

Recruiting App

**A Project Report Submitted
In Partial Fulfillment of the Requirements
for the Degree of**

MASTER OF COMPUTER APPLICATION

**by
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**to the
FACULTY OF MCA**

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(Formerly Uttar Pradesh Technical University) LUCKNOW**

August 2021

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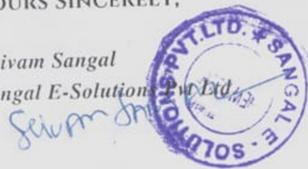
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RECRUITING APP
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ABSTRACT

Recruiting App is a project, based on Declarative Development of Salesforce technology. It specially developed for HRs of a company. This App will maintain complete record of different interviewers present in the company, their position in the company, details of candidates and their job applications they are applying for. With the help of this app interviewer can review his/her candidate(interviewee) and can share this review with other HRs so everyone can go through competencies and skills available in candidate and if these competencies and skills will be required in near future, company can reach that candidate. There is another feature available here called Chatter which can be used as a private social platform to interact, discuss, share resources like any information, file, photo, etc with all other HR. Since Salesforce is a cloud-based technology, this makes no need to maintain any other physical database and can be accessed anytime from anywhere in the world. This application removes the manual creating multiple sheets which consume lot of time and hard work.

ACKNOWLEDGEMENTS

Success in life is never attained single handedly. My deepest gratitude goes to my Project supervisor, **Dr. Sangeeta Arora, Associate Professor, Department of Computer Application** for her guidance, help and encouragement throughout my research work. Their enlightening ideas, comments, and suggestions. Words are not enough to express my gratitude for her insightful comments and administrative help at various occasions. Fortunately, I have many understanding friends, who have helped me a lot on many critical conditions.

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**Dhananjaya Maheshwari
1802914003**

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CHAPTER 1

INTRODUCTION

1.1 PROJECT DESCRIPTION

Recruitment and Selection is an important operation of HR, designed to maximize employee strength in order to meet the employer's strategic goals and objectives. It is a process of sourcing, screening, shortlisting and selecting the right candidates for the required vacant positions. Manual creation of report after each step is very hard-working job and time consuming too. Here multiple paperwork is to be done and it becomes necessary to keep these records safe for a long time and requires proper space too. It is not easy to go through these records if we want to go. The Recruiting App is an application that can all these problems without taking any special efforts of HR.

This app helps in maintaining all these records electronically and makes easy for user to access the records fast and easily. Because of being cloud based project, anyone from company can access these records anytime from anywhere in the world with the help of internet.

1.2 PROJECT SCOPE

Scope of this application is wide. This application automates the HR's work and make it easy and simple. This application removes the manual creating multiple sheets which consume lot of time and hard work. The Recruiting App provides HR to access the list of candidates and able to select the candidates that fulfil the requirement of the organization. This application keeps the record of each interviewer, position available, job applications, candidates and reviews for candidate

given by interviewer. This application provides HR to track the candidate detail before and after the recruitment Every organization wants to sustain in this competitive world. To remain top there should be right manpower there to grow and to increase its productivity. So, there is a need of application which is used to select manpower from the available talent pool. Hence there is huge scope of this project.

1.3 HARDWARE/SOFTWARE USED IN THIS PROJECT

1.3.1 Introduction

As this is a cloud-based application so there is no need of sophisticated hardware only there is a need of Browser application and Internet connection. Cloud provider provides the development infrastructure to create application.

A cloud application, or cloud app, is a software program where cloud-based and local components work together. This model relies on remote servers for processing logic that is accessed through a web browser with a continual internet connection.

Cloud application servers typically are located in a remote data center operated by a third-party cloud services infrastructure provider. Cloud-based application tasks may encompass email, file storage and sharing, order entry, inventory management, word processing, customer relationship management (CRM), data collection, or financial accounting features.

1.3.2 Benefits of cloud apps

- **Fast response to business needs** - Cloud applications can be updated, tested and deployed quickly, providing enterprises with fast time to market and agility. This speed can lead to culture shifts in business operations.

- **Simplified operation** - Infrastructure management can be outsourced to third-party cloud providers.
- **Instant scalability** - As demand rises or falls, available capacity can be adjusted.
- **API use** - Third-party data sources and storage services can be accessed with an application programming interface (API). Cloud applications can be kept smaller by using APIs to hand data to applications or API-based back-end services for processing or analytics computations, with the results handed back to the cloud application. Vetted APIs impose passive consistency that can speed development and yield predictable results.
- **Gradual adoption** - Refactoring legacy, on-premises applications to a cloud architecture in steps, allows components to be implemented on a gradual basis.
- **Reduced costs** - The size and scale of data centers run by major cloud infrastructure and service providers, along with competition among providers, has led to lower prices. Cloud-based applications can be less expensive to operate and maintain than equivalents on-premises installation.
- **Improved data sharing and security** - Data stored on cloud services is instantly available to authorized users. Due to their massive scale, cloud providers can hire world-class security experts and implement infrastructure security measures that typically only large enterprises can obtain. Centralized data managed by IT operations personnel is more easily backed up on a regular schedule and restored should disaster recovery become necessary.

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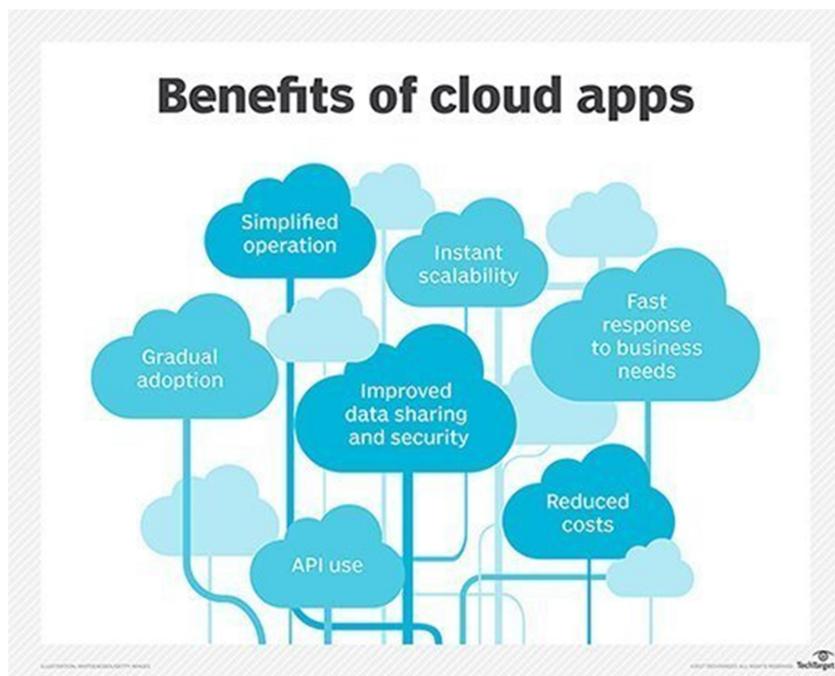


Fig. 1.1 Benefits of cloud apps

1.3.3 How cloud apps work

Data is stored and compute cycles occur in a remote data center typically operated by a third-party company. A back end ensures uptime, security and integration and supports multiple access methods.

