

Epics

Employee management system

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1. Project Overview

The main purpose of this project is to develop a web application platform that can be used by companies to manage the data of their employees. As the number of employees grows in a company, a company needs to have a good way to store the information of the employees which is reliable and fast. This web application platform called “Epics” will provide a platform for storing the data of employees which would benefit the company in the long run.

The Problem

As many startups are emerging, people need to use an employee management system to keep all the records of the employee. Without a proper management application it is very difficult to keep all the data of the employee in an organized way. It also gets very difficult when the number of employees grows. Some people use google sheet but it is not very flexible as we can not maintain a large number of employee details there.

Why ‘Epics’

Epics will have a very simple user interface which will be very easy for the employees and the administrator to use. It will allow the authenticated user to search for other employee details based on their user right. Each employee has a different level of access to the database. Some employees will not have any access to other employee’s information. Epics provide all these amazing features to its users.

2. System Requirement

Presentation Tier

In Epics, the user interface will be a web application that handles the interaction with the user and displays information. I will build this web application with the programming language Java.

Logic Tier

Scope will use Apache Tomcat as a backend server for handling user requests and communicating with the database.

Data Tier

My project will use ORACLE as our RDBMS (Relational Database Manage System) to manage and provide access to the data.

3. Functional Requirements

- The users of Epics will be employees and the database administrator of the company.
- The database will hold all the information of the employees such as name, age, sex, dob, job title, salary, manager, vp, joining date, projects, employee status, personal contact information and more.
- How admin users can access the system: Users will be able to
 - add an employee in the database. Each employee should have a unique id.
 - view/update all the details of an employee's salary related information.
 - view/update all the information about the extra benefits that the employee gets such as food stamps.
 - view/update information of employees' leave or vacation taken by the employee in the database.
 - view/update employee's contact information such as address, phone number, email and emergency contact.
 - view/update employee's job title.
 - view/update employee's status such as full time, part time, contract, etc.
 - store the working history of the employee.
 - store the time information of the employee which includes working-hours, off-hours, over-time.
 - delete employees from the database who leave the company
 - search for employees by different filters such as their id, last name, first name,....
Then, the system will select the desired employee from the database and list them on the webpage.

Functionality and Features

Epics will have a homepage where the administrator or employees can login using different login systems. While under the admin panel, admin can enter the details of each employee. He can also search for an employee by employee id. He can update the employee details. He can also delete an employee from the database.

As mentioned, Epics also has a login page for employees to login to the web app. Employees can update their details and see a few details of other employees when they search for another employee by using the search bar on the top of every page.

- Register: Users need to register with their first name, last name, DOB, address, username, password and email. The information will be stored in the database.
- Login: users need to login to access more features.
- Edit profile: users can edit their profile including their email, address, password and photo.
- Search employee: user can search for any employee with filters such as employee ID, name, salary,... alphabetical.
- View employee: users can see the information of specified employees based on their job titles.
- Create employee: users can add a new employee with their name, DOB, username, password, photo, address.
- Delete employee: users can delete the employee

Inputs/Outputs

The inputs for Epics would include the entered employee data such as name, salary, id. The projected outputs would be the ability to view and collect the other information of the employee from the database and display on the user interface.

4. Non Functional Requirements

Non-functional requirements of this web application include many aspects such as performance, scalability, accessibility, security, etc. Within the time of CS157A course, my goal is to build a three-tier architecture application that allows the administrator and the employees to add their details into the database by using an amazing graphical user interface. In terms of scalability, any employee from the same company can add their details to the database. For accessibility, Epics's aim is to bring high-performance websites for our users. Users will be able to access our site either on the PC or mobile platform. The navigation system for users will be simple, intuitive, and provide enough information that matches User's needs. For security, we plan to have two different levels of users: database administrator and employee. The instructor has access to create a few fields in the table which are not visible to employees. Employees will

have access to view their salary, pension plan, health care facility but they can not modify that information.