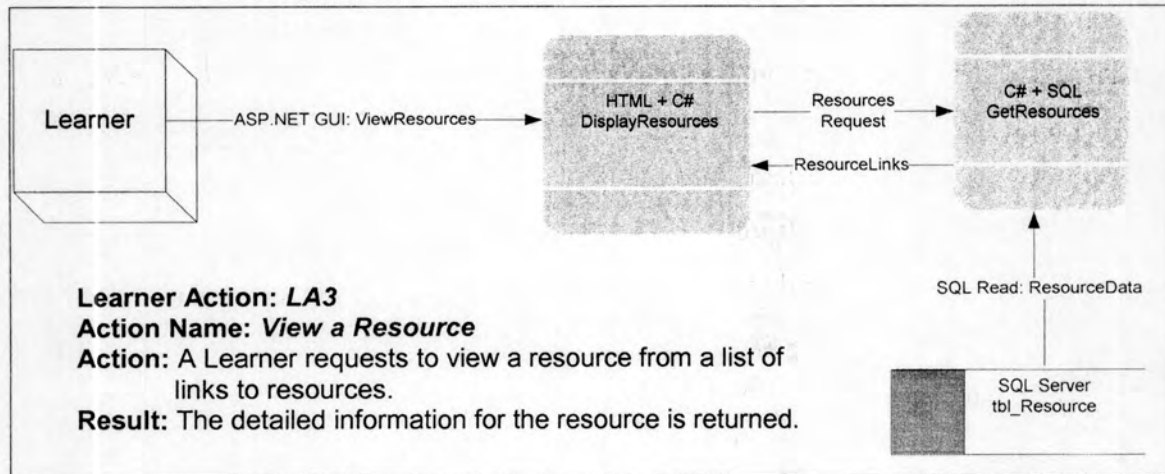


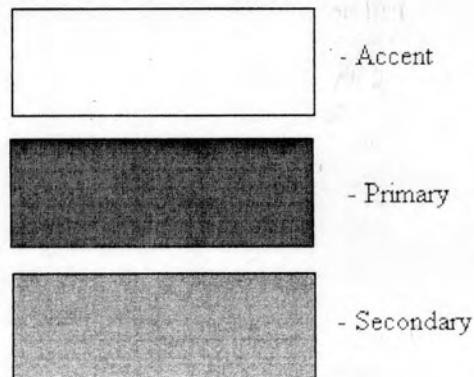
Figure 8 – View a Resource Data Flow



6. Interface Design

The colors scheme chosen for Knowledge Sharehouse is of a professional theme. Knowledge Sharehouse is intended to be attractive to many types of organizations, so a garish style was not appropriate for this type of application. The colors used were:

Figure 9 – Color Scheme



There is one important graphical image that was created to enhance the artistic design of Knowledge Sharehouse. This image is a logo for the Knowledge Sharehouse. A logo allows application that enables the application to be branded and recognizable.

7. Help

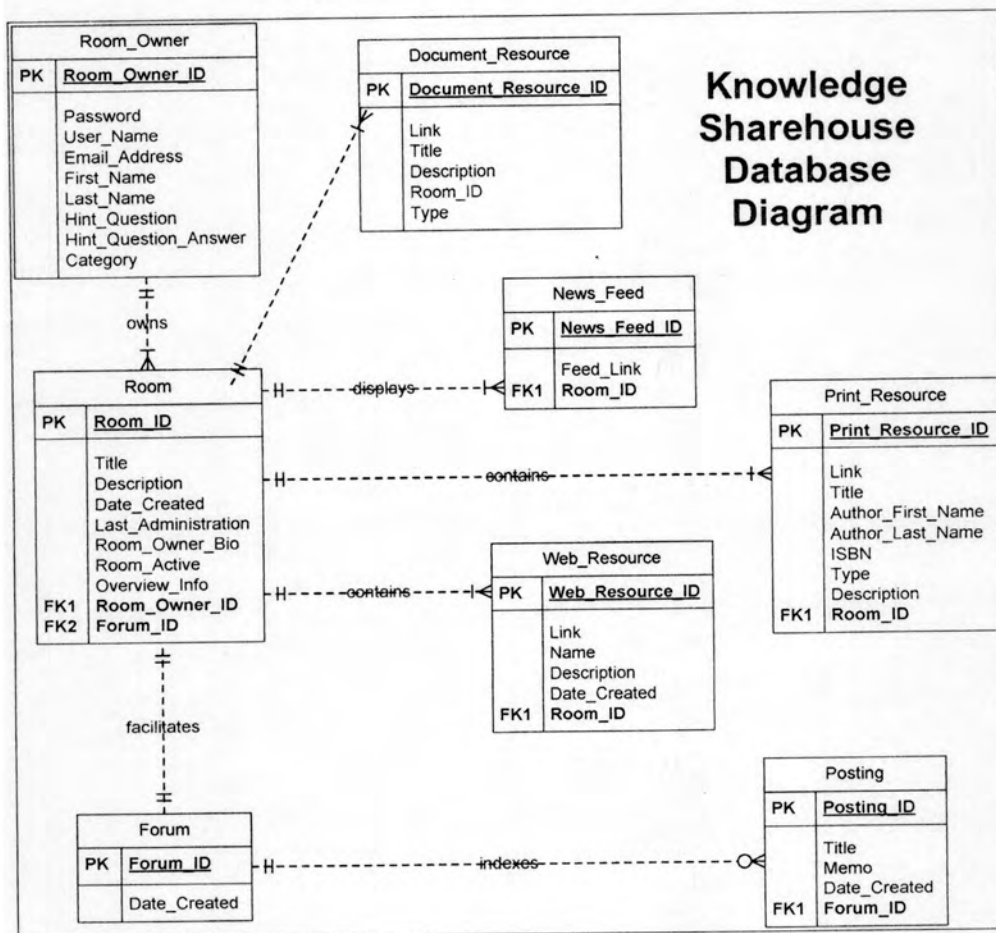
The user interface is extremely intuitive since Knowledge Sharehouse is a web application. For this reason, a user manual and a help file are not needed. Each screen

that requests information from the user has simple instructions written on the screen. After the user submits the information on these screens, error checking is done on the data to ensure accuracy. A detailed message is sent back to the user if there is a problem with the data that he or she entered. All other screens are only viewable and do not require any actions from the user.

8. Database Management

The data stored for Knowledge Sharehouse is stored in a minimal amount of tables in the database. One stored procedure will be created to archive Rooms that have not been accessed by the Room Owner within a year's time. The database Entity Relationship Diagram is depicted below.

Figure 10 – Database Diagram



9. Budget

The total budget that would be needed to build Knowledge Sharehouse is estimated to be \$2857.99 at market rate. All of the software has been obtained. This software is sold at a discounted price to University of Cincinnati students at the campus bookstore. Microsoft SQL Server and Visual Studio .NET is available for free to University of Cincinnati students in the Information Technology program. No hardware or other tools were purchased.

Figure 11 – Project Budget

KNOWLEDGE SHAREHOUSE BUDGET		
	Regular Market Rate	UC Student Cost
Macromedia Studio MX <i>Fireworks MX 2004</i>	\$899.99	\$299.00
Microsoft SQL Server 2000 Standard/Developer Edition		
Increase in Fast Food Purchases During Development	\$1489.00	\$0.00
	\$360.00	\$360.00
Visual Studio .NET 2003 Standard Edition		
TOTAL PROJECT COST	\$109.00	\$0.00
	\$2857.99	\$659.00

10. Technology

Knowledge Sharehouse will be developed using Microsoft's ASP.NET technology. The programming language that was chosen to implement ASP.NET was C#. ASP.NET C# is the feasible option for two main reasons:

- **Robustness of features**
- **This is the industry preferred choice for developing web applications**

The application has a logo designed with Macromedia's Fireworks software. Cascading Style Sheets were used for formatting the text, aligning the user interface and applying color schemes to the application.

Data management is also needed for Knowledge Sharehouse to be implemented. Microsoft SQL Server will be the best solution for this need. Choosing Microsoft solutions for application development and database development would ensure cohesiveness between the front-end and back-end systems for this project.

No specialized hardware was needed for this project other than Tanisha's personal laptop. This machine fully meets the hardware requirements for the previously mentioned technologies. Hardware requirements for the software are listed below.

Figure 12 – Development Technology

HARDWARE REQUIREMENTS	Visual Studio 2003 Standard Edition	Microsoft SQL Server 2000 Enterprise Edition	Macromedia Studio MX
Operating System	N/A	Windows Server 2003 Standard Edition	Windows 98 SE (4.10.2222 A), Windows 2000, or Windows XP
Processor	PC with a 133-MHz processor required; 550-MHz or faster processor recommended	Intel Pentium or compatible 166-megahertz (MHz) or higher processor	600 MHz Intel Pentium III processor or equivalent
Memory	128 MB of RAM required; 256 MB or more recommended; 4 GB maximum	64 megabytes (MB) of RAM; 128 MB recommended	256 MB RAM (512 MB recommended)
Hard Disk	1.25 to 2 GB of available hard-disk space	95–270 MB of available hard disk space for the server; 250 MB for a typical installation. 50 MB of available hard disk space for a minimum installation of Analysis Services; 130 MB for a typical installation. 80 MB of available hard disk space for English Query.	800 MB available disk space
Drive	CD-ROM or DVD-ROM drive	CD-ROM drive	
Monitor	VGA or hardware that supports console redirection required; Super VGA supporting 800 x 600 or higher-resolution monitor recommended	VGA or higher-resolution monitor	
Other	High-speed modem or broadband Internet connection	Microsoft Internet Explorer version 5.0 or later	

