A

Project Report

on

Recruiting Application

Developed at

Kriit Technology.
407, Avalon Business Hub,
Katargam, Surat 395004.

Developed by

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Department of Information Technology Faculty of Technology, Dharmsinh Desai University
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COMPANY CERTIFICATE

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Date: 06/04/2021

TO WHOM IT MAY CONCERN

This is certifying that **Mr. Jaykumar Bhingaradia** has completed his internship as intern **Web Developer** at **Kriit Technologies** located at 407, Avalon Business Hub, Opp.Samast Patidar Samaj Hall, Katargam, Surat from **December 1st, 2020** to **March 31th, 2021**

During his internship, he has worked on a project titled **Recruitment Process**, as part of the project, he has been exposed to developing web application. We found him determined and hard-working. He was keenly interested to learn the functions of our core division and also willing to put his best efforts and get into the depth of the subject to understand it better.

We wish him all the best for his upcoming career.

Thanks & Regards,

KRIIT TECHNOLOGIES

PROPRIETOR

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CANDIDATE'S DECLARATION

I declare that the final semester report entitled "**Recruiting Application"** is my own work conducted under the supervision of the external guide "**M Mr. Nirav Tejani**" from Kriit Technology.

I further declare that to the best of my knowledge the report for B.Tech. final semester does not contain part of the work which has been submitted for the award of B.Tech. Degree either in this or any other university without proper citation.

Candidate's Signature

Candidate's Name: Jaykumar Bhingaradia
Branch : Information Technology
Student ID : 17ITUOS083

DHARMSINH DESAI UNIVERSITY
NADIAD-387001, GUJARAT

CERTIFICATE

This is to certify that the project entitled "**Recruiting Application** " is a bonafide report of the work carried out by Jaykumar Bhingaradia Student ID No:17ITUOS083 of Department of Information Technology, semester VIII, under the guidance and supervision for the award of the degree of Bachelor of Technology at Dharmsinh Desai University, Nadiad. (Gujarat). He was involved in Project training during the academic year 2020-2021.

Prof. Anand Dave,
Department of Information Technology,
Faculty of Technology,
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Date:

Prof. (Dr.) Vipul K. Dabhi,
Head, Department of Information Technology,
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Dharmsinh Desai University, Nadiad
Date:

ACKNOWLEDGMENT

I heartily thank **Prof. (Dr.) Vipul K. Dabhi** (Head, Department of Information Technology) for providing me the opportunity and giving me exposure to pursue our final semester internship at “Kriit Technology” and gain practical working experience from the industry.

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I would like to extend heartiest thanks to **Mr. Mr. Nirav Tejani**(Project Manager Kriit Technology for supporting me during the internship period. He guided me all the time and motivated me within his busy schedule.

A blend of gratitude, pleasure and great satisfaction is what I feel to convey my indebtedness to all those who have directly and indirectly contributed to the successful completion of the project.

Thanking you.

Jaykumar Bhingaradia
(17ITUOS083)

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ABSTRACT

Recruiting system is very essential portal for youth because Nowadays, People face several problems to get proper job. we're going to build a Recruiting app for the company that allows it to move away from the Microsoft Word documents and Microsoft Excel spreadsheets that it has traditionally used to an application that's available on demand.

Historically, the Human Resources department has used Microsoft Word documents and Microsoft Excel spreadsheets to manage the recruiting and hiring process for new employees. However, over the last two quarters it's become evident that unless this process is replaced by one that is more collaborative, reliable, and scalable, the department won't be able to meet its hiring goals for this fiscal year. Universal Containers needs a centralized application that can bring all of its recruiting and hiring processes together, and the company has hired us to solve this problem. Our approach will be to leverage their Salesforce account and build a recruiting application on the Force.com platform. We're going to introduce Universal Containers to the world of cloud computing.

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1.0 INTRODUCTION

1.1 PROJECT DETAILS

The project "**Recruiting Application**" to develop Web Application: This application is made in **salesforces** which is one type of cloud platform. To develop frontend, we used **Visual Force** as well as **Apex** and for API was contracted by **JavaScript.** In this project, there are three Modules like Candidate, Recruiter and Administrator. Here all three Module content different types of activities.