Cloud applications provide quick responsiveness and don't need to permanently reside on the local device. They can function offline, but can be updated online.

While under constant control, cloud applications don't always consume storage space on a computer or communications device. Assuming a reasonably fast internet connection, a well-written cloud application offers all the interactivity of a desktop application, along with the portability of a web application.

With the advancement of remote computing technology, clear lines between cloud and web applications have blurred. The term cloud application has gained great cachet, sometimes leading application vendors with any online aspect to brand them as cloud applications.

Cloud and web applications access data residing on distant storage. Both use server processing power that may be located on premises or in a distant data center.

A key difference between cloud and web applications is architecture. A web application or web-based application must have a continuous internet connection to function. Conversely, a cloud application or cloud-based application performs processing tasks on a local computer or workstation. An internet connection is required primarily for downloading or uploading data.

A web application is unusable if the remote server is unavailable. If the remote server becomes unavailable in a cloud application, the software installed on the local user device can still operate, although it cannot upload and download data until service at the remote server is restored.

The difference between cloud and web applications can be illustrated with two common productivity tools, email and word processing. Gmail, for example, is a web application that requires only a browser and internet connection. Through the browser, it's possible to open, write and organize messages using search and sort capabilities. All processing logic occurs on the servers of the service provider (Google, in this example) via either the internet's HTTP or HTTPS protocols.

A CRM application accessed through a browser under a fee-based software as a service (SaaS) arrangement is a web application. Online banking and daily crossword puzzles are also considered web applications that don't install software locally.

An example of a word-processing cloud application that is installed on a workstation is Word's Microsoft Office 365. The application performs tasks locally on a machine without an internet connection. The cloud aspect comes into play when users save work to an Office 365 cloud server.

CHAPTER 2

FEASIBILITY STUDY

A feasibility study is a preliminary study which investigates the information of prospective users and determines the resources requirements, costs, benefits and feasibility of proposed system. A feasibility study takes into account various constraints within which the system should be implemented and operated. In this stage, the resource needed for the implementation such as computing equipment, manpower and costs are estimated. The estimated are compared with available resources and a cost benefit analysis of the system is made. The feasibility analysis activity involves the analysis of the problem and collection of all relevant information relating to the project. The main objectives of the feasibility study are to determine whether the project would be feasible in terms of economic feasibility, technical feasibility and operational feasibility and schedule feasibility or not. It is to make sure that the input data which are required for the project are available. Thus, we evaluated the feasibility of the system in terms of the following categories:

- **Technical feasibility**
- **Operational feasibility**
- **Economical feasibility**

2.1 Technical Feasibility:

Evaluating the technical feasibility is the trickiest part of a feasibility study. This is because, at the point in time there is no any detailed designed of the system, making it difficult to access issues like performance, costs (on account of the kind of technology to be deployed) etc. A number of issues have to be considered while doing a technical analysis; understand the different technologies involved in the proposed system. Before commencing the project, we have to be very clear about what are the technologies that are to be required for the development of the new system. Is the required technology available? HR's register is technically feasible.

2.2 Operational Feasibility:

Operational feasibility is the measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

The operational feasibility assessment focuses on the degree to which the proposed development project fits in with the existing business environment and objectives with regard to development schedule, delivery date, corporate culture and existing business processes.

To ensure success, desired operational outcomes must be imparted during design and development. These include such design-dependent parameters as reliability,

maintainability, supportability, usability, producibility, disposability, sustainability, affordability and others. These parameters are required to be considered at the early stages of design if desired operational behaviors are to be realized. A system design and development require appropriate and timely application of engineering and management efforts to meet the previously mentioned parameters. A system may serve its intended purpose most effectively when its technical and operating characteristics are engineered into the design. Therefore, operational feasibility is a critical aspect of systems engineering that needs to be an integral part of the early design phases. We have created the project which is operational feasible too. And this project will meet the needs by completing the project.

2.3 Economical Feasibility:

Our project is economical feasible. Economic feasibility attempts to weigh the costs of developing and implementing a new system, against the benefits that would accrue from having the new system in place. This feasibility study gives the top management the economic justification for the new system. A simple economic analysis which gives the actual comparison of costs and benefits are much more meaningful in this case. In addition, this proves to be useful point of reference to compare actual costs as the project progresses. There could be various types of intangible benefits on account of automation. These could increase customer satisfaction, improvement in product quality, better decision making, and timeliness of information, expediting activities, improved accuracy of operations, better documentation and record keeping, faster retrieval of information, better employee morale.

CHAPTER 3

LITERATURE REVIEW

3.1 Introducing the One-to-One Customer Journey

Email marketing has grown into a direct marketing powerhouse. Because you have access to so much data about the people, you're sending emails to, you can create automation that tailors your messages to each customer's unique needs and circumstances. Email marketing not only delivers marketers unparalleled value but also ensures that customers actually want to read the messages they receive from you. No other marketing channel is so customizable at such an affordable price. You can personalize the content of your email even more than the content in a direct mailer, plus your email doesn't require printing or postage, isn't subject to the mail delivery schedule, and doesn't use paper. At the same time, your email marketing campaigns can be as broad reaching as a television commercial because, after you've set up [6]

your marketing campaigns, each additional email might add only a fraction of a second to send. Add to this the capability to get feedback on your campaigns through testing and then to use that feedback to optimize the campaigns going forward, and there is no question why email marketing continues to drive so much business.[14]

Over time, Salesforce Marketing Cloud has added communication channels to supplement your email marketing campaigns. Now you can use Marketing Cloud as the central place to manage all the components of your online marketing campaigns, including web pages, text messages, and your Facebook page.[15]

3.2 The Dawn of the Customer Journey

We're at a tipping point in digital marketing, where data, tools, and predictive analytics are coming together to drive a concept known as the customer journey. Before we can dive into the depths of modern-day customer journeys, however, we need to take you on a journey of our own. We're going to go back to where it began - email marketing – to understand email marketing as a channel and how we got from there to where we are today.[4]

3.3 Early email marketing

The technology to send email messages emerged in the early 1970s, but only government and educational institutions really had access to it. In the mid- 1980s, commercial networks began opening up the potential of this messaging channel to private citizens mostly early adopters who loved technology for its own sake. Email as a common messaging medium, with practical applications for average citizens, didn't really take off until the 1990s.

