GUVI PROJECT REPORT

Topic: HR QuickView

(A Comprehensive HR Management System)

Team Members:

Name: Manansh Gupta **Admission No:** 23SCSE10101638

Name: Pratyusha Das **Admission No:** 23SCSE1012012

Name: Vaibhavi Garg **Admission No:** 23SCSE1011423

HR QuickView

(A Comprehensive HR Management System)

Objective:

The objective of HR Quick View is to centralize employee data, provide workforce insights, and support HR decision-making to enhance overall efficiency and simplify HR processes.

Problem Statement:

Traditional HR systems often lack real-time data and visualization capabilities, making it difficult to analyze workforce trends and identify areas for improvement.

About HR Quick View

HR QuickView is an essential tool within **HR systems** that simplifies access to **critical employee information**. It acts as a **centralized dashboard**, providing HR professionals with **quick, streamlined insights** into key employee details, such as **job roles, salary, benefits, performance metrics,** and **contact information**.

HR QuickView helps by reducing the **time and effort** HR staff spend searching for and managing **employee data**. With everything in **one place**, HR professionals can make **faster, more informed decisions** without having to navigate through extensive records or multiple systems. This enables them to respond quickly to **employee inquiries** and address HR needs with **greater efficiency**.

Traditional HR systems can often be **fragmented and cumbersome**, with data scattered across different platforms, making it challenging to retrieve **essential**

information promptly. HR QuickView addresses these issues by **consolidating data** into a **single view**, solving the problem of **data fragmentation** and enhancing **productivity**. By providing an **overview at a glance**, HR QuickView **minimizes administrative burdens** and allows HR teams to focus more on **strategic HR functions**, ultimately leading to **improved workforce management** and better overall **HR operations**.

Key Features:

- **Data Centralization**: Instead of having employee information scattered across different files, systems, or departments, Data Centralization gathers everything into a single, organized system.

- **Holiday Management**: Holiday Management refers to the process of organizing and tracking employees' time off, including vacations, public holidays, sick leaves, and any other types of leave. It ensures that employees can take time off when needed, while the company keeps track of who is on leave and when.

- **Absenteeism Reports**: Absenteeism Reports are documents or summaries that track how often employees are absent from work. These reports help HR and managers understand the patterns and reasons behind employees missing work, so they can address any issues that may arise from frequent absences.

- **Employee Analytics**: Employee Analytics is the use of data to understand and improve how employees work and perform. It involves collecting, analyzing, and using information about employees to make better decisions that benefit both the company and its workforce.

- **Vacation Tracking**: Vacation Tracking is the process of keeping track of employees' vacation days to make sure they use the right amount of time off

without affecting the company's workflow. It helps both employees and the company stay organized about vacation scheduling.

- **Time-off Policies**: Time Off Policies are rules that a company sets to manage how and when employees can take time away from work. These policies outline the types of time off employees can take (such as vacation, sick leave, or personal days) and how much time they are allowed.

Advantages and Disadvantages

Advantages:- Here are the key advantages of HR Quick View:

- **Centralized Information**: Consolidates employee data in one place for easy access.
- **Time-Saving**: Allows HR professionals to quickly retrieve important information without searching through multiple systems.
- **Improved Decision**-Making: Provides a comprehensive overview of employee details, aiding informed decisions.

