

ACCOLADE

1st Sivakumarreddy Sangu
Computer Science
Virginia Tech
Blacksburg, USA
sivakumarreddy@vt.edu

2nd Samhitha Pentaparthi
Computer Science
Virginia Tech
Blacksburg, USA
samhithap@vt.edu

3rd Akshay Reddy Narra
Computer Science
Virginia Tech
Blacksburg, USA
akshayreddy@vt.edu

4th Yaswanth Chakiri
Computer Science
Virginia Tech
Blacksburg, USA
yaswanth22@vt.edu

I. ABSTRACT

In many contexts, such as education, fitness, or the workplace, traditional methods of motivation and engagement have been found to be ineffective or insufficient. Software engineers may struggle to stay motivated to achieve their goals, leading to lower engagement and performance.

However, current reward systems often lack personalization and customization, relying on a one-size-fits-all approach that does not consider the individual needs and preferences of software engineers. Additionally, traditional rewards such as certificates, trophies, or medals may not be motivating for all associates. Furthermore, manual tracking and distribution of rewards can be time-consuming and impractical, especially in larger or more complex environments.

To address this problem, there is a need for a personalized and dynamic reward system that can effectively incentivize desired behaviors and increase user motivation.

To overcome the challenges described in the problem statement, we propose the development of a reward recognition application called "Accolade" that can provide personalized and dynamic rewards to users in various contexts.

Accolade will effectively track employee contributions, determine appropriate rewards, and facilitate the distribution of those rewards in a timely and effective manner. Additionally, it provides analytics to measure employee performance and engagement. The ultimate goal of the software is to improve employee satisfaction and performance by acknowledging their efforts and contributions in a meaningful way.

II. INTRODUCTION

Due to the COVID pandemic, many companies are working remotely. Organizations that want to survive and develop themselves in the global pandemic need to produce a variety of solutions and enable their employees to work effectively. Accolade Software is one of the strategies for attracting and retaining suitable employees and also facilitating them to enhance their performance in a corporation. Rewarding employees is related to the motivation of the workforce of an organization for better performance. Accolade Software will influence employees' behavior and attitude toward their job if the rewards satisfy their needs and help them to succeed in their personal goals.

In organizational discourse, the maintenance of a reward strategy that guarantees organizational well-being is often

emphasized. This is because the primary concern of reward management is how it helps employees achieve higher levels of performance, ensure retention, and increase production in the organization (Armstrong and Stephen, 2005).

The term "reward" is frequently discussed in the organizational literature. It refers to what an organization provides to employees in response to their contribution and performance and what employees want (Agarwal, 1998). Armstrong (2012) averred that a reward is something that recognizes a person's contribution. He argued that people are financially rewarded for the job they do (basic pay) and often for their level of performance, competence, or skill (contingent or variable pay) or their services on the job (service-related pay). Krietner and Kinicki (2007) agree with these views that a reward is a form of compensation to the employee for doing the assigned work well, which may come in the form of financial and non-financial incentives.

Accolade's purpose is to attract, retain, and motivate high-quality people to the organization and to develop policies and practices that support the achievement of business objectives. Appreciating and rewarding employees for their performance is important not only to achieving organizational goals but also to maintaining relationships with talented employees in the organization (Sabo, 2011).

Silbert (2005) concluded that it is important for rewards to have a lasting impression. It continues to prove the employee's understanding of the employee and why they are valuable in the organization.

III. ARCHITECTURE

Our software will use a layered architecture, specifically the Model-View-Controller (MVC) pattern. This pattern separates the application into three main logical components: the model, the view, and the controller. Each of these components is built to handle specific aspects of application development. MVC helps create largely scalable and extensible projects, so it is widely used in industry-standard web development frameworks.