At that time, major commercial networks, such as CompuServe and AOL, started connecting to the Internet and allowing messages to pass among competing systems. These messages were mostly text based and basic.[7]

3.4 Navigating Salesforce Marketing Cloud

Salesforce Marketing Cloud starts with the dashboard. The dashboard contains its own overarching tools — such as a calendar of your planned marketing activities and a real-time snapshot of your campaign performance - and is also how to access your apps. Apps are the meat of Marketing Cloud's functionality. Marketing Cloud contains a variety of powerful apps you can use for your online marketing campaigns. [3]

You can license all or just a few of the Marketing Cloud apps, depending on your online marketing tool needs. Regardless of whether you have licensed a particular app, though, you can see all Marketing Cloud apps in the dashboard. (If you try to open an app that you haven't licensed, a message appears to explain that the app is not available.) Salesforce wants you to know that the tool you need could be just a click away!

In this chapter, you take a whirlwind tour of all the dashboard tools and the apps. This journey sets the stage for later chapters, where you dig into the specifics of how to use the tools and apps.[11]

3.5 Exploring Marketing Cloud

The Salesforce Marketing Cloud dashboard, is the first thing you see when you log in to your Marketing Cloud account. From the dashboard you can access the following:

- The dashboard tools, which are available to every Marketing Cloud account. Links to the dashboard tools appear in the toolbar.

- The apps, which are available in your Marketing Cloud account if you licensed them. Links to the apps appear in the app switcher. The app switcher is visible when you first log in to your Marketing Cloud account. It disappears when you choose a tool or an app. You can get back to it at any time by hovering your mouse pointer over the Salesforce Marketing Cloud icon on the left side of the toolbar.[12]

3.6 Administering Marketing Cloud

If you have the responsibility of acting as an administrator for your Salesforce Marketing Cloud account the decisions you make ensure that your account is secure your users can do their work, and your marketing campaigns get delivered without issue. No pressure!

Thankfully, many of the administrative tasks don't require a lot of ongoing time or effort to maintain. This chapter is not intended to be a comprehensive view of every administrative function, just the necessities to set up your account for success. [8]

This chapter assumes that your Marketing Cloud user account has administrator permissions. If your user doesn't have administrator permissions, you won't be able to see many of the features described here.

3.7 Managing Marketing Cloud Users

Every person who uses your Marketing Cloud account should have his or her own user account. That means each person will have a username and password that he or she doesn't share with anyone. Having a separate user account for each person makes your Marketing

Cloud account more secure. You can track when and from where each user accesses Marketing Cloud. And if a person leaves the company, you can disable his user account without disrupting the other users' workflow. Marketing Cloud uses permissions and roles to determine which features in Marketing Cloud a particular user can access. So having separate user accounts for each person has the added benefit of giving you granular control over who accesses what in Marketing Cloud. You maintain Marketing Cloud user accounts on the Users page. You can get to this page from the Marketing Cloud toolbar or the Email app.[10]

3.8 Identifying and Preparing Your Data

without question, the biggest hurdle we've encountered in our marketing careers is data. Early on, the challenge was getting access to meaningful information. Everything seemed to stand in our way from systems that weren't designed for sharing to corporate fiefdoms that were threatened by the incorrect assumption that we were trying to compete with their sales team.

These days, however, the situation is reversed. Rather than struggling to find any useful data, we are now overwhelmed with data from all over the organization. It seems like everyone wants a finger in the pie because he thinks his own data is the most important to incorporate into the online marketing efforts. In this type of situation, it's easy to lose sight of what is essential.[9]

3.9 Defining Your Data Set

Your data set is the list of the pieces of information you maintain about each subscriber.

Sadly, we can't define your data set for you. Although some kinds of data are useful for almost everyone, the combination of your marketing plan, target demographics, and business objectives make your data needs unique. What we can do, though, is help guide your thinking about what data components you need as we walk you through the process of designing your data set for use in Salesforce Marketing Cloud. we discuss how to implement the plan you define here.

What data do you have?

A good first task is to take inventory of the customer data you already have. Even the smallest business has data, but it might be residing in a surprisingly wide variety of business systems. Customer contact information is essential, of course, but you might be able to make use of other kinds of data, such as purchase history. [15]

Cast a wide net when listing your possible data sources. Don't limit yourself at this point you compare the scope of the data later. Don't forget to consider the following locations:

- **Customer relationship management (CRM) system:** For example, an automotive service shop probably has contact information, information about the vehicle, and a history of services.[2]

- **Point-of-sale or billing system:** If you collect information from your customers as part of the sale, your point-of-sale or billing system can be a rich resource of customer data.
- **Existing communications methods:** For example, if you've ever set up a form for customers to sign up for a newsletter or request more information, that form has been collecting valuable data you can use.
- **Loyalty program:** If you offer rewards to your customers for their continued business, don't forget to mine the system you use to administer it.

- **Customer preference center:** Your existing content publishing processes might have already inspired you to set up a website where customers can indicate preferences, such as what topics they're interested in and how often they want to receive messages from you.[5]

Establishing Your Data Model

You searched far and wide for data you could consider using in your online marketing campaigns before mercilessly culling the data that didn't help you meet your marketing objectives. Now that you have a healthy, well-thought-out pool of data, you need to get it into a place where Salesforce Marketing Cloud can use it. [13]

For a long time, Marketing Cloud had only one simple and effective approach to storing data. But new functionality demanded a more sophisticated — and more complex model to store different kinds of data that you use in multimedia online marketing campaigns.

In this chapter, we discuss your data storage options and help you decide which one to use. Then we talk about how to set up your data model and how to import the data you already have into it.

3.10 Understanding Marketing Cloud Data Models

The two data models in Marketing Cloud are as follows:

- **Subscriber/list model:** All data is stored in fields in a subscriber record and subscribers are grouped into lists for sending.
- **Relational data model:** Data is stored in relational database tables called data Extensions.

Subscriber-and-list model

The traditional way to store subscriber data in Marketing Cloud has been to use the subscriber-and-list model. This approach is simple, straightforward, and has some nice built-in conveniences.

