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Training And Placement Management System

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ABSTRACT :

The main purpose of Management System for Training and Placement is to eliminate the existing manual system and make them automated with the help of computer application, so that the information can be stored which can provide easy manipulation and accessing of data. The required hardware and software are easily available and can work easily. Training and Placement Management System, lead to secure, reliable and error free management system. It can make the user to focus on other major activities rather than on tracking and keeping records. Thus, the better utilization of resources can be done. This facilitates the easy management of student data and consume less paper work. This project is developed with java-based web service and MySQL database is used and is deployed using Apache Tomcat.

Keywords: Management System, easy manipulation, student data, web service, Company Data, Chatboat Integration, Placement Related Material.

INTRODUCTION

The use of internet and web has made the revolution on provision of user details and facilitate them to take action on their information. Every organization, irrespective of its size has a difficulty and challenges in managing and tracking their data. This may consume more manual power and also make them to give additional attention on some unwanted work.

This also led to ambiguity and inconsistency of operation and make the whole process slow. In order to eliminate this a web-based training and placement management application is provided. This system is supported to remove and, in some cases, decrease the hardships provided by the existing system. Moreover, this system is developed for the basic need of the organization to carry out various functions in an easy and effective manner.

The software is provided user friendly while entering the data. For entering invalid data, it provides error message. The user can use this system without any formal knowledge. In this system the information of the students in the college is managed efficiently. Students' login into their system can able to upload their academic and personal details. They can also view the upcoming placement activities and can enroll in it, if they are eligible for that company. The faculty can able to update the upcoming company status and also can also perform CURD (Create Update Read and Delete) on student and placement details.

METHODOLOGY

Project is divided into four modules which are:

- Student
- Admin
- Dashboard module
- Update company data

Student module:

This Module consists of login page for existing user and registration phase for new user. It is completely based on user wish to choose their username and password.

The functionalities provided in this module consist of:

- Student can upload their details anytime.
- Company requirement can be viewed.
- They can shortlist the company based on criteria

Admin module:

This module makes admin to use the system. Training and placement Officer will act as admin in this module.

- Add company details
- Provides authentication for registered students
- Add news feed and
- Update company data.

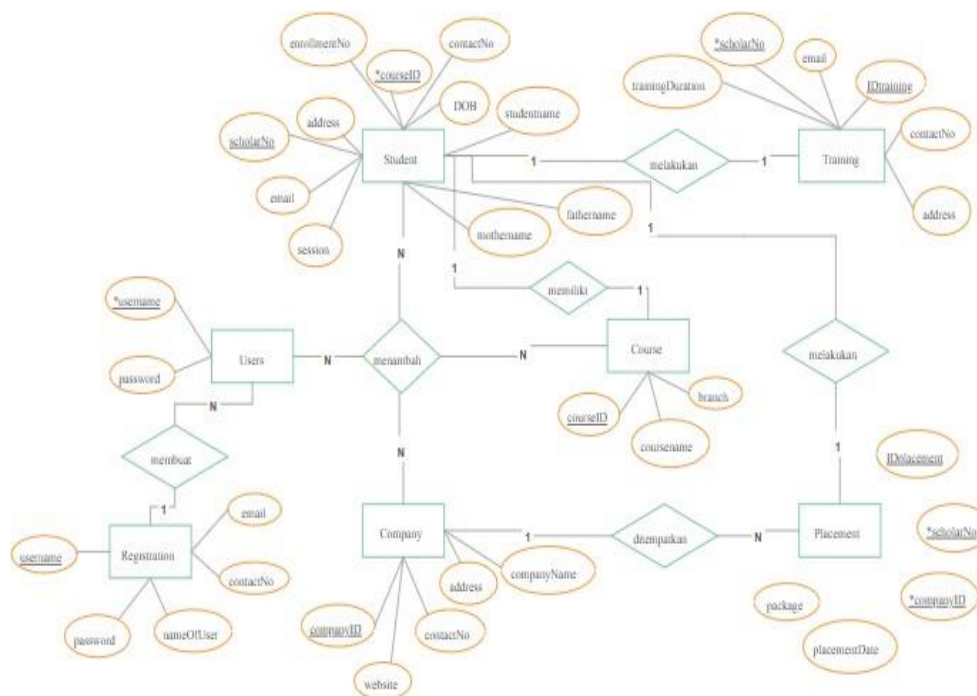
Dashboard Module:

This is the basic module in which the students can view the upcoming interview process to their organization. The student details are grouped on batch wise. The user can view the placement details of previous batch.

