Online Department Level Assessment
Application for Academic Review Process

Anchal Mohane, Ankita Bhaiswar, Sneha Umak, Ankita Jumde

Information Technology, RTMNU, Nagpur, Maharashtra, India

Abstract - Every academic department completes a self study as part of the Academic Program Review process. Reviews are coordinated by the College for each academic program. Study guidelines ask departments for assessment information about their undergraduate programs, including ways in which assessment results have been used to modify the curriculum. It is departmental assessment, so it includes the overall information about department. DLA include two parts which are Part A and Part B. Part A includes parameters like introspection and growth plan, faculty, students and teaching learning process And Part B include parameter like introspection and growth plan, faculty, students, teaching learning process, mission and vision of department, R&D and industrial interaction and best practices. There are some parts that tells about the quantitative assessment and general observation. This software is use to eliminate the manual calculation of assessment and help to automate and calculate the assessment. The DLA project is develops as per the department requirements. DLA application is useful for auditing committee. Whenever the auditor select appropriate option of the assessment questions then option is stored in database. When a auditor puts request or orders for viewing “assessment summery”, “assessment summery”(Report) is generates from the data stored in database.

Keywords – Department Level Assessment.

1. Introduction

The purpose of Department Level Assessment is to eliminate the manual calculation of assessment and help to automate and calculate the assessment. The DLA is a Web based Application that can be accessed throughout the department. The project is helpful for decreasing the overhead of manual documentation of the department and as well as all the department. The project will be usable for auditing committee so this project will helps to decreasing the overall burden of auditing process and decrease time required for auditing and also keeping all database consistently and safely.

2. Literature Survey

2.1 System Analysis
System analysis or study is an important phase of any system development process. The system is studied to the minute detail and analyzed. The system analyst dwelled deep into the working of present system. The system was viewed as a whole and the input of the system are identified. During analysis phase for each problem identified many alternative solution were evaluated and selected the most feasible one. A feasibility analysis was performed to evaluate possible solution to recommend the most feasible one.

2.2 Purpose

The purpose of project is to create an application which is helpful for auditing committee to perform the assessment process.

3. Problem Definition

To develop a software solution to a problem, the first step is to understand the problem. The problem here is to perform or maintain a huge manual documentation and calculation. The software aim is to eliminate the manual calculation of assessment and help to automate and calculate the assessment.

3.1 Feasibility Study

After the problem is clearly understood and solution proposed, the next step is to conduct the feasibility study is defined as evaluation or analysis of the potential impact of a proposed project or program. The objective is to determine whether the propose system is feasible.

3.2 Technical Feasibility

Technical Feasibility assesses whether the current technical resources are sufficient for the new system. If they are not available, can they be upgraded to provide the level of technology necessary for the new system? It checks whether the propose system can be implemented in the present system without supporting the existing hardware.
3.3 Economic Feasibility

Economic feasibility determines whether the time and money are available to develop the system. It also includes the purchase of new equipment, hardware and software. A software product must be cost effective in the development, on maintenance and in the use.

3.4 Operational Feasibility

Operational feasibility determines if the human resources are available to operate the system once it has been install.

3.4 Existing Problem

The problem here is to perform or maintain a huge manual documentation and calculation. The software aim is to eliminate the manual calculation of assessment and help to automate and calculate the assessment.

4. Proposed System

DLA software is use to eliminate the manual calculation of assessment and help to automate and calculate the assessment. DLA is helpful for decreasing the overall burden of auditing process. Decrease time required for auditing. Keeping all database consistently and safely. Good for management control. Work well when quality is more important than cost and schedule. Easy to understand and easy to use.

4.1 Definition

DLA is departmental assessment, so it includes the overall information about department. It is nothing but Academic program review process. It includes assessment information, as well as information about national trends in their disciplines and the realities of staff expertise and budgetary constraints, to review and often reshape the department’s curriculum.

4.2 Overview

DLA is a process of reporting and analysing information about department. Project design is divided into two parts which is Part A and Part B. Part A include parameters like introspection and growth plan, faculty, students, teaching learning process. Part B includes parameters like introspection and growth plan, faculty, students, teaching learning process, mission and vision of department, R&D and industrial interaction and Best Practices.

Four options are available for each question out of it one must have to be selected.

5. Technology Overview

5.1 Java Technology

Initially the language was called “oak” but it was renamed as “Java” in 1995. The primary motivation of this language was the need for a platform-independent (i.e., architecture neutral) language that could be used to create software to be embedded in various customer electronic devices.