In this model, Marketing Cloud considers each subscriber to be a complete entity. The email address identifies the subscriber entity, and profile and preference attributes contain the following kinds of data about the subscriber:

- **Profile attributes:** Contain demographic data about the subscriber. Figure 6-1 shows the profile attributes that exist in your account by default.
- **Preference attributes:** Contain yes/no choices that subscribers communicate to you about how they want to hear from you. The only preference attribute delivered by default is called HTML Email. When subscribers select the check box next to this preference, they receive your emails in beautiful, full- color HTML. If they deselect this check box, they receive a text-only version of your email.[2]

CHAPTER 4

SYSTEM DESIGN

4.1 Design Data Model

Schema Builder provides a dynamic environment for viewing and modifying all the objects and relationships in your app. This greatly simplifies the task of designing, implementing, and modifying your data model, or schema. Schema Builder is enabled by default.

We can view our existing schema and interactively add new custom objects, custom fields, and relationships, simply by dragging and dropping. Schema Builder automatically implements the changes and saves the layout of our schema any time you move an object. This eliminates the need to click from page to page to find the details of a relationship or to add a new custom field to an object in our schema.

Schema Builder provides details like the field values, required fields, and how objects are related by displaying lookup and master-detail relationships. We can view the fields and relationships for both standard and custom objects.

Schema Builder lets you add the following to your schema:

- **Custom objects**
- **Lookup relationships**
- **Master-detail relationships**
- **All custom fields except: Geolocation**