In Recruiter Module the user can make a Login, Registration, profile, Job publishes, Apply job, candidate registration, dashboard, Notification, support, review, company registration etc.

In Candidate Module the Technician may Login, Registration, apply job, show job detail, sorting job, view review, candidate profile creates etc.

In the Admin Module All the System can manage by the Administrator. Here the administrator can perform all the functionality.

1.2 PURPOSE

The main purpose behind the making of this application is to give the best Customer support System. This application become very helpful for student who find job. One main thing in this application is easiness. It is very useful and easy system through which all the three modules of the system can perform their work very easily. The user can see and use the system just by single click on the button and get the solution of their query just by normal typing through keyboard. Here all the links and buttons are set perfectly by which all the three modules can easily done their Recruiting App.

1.3 SCOPE

Recruiting App has wide scope for both recruiter and Candidate. Candidate can find job from key word and location and also apply on particular job. Recruiter get all information of candidate, publish their job, make firm, Decide the status of applicant etc. They also get valuable data from dashboard and predicate the trend.

1.4 OBJECTIVE

The main objectives of the project are

- Recruiting App is the system that makes link between Recruiter and Candidate. Recruiter find appropriate candidate within time limit as well as they have also chance to find Great experience person. On the other hand, Candidate has also Platform where they can find the best post according their Profile.
- It reduces the paper work. And it also saves our time.
- It is very secure system

1.5 TECHNOLOGY AND LITERATURE REVIEW

This application is developed by using Saleforces Technology In which we are used the different facilities given by the software. The full details about the technology which we use are as follow.

1 Introduction to Salesforce
2 Introduction to Splunk Enterprise
3 Java Script
4 Apex
5 Visualforce
6 T-SQL

1.5.1 Introduction to Salesforce

- Salesforce is a customer relationship management solution that brings companies and customers together. It's one integrated CRM platform that gives all your departments — including marketing, sales, commerce, and service — a single, shared view of every customer.
- Salesforce has essentially changed how enterprise software is delivered and used. Its software is cloud-based and hence doesn't need IT experts to set up anything. Salesforce has defined the ideal way as how to connect with customers. Building meaningful and lasting bonds with the customers, identifying their needs, addressing problems faster and deploying apps that are customer focused is all possible through Salesforce.
- Salesforce is currently providing various software solutions and platforms for developers to create and distribute custom software/applications. Tech giants like

Google, Twitter, Amazon, and Facebook are using Salesforce either in the form of SaaS or PaaS.

What are salesforce objects?

Salesforce objects are database tables that permit you to store the data specific to an organization.

Salesforce objects are of two types:
Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com, such as users, contracts, reports, dashboards, etc.
Custom Objects: Custom objects are those that are created by users. It supplies information that is unique and essential to their organization. It is the heart of any application. It provides a structure for sharing data.

Table 1.1 Key Technologies Behind the Platform

Technology	Description
Multitenant architecture	An application model in which all users and apps share a single, common infrastructure and code base. An application model in which all users and apps share a single, common infrastructure and code base.
Metadata-driven development model	An app development model that allows apps to be defined as declarative “blueprints,” with no code required. Data models, objects, forms, workflows, and more are defined by metadata.
API Access	Several application programming interfaces (APIs) provide direct access to all data stored in Force.com from virtually any programming language and platform. API Access • The SOAP API and REST API integrate your organization’s data with other applications • The RESTful Bulk API (also available using Data Loader) loads or deletes large numbers of records • The Metadata API manages customizations in your organization (also available using the Force.com Migration Tool)

	• The Chatter REST API accesses Chatter feeds and social data • The Streaming
Mobile Access	With Salesforce mobile apps, you can access custom apps built using the Force.com platform's point-and-click development tools. Your users can access Mobile Access those apps on their mobile devices—and you don't have to learn any mobile programming languages.
Apex	The world's first on-demand programming language, which runs in the cloud on the Force.com platform servers.
Visualforce	With Salesforce mobile apps, you can access custom apps built using the Force.com platform's point-and-click development tools. Your users can access Mobile Access those apps on their mobile devices—and you don't have to learn any mobile programming languages.
AppExchange directory	A Web directory where hundreds of Force.com apps are available to Salesforce customers to review, demo, comment upon, and/or install. Developers can AppExchange directory submit their apps for listing on the AppExchange directory if they want to share them with the community.

