Education Sphere

[1] Ass. Prof. Nikita Khursange, [2] Nikita Sakarde, [3] Deepshikha Dhurve, [4] Durga Madavi

[1](Computer Science & Engineering Technology, G H Raisoni University, Saikheda) [2](Computer Science & Engineering Technology, G H Raisoni University, Saikheda) [3](Computer Science & Engineering Technology, G H Raisoni University, Saikheda) [4](Computer Science & Engineering Technology, G H Raisoni University, Saikheda)

Abstract - Organizations are increasingly thinking about moving their Customer Relationship Management (CRM) applications from an on-premise environment (local servers) to an on-demand environment hosted on cloud servers as a result of the rise of cloud computing. The company owns and manages the software and hardware inside its own network in an on-premise setting. On the other hand, in an on-demand environment, the infrastructure and software are hosted by a third party provider who bills the company on a subscription basis. The industry-leading on-demand CRM product is Salesforce.

Key Words: 1.CRM (Customer Relationship Management

1. INTRODUCTION

Salesforce is a brand-new cloud computing technology that can be accessed online without the need to install any software or hardware. You have the ability to create your own apps and request any application at any time. The students in an application need a number of services from the college management system. The majority of these include the timetable, exam schedule, registration form, exam results, new admission, study notes, placement and company list for placements, courses, transportation, placement, performance, attendance, results, library, etc. of the upcoming semester. However, the majority of universities and colleges offer services related to facilities, outcomes, placement, and admission, but not quality study materials. Under the management of the college administrator, all information pertaining to the college, its employees, and its students is safely kept on a Firebase database. All college staff, instructors, and students can access the system via the internet using Android smartphones and their email address and password.

1.1 ADMIN MODULE

The administration module in our college management system. It play crucial role in the college management system. The primary employee registration component for the college system is contained in this module. Because maintaining security is essential, this is our system's primary task. The administrator creates employee accounts with the employee's password and email address. These newly created accounts are kept in line with their department. The college administration is given top attention in our method of management. The administrator has complete access to the database. They have permission like view the information, edit the information, delete the information.

1.2 STUDENT MODULE

You can save all of the personal, academic, professional, and historical information about a student and his or her parents using the student module. The challenge with the manual college management system is keeping track of the student records. Notifying the student, sending

assignments. Therefore, they have the option to register their account in our college management system using their data in this student module. These student registration data are kept in accordance with their department. After completing their registration, students can access their account by logging in with their registered email address and password. Our system allows students who do not have their password to reset it by registering using their email address. Following account login, students have a variety of section-related options.

1.3 EMPLOYEE MODULE

The administrator completes the employee registration portion of the college management system. All that's in this module is the login section, where users input the password and email address that the administrator has provided. It is possible to forget your password on the system. The modules within this module are further separated according to the employee's college classification. . The following are the submodules:

Module- A: Teachers, B: HOD, C: Staff

2. LITERATURE SURVEY

1."The college management system using SALESFORCE" published in International Journal of Computer Science and Mobile Computing Available Online at https://www.ijcsmc.com/ For This review the author focused In approach leads to data redundancy and the potential for inconsistent data. Even in systems utilizing computerized databases, a substantial number of tasks are still carried out manually, including fee receipt generation, result generation, and monitoring unpaid fees, among others. And each department requires a sizable workforce to oversee its operations. In this system time-consuming procedures, necessitating extra personnel for data input and database maintenance.

2. Collage management system by Lalit Mohan Joshi Published in Journal of International Journal of Computer Applications (0975 – 8887) Volume 122 – No.11, July 2015 In this pepar for review the author focused on the Software Requirement Specification (SRS) for the College Management System project (CMS) at the College. Its primary objective is to provide a comprehensive description of the system's functionality, requirements, and the overall interface of CMS.