11. Proof of Design

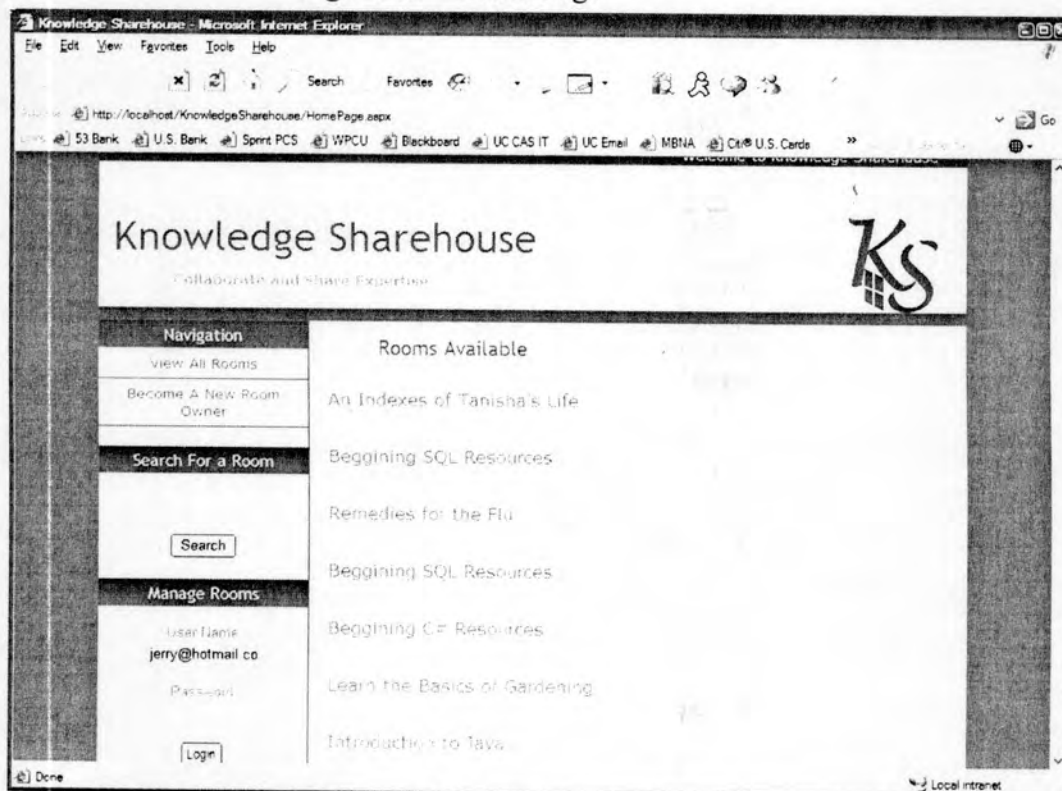
11.1 Home Page

The home page of Knowledge Sharehouse is the first page that either a Room Owner or a Learner encounters when they access the web application. The main focus of this screen is the Rooms that the Learner has to choose from in this implementation of Knowledge Sharehouse. The Learner can read the descriptions of the Rooms to determine what Room has information that may prove useful to them. The user can select a Room by clicking on the name of the Room.

The Room Search option is available in the navigation area of the screen. A Learner can enter terms that can be searched on. Rooms that are relevant to those terms are returned. The search field is the Room's overview.

Also accessible from the home page is authentication for a Room Owner. A Room Owner authenticates with a user ID and a password. The user ID is the email address that the Room Owner used to set up his or her user profile. A Learner can switch roles and become a Room Owner from the home page. A link that allows the Learner to create a Room Owner profile is on the left of the screen.

Figure 13 – Home Page

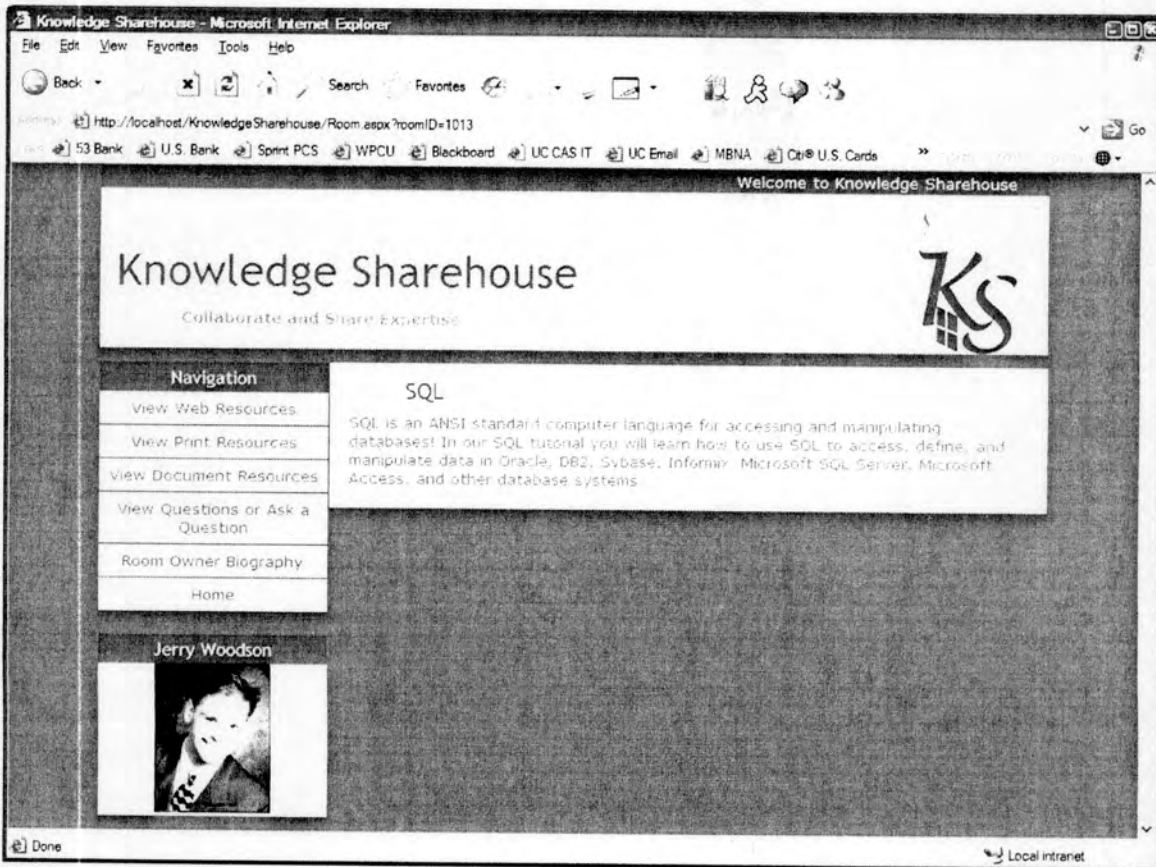


11.2 Room Overview Page

Upon clicking the name of a Room from the home page, that particular Room's overview is displayed. This gives the Learner the opportunity to find out basic information about the Room's subject and insight into what resources the Room has to offer.

From this page, the navigation for the Room is displayed. This navigation gives links to all of the resources in the Room including Document, Web, Print, Forum, Room Overview, and Room Owner Biography. The Learner can also navigate back to the home page of Knowledge Sharehouse from this location. The Room Owner's picture appears in the lower left corner of the page.

Figure 14 – Room Overview Page

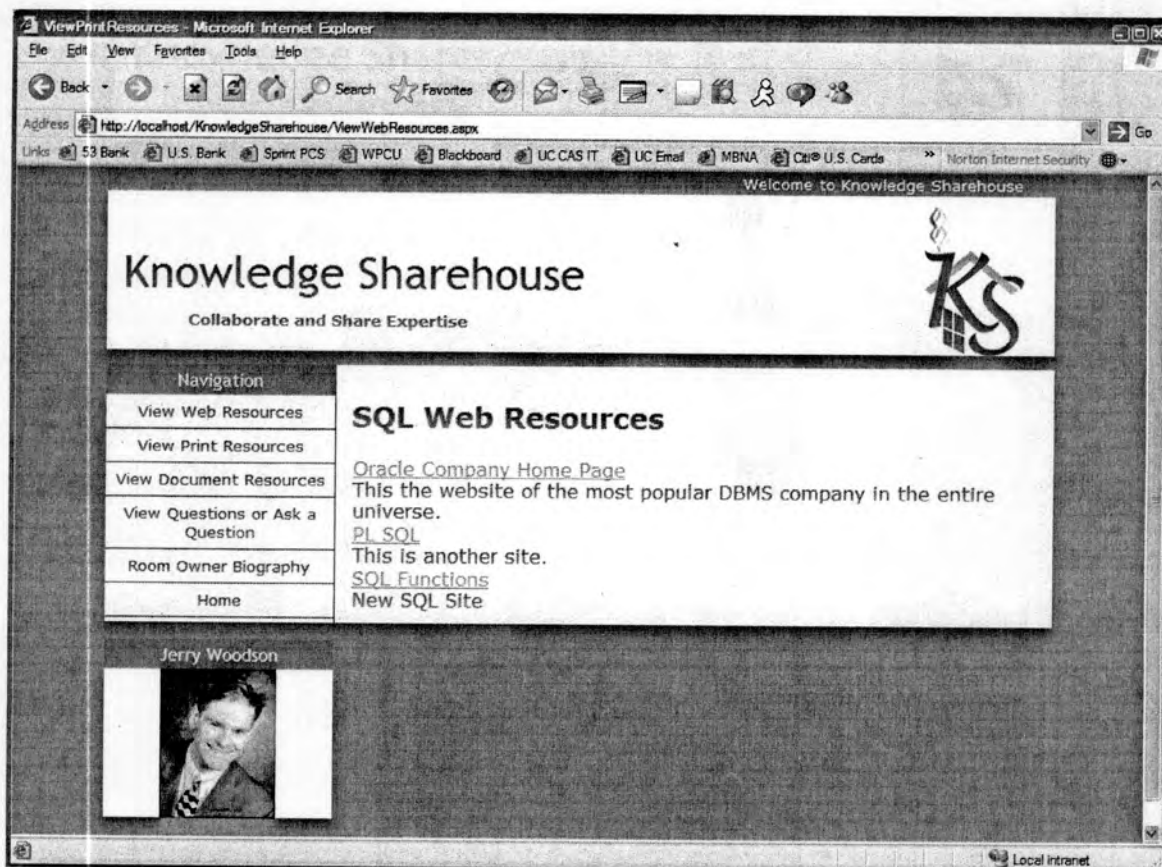


11.3 View Web Resources

Upon clicking the 'View Web Resources' link, the Web Resources for the current Room are displayed. The title and a short description of the resource appear for each Web Resource. The Learner then has the option to click on the title of the Web Resource to get the detailed information for that resource.

The navigation that was found on the 'Room Overview' page stays persistent in this view. This gives the user the option to jump to the view for any type of resource. The Room Owner's picture also is persistent. This is true for all views of Room resources.