Here is our project's Data model created with the help of Schema Builder –

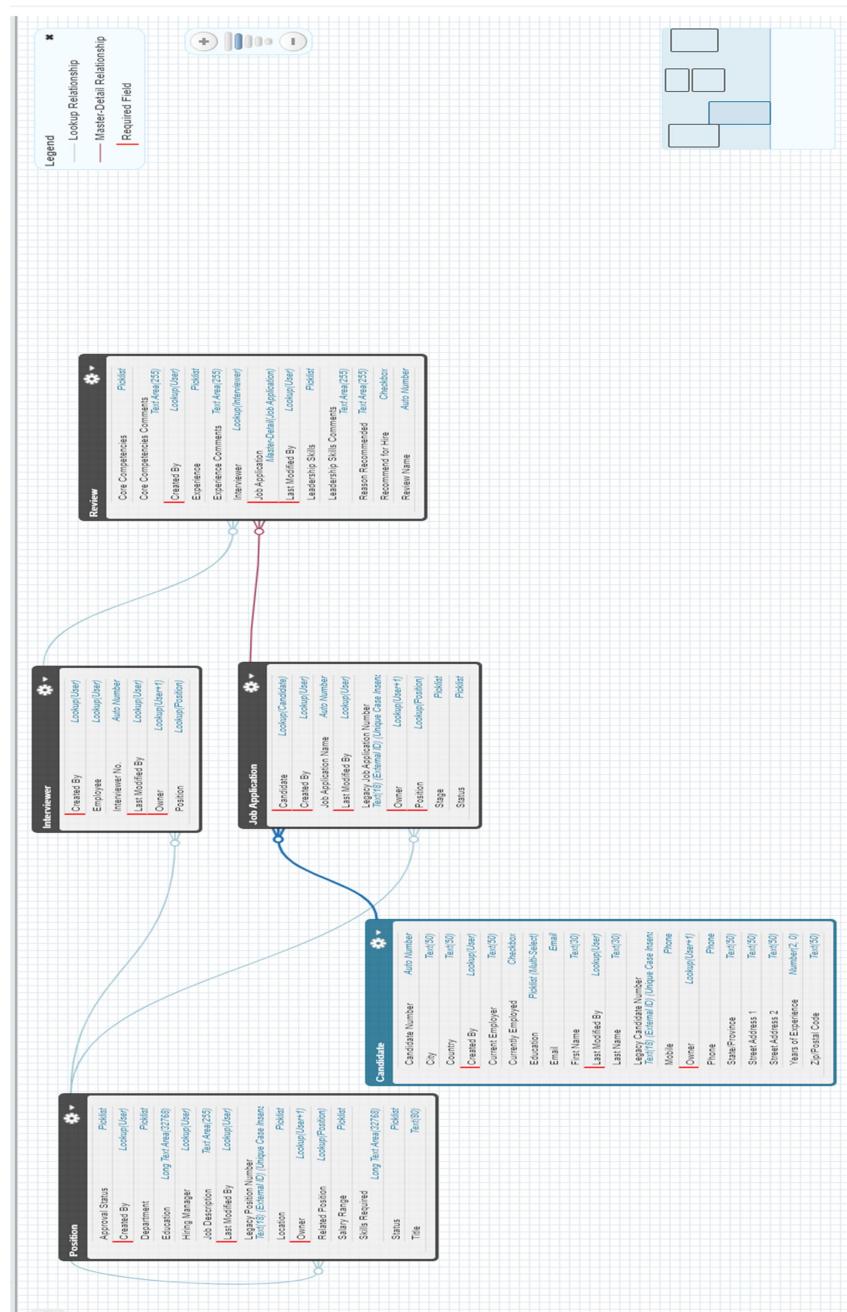


Fig. 4.1 Scema Builder

4.2 ER-Diagram

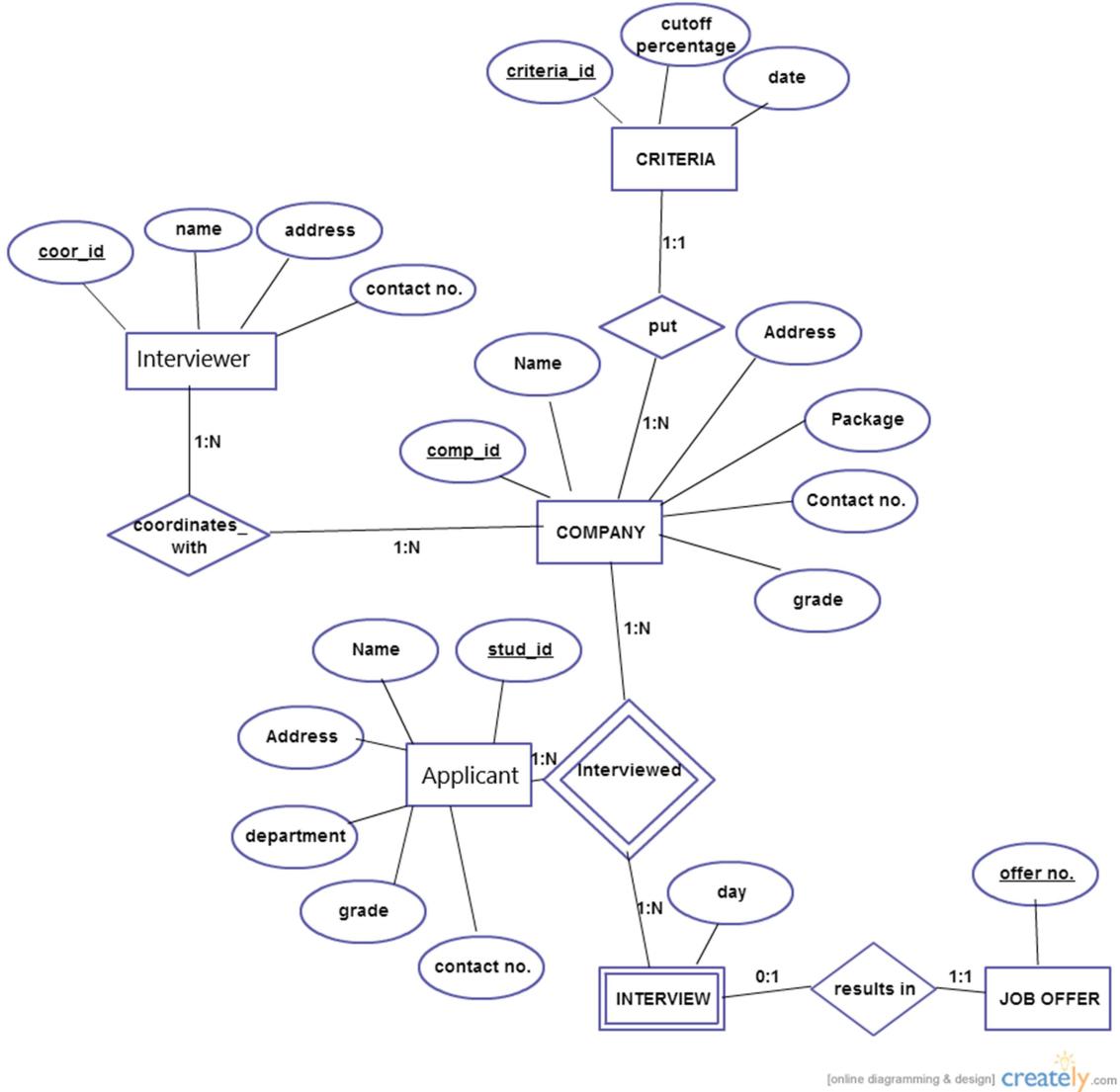


Fig. 4.2 ER-Diagram

E-R (Entity-Relationship) Diagram is used to represents the relationship between entities in a table. ER diagrams represent the logical structure of databases. ER Diagram represent relationship between two database tables.

E-R diagram means Entity Relationship diagram. Entity is a object of system, generally we refer entity as database table , the e-r diagram represent the relationship between each table

of database. E-R diagram represent entity with attributes, attributes is a properties of entity. If we assume entity is a database table then all the columns of table are treat as attributes.

Here are the geometric shapes and their meaning in an E-R Diagram. We will discuss these terms in detail in the next section(Components of a ER Diagram) of this guide so don't worry too much about these terms now, just go through them once.

Rectangle: Represents Entity sets.

Ellipses: Attributes

Diamonds: Relationship Set

Lines: They link attributes to Entity Sets and Entity sets to Relationship Set

Double Ellipses: Multivalued Attributes

Dashed Ellipses: Derived Attributes

Double Rectangles: Weak Entity Sets

Double Lines: Total participation of an entity in a relationship set

The User applies to jobs and the company posts jobs and the user has applied to certain jobs. The tables are represented in the form of rectangular boxes as shown in the diagram. The primary keys are underlined. The relationships are shown through diamond boxes. The cardinalities are mentioned through the numbers.

4.3 Database Design

- A FORCE.COM DATABASE**

Database technology is the persistence layer at the heart of all data centric applications, the tier that's in charge of organizing, protecting, and managing shared database access reliably, securely, efficiently. The persistence layer underlying Force.com (and Database.com) is proven database technology that powers all of salesforce.com's products today, serving more than 100,000 organizations, 135,000 applications, 3 million users, 1 billion transactions per day with an average request response time of less than 300ms, all with an average up time of 99.9+ percent.

- FEATURES OF FORCE.COM DATABASE**

EASY TO USE With Force.com, there's nothing to manage — salesforce.com takes care of everything for you. There's no software to install, update, and patch. No waiting on someone else when you want to provision databases. No worries about database backup and disaster recovery. No complex documentation set with thousands of pages and parameters to tune for performance or elasticity. There's even automatic indexing. Whether you have 1 database or 1,000 databases, all you need to focus on is building great apps.

TRUSTWORTHY Force.com is built with the security and privacy of customer information in mind. Salesforce.com's infrastructure and corporate workplace meet all of the highest industry standards, including SAS 70 Type II, Sys Trust, and ISO 27001 certifications.

MODERN Force.com is more than just another database system — it's jampacked with next generation features that make building and maintaining highly functional, secure, social, and mobile apps a snap.

- Force.com users, profiles, roles, groups, and rowlevel sharing rules help you build secure apps without the need to code, test, and maintain your own complicated security logic.
- With Force.com, it's easy to implement common application logic without writing complicated and error prone code. Such features include declarative, 36 point and click configuration for work flows, encrypted/masked fields, validation rules, formula fields, rollup summary fields, and cross object validation rules.
- Force.com is "social" because it includes the Salesforce Chatter API, a built in data model apps can leverage to become instantly social and collaborative.
- Force.com's REST APIs, OAuth implementation for user authentication/authorization, data feeds, custom Web services, embedded security model, and other features make it a perfect fit for easily building secure, scalable mobile apps, either native or HTML5.

OPEN Force.com's full complement of open APIs lets you build and integrate applications using the approach of your choice. REST and SOAP based APIs are standards based APIs that make Force.com open to whatever programming language you want to use. Using various APIs, your applications can do many things such as create read update delete (CRUD) business data, load a large number of records asynchronously, and take advantage of the Chatter API to provide collaboration and social networking capabilities to any application.

POWERFUL Most modern apps use server side logic to centralize complex business logic and enforce complex data integrity rules. Apex, with syntax much like Java, is Force.com's procedural language that you can use to create server side logic for an application. For example, Apex lets you create stored procedures that modify the database within the context of ACID transactions, and expose them as a custom Web services API (RESTful or SOAP) for your apps. You can also use Apex to build database triggers, routines that automatically fire (execute) when apps modify records in your database.

4.4 High Level Design

There are SEVEN objects (Salesforce Objects are database tables which permit us to store data specific of the organization). In this project every object has its own field and own working process.

