



# Personalized Skill Dashboard for Administrator

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**Abstract** - The *Personalized Skill Dashboard for Administrator* is a web-based application designed to assist administrators in managing and tracking the skill sets of students, faculty, and staff within a college or university. The system enables personalized dashboards that provide insights into skill distribution, performance tracking, and areas for improvement. The dashboard supports data integration from multiple platforms, skill tracking, personalized analytics, training program management, and reporting. By addressing challenges such as data accuracy, security, and engagement, the dashboard enhances skill development, resource allocation, and decision-making.

**Key Words:** Skill Management, Personalized Dashboard, Training Programs, Data Analytics, Higher Education

## 1. INTRODUCTION

The **Personalized Skill Dashboard for Administrator** aims to streamline skill development, evaluation, and management processes in an educational institution. The tool provides real-time insights into skill gaps, tracks progress, and supports decision-making regarding training and development. With an intuitive interface, it allows administrators to allocate resources efficiently and align skill development with institutional goals.

## 2. PROBLEMS/CHALLENGES

### 2.1 Data Integration

Integrating data from multiple sources (e.g., LMS, HRMS) is challenging. The system must ensure seamless aggregation and synchronization of skill data.

### 2.2 Personalization of Dashboards

Each user role (administrator, faculty, staff, student) requires specific data access and visualization. Providing relevant, user-specific dashboards adds complexity.

### 2.3 Dynamic Skill Tracking

The system must track skill growth over time, capturing nuances such as proficiency level, learning curve, and time taken to acquire new skills.

### 2.4 User Engagement

Encouraging users to update and maintain their skill profiles requires incentives, a user-friendly interface, and regular reminders.

**Table 1: User Roles and Access Levels**

Role	Access Level	Dashboard Features
Administrator	Full access	Skill analytics, department tracking, reports, notifications, training management
Department Head	Department-specific access	Skill data for department, reports, training management
Faculty/Staff	Limited to personal profile	Personal skill progress, training history, feedback
Students	Self-profile access	Skill tracking, training participation, recommendations

### 2.5 Data Accuracy

Ensuring the accuracy of skill assessments and training records is crucial for reliable decision-making.

### 2.6 Security and Privacy

The system must implement strict access controls to protect sensitive data such as skill assessments and feedback.



**2.7 Scalability**

The system should support large-scale institutional usage and allow integration of additional features over time.

**2.8 Reporting and Analysis**

Generating insightful reports and analyzing skill gaps, training program effectiveness, and performance metrics requires advanced analytics.

Skill Distribution Across Institution

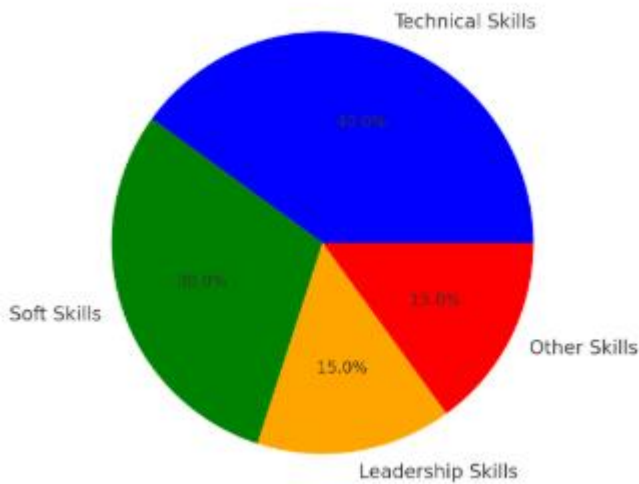


Chart-1: Skill Distribution Across Institution

**3. FUNCTIONAL REQUIREMENTS**

**3.1 User Authentication and Role Management**

The system provides role-based access control (RBAC):

- **Administrator:** Full access to data, settings, and reports.
- **Department Heads:** Access to department-specific skill data.
- **Faculty/Staff:** Limited access to personal skills and training progress.
- **Students:** Access to their own skill profile and progress.

**3.2 Personalized Dashboards**

- **Administrator Dashboard:** Institution-wide skill insights, trends, and performance metrics.
- **Department Head Dashboard:** Department-level skill reports and progress tracking.