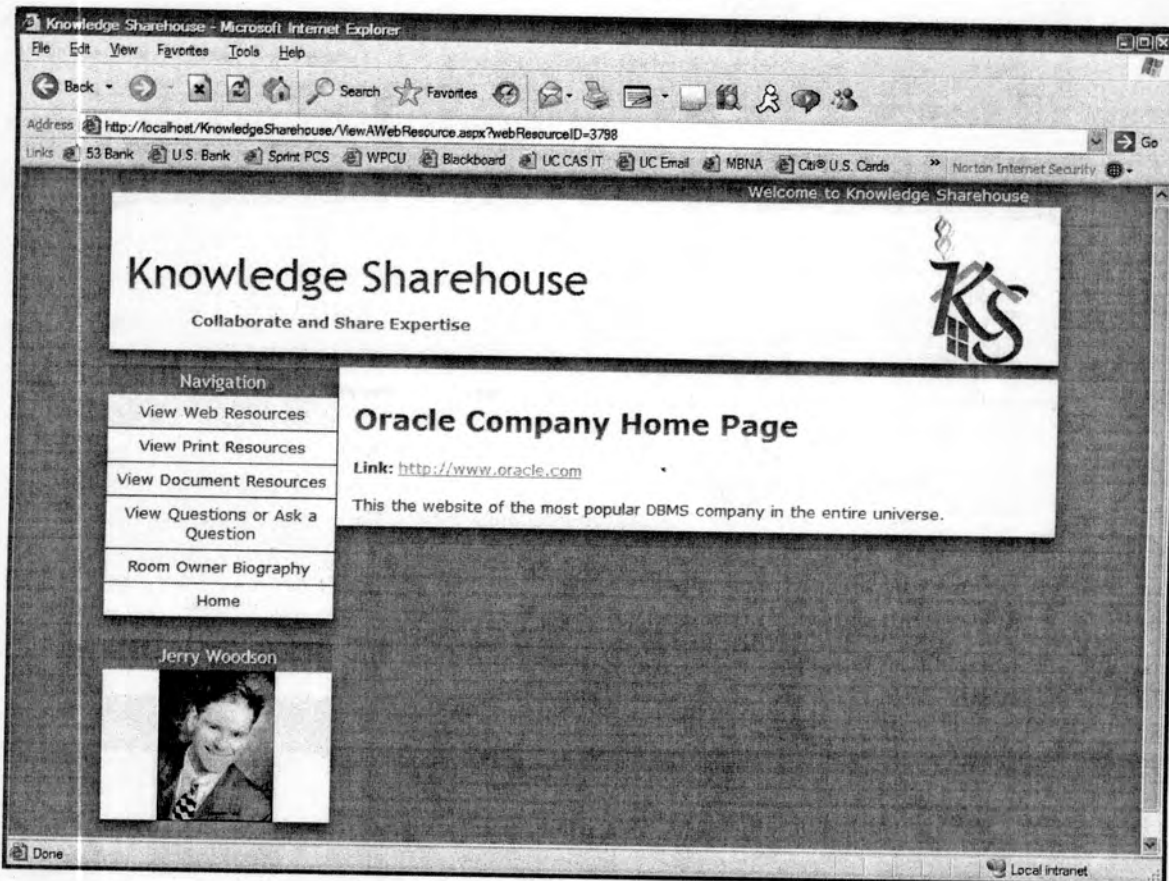
Figure 15 – View Web Resources



11.4 View a Web Resource

When a Learner clicks on the title of a Web Resource, he or she is taken to view the detailed information for that particular resource. The hyperlink to the Web Resource and a description of that resource is given in the detailed information. The Learner can click the hyperlink to open the website. The website opens in a new window.

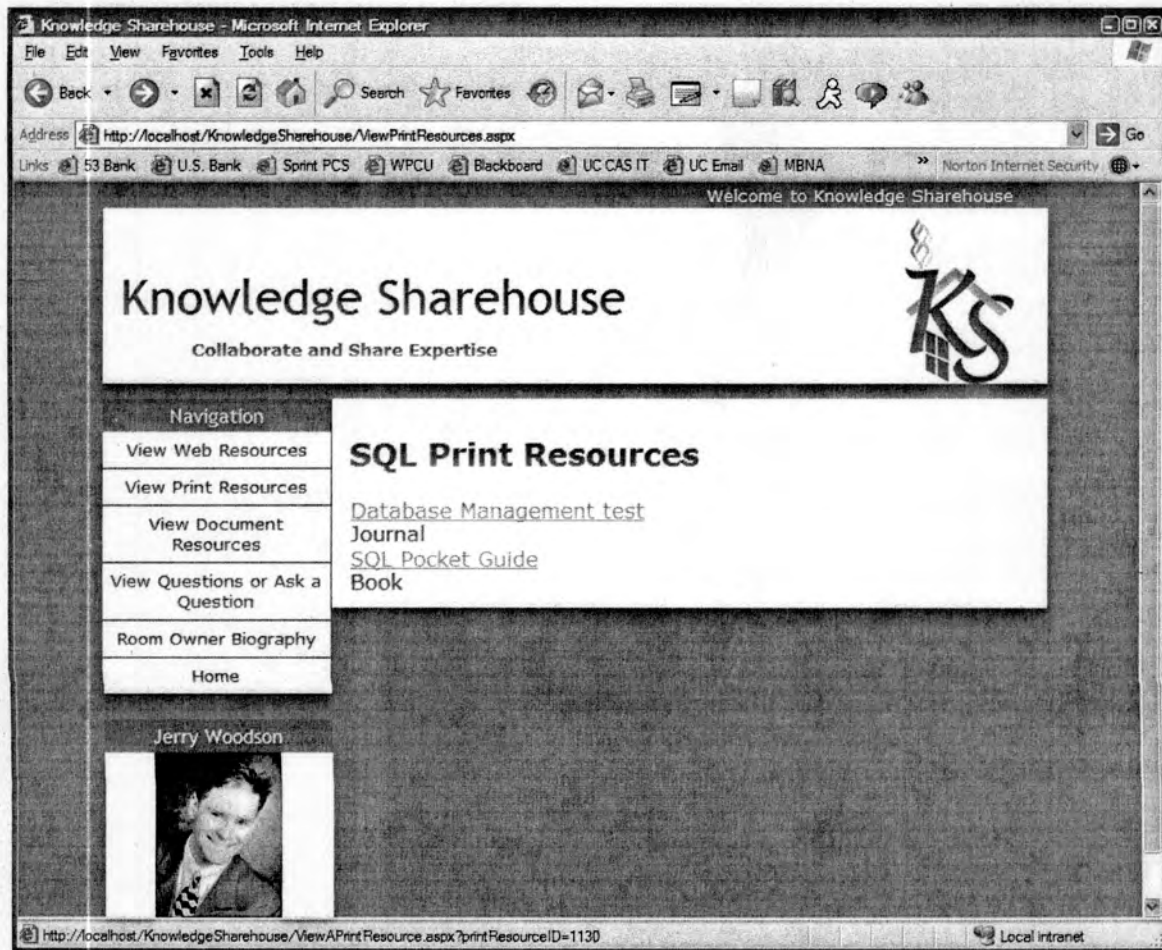
Figure 16 – View a Web Resource



11.5 View Print Resources

If the Learner clicks on the 'View Print Resources' link, he or she is taken to a screen that lists the title and type of Print Resources available for the current Room. The title serves as the link to more detailed information for a particular Print Resource. The type tells the Learner what the media is for the resource; journal, book, magazine, newspaper, etc.

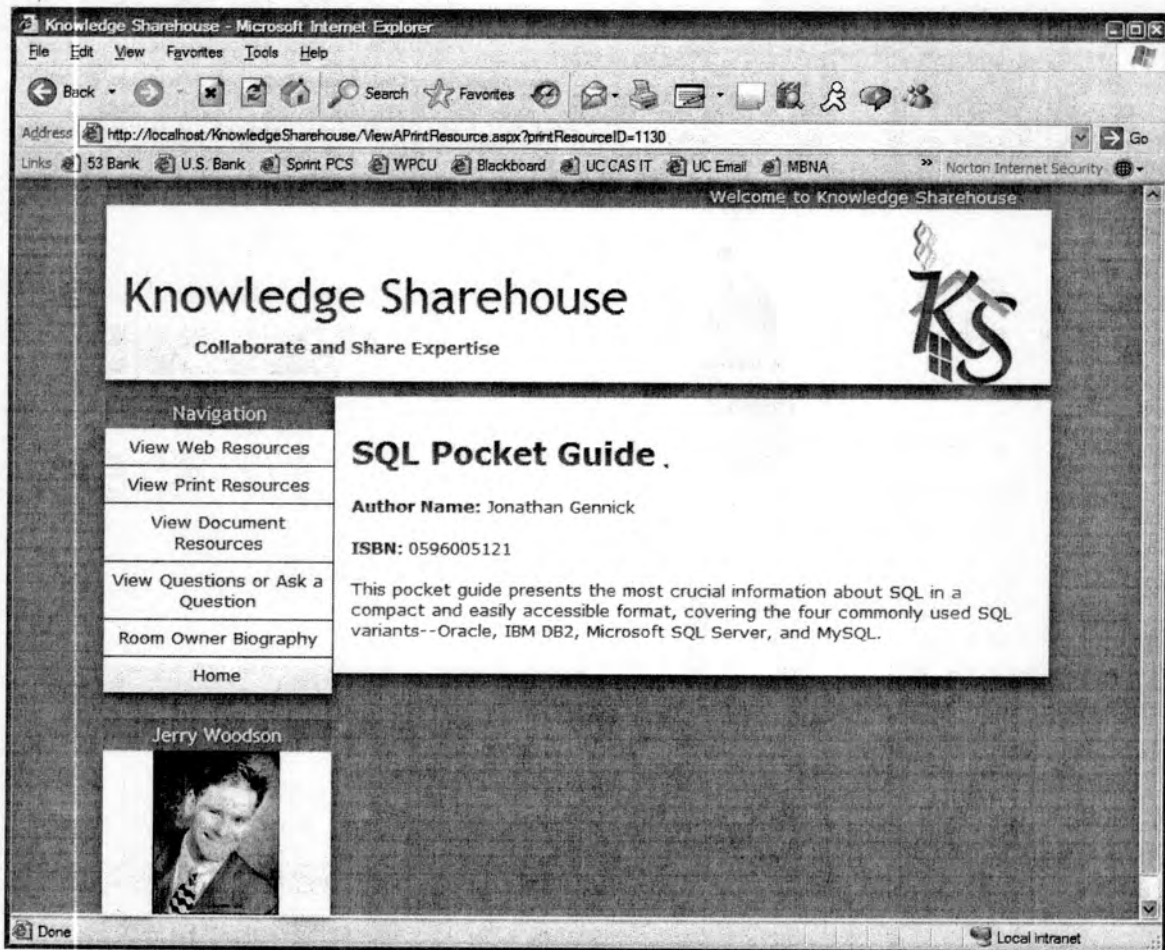
Figure 17 – View Print Resources



11.6 View a Print Resource

Upon clicking the title of a Print Resource, a page loads that shows more detailed information about the resource. The detailed information includes: title of the publication, the primary author's first and last name, the International Standard Book Number, and a short abstract about the publication. This information enables the Learner to find the publication at a library or bookstore.

