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Title: **MANAGEMENT INFORMATION SYSTEM FOR TRAINING PROGRAMMES – NAARM EXPERIENCES**

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MANAGEMENT INFORMATION SYSTEM FOR TRAINING PROGRAMMES – NAARM EXPERIENCES

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Introduction

The Academy primarily imparts foundation courses to newly recruited researchers of National Agricultural Research System organizations. Apart from this academy organized need based training programs, refresher courses, management development program and executive development programs as well to the researchers and teachers belonging to the National Agricultural Research and Education System. Huge number of training programme are organized by releasing Annual Training Calendar of the academy before the start of every calendar year. The stake holders of the training programmes need to send their applications manually through their competent authorities to the academy for possible selection in the programmes. This is cumbersome process and time taking. Sometimes the application may be lost in transit and human resources are required at the academy side also for processing the application and entering the data into system and for preparing comparing tables of all applicants. An attempt has been made to automate this process cycle so as to save lot of time and energy by developing a Training Management Information System

Discussion:

We are proposing a special system called Training Management Information System (TMIS) which allows online application submitting and also facility of online feedback submitting and evaluation. Proposed system will automate the whole process and eliminates the human intervention. Training Management Information System (TMIS) is a web based application that supports online registration and feedback evaluation for all the training programs at the academy. It helps participants and organizers in their

respective activities. TMIS is web-based system for collecting and evaluating the feedback automatically. It increases the scope of the report generation even by generating report over a period of time. This system will allow participant to key in his data during registration process which as to be done only once in life time. Once the participant is registered with the system he can apply for multiple training programs during different time lines. The system has inbuilt validation system to validate the data entered. After successful submission,

Training MIS will give unique registration number for each participant. Participant can login into system by using this registration number for applying for training programs. Once selected by the organizers the participant will get the feedback and further information, rules and regulations for attending the concerned training program. Also the participant can give online feedback finally about the each session in the training program. This will provide the complete feedback about the training to the management of the academy, so that leadership of academy will get complete feedback about specific faculty as well over a period of time.

Typical functions supported by TMIS are:

- Registering participants,
- Intimation about the selection,
- Collecting feedback from Participants,
- Generating Programme feedback reports and Time Series feedback as well.

The Training MIS is easy to use and provides full-featured and flexible participant registration and feedback assessment web application.

Software requirements:

Operating system : Linux 5.5/Windows 98/2000/XP/7

Technologies : Java, Servlets/JSP, MySQL 5.5, Apache Tomcat web server.

Hardware requirements:

Processor : Intel Pentium 4

Minimum RAM : 256MB

Hard Disk : 40GB

3.1 System architecture:

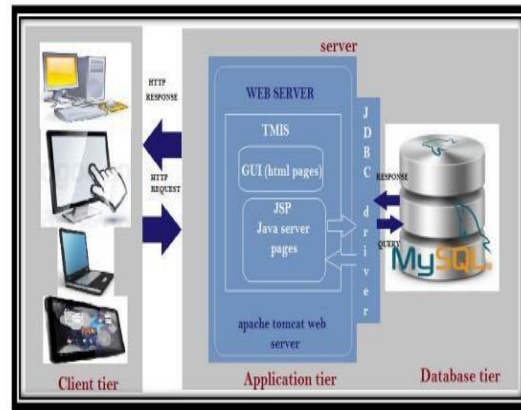


Fig. Training Management Information System Architecture

The TMIS is proposed to use the following open technologies i.e. centos Linux 5.5, Apache/Tomcat Application server and MySQL as database server.

The Java Server Pages/Servlets will be used for implementing the program logic at server end.

The efforts will be focused on the graphical user interface (GUI), which shall not be restricted to static pages; rather the user can experience a dynamic environment, in which he or she can navigate in a natural way.