What is salesforce event monitoring?

Event monitoring is one of many tools that Salesforce provides to help keep your data secure. It lets you see the granular details of user activity in your organization. We refer to these user activities as events. You can view information about individual events or track trends in events to swiftly identify abnormal behavior and safeguard your company's data.

So, what are some of the events that you can track? Event monitoring provides tracking for lots of types of events, including:

- Logins
- Logouts
- URI (web clicks in Salesforce Classic)

- Lightning (web clicks, performance, and errors in Lightning Experience and the Salesforce mobile app)
- Visualforce page loads
- API calls
- Apex executions
- Report exports

All these events are stored in event log files. An event log file is generated when an event occurs in your organization and is available to view and download after 24 hours. The event types you can access and how long the files remain available depends on your edition.
Developer Edition (DE) organizations have free access to all log types with one-day data retention. Enterprise, Unlimited, and Performance Edition organizations have free access to the insecure external assets, login, and logout event log files with one-day data retention. For an extra cost, you can access all log file types with 30-day data retention.

1.5.2 Introduction to Splunk Enterprise

What is Splunk Enterprise?

- Splunk Enterprise is a software product that enables you to search, analyse, and visualize the machine-generated data gathered from the websites, applications, sensors, devices, and so on, that comprise your IT infrastructure or business.

- After you define the data source, Splunk Enterprise indexes the data stream and parses it into a series of individual events that you can view and search. You can use the search processing language or the interactive pivot feature to create reports and visualizations.
- In short, Splunk Enterprise is the data collection, indexing, and visualization engine for operational intelligence.

Splunk Enterprise Features

Table 1.2 Splunk Features

Feature	Description
Indexing	Splunk Enterprise indexes machine data. This includes data streaming from packaged and custom applications, application servers, web servers, databases, networks, virtual machines, telecoms equipment, operating systems, sensors, and so on, that make up your IT infrastructure. The maximum indexing volume depends on the Splunk Enterprise license.

Search	Search is the primary way users navigate data in Splunk Enterprise. You can write a search to retrieve events from an index, use statistical commands to calculate metrics and generate reports, search for specific conditions within a rolling time window, identify patterns in your data, predict future trends, and so on. Searches can be saved as reports and used to power dashboard panels.
Alerts	Alerts are triggered when conditions are met by search results for both historical and real-time searches. Alerts can be configured to trigger actions such as sending alert information to designated email addresses, post alert information to an RSS feed, and run a custom script, such as one that posts an alert event to syslog.
Reports	Reports are saved searches and pivots. You can run reports on an ad hoc basis, schedule them to run on a regular interval, and set a scheduled report to generate alerts when the result of a run meets particular conditions. You can add reports to dashboards as dashboard panels.
Dashboards	Dashboards are made up of panels that contain modules such as search boxes, fields, charts, tables, forms, and so on. Dashboard panels are usually connected to saved searches or pivots. They can display the results of completed searches as well as data from real-time searches that run in the background.
Pivot	Pivot refers to the table, chart, or data visualization you create using
	the Pivot Editor. The Pivot Editor lets users map attributes defined by data model objects to a table or chart data visualization without having to write the searches to generate them. Pivots can be saved as reports and added to dashboards.
Data model	Data models encode specialized domain knowledge about one or more sets of indexed data. They enable users of the Pivot Editor to create compelling reports and dashboards without designing the searches that generate them. Data models can have other uses, especially for Splunk app developers.