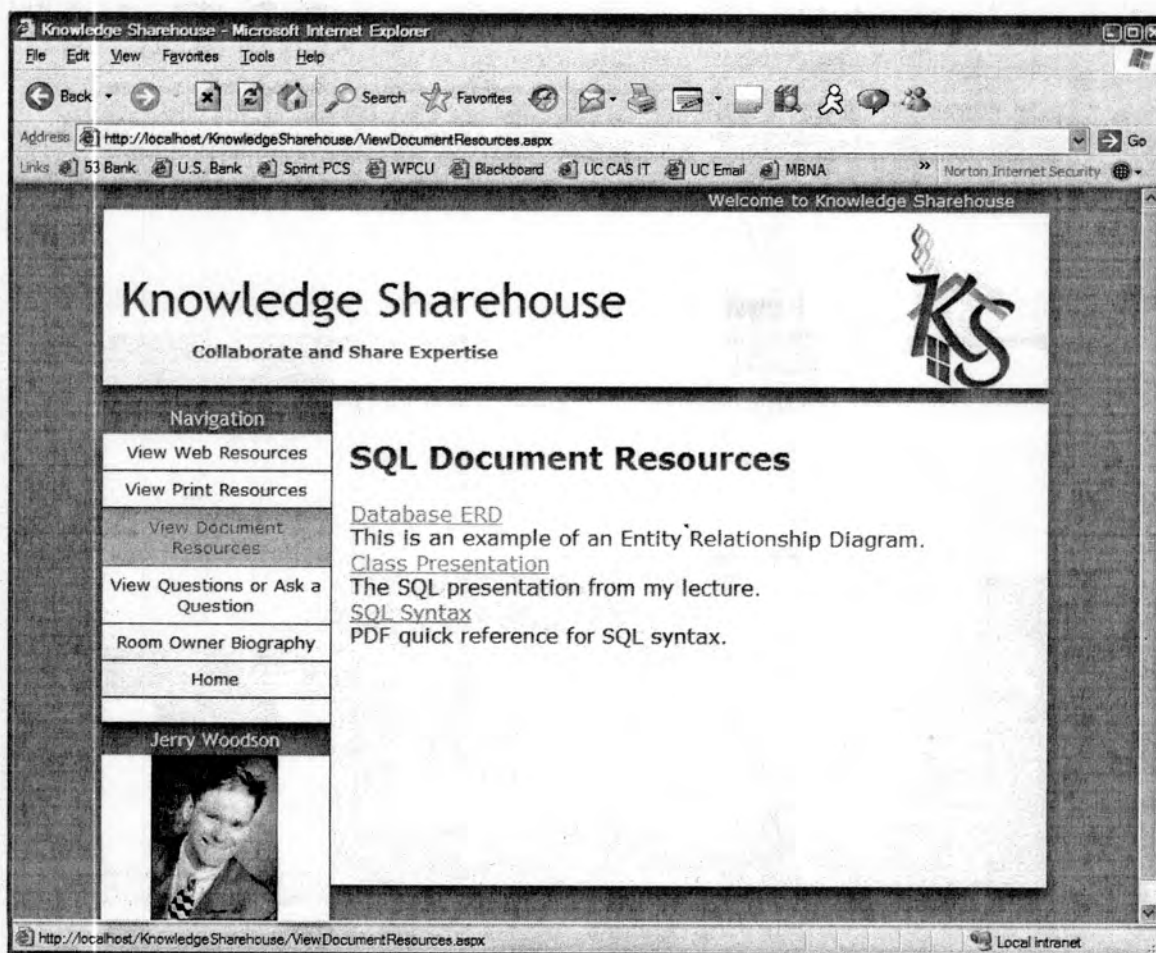
Figure 18 – View a Print Resource



11.7 View Document Resources

When the Learner clicks the “View Document Resources” link, he or she sees the screen that indexes all of the document resources available for the current Room along with a short description. The Learner can click the title to obtain more information about the Document Resource as well as download it.

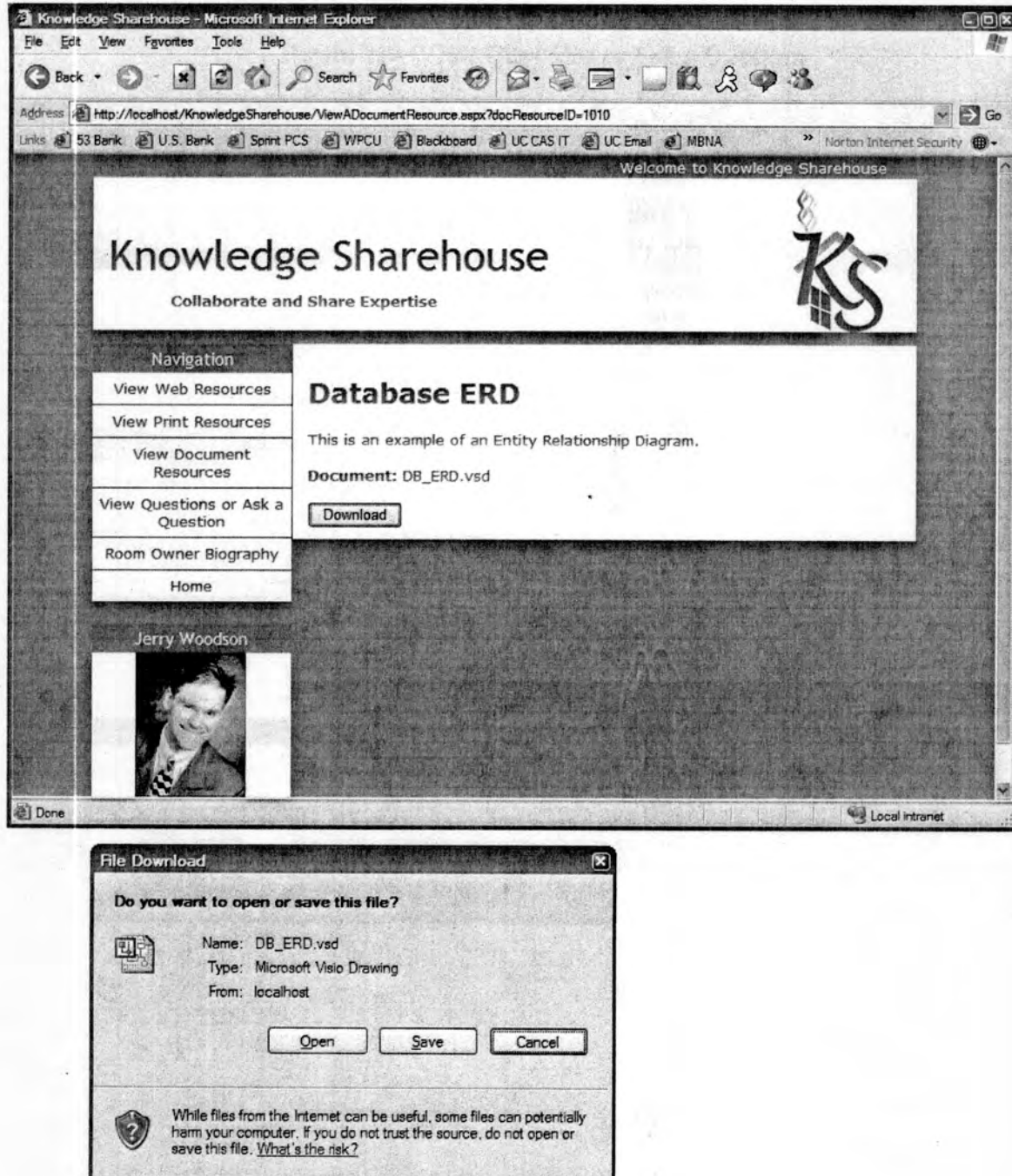
Figure 19 – View Document Resources



11.8 View a Document Resource

If the Learner chooses a Document Resource to view, he or she is taken to a page that allows for downloading the resource. The document could be of any file type; Microsoft Office, Adobe PDF, C#, Java, JPEG, etc.

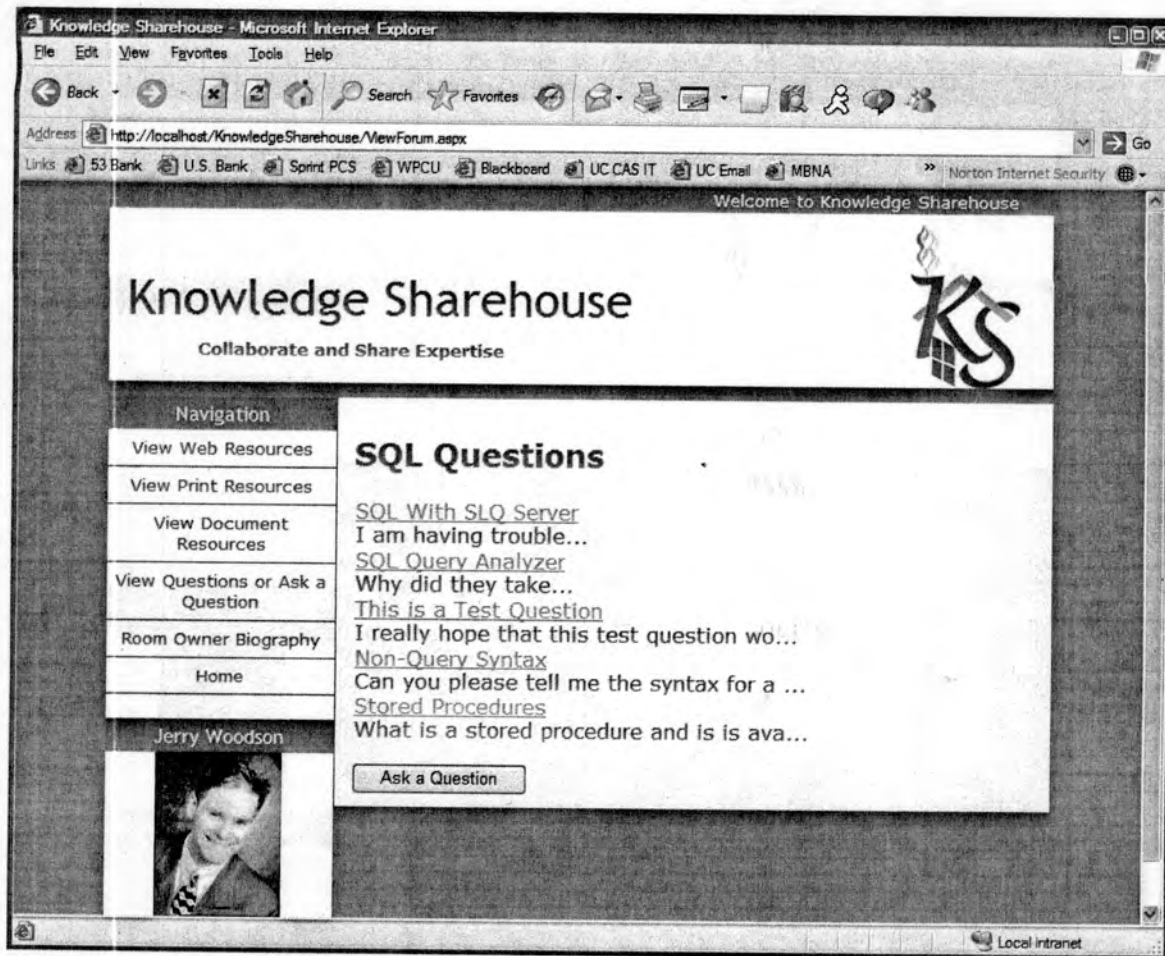
Figure 20 – View a Document Resource



11.9 View Questions or Ask a Question

The 'View Questions or Ask a Question' link takes the Learner to view questions that have been asked by other Learners. It also gives the Learner the opportunity to ask questions of his or her own. The title of the question with a small snippet of the actual question is displayed on this page. The Learner can click the title of the question for the full question and answer.