- i. **HOME**
- ii. **POSITIONS**
- iii. **INTERVIEWERS**
- iv. **CANDIDATES**
- v. **JOB APPLICATIONS**
- vi. **REVIEWS**
- vii. **CHATTER**

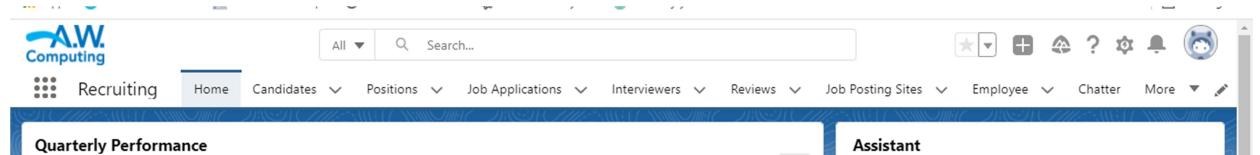


Fig. 4.3 Objects

CHAPTER 5

INPUT/OUTUPT DESIGN

5.1 HOME

I. Type – Standard Object

The Home page displays key items for each user's day. From the Home page, our users can manage their day, including viewing their quarterly performance summary and the most relevant tasks and updates. We can also use the Lightning App Builder to create custom Home pages that appear for different profiles. Give users access to opportunity details so that they can get the most out of the Home page.

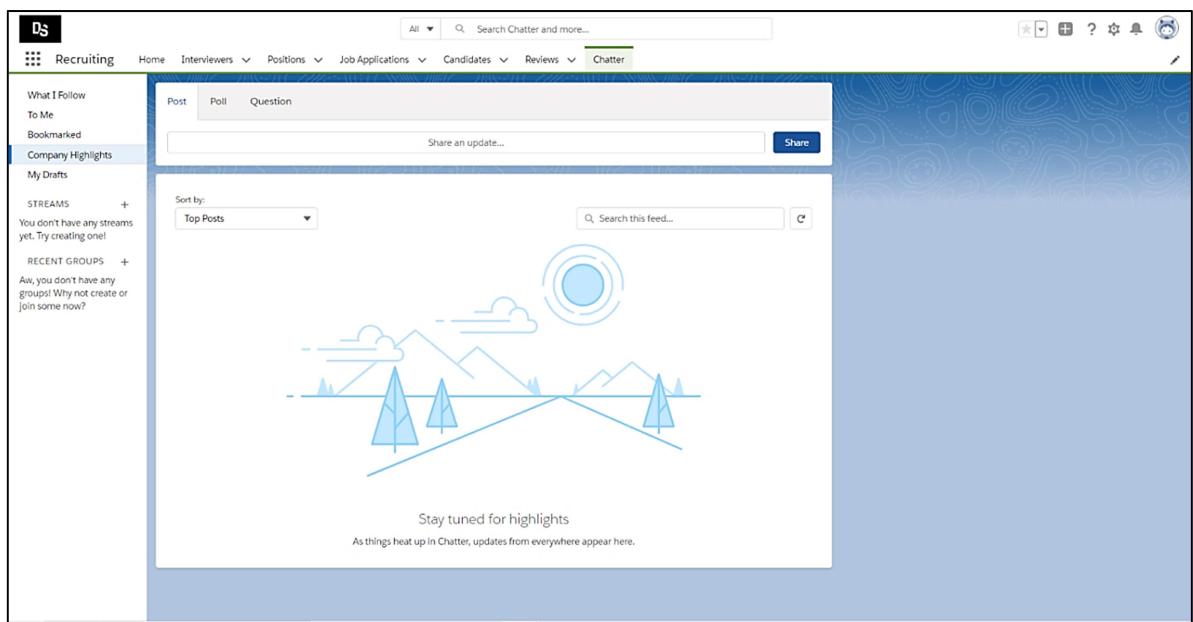


Fig. 5.1 Standard Object

II. Positions

Type – Custom Object

Positions is a custom object and custom tab that will be used to create or delete several job positions available in the organization.

INPUT DESIGN -

The screenshot shows a form titled 'New Position' for creating a new job position. The form is divided into several sections:

- Information:** Contains fields for Title (mandatory), Department (dropdown with value 'None'), Approval Status (dropdown with value 'None'), Location (dropdown with value 'Delhi'), Owner (displayed as 'Deepak Goel'), and Hiring Manager (text input with placeholder 'Search People...' and a search icon).
- Description:** Contains a large text area for Job Description.
- Salary:** Contains a dropdown for Salary Range with value 'None'.
- Experience & Education:** Contains two text areas: 'Skills Required' and 'Education'.

At the bottom right are three buttons: 'Cancel', 'Save & New', and a blue 'Save' button.

Fig. 5.2 Positions Input Design

OUTPUT DESIGN -

	Title ↑	Department	Location	Hiring Manager	Approval Status	
1	Chatter Expert	IT	Kolkata	Deepak Goel	Approved	<input type="button" value="▼"/>
2	Product Manager	Engineering	Pune	Chatter Expert	Approved	<input type="button" value="▼"/>
3	Sales Manager	Sales	Bangalore	Deepak Goel	Approved	<input type="button" value="▼"/>

Fig. 5.3 Positions Output Design

III. Interviewers

Type – Custom Object

Interviewers tab will be used to insert a new interviewer or to fetch/edit/delete the details of existing interviewers. To enter any new interviewer, employee name and his position in the company will be required.

Custom Fields –

- Employee
- Position

INPUT DESIGN -

New Interviewer

Information	
Interviewer No.	Employee
	<input type="text" value="Search People..."/> <input type="button" value=""/>
Owner	Position
Deepak Goel	<input type="text" value="Search Positions..."/> <input type="button" value=""/>
<input type="button" value="Cancel"/> <input type="button" value="Save & New"/> <input type="button" value="Save"/>	

Fig. 5.4 Interviewers Input Design

OUTPUT DESIGN –

The screenshot shows a web-based application titled "HR's E-register". The top navigation bar includes links for Home, Positions, Interviewers (which is currently selected), Candidates, Job Applications, More, and a search bar. Below the navigation is a toolbar with icons for New, Import, Change Owner, and Printable View. The main content area displays a table of interviewers. The table has columns for Interviewer No., Employee, Created Date, and Created By. There are two entries:

	<input type="checkbox"/> Interviewer No. ↑	Employee	Created Date ↓	Created By	
1	<input type="checkbox"/> INT-0000	Deepak Goel	5/31/2020 5:05 AM	Deepak Goel	<input type="button" value=""/>
2	<input type="checkbox"/> INT-0001	Chatter Expert	7/16/2020 11:19 PM	Deepak Goel	<input type="button" value=""/>

Fig. 5.5 Interviewers Output Design

IV. Job Applications

Type – Custom Object

As the term depicts itself, job application is tab to create record of applied candidates at different positions in the organization.