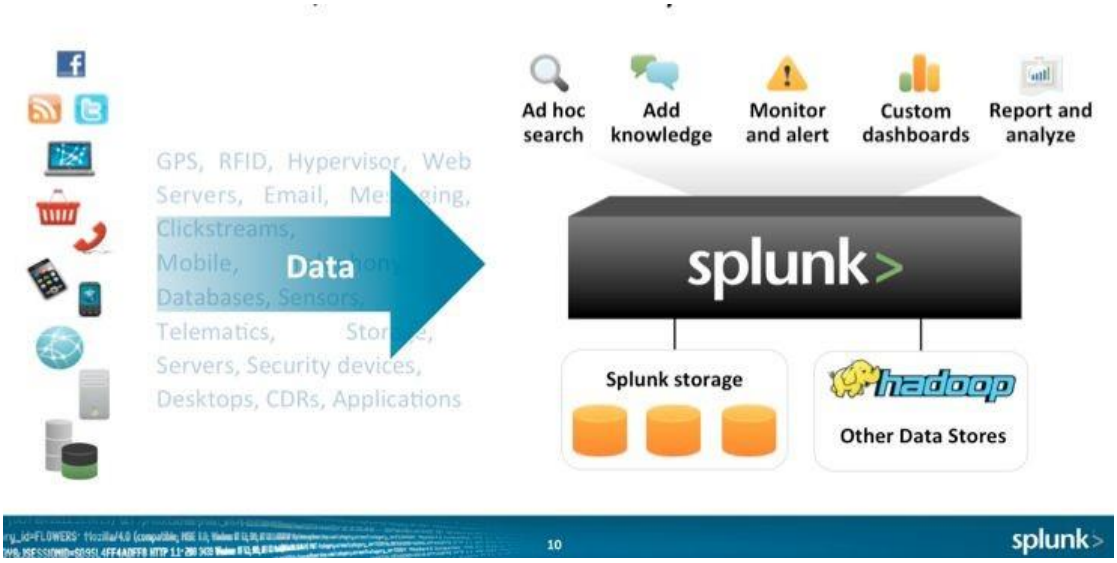


Fig. 1.1 Splunk Usage Areas

1.5.3 Java Script:

JavaScript was originally developed by Netscape Corporation for use in its browser, Netscape Navigator. It includes a convenient syntax, flexible variable types and easy access to the browser's features.

It can run on the browser without being compiled; the source code can be placed directly into a web page. You can program in JavaScript easily; no development tools or compilers are required.

You can use the same editor which you use to create HTML documents to create JavaScript, and it executes directly on the browser. JavaScript was originally called Live Script, and was a proprietary feature of the Netscape browser.

JavaScript has now been approved by Sun, the developer of Java, as a scripting language to complement Java. Support has also been announced by several other companies. Although useful in working with Java, you will find that JavaScript can be quite useful in its own right.

It can work directly with HTML elements in a web page, sometimes Java cannot handle. It is also simple to use, and you can do quite a bit with just a few JavaScript statements.

Uses of JavaScript:

You have learned some technical details as to why JavaScript is important. But what's it really good for? What will it do for your web page? The following section presents some of the most important uses of JavaScript.

1.5.4 Apex:

As you might expect from the company that delivered the world's first cloud computing platform, Salesforce also introduced the world's first cloud computing programming language, Apex. Apex, whose syntax is similar to Java, the most popular programming language for Web apps, runs on the Force.com platform servers. Apex is specifically designed for building business applications to manage data and processes within the larger context of the Force.com platform. The language provides a uniquely powerful and productive approach to creating functionality and logic, allowing developers to focus just on the elements specific to their application, while leaving the rest of the "plumbing" to the Force.com platform.

1.5.5 Visualforce:

Introducing Visualforce

Over the past several years, Salesforce has created a comprehensive platform for building on-demand applications. Like other sophisticated application development platforms, the Lightning platform offers separate tools for defining:

- The structure of the data—
- that is, the *data model*
- The rules that detail how that data can be manipulated—that is, the *business logic*
- The layouts that specify how that data should be displayed—that is, the *user interface*

While the tools for building the data model and business logic for applications are powerful solutions that run natively on Lightning platform servers, the existing tools for defining user interfaces have had certain limitations:

- **Page layouts**, the point-and-click tool that allows application developers to organize fields, buttons, and related lists on record detail pages, do not provide much flexibility in how sets of information are displayed. Fields must always appear above related lists, buttons must always appear above fields, and s-controls and custom links can only be placed in particular areas.