- **Individual Profiles:** Users see personalized skill data, proficiency levels, and training history.

**3.3 Skill Management and Tracking**

- Tracking of skills by category (technical, soft skills, leadership).
- Support for self-assessments and manager evaluations.
- Skill growth tracking over time.

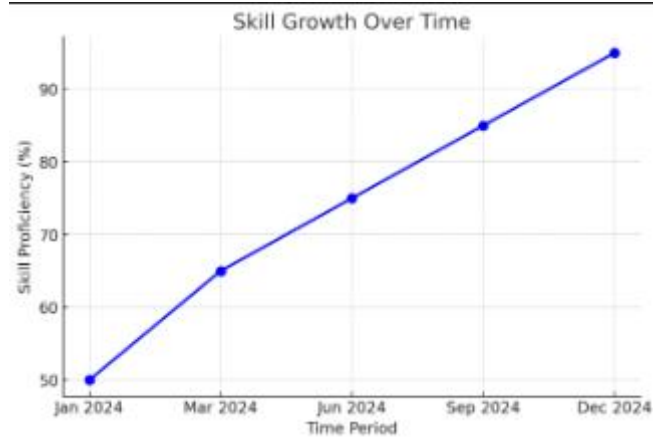


Chart-2: Skill Growth Over Time

**3.4 Training and Certification Management**

- Administrators and department heads assign and track training programs.
- Integration with external LMS platforms for training records.

**3.5 Skill Gap Analysis**

- Reports and visualizations for skill deficiencies in departments or roles.

**3.6 Performance Reviews and Feedback**

- Collection of feedback and performance evaluations linked to skills.

**3.7 Reporting and Analytics**

- Customizable reports with filters by department, role, and time period.
- Visual analytics including bar charts, pie charts, and progress graphs.



**Chart-3:** Training Program Effectiveness

- Users are notified of milestones in skill development.

**5. ANALYTICS AND REPORTS**

**5.1 Skill Distribution Analytics**

- Reports on skill distribution across the institution.
- Visual representation in pie charts, heat maps, and bar graphs.

**5.2 Progress Tracking**

- Monitoring skill progression for individuals and departments.

**5.3 Training Effectiveness**

- Analysis of skill improvements post-training to determine effectiveness.

**5.4 Skill Gap Reports**

- Identifying and visualizing skill deficiencies.

**5.5 Individual and Department Performance Reports**

- Detailed reports on user progress and training effectiveness.

**5.6 Customizable Reporting**

- Flexible report generation with download options (PDF, Excel, CSV).

**Table-2: Skill Gap Analysis by Department**

Department	Critical Skill Gap Identified	Training Recommended
Computer Science	AI & Machine Learning	AI Certification Program
Business Admin	Data Analytics	Data Analytics Workshop
Humanities	Digital Literacy	Basic IT Skills Course

**6. CONCLUSIONS**

The **Personalized Skill Dashboard for Administrator** enhances skill management, training effectiveness, and decision-making in educational institutions. With role-specific dashboards, advanced analytics, and seamless

**3.8 Notifications and Alerts**

- Skill development reminders and training assignments.
- Alerts for pending skill assessments and performance reviews.

**3.9 Integrations with Other Systems**

- Compatibility with HRMS, LMS, and institutional data platforms.

**4. NOTIFICATIONS AND COMMUNICATIONS**

**4.1 Skill Development Reminders**

- Automated reminders for training deadlines and skill assessments.

**4.2 Training Program Notifications**

- Alerts for newly assigned training or certification programs.

**4.3 Skill Assessment Alerts**

- Notifications about upcoming or required skill assessments.

**4.4 Performance Feedback**

- Users receive feedback and goal-setting notifications from supervisors.

**4.5 System Updates and Announcements**

- Alerts about feature updates and scheduled maintenance.

**4.6 Personalized Goal Setting and Progress Updates**



integrations, it provides a comprehensive solution for tracking and developing skills across an institution. Future enhancements may include AI-driven recommendations for skill improvement and further automation of training assignments.

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#### **REFERENCES**

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