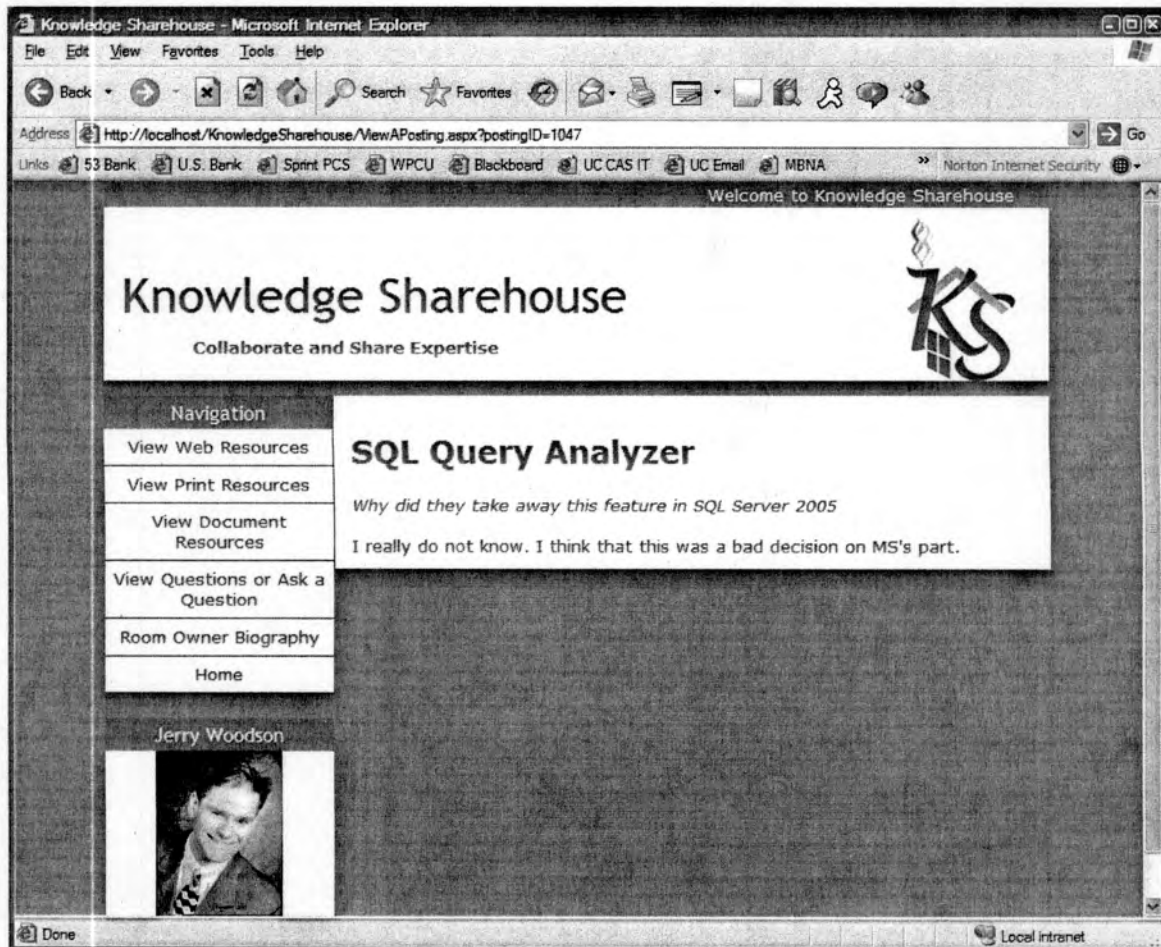
Figure 21 – View Questions or Ask a Question



11.10 View a Question

The Learner can view the full question asked by another Learner and the Response given by the Room Owner in this view. If the question has not been responded to yet, it is indicated in the text.

Figure 22 – View a Question



11.11 Post a Question

The Learner also has the opportunity to post questions. The question length has a character limit. This is the only restriction to posting questions. The Room Owner will answer the question at a later date.

Figure 23 – Post a Question

The screenshot shows a web browser window titled "Knowledge Sharehouse - Microsoft Internet Explorer". The address bar displays "http://localhost/KnowledgeSharehouse/AskAQuestion.aspx". The page features a navigation menu on the left with links: "View Web Resources", "View Print Resources", "View Document Resources", "View Questions or Ask a Question", "Room Owner Biography", and "Home". Below the navigation menu is a profile for "Jerry Woodson" with a small portrait photo. The main content area is titled "Ask A Question" and contains a "Subject:" text box (100 maximum characters) and a "Question:" text area (5000 maximum characters). A "Post My Question" button is located at the bottom of the question form. The page also includes a "Welcome to Knowledge Sharehouse" banner at the top right and a "Local intranet" status bar at the bottom right.

Knowledge Sharehouse - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites

Address http://localhost/KnowledgeSharehouse/AskAQuestion.aspx Go

Links 53 Bank U.S. Bank Sprint PCS WPCU Blackboard UC CAS IT UC Email MBNA Norton Internet Security

Welcome to Knowledge Sharehouse

Knowledge Sharehouse

Collaborate and Share Expertise

Navigation

- View Web Resources
- View Print Resources
- View Document Resources
- View Questions or Ask a Question
- Room Owner Biography
- Home

Jerry Woodson



Ask A Question

Subject: (100 maximum characters)

Question: (5000 maximum characters)

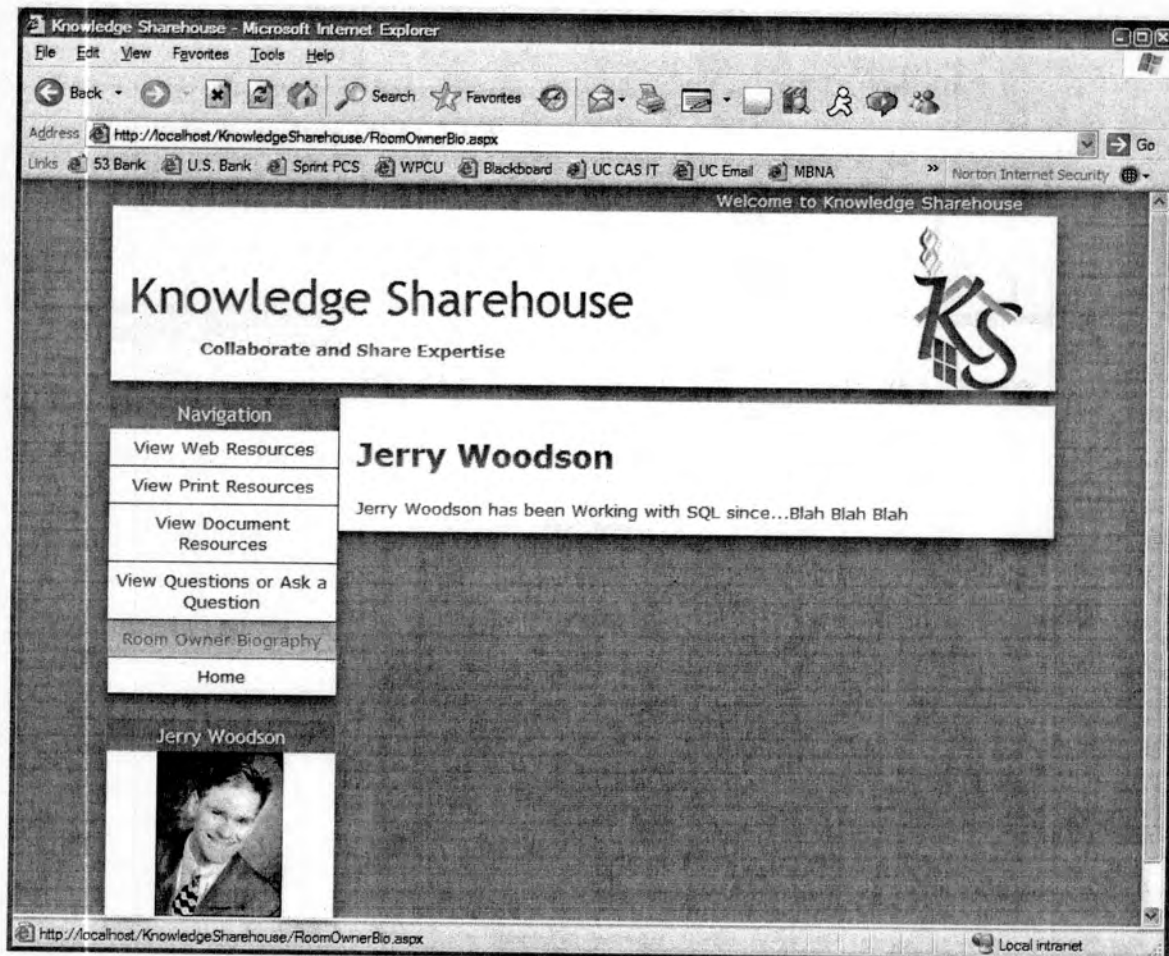
Post My Question

Done Local intranet

11.12 View Room Owner Biography

After clicking the 'Room Owner Biography' link, the Learner sees a short subject matter biography for the Room Owner. This biography is specific to the Room Owner's experience with the content in the current Room.

Figure 24 – View Biography



11.13 Become a Room Owner

Upon clicking the 'Become Room Owner' link, a Learner has the opportunity to create a profile to become a new Room Owner. Once his or her profile is created, he or she may log in and create and manage new Rooms.

Figure 25 – Become a Room Owner

The screenshot shows a web browser window titled "Knowledge Sharehouse - Microsoft Internet Explorer". The address bar displays "http://localhost/KnowledgeSharehouse/NewRoomOwner.aspx". The browser's toolbar includes buttons for Back, Forward, Stop, Home, Search, Favorites, and a Go button. A links bar at the top lists various services like 53 Bank, U.S. Bank, Sprint PCS, WPCU, Blackboard, UC CAS IT, UC Email, and MBNA. The page header features the "Knowledge Sharehouse" logo with the tagline "Collaborate and Share Expertise" and a stylized "KS" icon. A left-hand navigation menu contains a "View All Rooms" link. The main content area is titled "Please Fill in the Information to Create a Room Owner Login" and includes a note: "All Fields Except for the Headshot are Required". The form is divided into three sections: "Personal Information" with fields for First Name, Last Name, and Email Address; "Identification Verification" with a dropdown for a Hint Question (currently set to "What is your mother's maiden name?"), an Answer field, and a Confirm Answer field; and a checkbox for "Create a Six-Character Password" followed by a password input field. The status bar at the bottom shows "Done" and "Local intranet".

