A WEB BASED QUALITY FUNCTION INFORMATION MANAGEMENT

B. R. VAMSI KRISHNA NAIR¹, K. HARI KRISHNA¹
¹,² M.Tech., Faculty, Department of CSE, SE&T, SPMVV, Tirupati, India.
¹ vamsi.krish9@gmail.com, ² harikrishna514@gmail.com

ABSTRACT
This work describes a Quality Function Deployment is a web-based application designed to help a workgroup keep track of issues and tasks via a shared central resource. The application itself can be installed virtually on any web server, whether internal within the organization, or external, hosted by a web hosting company. The data is stored centrally on the server, which makes it especially suitable for distributed teams who can use just the web browser to access it. No local software needs to be installed on the client and all web browsers are supported. The application itself can be installed virtually on any web server, whether internal within the organization, or external, hosted by a web hosting company. The data is stored centrally on the server, which makes it especially suitable for distributed teams who can use just the web browser to access it.

Key terms: web-based application, web server, Data Models- ER Diagrams, Quality Function Deployment.

1. INTRODUCTION
This is a web based work, this work describes the feasibility to maintain information management through a website and also the way to communicate through mailing and Group chat among the authenticated logged in users. This work is very useful in the areas like colleges/schools and in small firms. Actually we are browsing lot of sites, for some sites we required user id and password. But frequently we are forgetting passwords because of lot of sites so we can maintain all these information in one place; we can also maintain all the personal information like eBooks, photos, docs etc; we can even communicate with the logged in users through emails.

1.1 Description of Existing System
We have replaced all the inline queries in the application with the stored procedures in order increase the response time from the database and also added Indexes for the frequently used tables; with these 2 things we are able to retrieve the data from the database with in less amount of time.

1.2 Proposed System and its Objectives
The work ‘Quality Function Deployment’ at most all the limitations in the Existing System. The main purpose of the proposed system is to perform the Application Settings and Bookmarks more efficiently and user-friendly using various tools.

The limitations overcome from the Existing System in proposed System as,

Having Application Settings.
1. Send Email.
2. Can upload file.
3. Security providing the file extension.

Book Marks.
Assigned to the user.
Assigned by the user.

We are using the Forms Authentication in order to tighten the security level, so only the authorized (registered users) can able to enter into the application. We are using the Master Page concept in the application in order to get the similar look and feel of the Menus, header and footer in all the screens. We are going to implement the Group Chat functionality in this application.

Fig 1: Proposed System Architecture
2. SYSTEM DESIGN
2.1 ARCHITECTURAL DESIGN
The Application is a program which is organized into three major disjunctive tiers. These tiers are
1. Presentation Tier (Frontend)
2. Logical Tier (Middleware)
3. Data Tier (Backend)

Each layer can be deployed in geographically separated computers in a network. We divide Logic Tier in to two sub tiers Business and Data Access Tiers, in order to increase scalability and transparency. The tiers can be deployed on physically separated machines. The characteristic of the tier communication is that the tiers will communicate only to their adjacent neighbors. For an example, The Presentation Tier will interact directly with the Business Tier and not directly with Data Access or Data Tiers.

2.1.1. Presentation Tier
This Tier is responsible for communication with the users and it will use objects from Business Layer to response GUI raised events.

2.1.2. Logical Tier
This is the brain of the application. Some architects do not make any distinction between Business Tier and Data Access Tier. Their main argumentation is that additional tiers will screw down performance. We will have more advantages, if we separate Logical Tier in to Business Tier and Data Access Tier. Some of these advantages are
a. Increases code transparency
b. Supports changes in Data Layer. You can change or alter database without touching the Business Layer and this would be a very minimum touch up.

2.1.2.1. Business Tier
This sub tier contents classes to calculate aggregated values such like total revenue, cash flow and edit and this tier doesn’t know about any GUI controls and how to access databases. The classes of Data Access Tier will supply the needy information from the databases to this sub tier.

2.1.2.2. Data Access Tier
This tier acts as an interface to Data Tier. This tier knows how to (from which database) retrieve and store information.

2.1.3. Data Tier
This Tier is responsible for retrieving, storing and updating from Information therefore this tier can be ideally represented through a commercial database. We consider stored procedures as a part of the Data Tier. Usage of stored procedures increases the performance and code transparency of an application.
• Data Tier is basically the server which stores all the application’s data. Data tier contents Database Tables, XML Files and other means of storing Application Data.
• Business Tier is mainly working as the bridge between Data Tier and Presentation Tier. All the Data passes through the Business Tier before passing to the presentation Tier.
• Presentation Tier is the tier in which the users interact with an application. Presentation Tier contents Shared UI code, Code Behind and Designers used to represent information to user.

2.2 DATA MODELS-ER DIAGRAMS

Fig. 4: Data Models-ER Diagrams

3. MODULARIZATION
3.1. MODULE DETAILS
1. Login Panel & Main Panel
2. Administration Panel
3. Issue Administration Panel
4. Application Settings

Module 1. Login Panel & Main Panel
• Issue List
• Issue Search
• Submitting New Issues
• Issue Response History

Module 2. Administration Panel
• User Administration Panel
• Priority Administration Panel
• Statuses Administration Panel

Module 3. Issue Administration Panel
• File Administration Panel
• Response Administration Panel
• Issue Detail Administration Panel
• Issue Description

Module 4. Application Settings
• Upload File Extensions
4. RESULTS

STEP 1:

Fig 5: Login Screen

STEP 2:

Fig 6: Main Panel

STEP 3:

Fig 7: Admin Screen

STEP 4:

Fig 8: Application Settings

STEP 5:

Fig 9: Issue Administration Panel

STEP 6:

Fig 10: Issue Detail Administration Panel

STEP 7:

Fig 11: Priority Administration Panel

STEP 8:

Fig 12: Priority Detail & New Priority Panel
ADVANTAGES
1. Issue Secure, multi-level web access via login authentication
2. Assignment by person, priority and status
CONCLUSIONS

It has been a great pleasure for me to work on this exciting and challenging work. This work proved good for me as it provided practical knowledge of not only programming in ASP.NET and C#.NET web based application and some extent Windows Application and SQL Server. It also provides knowledge about the latest technology used in developing web enabled application and client server technology that will be great demand in future. This will provide better opportunities and guidance in future in developing works independently.

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This paper is dedicated to my parents.

REFERENCES


Author’s biography

Mr. B. R. VAMSI KRISHNA NAIK received the B.Tech(CSE) from NBKRIST, Vakadu, SVU Tirupati, India, in 2007 and M.Tech(CSE) from GATE College, Tirupati, Acharya Nagarjuna University-Guntur, India, in 2010. He is currently working as a Assistant Professor in School of Engineering and Technology, Sri Padmavati Mahila VisvaVidyalayam, Tirupati, India.

Mr. K. HARI KRISHNA received the B.Tech(CSE) from KSRM, Kadapa, SVU Tirupati, India, and M.Tech(CSE) from JNTU Hyderabad, India, in 2006. He is currently working as a Assistant Professor in School of Engineering and Technology, Sri Padmavati Mahila VisvaVidyalayam, Tirupati, India.