3. Collage management system by Deepali s. bhor, Vaibhav V. bhosle, Priyanka K. Khartamal, Department of information technology publish in International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538 Volume 10 Issue IV Apr 2022- Available at www.ijraset.com . For this review the author focused in To achieve more efficient and timely results, they should embrace contemporary technology. The attendance management system in place relies entirely on paper-based processes, where attendance records are manually maintained in registers, and reports are generated at the end of each session.

4. College Management System by Rushikesh Basatwar1 , Aakash Patil2 , Rushikesh Taiwade3 , Prateek Sahu4 , Prof. Priyadarshani Patil Publish in International Journal of Advanced Research in Science, Communication and Technology (IJARSCT). in This pepar for review the author focused on "The systems administered and supervised by the administrator, resulting in a reduction in the need for manual labor. It ensures the availability of accurate information whenever faculty members or students require it. The data stored in the university's database server can be leveraged by college management for making informed decisions.

5. College Management System by Sourabh Salokhe1, Supriya Patil2, Savita Patil3, Tushar Salavi4, Snehal Mali5, Rahaul Nejkar Publsh in International Research Journal of Engineering and Technology (IRJET) e- ISSN: 2395-0056 Volume: 08 Issue: 07 | July 2021 www.irjet.net p-ISSN: 2395-0072 0072 In this research paper, the author's primary objective is to create an Android application that comprehensively encompasses various aspects of college administration. The application includes features such as managing student and teacher profiles, tracking student progress, providing information on academic events, monitoring student attendance, handling bus fees and college fees, facilitating access to the college library, and offering insights into sports-related activities. college library, and offering insights into sports-related activities.
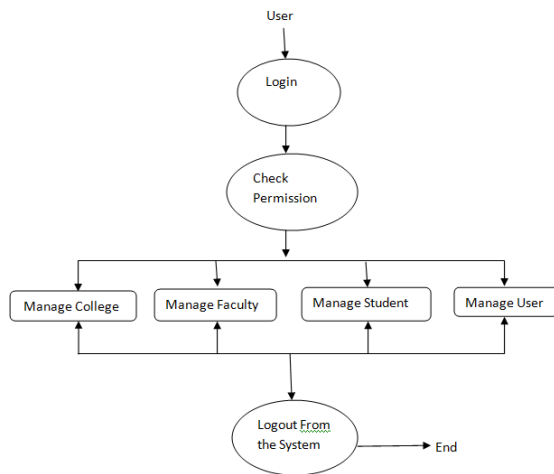
Figur1. Flow diagram of College Management System

3. ARCHITECTURE OF SALESFORCE CRM

Salesforce CRM's multi-layered architecture makes it possible for businesses to efficiently manage their customer interactions. The following elements make up Salesforce CRM's architecture:

User Interface Layer: The front-end part of Salesforce CRM that gives users an interface to interact with the system is called the user interface layer. It consists of mobile apps, web browsers, and other user interfaces that let users access and make use of the features of Salesforce CRM.

Application Layer: The business logic and procedures thatpower Salesforce CRM's numerous features are found in the application layer. It comes with a collection of pre-made modules and applications that address various facets of CRM, including sales, marketing, customer support, and analytics. Because of their great degree of customization, these apps can be made to match particular business needs.

Data Layer: In Salesforce CRM, all customer data is kept in this layer. Salesforce has a multi-tenant architecture that stores data safely in a shared infrastructure while logically separating it from different organizations (called tenants). The objects, fields, records, and relationships that make up the data layer in Salesforce CRM define the arrangement and structure of the data.

Integration Layer: This layer allows Salesforce CRM to be easily integrated with other third-party apps and systems. It offers a range of integration mechanisms, including web services, connectors, and APIs (application programming interfaces) for data exchange and integration with databases, other applications, and third-party systems. With the help of this layer, businesses can automate procedures, synchronize data, and provide a single, unified view of customer data across all systems.

Security Layer: Salesforce CRM's security layer guarantees the privacy and security of user information. It has strong security features like data privacy protections, encryption, access

controls, and user authentication. Salesforce uses industry-accepted security procedures to protect information and stop illegal access and security breaches.