• DFD/ ER Diagrams

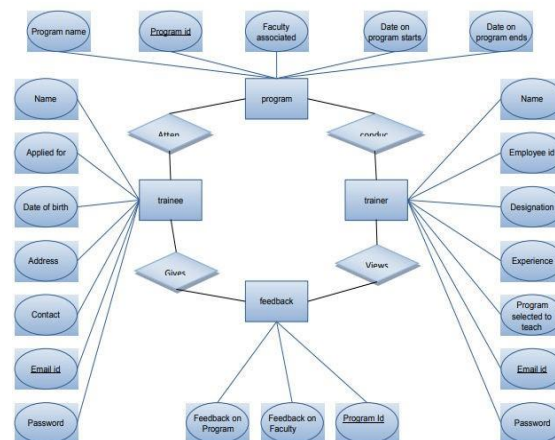


Fig: ER Diagram of TMIS

Use Cases, Class and Object Diagrams

Use case diagram:

The use case diagram is used to identify the primary elements and processes that form the system. The use case diagram shows which actors interact with each use case. Use case diagrams model the functionality of a system using actors and use cases.

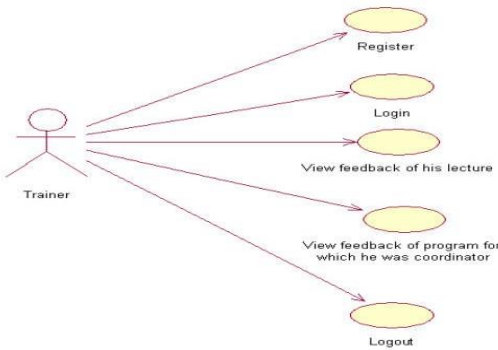


Fig: Use Case diagram for Trainer.

This Use Case Diagram describes how Trainer interacts with the system. First trainee has to register to login to the system. After login he can view feedback of his lecture. If trainer has been coordinator for any program, he can view the feedback of overall program.

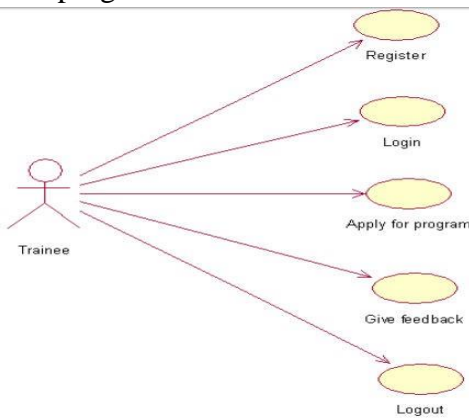


Fig. Use Case diagram for Trainee.

This Use Case Diagram describes how Trainee interacts with the system. First trainee has to register to login to the system. He can apply for any program and provide feedback after attending the program...

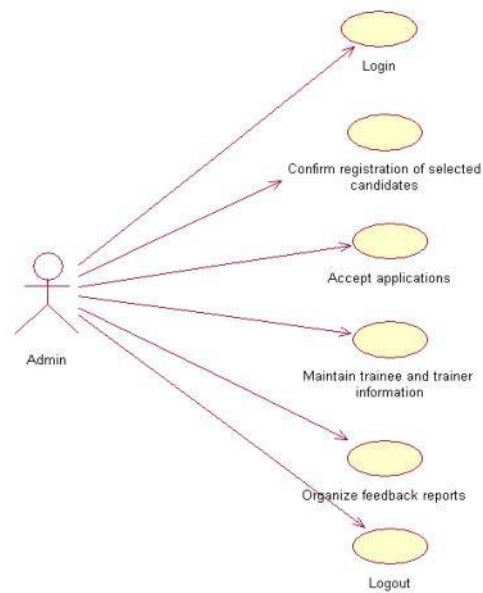


Fig. Use Case diagram for Admin.

This Use Case Diagram describes how Administrator interacts with the system. He can confirm registrants and applicants. He is responsible for maintaining trainer, trainee and feedback information.

Class diagram:

The class diagram is used to refine the use case diagram and define a detailed design of the system. The class diagram classifies the actors defined in the use case diagram into a set of interrelated classes. Each class in the class diagram may be capable of providing certain functionalities. These functionalities provided by the class are termed "methods" of the class. Apart from this, each class may have certain "attributes" that uniquely identify the class.