Update company data:

This module is handled and managed by the admin here it is faculty.

They can update the upcoming company name and other details. Also, the company feedback is added so the user can make their feedback in the portal. The main purpose of proposed Web based Training and Placement portal is supposed to offer more easiness to TPO, Placement coordinators and Students that they will modify and access information so quickly. The system provides a far better path to maintain student's information within the database, ensures data correctness and data integrity also. The paperwork time of the system is reduced and makes an information flow efficiently between different modules of the system.

Process Model:

Firstly, on opening the online portal you'll land on the most page of the portal which showcases information about the school. Secondly there are three tabs given in the portal namely T&P, Student and Company. Each module has an equivalent login page consisting of user id and password field for gaining access to the functionalities of the system. In the portal namely T&P, Student, and Company. Each module has an equivalent login page that contain user id and password field, by entering data in these field the user can gain access to the functionalities.

MODELING AND ANALYSIS

Iterative process begins with simple implementation of the software requirements and iteratively enhances the subset version until the full system is implemented. At each iteration the project subset undergoes incrementation. At each iteration, new modifications are made and new capabilities are added as in Figure 2.

Iterative and incremental model is the combination of both iterative method or iterative model and incremental method for software development process. This combination is used effectively and is suggested widely for large project. An iterative life cycle model starts with partial collection of

specification. Instead, the development begins by defining and implementing the part of the software, which is then reviewed with the customer for further requirements. This process is then repeated, producing an incremented version of software at the end of each iteration.

In this incremental model, the whole user requirements are divided into various builds. During each, the development model goes through the requirements, design, implementation and testing phase. Each release adds new or improved function to the previous release. The same process is carried out till the entire system is ready.