Meta later: The configuration and customization data for Salesforce CRM is stored in the metadata layer. It consists of elements of metadata like fields, objects, workflows, validation rules, layouts, and reports. These elements, which can be modified and expanded to satisfy particular business needs, specify the behavior, look, and functionality of the CRM system.

Analytics layer: Reporting and data analysis features are offered by Salesforce CRM's analytics layer. It has features that let users learn from their customer data, like dashboards, reports, and data visualization tools. Organizations can track sales and marketing initiatives, keep an eye on important performance indicators, and make data-driven decisions thanks to the analytics layer.

In general, Salesforce CRM's architecture is made to offer a scalable, safe, and adaptable platform for managing client relationships and fostering company expansion. Because of its multi-layered structure, which facilitates user interaction, data management, and seamless integration, it is an effective CRM solution suitable for businesses of all sizes and sectors
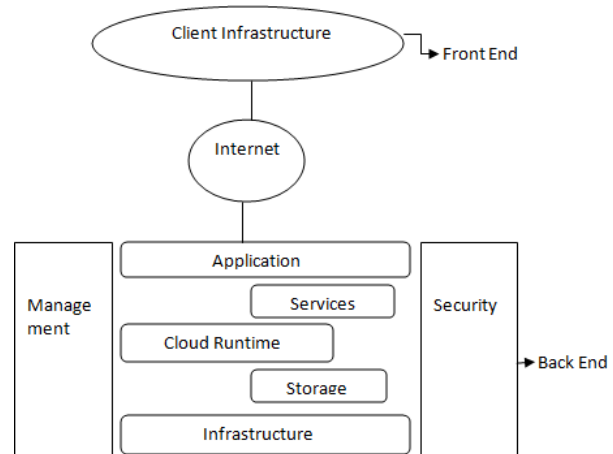

Fig. Architecture of Salesforce CRM

4. SALESFORCE CRM OBJECTS

Salesforce is a widely used Customer Relationship Management (CRM) platform that helps organizations manage their interactions and relationships with customers and prospects. When setting objectives for Salesforce CRM implementation, it's important to align them with your organization's overall business goals. Here are some common Salesforce CRM objectives:

1. Increase Sales Productivity:

- Simplify the sales procedure.
- Automate jobs that are repeated.
- Give sales teams a complete picture of your customers.
- Give mobile users who are sales representatives on the go access.

2. Improve Customer Service:

- Use knowledge bases and case management to improve customer service.
- Install self-service portals or live chat.
- Keep an eye on and enhance service quality and response times.

3. Boost Lead Management:

- Effectively gather, monitor, and qualify leads.
- Put lead scoring into practice to give high-value leads priority.

- Use automated marketing campaigns to nurture leads.

4. Enhance Marketing Campaigns:

- Make marketing campaigns automatic.
- Customize messages to appeal to particular audiences.
- Examine the ROI and campaign performance.

5. Strengthen Analytics and Reporting:

- Make reports and dashboards that are unique to you.
- Learn about the performance of your marketing, sales, and customer service departments.
- Determine patterns and areas that could use improvement.

6. Achieve Data Accuracy and Consistency:

- Make sure the customer data is accurate and current.
- Uphold data integrity and standardize data entry.
- Put data validation rules into action.

7. Drive Collaboration:

- Encourage cooperation between the support, sales, and marketing departments.
- Use Chatter or additional tools for teamwork.
- Enable smooth exchange of information and communication.

8. Enable Mobile and Remote Work:

- Give field-based and remote workers mobile access to Salesforce.
- Make sure mobile interfaces are easy to use and that data is secure.

9. Enhance Integration:

- Connect Salesforce to other essential business software (such as email, marketing automation, ERP, and so on).
- For an all-encompassing view of customer data, streamline the flow of data between systems.