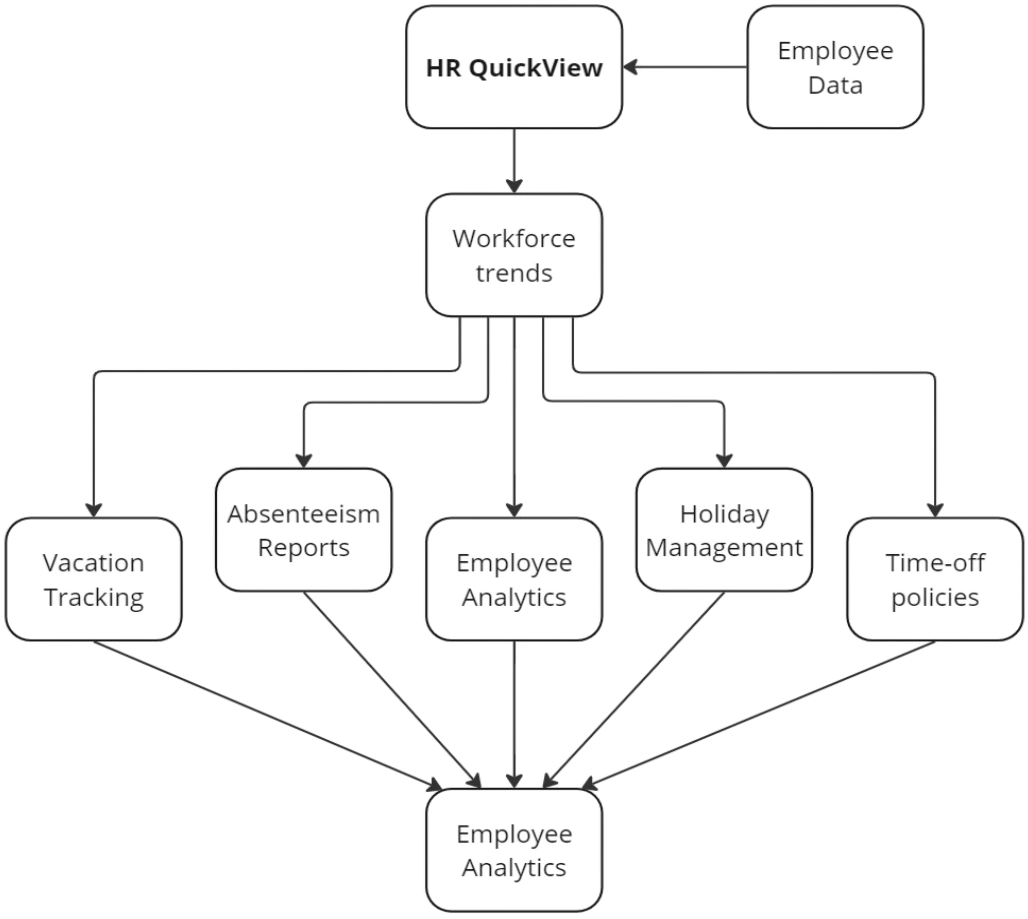
Disadvantages:- Here are the key disadvantages of HR Quick View:

- **Implementation Costs**: Setting up the system can be expensive, including software and training costs.
- **Data Security Risks**: Centralizing employee data increases the risk of data breaches or unauthorized access.
- **System Dependency**: Over-reliance on the system can lead to challenges if it goes down or malfunctions.

Technical Stacks

- **Frontend:** **HTML, CSS, and JavaScript** will be used to create the user interface, making it visually appealing and interactive for easy navigation and data display.
- **Backend:** **Spring Boot (Java)** will handle the server-side logic, managing data processing, business logic, and communication between the frontend and the database.
- **Database:** **MySQL** will store employee data, such as job roles, salaries, and leave records, and respond to queries from the backend for real-time data access and updates.

Flow Diagram



- **Input Employee Data**: HR QuickView receives and stores employee information, including job roles, attendance, and leave records.
- **Analyze Workforce Trends**: The system examines data to identify patterns in attendance, productivity, and employee behavior.
- **Track Vacation and Leave:** Vacation and time-off requests are monitored and logged, with balances updated accordingly.
- **Generate Absenteeism Reports:** HR QuickView produces reports on employee absences to highlight any trends or concerns.
- **Manage Holidays**: Public and company holidays are integrated into employee schedules, ensuring accurate leave management.
- **Provide Employee Analytics**: Data from all modules is combined to generate insights, aiding HR in decision-making and strategic planning.

Project Setup and Initialization

The development process began with setting up the JDK and configuring the IDE to create the development environment. After this initial setup, the project structure was defined. The project was organized into separate packages, including model, controller, view, and service, which ensured clarity and ease of maintenance.

Database Design and Implementation

A well-structured database schema was created to store essential data such as employee information, attendance, and salary. Using MySQL, tables were set up to organize these records effectively.

- JDBC was implemented to establish a secure connection between the backend application and the database.
- DAO (Data Access Object) classes were used to perform CRUD operations, keeping database interactions modular and easy to maintain.

This step established a solid foundation for data storage and manipulation in the application.