MODEL

The model component handles the interaction with the database to perform all data-related logical operations. That can represent either the data being transferred between the

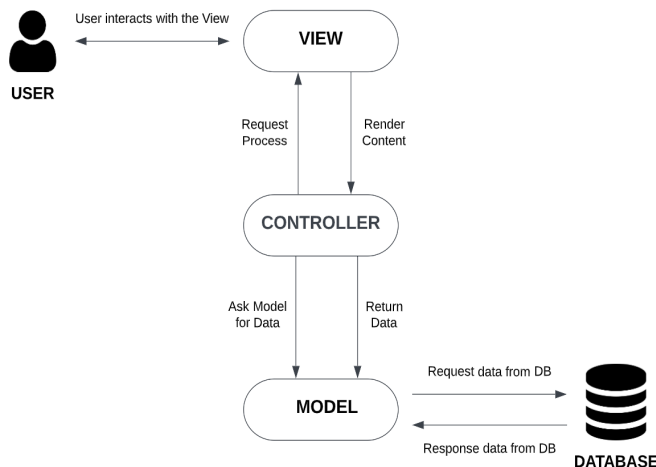
view and the controller components or any other business-related logic data. An Employee model, for example, will retrieve employee information from a database, manipulate it, and then either update the reward information in the database or use it to render the data on the webpage.

VIEW

The view component handles the user interface of the application. It consists of a template and data and produces a response for the browser. It receives data from the controller of the MVC, packages it, and presents it to the browser for display. For example, the employee view page will include all the UI components, such as buttons, dropdowns, etc., that the final user interacts with.

CONTROLLER

Controllers act as an interface between the Model and View components to process all the business logic and incoming requests, manipulate data using the Model component, and interact with the Views to render the final output. For example, the employee controller will handle all the interactions and inputs from the employee view and update the database using the employee model.



GUIDELINES AND CONSTRAINTS

Clear separation of concerns: The MVC pattern emphasizes the clear separation of concerns between the model, view, and controller components.

Reusability: The code should be designed with reusability in mind, using libraries and modules that can be easily integrated with other parts of the application.

Flexibility: The MVC pattern provides a great deal of flexibility when it comes to making changes or updates to the application.

User Experience: The view should be intuitive and easy to use, with clear navigation and functionality aligned with the user's goals.

Performance: The model should be efficient and optimized for data storage and retrieval, while the view and controller

should be designed to minimize latency and maximize responsiveness.

IV. DESIGN

Behavioral design patterns would be relevant for developing the Accolade application because the patterns focus on communication and interaction between objects in the system. These patterns are concerned with how objects collaborate and delegate responsibilities to each other to achieve specific behaviors that would be suitable to implement with Model-View-Controller(MVC) architecture.

V. RELATED WORK

AWARDCO: Awardco is software that recognizes employee engagement through reward recognition. Admins can manage peer nominations, reward budgets, approval workflows, onboarding programs, and service awards, and can build custom-branded catalogs for reward items such as charity donations, gift cards, and more. Key features of Awardco include manager-to-peer recognition, performance management, recognition tracking, rewards points, and nominations.

FOND: Fond is a SaaS employee recognition solution designed to help employees redeem corporate perks and rewards and share achievements with team members. The application allows HR teams to create personalized service award catalogs for employees, track their work anniversaries, and award commemorative plaques and trophies.

VI. REFERENCES

- [1] Pinar Gungor, "The Relationship between Reward Management System and Employee Performance with the Mediating Role of Motivation: A Quantitative Study on Global Banks"
- [2] Felix Francis, Zirra Clifford Tizhe Oaya and Charles J. Mambula "Reward System as a Strategy to Enhance Employees Performance in an Organization", June 25, 2020
- [3] Nwokocha, I. (2016) "Managing Reward Strategy to Enhance Employee Performance, Retention and Productivity in Organizations: International Journal of Development and Management Review" (INJODEMAR) Vol. 11 June, 2016
- [4] Hamid Mcheick and Yan Qi, "Dependency of components in MVC distributed architecture".