Knowledge Sharehouse
Collaborate and Share Expertise

Navigation
View All Rooms

Please Fill in the Information to Create a Room Owner Login

All Fields Except for the Headshot are Required

Personal Information

First Name:

Last Name:

Email Address:

Identification Verification

Hint Question:

Answer:

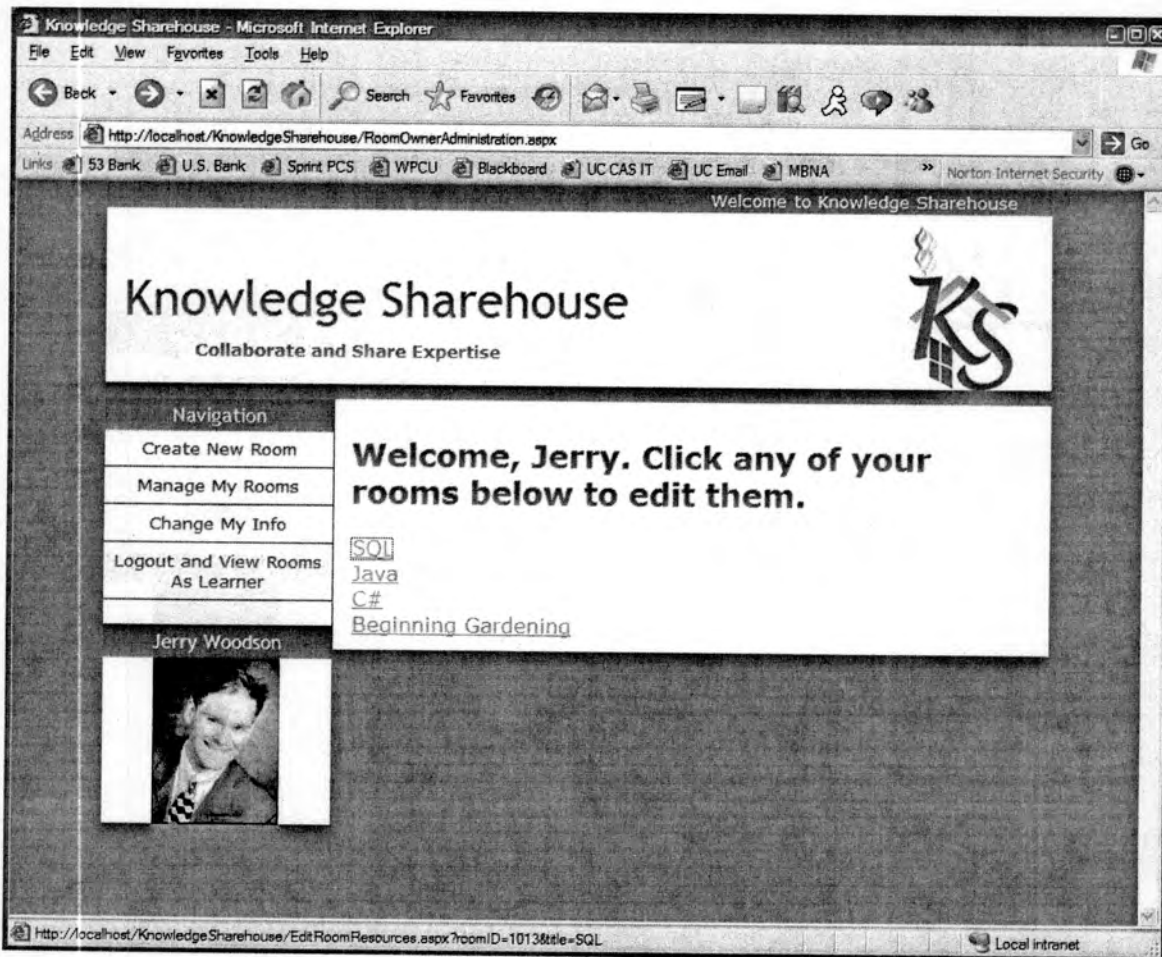
Confirm Answer:

☐ Create a **Six-Character** Password

11.14 Room Owner Administration Page

After authentication from the Home Page, a Room Owner can perform administration tasks. Upon logging in, the Room Owner is taken to a page where the titles of all of his or her Rooms are displayed. From this page, the Room Owner can: create a new Room, change his or her profile information, manage current Rooms and logout.

Figure 26 – Room Owner Administration

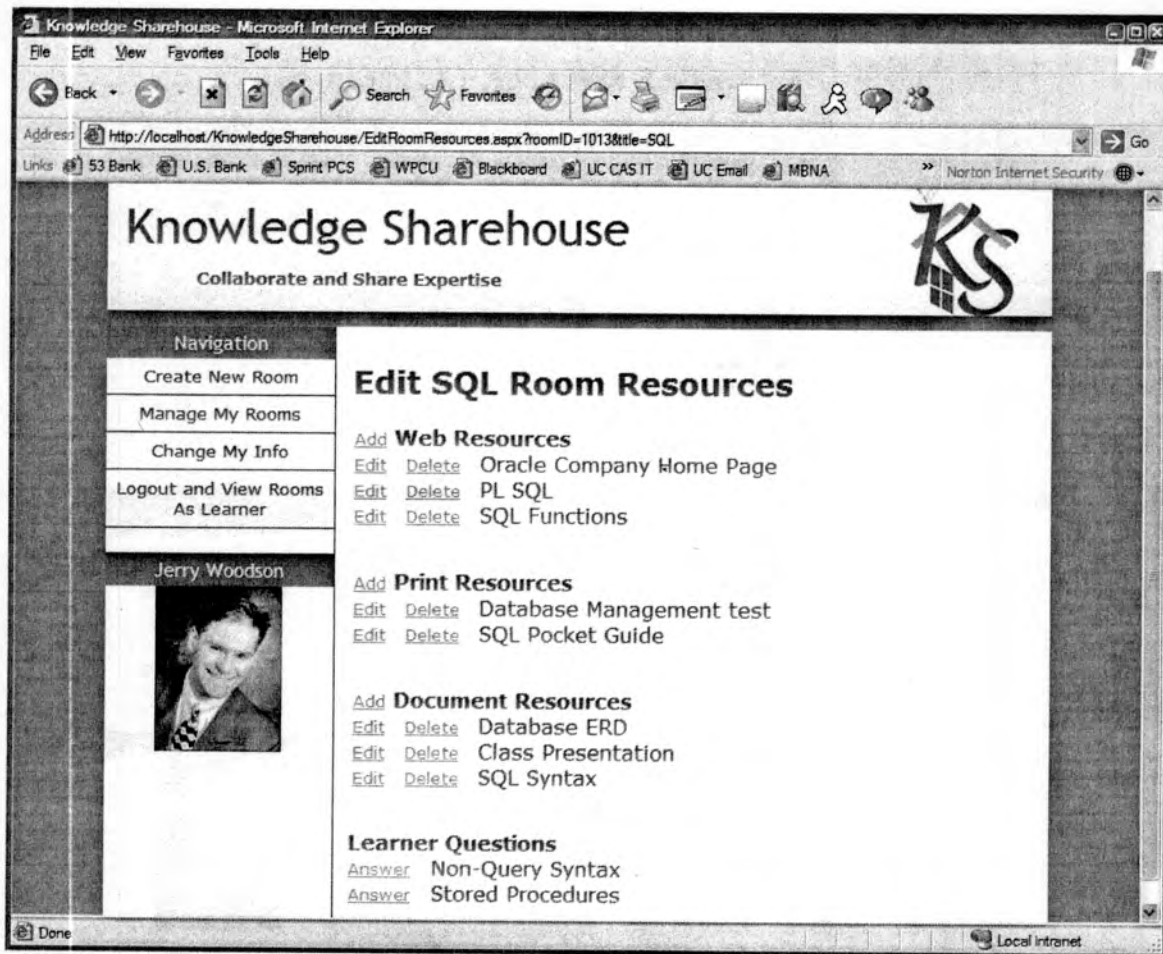


11.15 Manage a Room

If the Room Owner clicks on the title of one of his or her Rooms he or she is taken to a page that lists all of the resources for that Room. From this page, the user has the option to add, update, or delete any of the Room's resources.

Deleting a resource removes the resource from the Database. The screen is refreshed so that the deletion is evident.

Figure 27 – Manage a Room



11.16 Add/Update Web, Document, or Print Resources

If the Room Owner chooses to add a Web, Document, or Print Resource to a Room, a page is loaded that allows him or her to enter in the relevant information. Field validators are present to ensure that the Room Owner follows the character limits set forth for fields.

If the Room Owner chooses to update a Web or Print Resource, the same method is used. The only difference is that the fields are pre-populated with the current information.

Figure 28 – Add a Web Resource

The screenshot shows a web browser window titled "Knowledge Sharehouse - Microsoft Internet Explorer". The address bar displays "http://localhost/KnowledgeSharehouse/AddWebResource.aspx?roomID=1013". The browser's toolbar includes buttons for Back, Forward, Stop, Reload, Search, Favorites, and a Go button. Below the toolbar, a Links bar shows shortcuts to 53 Bank, U.S. Bank, Sprint PCS, WPCU, Blackboard, UC CAS IT, UC Email, and MBNA. The main content area features a "Welcome to Knowledge Sharehouse" message and a logo with the letters "KS". The page is divided into a left sidebar and a main content area. The sidebar contains a "Navigation" menu with links: "Create New Room", "Manage My Rooms", "Change My Info", and "Logout and View Rooms As Learner". Below the menu is a profile for "Jerry Woodson" with a small portrait photo. The main content area is titled "Add Web Resource" and contains three input fields: "Name:" (with a "(100 maximum characters)" hint), "HyperLink:" (with a "(5000 maximum characters)" hint), and "Description:" (with a "(5000 maximum characters)" hint and a large text area). At the bottom of the form is a button labeled "Add New Resource". The status bar at the bottom of the browser window shows "Done" and "Local intranet".