Some **Custom Fields** included are as follows –

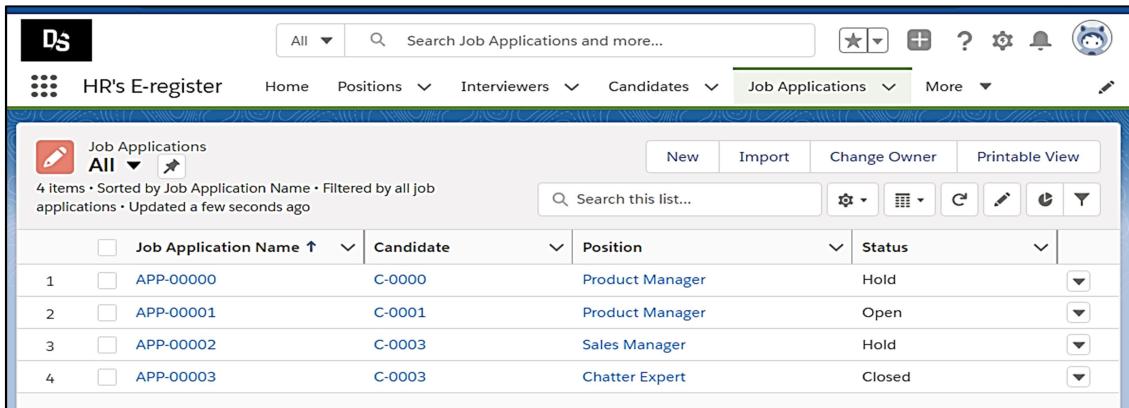
- Job Application Name
- Candidate
- Positions
- Status

INPUT DESIGN -

The screenshot shows a user interface for creating a new job application. At the top, it says "New Job Application". Below that is a section titled "Information". It contains fields for "Job Application Name" (with a dropdown menu showing "Open") and "Status" (set to "Open"). There are also fields for "Candidate" (with a search bar labeled "Search Candidates...") and "Position" (with a search bar labeled "Search Positions..."). At the bottom right are three buttons: "Cancel", "Save & New", and a blue "Save" button.

Fig. 5.6 Job Application Input Design

OUTPUT DESIGN –



	Job Application Name ↑	Candidate	Position	Status	
1	APP-00000	C-0000	Product Manager	Hold	
2	APP-00001	C-0001	Product Manager	Open	
3	APP-00002	C-0003	Sales Manager	Hold	
4	APP-00003	C-0003	Chatter Expert	Closed	

Fig. 5.7 Job Application Output Design

V. Candidates

Type – Custom Object

Candidate App will include the list of all the candidates including their details. Here there will be list of both new and old candidates. This will help HRs to reach any candidate anytime in future too.

INPUT DESIGN -

New Candidate

Candidate Number	Owner Deepak Goel
Contact Information	
First Name	Street Address 1
<input type="text"/>	<input type="text"/>
Last Name	Street Address 2
<input type="text"/>	<input type="text"/>
Email	City
<input type="text"/>	<input type="text"/>
Mobile	State/Province
<input type="text"/>	<input type="text"/>
Phone	Zip/Postal Code
<input type="text"/>	<input type="text"/>
Experience & Education	
Currently Employed	Education
<input type="checkbox"/>	Available
	BTech
	BA/BS
	MA/MS/MBA
	MCA
	BCA/BSc
	Chosen
Current Employer	<input type="text"/>
	<input type="text"/>
<input type="button" value="Cancel"/> <input type="button" value="Save & New"/> <input type="button" value="Save"/>	

Fig. 5.8 Candidates Input Design

OUTPUT DESIGN –

The screenshot shows a software interface titled "HR's E-register". The top navigation bar includes links for Home, Positions, Interviewers, Candidates (which is the active tab), Job Applications, and More. A search bar at the top right says "Search Candidates and more...". Below the navigation is a sub-header for "Candidates" with a "All" filter and a search bar for "Search this list...". The main content area displays a table of 4 items, sorted by Candidate Number. The columns are: Candidat..., First Name, Last Name, Education, Mobile, and Years of... . The data in the table is as follows:

	Candidat...	First Name	Last Name	Education	Mobile	Years of...
1	<input type="checkbox"/> C-0000	Abhishek	Verma	BA/BS	(265) 132-1535	<input type="button" value="▼"/>
2	<input type="checkbox"/> C-0001	Akash	Rana	BTech	895324862	<input type="button" value="▼"/>
3	<input type="checkbox"/> C-0002	Sharvan	Kumar	MCA	(856) 445-4878	<input type="button" value="▼"/>
4	<input type="checkbox"/> C-0003	Vijay	Kumar	MA/MS/MBA	56953548	3 <input type="button" value="▼"/>

Fig. 5.9 Candidates Output Design

VI. Reviews

Type – Custom Object

It is necessary to create some records of reviews for candidates so that other HRs can also know about the skills and competencies too. Review tab is doing same. Interviewer can give ratings, comments, can give recommendations, etc to the candidate, he/she interviewed. This review will be automatically shared to all the HRs in the chatter tab.

Custom Fields included –

- Core Competencies
- Comments on different skills
- Recommended or not and why

- Leadership skills

INPUT DESIGN –

New Review

Information

Review Name

Core Competencies (i)

Core Competencies Comments

Leadership Skills Comments

Experience Comments

Recommend for Hire

Reason Recommended

Interviewer
 Search Interviewers...

* Job Application
 Search Job Applications...

Leadership Skills

Experience

Fig. 5.10.Reviews Input Design

VII. Chatter

Type – Standard Object

Chatter is standard object and standard tab which works like social platform, HRs can share anything like article, photos, links, can create poll or ask anything from all other HRs of the organization.