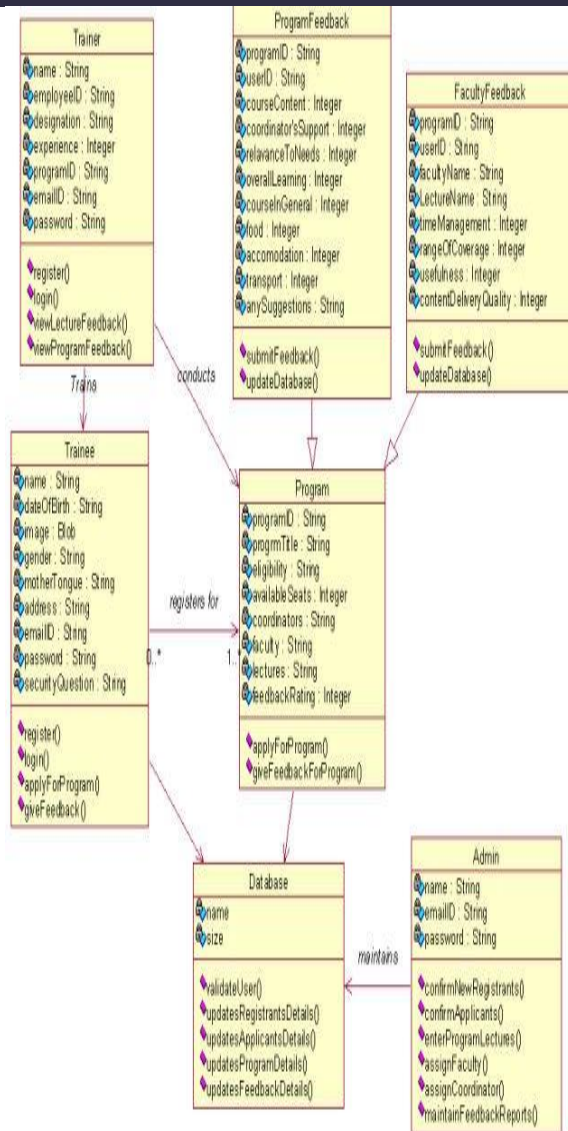


Fig. Class diagram of TMIS.

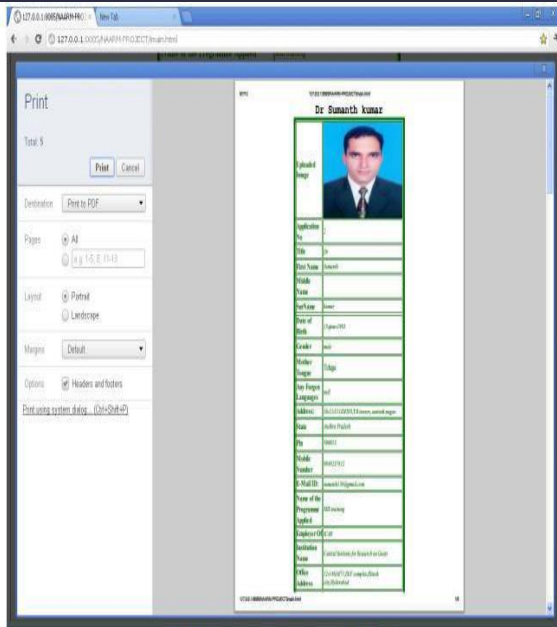
The Class diagram for TMIS describes how online registration system and online feedback system is integrated. TMIS provides the variables and few of the methods to register, apply for the program and give feedback for the program.