Frontend Development

The frontend was designed with HTML templates, focusing on ease of use and functionality for tasks like user registration and profile management. The user interface was then enhanced with CSS and Bootstrap, providing a responsive and modern design.

- JavaScript was added for client-side interactivity, including form validation and dynamic user experience elements.

This phase focused on building an intuitive interface that facilitates user interaction with the system.

Servlets and Backend Integration

To handle HTTP requests and responses, servlets were developed and configured. The doGet and doPost methods were implemented to manage tasks like data retrieval and form submissions. User registration forms and profile management features were integrated with servlets to enable dynamic operations. The backend logic ensured secure handling of data and efficient processing of user inputs.

JSP Integration and Dynamic Content Rendering

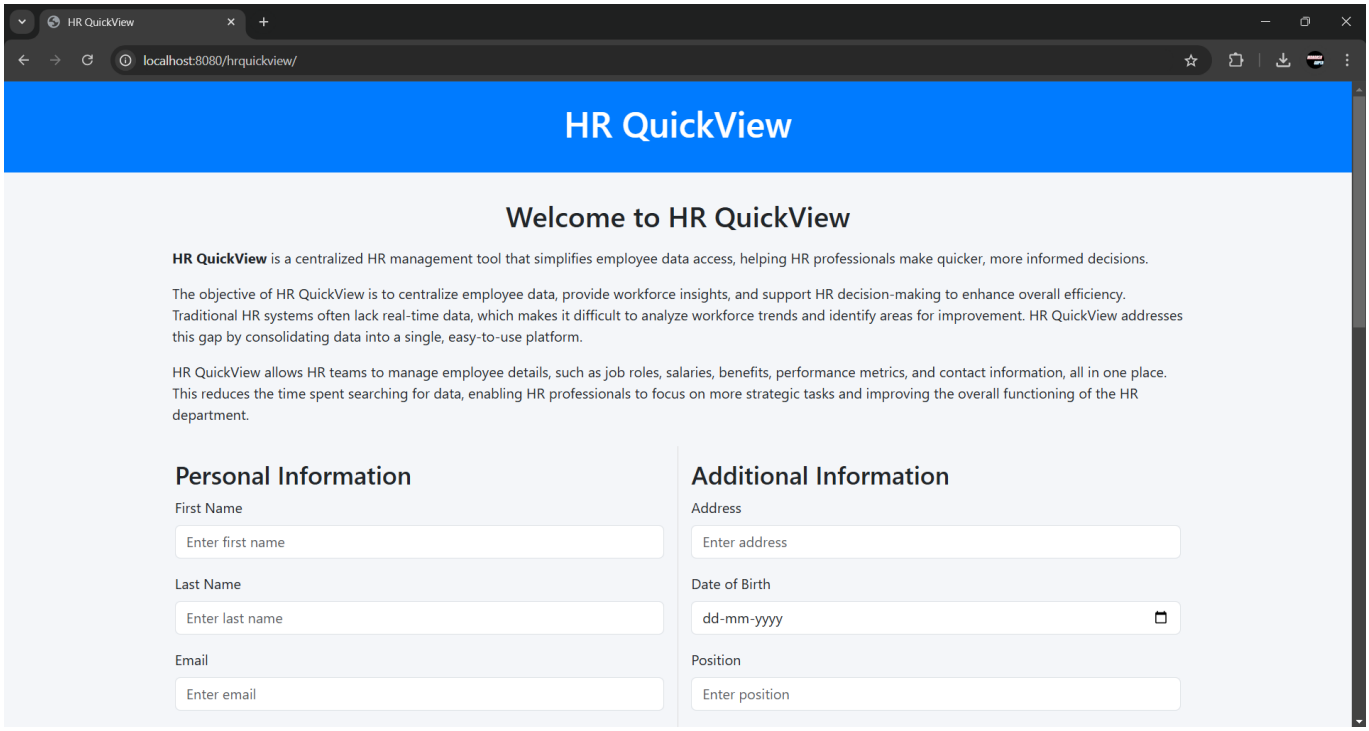
JavaServer Pages (JSP) were integrated with servlets to display user data dynamically. Pages like dashboards and profile overviews were created using JSP, while JSTL (JavaServer Pages Standard Tag Library) and Expression Language (EL) simplified data display and control flow within the views. This integration bridged the frontend and backend, providing a cohesive user experience.