- Java is a programmer’s language.
- Java is cohesive and consistent.
- Except for those constraint imposed by the internet environment, Java gives the programmer, full control.
- Finally, Java is to programming where C was to system programming.

5.2 XAMPP Server

XAMPP is a free and open source cross-platform web server solution stack package, consisting mainly of the Apache HTTP Server, MySQL database, and interpreters for scripts written in the PHP and Perl programming languages.

![XAMPP Server](image)

6. Web Annotation

A web annotation is an online annotation associated with a web resource, typically a web page. With a Web annotation system, a user can add, modify or remove information from a Web resource without modifying the resource itself. The annotations can be thought of as a layer on top of the existing resource, and this annotation layer is usually visible to other users who share the same annotation system. In such cases, the web annotation tool is a type of social software tool. For Web-based text annotation systems, see Text annotation.
Web annotation can be used for the following purposes:

- To rate a Web resource, such as by its usefulness, user-friendliness, suitability for viewing by minors.
- To improve or adapt its contents by adding/Removing material, something like a wiki.
- As a collaborative tool, e.g., to discuss the contents of a certain resource.
- As a medium of artistic or social criticism, by allowing Web users to reinterpret, enrich or protest against institution or ideas that appear on the Web.
- To quantify transient relationships between information fragments.

7. Java Database Connectivity

7.1 JDBC

JDBC is a Java API for executing SQL Statements. JDBC is often thought of as standing for Java database connectivity. It consists of a set of classes and interfaces written in the Java programming language. JDBC provides a standard API for tool/database developers and makes it possible to writing database application using a pure Java API. Using JDBC, it is easy to send SQL statement to virtually any relational database.

7.2 Purpose of JDBC

Simply put, JDBC makes it possible to do three things:

- Establish a connection with a database
- Send SQL Statement
- Process the result

7.3 MVC Framework with J2EE

The MVC architecture is successful because each piece of the design corresponds to an aspect of a component. In MVC design pattern, Model provides access to the necessary business data as well as business logic needed to manipulate data. The view determines how the components are displayed on the screen. The controller determines how component reacts to the user.

7.3.1 Model

The model represents the data and the business logic to process the data of an application. Any data that an application will persist becomes a part of model.

7.3.2 View

The view represents the presentation of the application. The view can get data from the model and decide on how to present them to the client.

7.3.3 Controller

The controller intercepts the requests from view and passes it to the model for appropriate action. It also decides on the next view to be presented depending on the last client action and the outcome of the model operations. J2EE (Java 2 Platform, Enterprise Edition) is a Java platform designed for the mainframe-scale computing typical of large enterprises. Sun Microsystems (together with industry partners such as IBM) designed J2EE to simplify application development in a thin client tiered environment. J2EE simplifies application development and decreases the need for programming and programmer training by creating standardized, reusable modular components and by enabling the tier to handle many aspects of programming automatically.

7.4 Javaserver Pages (JSP)

The JSP technology—which abstracts servlets to a higher level—is an open, freely available specification developed by Sun Microsystems as an alternative to Microsoft's Active Server Pages (ASP) technology, and a key component of the Java 2 Enterprise Edition (J2EE) specification. Many of the commercially available application servers (such as BEA WebLogic, IBM WebSphere, Live JRun, Orion, and so on) support JSP technology.

7.5 Servlet

A servlet is a Java programming language class that is used to extend the capabilities of servers that host applications accessed by means of a request-response programming model. Although servlets can respond to any type of request, they are commonly used to extend the applications hosted by web servers. For such applications, Java Servlet technology defines HTTP-specific servlet classes.

The javax.servlet and javax.servlet.http packages provide interfaces and classes for writing servlets. All servlets must implement the Servlet interface, which
defines life-cycle methods. When implementing a
generic service, you can use or extend
the GenericServlet class provided with the Java Servlet
API. The HttpServlet class provides methods, such
as doGet and doPost, for handling HTTP-specific
services.

8. Conclusion

This project Department Level Assessment for
improving auditing process. This project will be
accessible to all auditors. It’s a web based application
useful for the department and it helpful for keeping the
record consistently and safely. It is user-friendly, and
has required options, which can be utilized by the user to
perform the desired operations.

The goals that are achieved by the software are:

- Instant access
- Improve productivity
- Efficient management of records
- Simplification of the operations
- Less processing time and get required information
- User friendly
- Portable and flexible for further enhancement

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