- **10. Measure and Improve Customer Satisfaction:** Gather input and conduct customer surveys.
- Keep an eye on customer satisfaction ratings and Net Promoter Score (NPS).
- Utilize comments to drive ongoing development.

11. Reduce Costs:

- Increase operational effectiveness by automating tasks.
- Reduce mistakes and duplications.
- Optimize the distribution of resources and the expenses related to sales and support.

12. Scalability and Future Growth:

- Make sure Salesforce has enough room to grow in the future.
- Consider scalability when it comes to data, users, and functionality.

Establishing SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) goals and tracking your progress toward them on a regular basis are crucial. When used strategically to achieve your organization's goals and objectives, Salesforce CRM can be a very effective tool.

5. CHALLENGES TOWARDS SALESFORCE CRM

1. User Adoption: It can be difficult to persuade users to use Salesforce CRM. It's possible that some staff members are resistant to change or are unaware of all the advantages of utilizing the CRM system. It takes effective training, communication, and continuous support to maximize the effectiveness of the system and promote user adoption.

2. Data Integrity and Quality: It can be difficult to keep accurate and current data in Salesforce CRM, particularly when combining data from several sources. Incomplete records, duplicate data, and inconsistent data can affect

the system's dependability and make decision-making more difficult. To guarantee data quality and integrity, data governance procedures and data integration tactics must be put in place.

3. Complexity of Customization: Salesforce CRM provides a high degree of customization to satisfy particular business requirements. However, administrators and developers who lack the necessary experience may find it difficult to navigate the complexity of customization options. It is important to carefully plan and implement customization to prevent building a system that will be challenging to maintain or upgrade in the future.

4. Scalability and Performance: The scalability and performance of Salesforce CRM may be called into question as organizations expand and their data volume rises. System responsiveness can be impacted by big data sets, intricate workflows, and substantial customizations. To maintain system performance as usage grows, proper data architecture design, performance optimization strategies, and frequent monitoring are required.

5. Integration with Legacy Systems: Due to variations in data formats, protocols, or APIs, integrating Salesforce CRM with current legacy systems and applications can be difficult. Using integration platforms or middleware may be necessary, along with meticulous planning and integration strategies, to guarantee seamless data flow and real-time synchronization between Salesforce and other systems.

6. Cost considerations: Since Salesforce CRM is a subscription-based service, some organizations may be concerned about the cost, particularly smaller ones or those with tighter budgets. Determining the affordability and long-term value of Salesforce CRM requires an understanding of the pricing structure, licensing options, and ROI evaluation.

7. Security and Compliance: Despite Salesforce's strong security features, businesses still need to make sure that their customer data and data are safe and in compliance with all applicable laws. Ensuring the appropriate implementation of access controls, data encryption, user authentication, and activity monitoring is imperative in safeguarding confidential information stored in the CRM system.
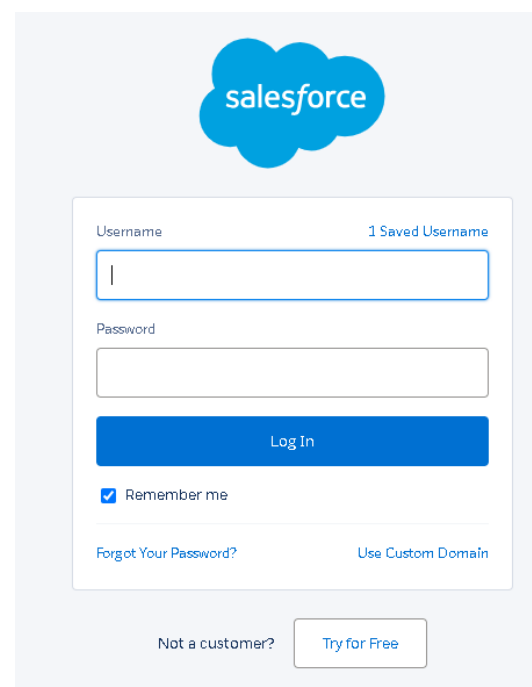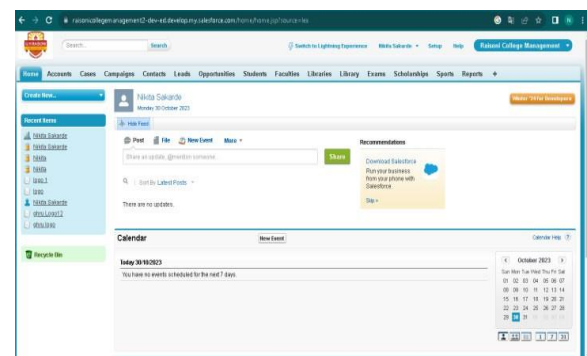