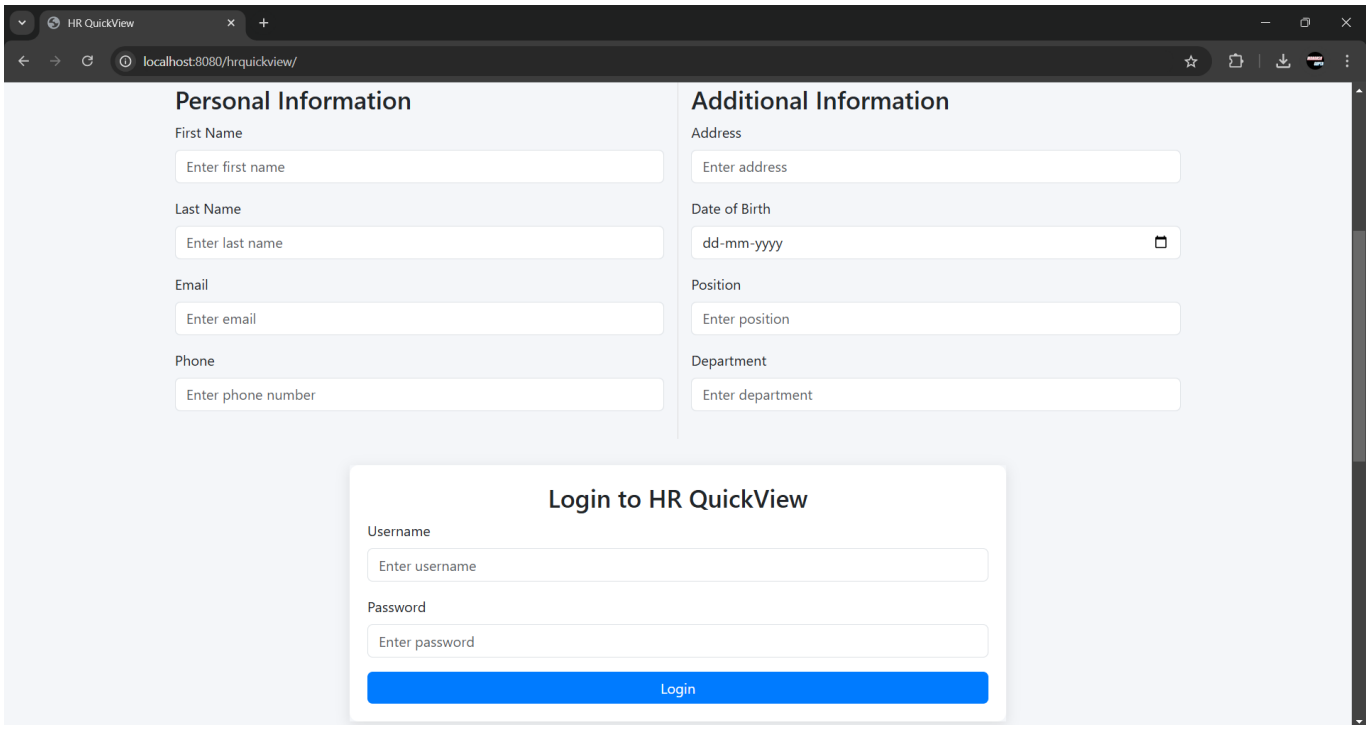
Testing and Documentation

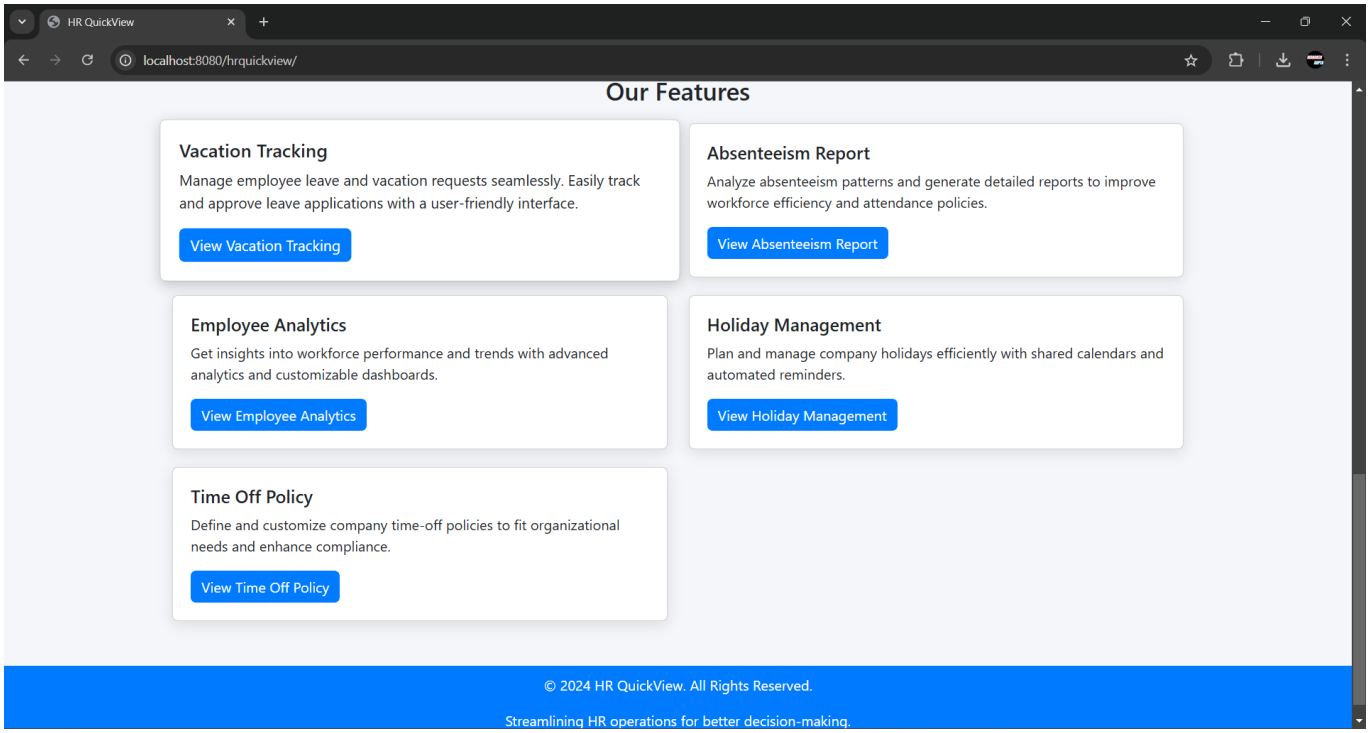
- Unit tests were written for both the service and DAO layers to ensure the correctness of each component.
- A final review of the project was conducted to detect and resolve any remaining issues.
- Comprehensive project documentation was created to detail the design, structure, and functionalities of the system.

  This testing and documentation phase ensured the project was both reliable and well-documented for future reference.

Interface




HR QuickView
localhost:8080/hrquickview/
Personal Information
First Name
Enter first name
Last Name
Enter last name
Email
Enter email
Phone
Enter phone number
Additional Information
Address
Enter address
Date of Birth
dd-mm-yyyy
Position
Enter position
Department
Enter department
Login to HR QuickView
Username
Enter username
Password
Enter password
Login


HR QuickView
localhost:8080/hrquickview/
Our Features
Vacation Tracking
Manage employee leave and vacation requests seamlessly. Easily track and approve leave applications with a user-friendly interface.
View Vacation Tracking
Absenteeism Report
Analyze absenteeism patterns and generate detailed reports to improve workforce efficiency and attendance policies.
View Absenteeism Report
Employee Analytics
Get insights into workforce performance and trends with advanced analytics and customizable dashboards.
View Employee Analytics
Holiday Management
Plan and manage company holidays efficiently with shared calendars and automated reminders.
View Holiday Management
Time Off Policy
Define and customize company time-off policies to fit organizational needs and enhance compliance.
View Time Off Policy
© 2024 HR QuickView. All Rights Reserved.
Streamlining HR operations for better decision-making.

Conclusion

In conclusion, **HR QuickView** centralizes employee data and provides insights into workforce trends, empowering HR professionals to make informed decisions and improve efficiency. This tool optimizes HR operations, making it an essential asset for modern HR systems.