Figure 29 – Edit a Document Resource

The screenshot shows a web browser window titled "Knowledge Sharehouse - Microsoft Internet Explorer". The address bar displays the URL: `http://localhost/KnowledgeSharehouse/EditDocumentResource.aspx?documentResourceID=1010`. The browser's toolbar includes buttons for Back, Forward, Stop, Home, Search, Favorites, and other standard navigation functions. Below the toolbar, a "Links" section lists various external sites like 53 Bank, U.S. Bank, Sprint PCS, WPCU, Blackboard, UC CAS IT, UC Email, and MBNA. The main content area is titled "Knowledge Sharehouse" with the tagline "Collaborate and Share Expertise" and a logo. A left sidebar contains a "Navigation" menu with options: "Create New Room", "Manage My Rooms", "Change My Info", and "Logout and View Rooms As Learner". Below the menu is a profile for "Jerry Woodson" with a small portrait photo. The main content area is titled "Edit Document Resource" and contains the following form elements:

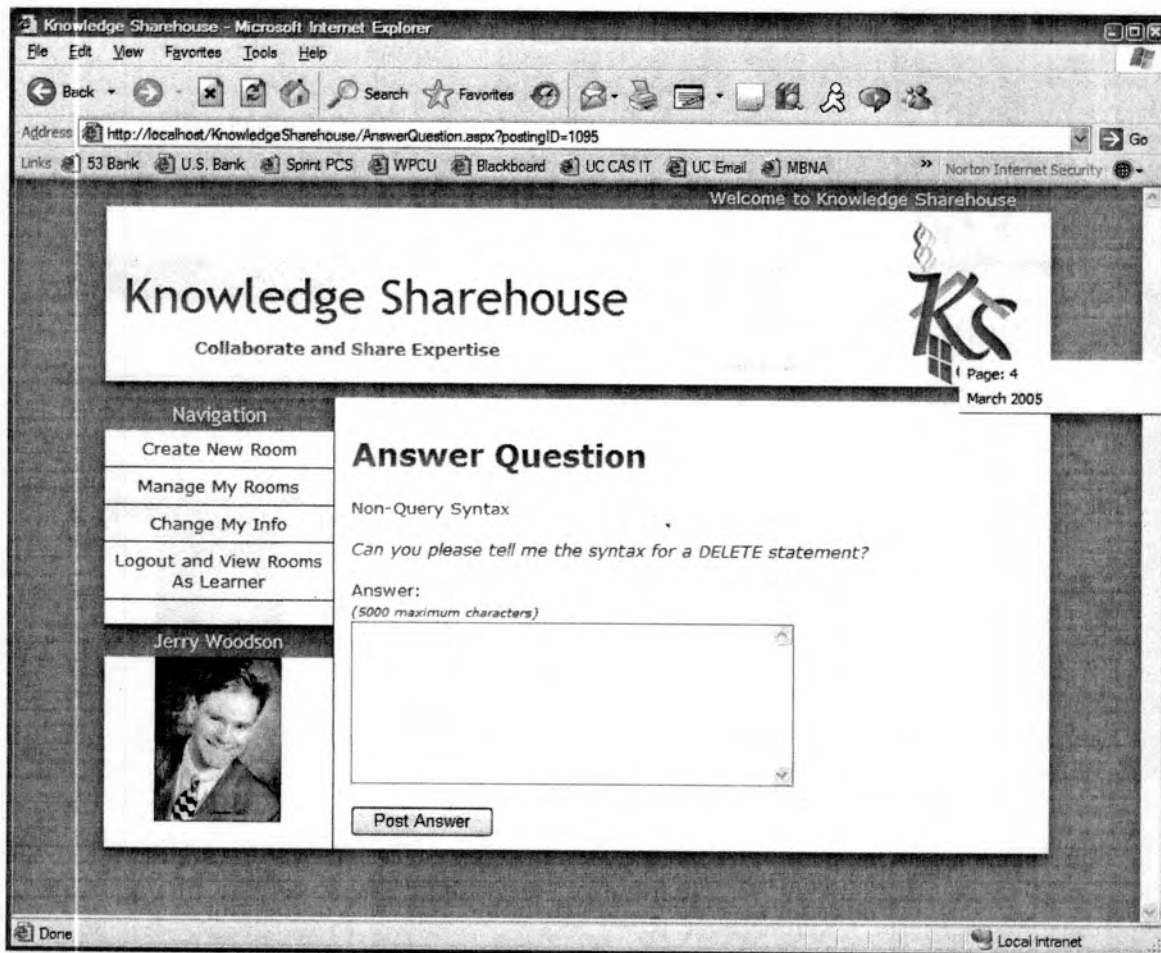
- Title:** A text input field containing "Database ERD" with a note "(100 maximum characters)".
- Description:** A text input field with a note "(5000 maximum characters)". The text "This is an example of an Entity Relationship Diagram." is entered into the field.
- Currently Uploaded File:** A label showing "DB_ERD.vsd".
- Upload New File:** A checkbox followed by a text input field and a "Browse..." button.
- File Type:** A dropdown menu currently set to "MS Word (.doc, .dot)".
- Update Resource:** A button at the bottom of the form.

The browser's status bar at the bottom shows "Done" and "Local Intranet".

11.17 Answer Forum Questions

The Room Owner can choose to answer questions that Learners have posted. The question is displayed with an area for the Room Owner to respond. Once questions have been responded to, they do not appear in the Room Owner administration view of Knowledge Sharehouse anymore.

Figure 30 – Answer a Forum Question



11.18 Change Room Owner Profile

The Room Owner can change information in his or her profile by clicking a link from the 'Room Owner Administration Page'. A screen loads that has the Room Owner's information populated in the fields on the page. The Room Owner can modify any of the fields and his or her information will be updated.

Figure 31 – Change Room Owner Profile

Knowledge Sharehouse - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://localhost/KnowledgeSharehouse/ChangeMyInfo.aspx>

Links 53 Bank U.S. Bank Sprint PCS WPCU Blackboard UC CAS IT UC Email MBNA Norton Internet Security

Collaborate and Share Expertise

Navigation

- Create New Room
- Manage My Rooms
- Change My Info
- Logout and View Rooms As Learner

Jerry Woodson

Please Fill in the Fields to Update Your Information

Page: 4
March 2005

All Fields Except for the Headshot are Required

Personal Information

First Name:

Last Name:

Email Address:

Identification Verification

Hint Question:

Answer:

Confirm Answer:

Create a Six-Character Password

Password:

Local intranet

11.19 Create a New Room

From the 'Room Owner Administration' page, the Room Owner can choose to create more Rooms. Upon clicking the 'Create New Room' link, the Room Owner can enter the information needed to build a new Room.

Figure 32 – Create a New Room

The screenshot shows a web browser window titled "Knowledge Sharehouse - Microsoft Internet Explorer". The address bar displays "http://localhost/KnowledgeSharehouse/NewRoom.aspx". The browser's toolbar includes buttons for Back, Forward, Stop, Home, Search, Favorites, and other standard functions. Below the toolbar, a "Links" bar contains shortcuts to "53 Bank", "U.S. Bank", "Sprint PCS", "WPCU", "Blackboard", "UC CAS IT", "UC Email", and "MBNA". The main content area of the browser shows the "Knowledge Sharehouse" website. At the top of the website is the header "Collaborate and Share Expertise" with a logo on the right. A left-hand navigation menu contains the following links: "Create New Room", "Manage My Rooms", "Change My Info", "Logout and View Rooms As Learner", and a user profile for "Jerry Woodson" with a small portrait photo. The main body of the page is titled "Please Fill in the Information Below to Create a New Room". It contains three text input fields with character limits: "Title: (100 maximum characters)", "Description: (500 maximum characters)", and "Room Overview: (5000 maximum characters)". Below these is a fourth field labeled "Biography For This Room: (5000 maximum characters)". The browser's status bar at the bottom shows "Done" and "Local intranet".

12. Testing

Knowledge Sharehouse was module tested and then system tested. Sample data of various types was entered into the text fields to ensure proper performance.

13. Conclusion

Knowledge Sharehouse fulfills some of the basic needs of an organization to share and collaborate expertise. Knowledge Sharehouse followed the standard design principles in developing a web application in ASP.NET – C#. The application did not take an exorbitant amount of capital to complete. This project was completed within nine months.

Knowledge Sharehouse in the future should be enhanced to accept more types of content and allow real-time collaboration between Room Owners and Learners.