The application covers complete cycle of training programme i.e processing of applications, selection of participants, intimation of programme selection, rules/regulations and collecting the feedback. Following are the some of the screens showing the different features of the application developed:



Application Form



Printable form after successful upload



Program Feedback form

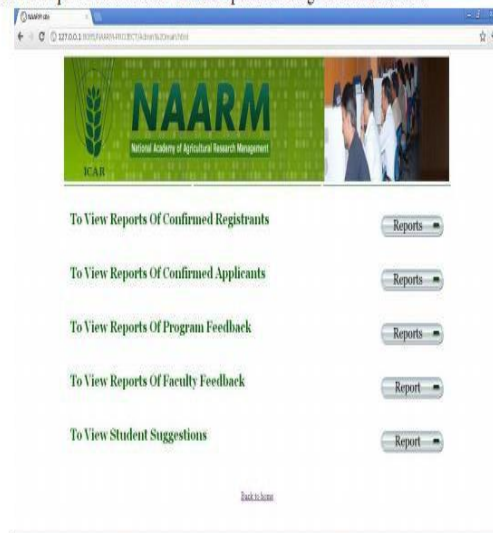
There are two kinds of feedback forms developed., programme feedback and faculty feedback. These are basically to capture the feedback of the overall programme and feedback about individual faculty who has taken various sessions in the said training programme. The following

screen depicts how the Admin screen appears and various features available:

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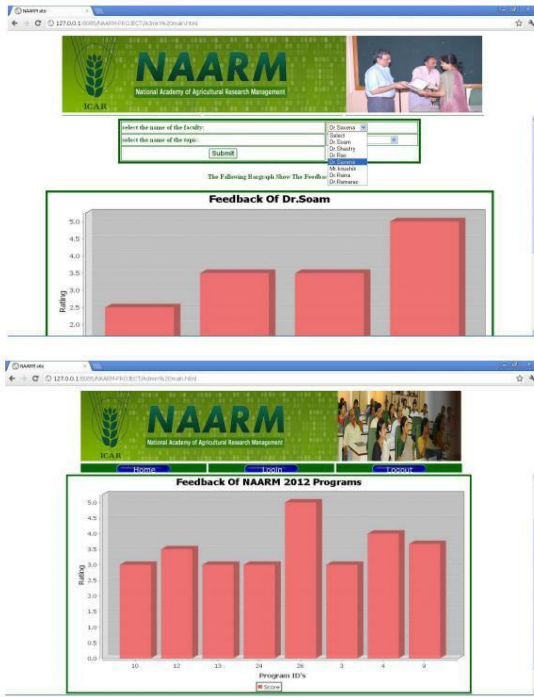


Once all the required data entered various reports can be generated as below.



Once the reports are generated, the management can view feedback about the programme, sessions and also different training programs organized over a year and overall performance of NAARM in total. These views are only available to only to the management and leadership of NAARM as Role based access is enabled in the application. There are different kind of roles of provided to maintain security and privacy of the data. Below are the some of the

feedback screens how they appear to the specific role.



Conclusion:

The applications like Training Management Information System [MIS] are very useful to the institutions like National Academy for Agricultural Research Management whose main mandate is training programmes, as the application developed automates whole process of training programme life cycle. Huge impact has been observed after implementation of the application by saving the time and resources. This kind of application need to be implemented in all the institutions whose main mandate is organizing capacity development programmes.

References:

CV. Charles, (2002) "Education Management Information System and formulation for education to all" at

<http://unesdoc.unesco.org/images/0015/001568/156818eo.pdf>

Powell T and F Schneider (2002) Java Script The Complete Reference. Tata McGraw Hill.

Senn James A, 1989 "Analysis and Design of Information Systems", Tata McGraw Hill.

Training Management Information System at

<http://www.softcomplus.co.uk/BrochureTrainingShortFlight.pdf>

MIS, The Study of People, Technology, and Organizations at

<https://mis.eller.arizona.edu/what-is-mis>

Management Information System at <http://www.fao.org/docrep/w7506e/w7506e03.htm>

MANAGEMENT INFORMATION SYSTEMS by Career Planning staff of Career Services at The University of Tennessee, Knoxville. (2003) at <https://resources.depaul.edu/careercenter/servicesresources/career-guides-by-major/Documents/maninfosys.pdf>