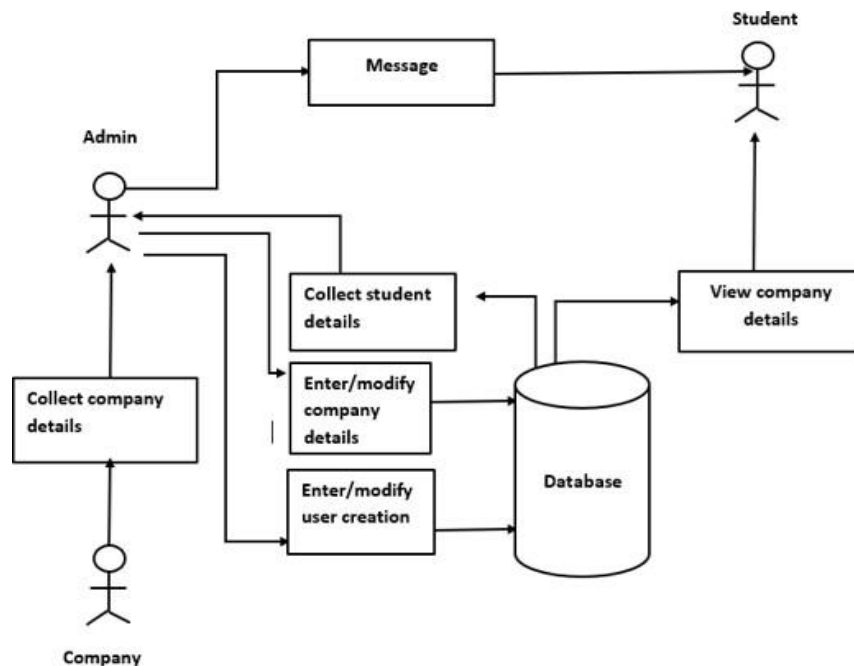
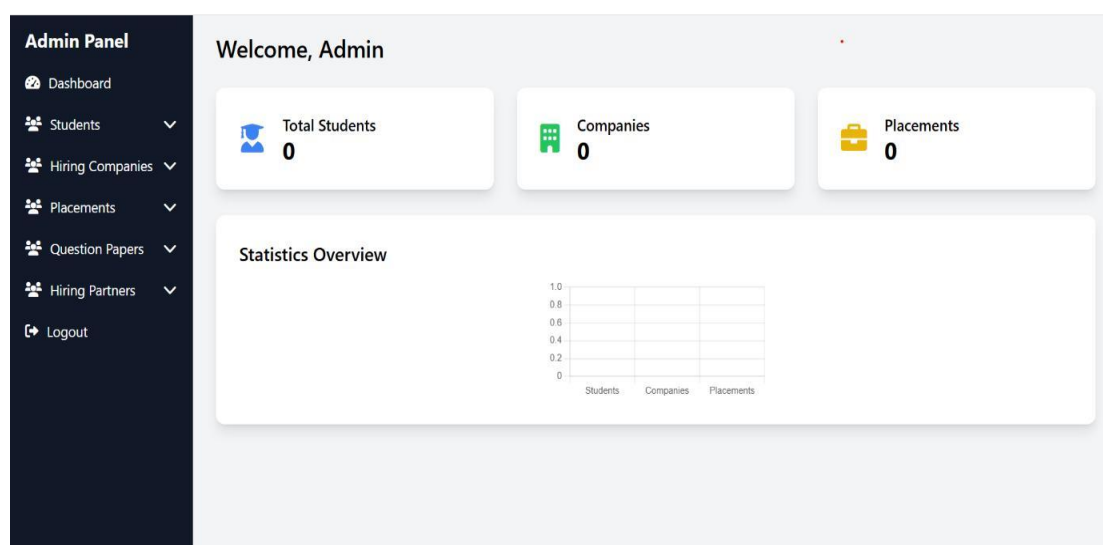


Fig 1: System Architecture

Training and Management System application is a web-based application developed to help students and faculty members in making the process easy during peak hours. The main objective of the application is to provide the easy access of the student information and also make the student to know the company status and also the placement status of both present and past seasons of their college. The user can choose their company and get the details related to the that based on the criteria given.

This management application is developed on Eclipse IDE with JEE Plugin using Java 14.0. The user interface(view) is done using Bootstrap Framework. And the business logic is coded in Java. This application also makes use of MVC Framework. The backend database is MySQL and here MySQL workbench is used to manage the database. The application developed is archived to a war file and in Tomcat Server it is deployed.