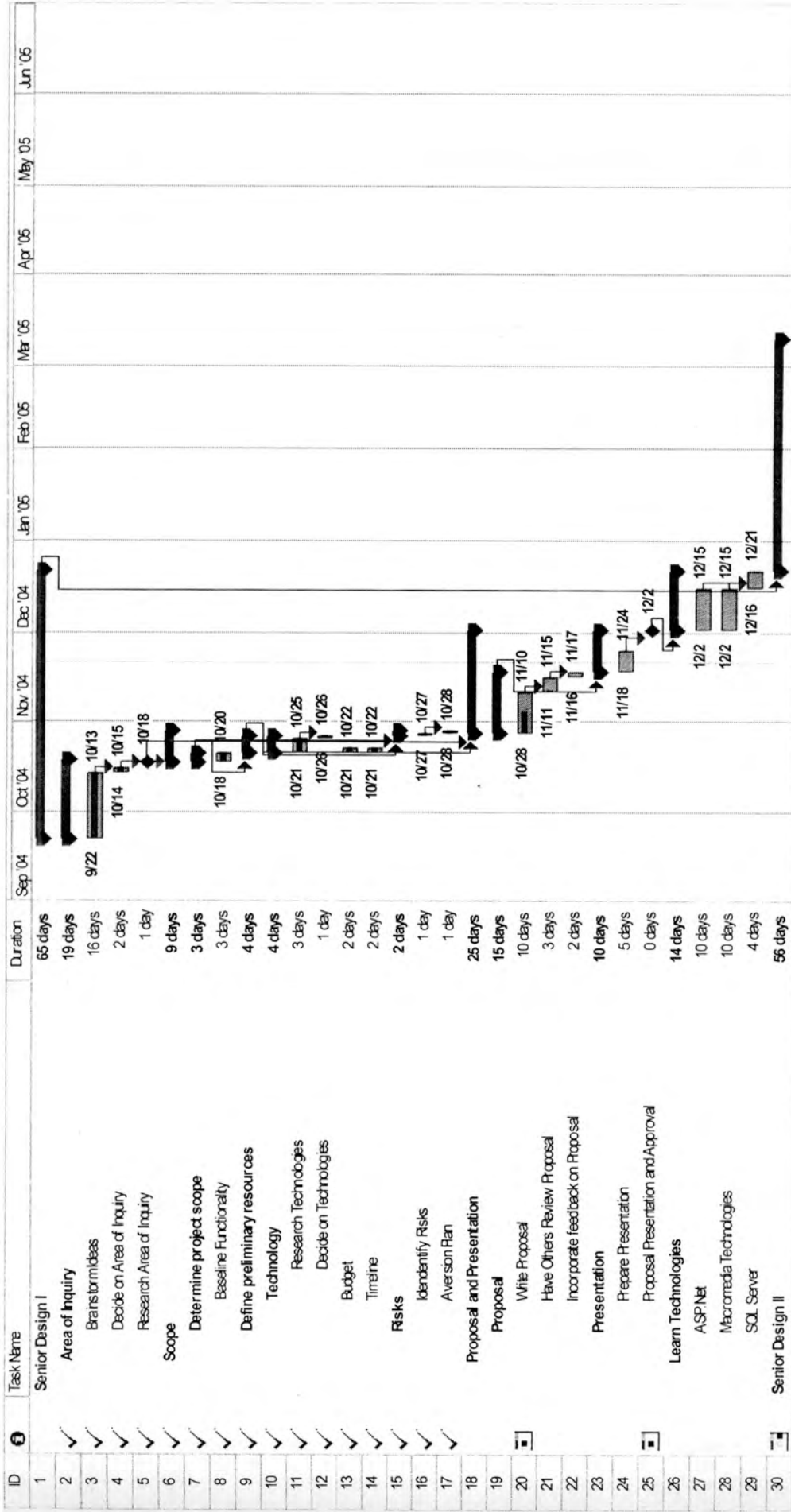
References

1. Achterberg, Maribeth. (2001) How Culture Affects Sharing Information in an Organization. DM Direct Newsletter. 21 Sep. 2004
<http://www.dmreview.com/editorial/newsletter_article.cfm?nl=dmdirect&articleId=4322>
2. Bly, Sara, Marshall, C.S., (2004) Sharing Encountered Information: Digital Libraries Get a Social Life. *ACM/IEEE-CS Joint Conference on Digital Libraries Proceedings of the 2004 joint ACM/IEEE conference on Digital libraries - Volume 00* (pp. 218-227). New York: ACM Press.
3. Frohlich, David, Daly-Jones, O., Whittaker, S. Informal Workplace Communication: What is it Like and How Might we Support It. *Conference on Human Factors in Computing Systems Proceedings of the SIGCHI conference on Human factors in computing systems: celebrating interdependence* (pp.131-137). New York: ACM Press.
4. Information Anxiety, Nov 1 2004
<<http://www.sunyjefferson.edu/Library/webcourse/course/intro/lim0p1.htm>>
5. Jarvenpaa, Sirkka L., Staples, Sandy D. (2004) Using Electronic Media for Information Sharing Activities: A Replication and Extension. *International Conference on Information Systems Proceedings of the twenty first international conference on Information systems* (pp.117-133). Atlanta: Association for Information Systems
6. Leverage Technology to Enable Collaboration -- Part 2. 21 Sep. 2004. <
<http://www3.best-in->

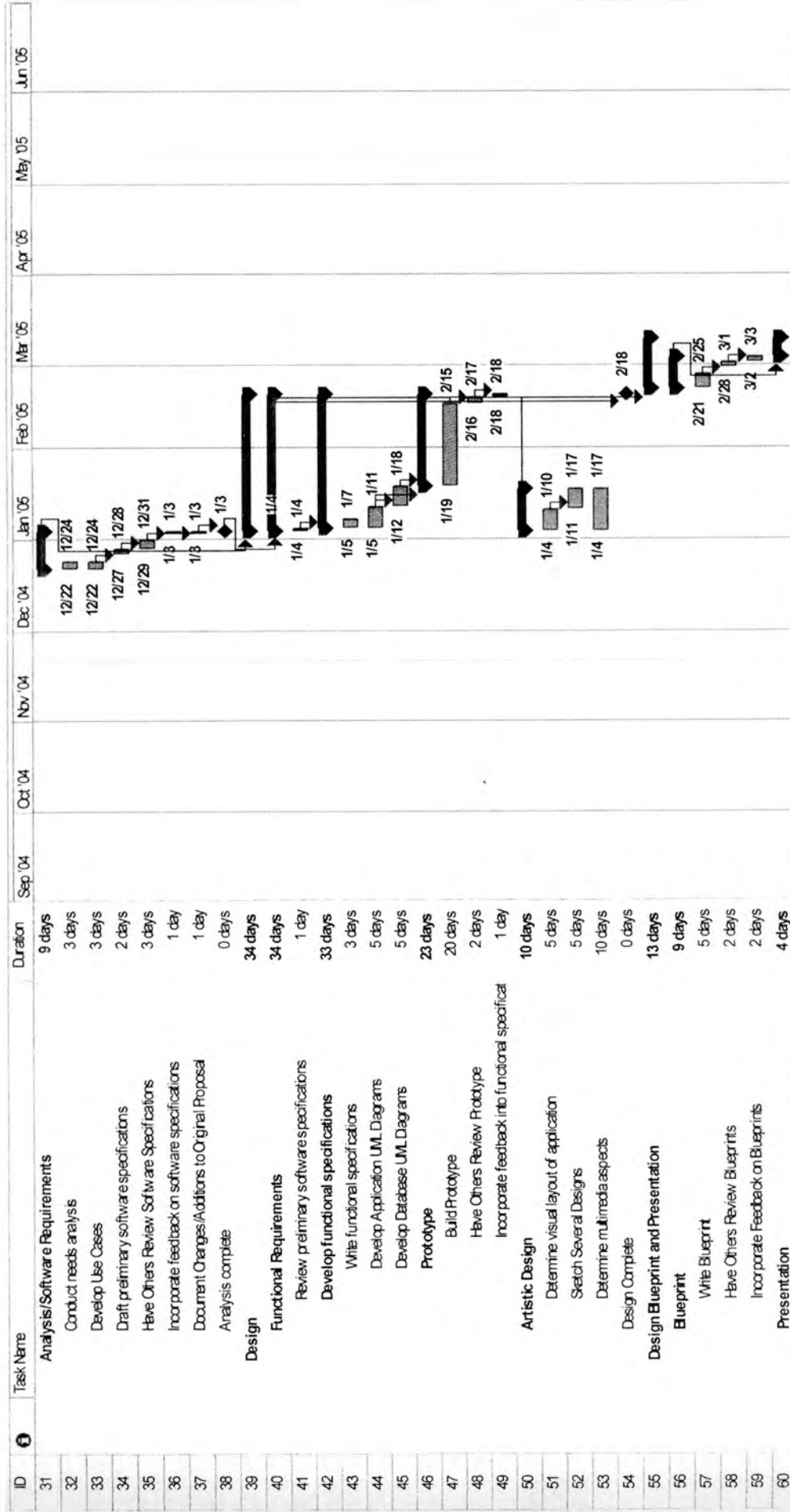
class.com/bestp/domrep.nsf/Content/20A86DEE9B4B0815852569670059B2CE!OpenDocument>

7. Lindsay, J., Maruping, L., (*no date*) If You Build it, Will They Come? Investigating the Impact of Collaborative Software Functionality on Information Sharing Behavior Within Teams. (*no publisher*)
8. Lloyd, M., Weiten, W., (*2003*) Psychology Applied to Modern Life: Adjustment in the 21st Century. Stamford, CT.
9. Managing Training & Development. (*2003*). 3(8), 15. New York: Institute of Management & Administration.
10. National Labour Consultative Council (Australia). (*1984*) Guidelines on Information Sharing. Canberra.
11. O'Dell, Carla S., Leavitt P. (*2004*) The Executive's Role in Knowledge Management. Houston: American Productivity & Quality Center.
12. Rosow J.M., Casner-Lotto J., Hickey J.V. (*1997*). Participation, Achievement, Reward: Creating the Infrastructure for Managing Continuous Improvement; Part I: Participation. Scarsdale, NY.
13. Russell, Randall H. (*1996*) Information Strategy: The Executive's Journal. *Business Source Premier*, 12(2), 28-34.
14. Whitten, Bentley, Dittman (*2003*) Systems Analysis and Design Methods. Columbus, Ohio.

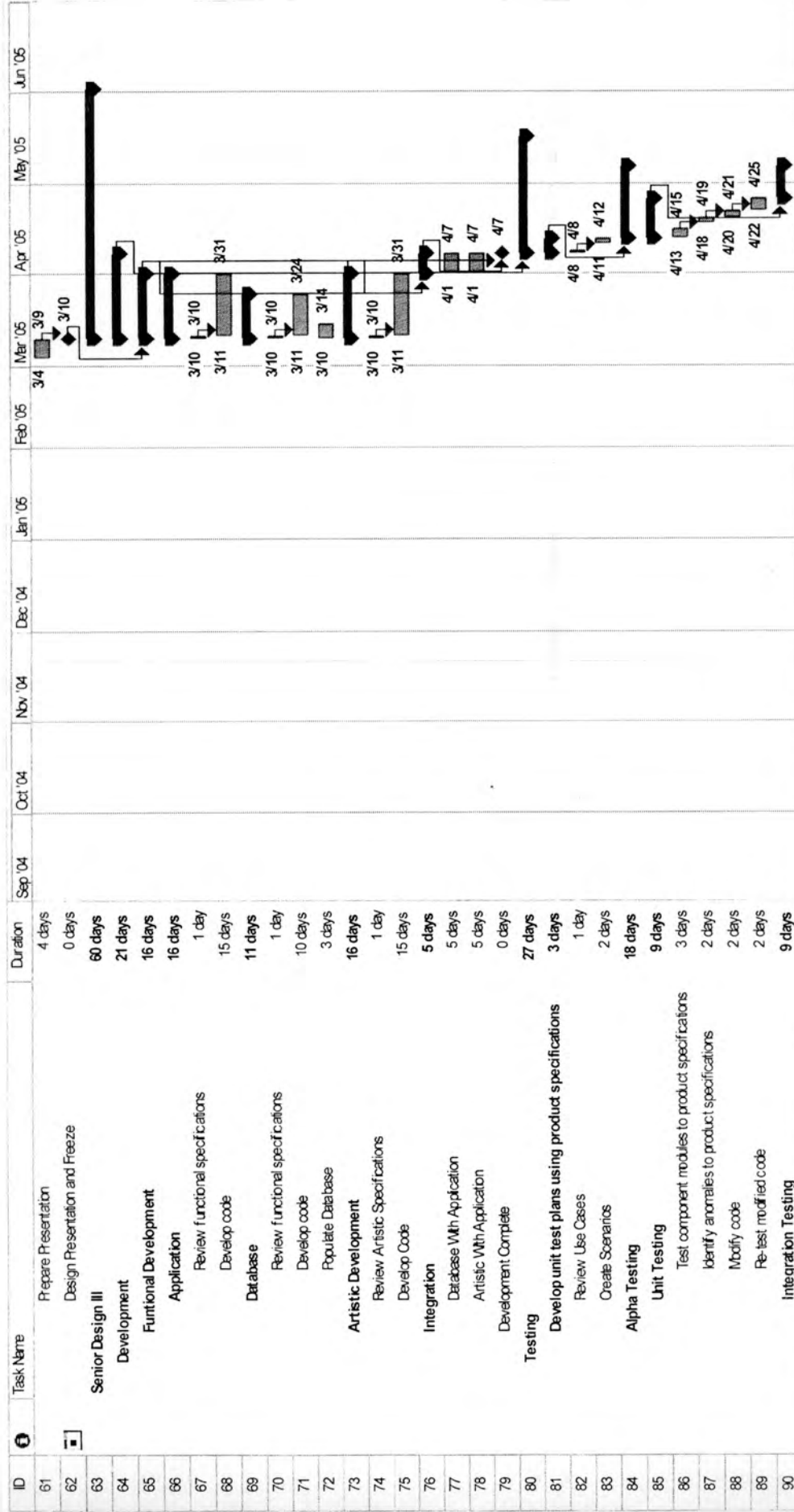
Appendix - Project Plan (1 of 4)



Project Plan (2 of 4)



Project Plan (3 of 4)



Project Plan (4 of 4)