Fig. Login Page

Fig. Raisoni College Management Application

Fig. Student Form

6. CONCLUSION

Salesforce is an exceptional platform because of its extensive capabilities, speed, welcoming community, and easy-to-use interface. The literature that comes before it clarifies the basic ideas behind Salesforce and cloud computing. After carefully reading this article, readers will have a better understanding of Salesforce's creative use of a scalable and adaptable cloud computing technology to deliver CRM Software as a Service. The document also describes how to use Salesforce to create a college management system.

Salesforce.com facilitates effective information management and is a model for e-commerce businesses and educational institutions. Its mobile-friendly application allows customers to easily view reports at any time or place.

7. REFERENCES

[1] "The MULTITENANT APPLICATION BASED on SALESFORCE.COM" published in International Journal of Computer Science and Mobile Computing Available Online at https://www.ijcsmc.com/

[2] Collage management system by Lalit Mohan Joshi Published in Journal of International Journal of Computer Applications (0975 – 8887) Volume 122 – No.11, July 2015.

[3] Collage management system Deepali s. bhor, Vaibhav V. bhosle, Priyanka K. Khartamal, Department of information technology publish in International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538 Volume 10 Issue IV Apr 2022- Available at www.ijraset.com

[4] College Management System Rushikesh Basatwar1 , Aakash Patil2 , Rushikesh Taiwade3 , Prateek Sahu4 , Prof. Priyadarshani Patil Publish in International Journal of Advanced Research in Science, Communication and Technology (IJARSCT

[5] College Management System Sourabh Salokhe1, Supriya Patil2, Savita Patil3, Tushar Salavi4, Snehal Mali5, Rahaul Nejkar Publsh in International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 08 Issue: 07 | July 2021 www.irjet.net p-ISSN: 2395-0072

[6] International Journal of Research Publication and Reviews, Vol 4, no 4, pp 3430-3432, April 2023 Journal homepage: : www.ijrpr.com ISSN 2582-7421 by Rohit Jain1, Aman Modi 2, Ishan Kashyap3, Prof. Vandana Kate4 and Prof. Rachana Bahrawat5

[7] International Journal of Management, Technology, and Social Sciences (IJMTS), ISSN: 2581-6012, Vol. 3, No. 1, June 2018 An Innovative Information System for College Management by Chaitra B. S.

[8] INTERNATIONAL JOURNAL OF SCIENTIFIC & ENGINEERING RESEARCH VOLUME 2, ISSUE 11, NOVEMBER 2011ISSN 2229-5518 Student attendance Management by Mrs.Dhanashree Amit Gupta.

[9] Edward C. Malthouse, Michael Haenlein, Bernd Skiera, Egbert Wege & Michael Zhang"Managing Customer Relationships in the Social Media Era: Introducing the Social CRM House"ELSEVIER, Journal of Interactive Marketing 27 (2013) 270–280.

[10] Musfiq Mannan Choudhury& Paul Harrigan "CRM to social CRM: the integration of new technologies into customer relationship management" Journal of Strategic Marketing, 2014 Vol. 22, No. 2, 149–176, http://dx.doi.org/10.1080/0965254X.2013.87606 9