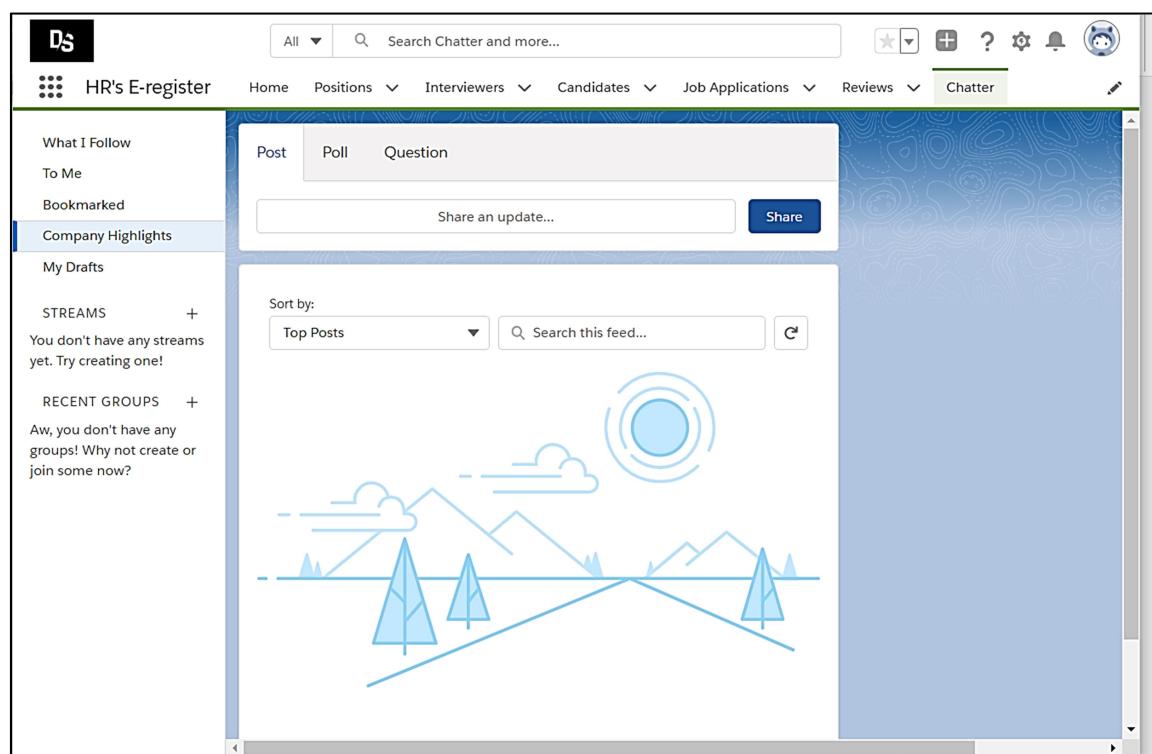


Fig. 5.11 Chatter

VIII. Cloud layers

This application provides you to store all the data on cloud storage. So, its works on **5 layers model** of cloud which are defined as follows:

- i. **Cloud Application Layer** - Cloud application layer provides the most visible layer to the end users of the cloud. Recruiting App application provides a user interface to interact with users.
- ii. **Cloud Software Environment Layer** - The cloud software environment layer (also dubbed the software platform layer). The users of this layer are cloud applications' developers, implementing their applications for and deploying them on the cloud. In Recruiting App Force.com is an application development environment.
- iii. **Cloud Software Infrastructure Layer** - The cloud software infrastructure layer provides fundamental resources to other higher-level layers. Cloud services offered in this layer can be categorized into: computational resources, data storage, and communications. In Recruiting App Salesforce manage in infrastructure of auto scaling and load balancing on basis of number of working users.
- iv. **Software Kernel** - This cloud layer provides the basic software management for the physical servers that compose the cloud. Software kernels at this level can be implemented as an OS kernel, hypervisor, and virtual machine monitor and/or clustering middleware.
- v. **Hardware and Firmware** - The bottom layer of the cloud stack in our proposed is the actual physical hardware and switches that form the backbone of the cloud. In

this regard, users of this layer of the cloud are normally big enterprises with huge IT requirements in need of subleasing Hardware as a Service (HaaS). Recruitment application is developed in Sales force cloud computing environment known as Force.com development environment. In Force.com environment you can develop and deploy applications. Salesforce provides an app store known as AppExchange just like play store of Google Android Marketplace. Salesforce AppExchange is Salesforce.com's cloud computing marketplace through which end users can access, download and install software apps. You can download Recruitment App from AppExchange. To download the application first user, need to register on salesforce. After Registration users are able to download and install the applications.

CHAPTER 6

TESTING

The Force.com platform requires that at least 75% of the Apex Code in an org be executed via unit tests in order to deploy the code to production. You shouldn't consider 75% code coverage to be an end goal though. Instead, you should strive to increase the state coverage of your unit tests. Code has many more possible states than it has lines of code. For example, the following method has 4,294,967,296 different states: System testing of software or hardware is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. System testing falls within the scope of black box testing, and as such, should require no knowledge of the inner design of the code or logic.

6.1 TYPES OF TESTING

BLACK BOX TESTING - The technique of testing without having any knowledge of the interior workings of the application is called black box testing. The tester is oblivious to the system architecture and does not have access to the source code. Typically, while performing a black box test, a tester will interact with the system's

user interface by providing inputs and examining outputs without knowing how and where the inputs are worked upon.

WHITE BOX TESTING - Whitebox testing is the detailed investigation of internal logic and structure of the code. Whitebox testing is also called glass testing or open box testing. In order to perform white box testing on an application, a tester needs to know the internal workings of the code.

GREY BOX TESTING - Grey box testing is a technique to test the application with having a limited knowledge of the internal workings of an application. In software testing, the phrase the more you know, the better carries a lot of weight while testing an application.

- i. **UNIT TESTING** - Unit Testing contains the testing of each unit of Recruitment Application. We have tested each interface by input values and check whether it is working properly working or not we also tested database connectivity. We have entered value in interface and check that the values are properly goes to corresponding tuples or not.
- ii. **INTEGRATION TESTING** - Integration testing is defined as the testing of combined parts of an application to determine if they function correctly.

Integration testing can be done in two ways: Bottom up integration testing and Top down integration testing.

- iii. **SYSTEM TESTING** - System testing tests the system as a whole. Once all the components are integrated, the application as a whole is tested rigorously to see that it meets the specified Quality Standards. This type of testing is performed by a specialized testing team.
- iv. **ACCEPTANCE TESTING**- This is arguably the most important type of testing, as it is conducted by the Quality Assurance Team who will gauge whether the application meets the intended specifications and satisfies the client's requirement. The QA team will have a set of prewritten scenarios and test cases that will be used to test the application. In System Testing we have tested entire Recruitment Application. We have run all programs as a single system and inputs various test cases and analyze that all are going correctly or not. In system testing we have tested various test cases. According to which, Application showed the corresponding error message

CHAPTER 7

CONCLUSION & FUTURE SCOPE

7.1 Conclusion

After going through this whole project, we can say that this project can be resulted as very much beneficial to the HRs of an organization. As this project will maintain complete record of interviewers and candidates applying for the organization electronically, this project will not only automate the process but will reduce paperwork and time to be consumed in this paperwork also. This will make easy to access to any part of the record. Cloud technology is helping this project more effective for every user of project, as it can be accessed from anywhere of the world anytime. We can say that this project will reduce human efforts takes place during maintaining record of candidates and hiring process.

7.2 Future Scope

- Use of validations and triggers can improve efficiency of the project.
- Feature of complete hiring/recruitment process can be added.
- With the help of lightning components, interface can be made more attractive.

CHAPTER 8

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