Smart management system

The screenshot in the shows the web service deployed on Apache Tomcat server

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2025-05-02T18:51:37.933+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-7] o.s.orm.jpa.JpaTransactionManager : Initiating transaction commit
2025-05-02T18:51:37.933+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-7] o.s.orm.jpa.JpaTransactionManager : Committing JPA transaction on EntityManager [SessionImpl(19032887
2025-05-02T18:51:37.934+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-7] o.s.jdbc.datasource.DataSourceUtils : Resetting read-only flag of JDBC Connection [HikariProxyConnectio
2025-05-02T18:51:37.934+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-7] o.s.orm.jpa.JpaTransactionManager : Not closing pre-bound JPA EntityManager after transaction
2025-05-02T18:51:37.937+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-7] o.s.w.s.v.ContentNegotiatingViewResolver : Selected 'text/html' given [text/html, application/xhtml+xml, ima
2025-05-02T18:51:37.981+05:30 WARN 11024 --- [kdk] [nio-8080-exec-7] actStandardFragmentInsertionTagProcessor : [THYMELEAF][http-nio-8080-exec-7][admin/admin-dashboard] Deprecat
2025-05-02T18:51:38.059+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-7] o.j.s.OpenEntityManagerInViewInterceptor : Closing JPA EntityManager in OpenEntityManagerInViewInterceptor
2025-05-02T18:51:38.059+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-7] o.s.web.servlet.DispatcherServlet : Completed 200 OK
2025-05-02T18:51:38.389+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.security.web.FilterChainProxy : Securing GET /favicon.ico
2025-05-02T18:51:38.390+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] w.c.HttpSessionSecurityContextRepository : Retrieved SecurityContextImpl [Authentication=UsernamePasswordAut
2025-05-02T18:51:38.390+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.security.web.FilterChainProxy : Secured GET /favicon.ico
2025-05-02T18:51:38.390+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : GET "/favicon.ico", parameters={}
2025-05-02T18:51:38.391+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped to ResourceHttpRequestHandler [classpath [static]], Servlet
2025-05-02T18:51:38.391+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.j.s.OpenEntityManagerInViewInterceptor : Opening JPA EntityManager in OpenEntityManagerInViewInterceptor
2025-05-02T18:51:38.393+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.w.s.r.ResourceHttpRequestHandler : Resource not found
2025-05-02T18:51:38.397+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] .w.s.m.s.DefaultHandlerExceptionResolver : Resolved [org.springframework.web.servlet.resource.NoResourceFoun
2025-05-02T18:51:38.397+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.j.s.OpenEntityManagerInViewInterceptor : Closing JPA EntityManager in OpenEntityManagerInViewInterceptor
2025-05-02T18:51:38.398+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed 404 NOT_FOUND
2025-05-02T18:51:38.407+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.security.web.FilterChainProxy : Securing GET /error
2025-05-02T18:51:38.408+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] w.c.HttpSessionSecurityContextRepository : Retrieved SecurityContextImpl [Authentication=UsernamePasswordAut
2025-05-02T18:51:38.408+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.security.web.FilterChainProxy : Secured GET /error
2025-05-02T18:51:38.408+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : "ERROR" dispatch for GET "/error", parameters={}
2025-05-02T18:51:38.408+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.w.s.m.a.RequestMappingHandlerMapping : Mapped to org.springframework.boot.autoconfigure.web.servlet.err
2025-05-02T18:51:38.408+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.j.s.OpenEntityManagerInViewInterceptor : Opening JPA EntityManager in OpenEntityManagerInViewInterceptor
2025-05-02T18:51:38.424+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.w.s.m.a.HttpEntityMethodProcessor : Using 'application/json;q=0.8', given [image/avif, image/webp, im
2025-05-02T18:51:38.430+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.w.s.m.a.HttpEntityMethodProcessor : Writing [{timestamp=Fri May 02 18:51:38 IST 2025, status=404, err
2025-05-02T18:51:38.449+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.j.s.OpenEntityManagerInViewInterceptor : Closing JPA EntityManager in OpenEntityManagerInViewInterceptor
2025-05-02T18:51:38.449+05:30 DEBUG 11024 --- [kdk] [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Exiting from "ERROR" dispatch, status 404

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The screenshot in the shows the web service deployed on Apache Tomcat server

RESULTS AND DISCUSSION

Online student management system is a solution to the existing manual system, to reduce manual tension by providing information about the details of students in the online portal. The application is user friendly; any user can easily update the educational and personal status and also can view the placement details. This system is based on MVC architecture that yields optimal solution for dynamically responding web site- providing flexible reservation process.

The main features provided by this application are registration process, batch wise placement details and viewing company details. The web page is updated dynamically based on the faculty and student input data. CURD operation is also provided for faculty on student details with secured mail authentication. This application focus on a new online management for training and placement infrastructure.

CONCLUSION

The main objective of developing this application was to reduce maximum causes of errors in manual work. Save time for the process. Other features such as giving notifications to students about the jobs that are available both on and off campus can be included in the upgraded versions. The system cannot provide the SMS integration. Hence, the mail integration is given using java API. Some more interesting features can be introduced to track the student records and placement details. After analysis this system will notify the students of the areas are lacking in.

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