- **S-controls**, the tool that allows application developers to display custom HTML in a detail page or custom tab, provide more flexibility than page layouts, but:
    - Execute from within a browser, causing poor performance if displaying or updating values from more than a few records at a time
    - Do not provide an easy way to give custom user interface elements the same look-and-feel as standard Salesforce pages
    - Require developers to enforce field uniqueness and other metadata dependencies on their own

What is Visualforce?

Visualforce is a framework that allows developers to build sophisticated, custom user interfaces that can be hosted natively on the Lightning platform. The Visualforce framework includes a tag-based markup language, similar to HTML, and a set of server-side "standard controllers" that make basic database operations, such as queries and saves, very simple to perform.

In the Visualforce markup language, each Visualforce tag corresponds to a coarse or fine-grained user interface component, such as a section of a page, a related list, or a field. The behavior of Visualforce components can either be controlled by the same logic that is used in standard Salesforce pages, or developers can associate their own logic with a controller class written in Apex.

How is Visualforce Architected?

When a developer finishes writing a Visualforce page and saves it to the platform, the platform application server attempts to compile the markup into an abstract set of instructions that can be understood by the Visualforce renderer. If compilation generates errors, the save is aborted and the errors are returned to the developer. Otherwise, the instructions are saved to the metadata repository and sent to the Visualforce renderer. The renderer turns the instructions into HTML and then refreshes the developer's view, thereby providing instantaneous feedback to the developer for whatever changes were made in the markup.

The architecture diagram below shows the process flow when a non-developer user requests a Visualforce page. Because the page is already compiled into instructions, the application server simply retrieves the page from the metadata repository and sends it to the Visualforce renderer for conversion into HTML.

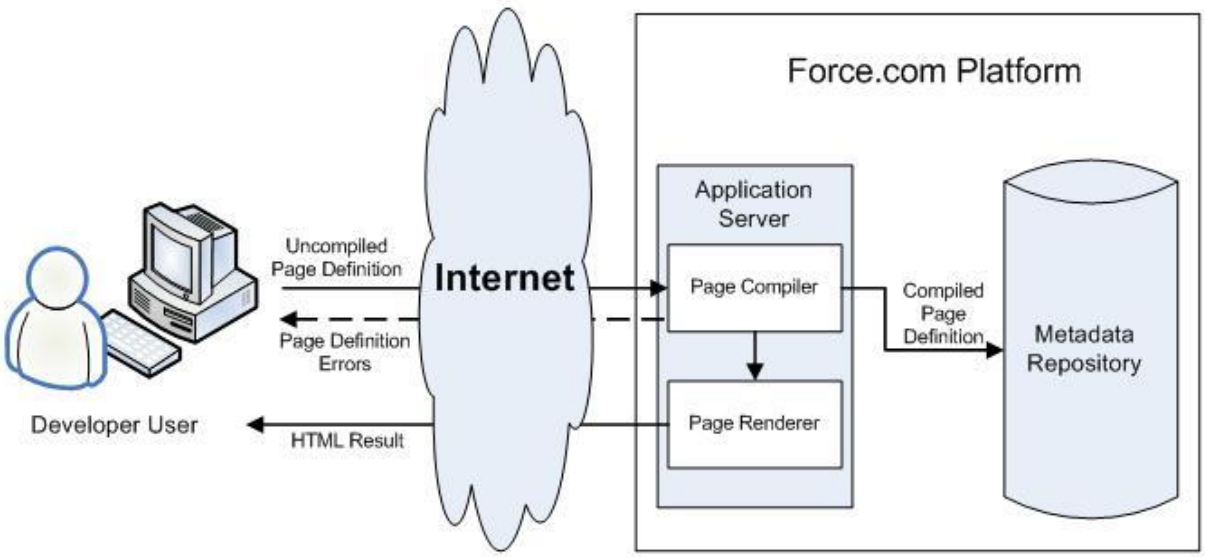


Fig. 1.2 Visualforce System Architecture - Development Mode

1.5.6 T-SQL

The latest version of SQL Server, SQL Server, was released (RTM) on August 6, 2008and aims to make data management self-tuning, self-organizing, and self-maintaining with the development of SQL Server Always On technologies, to provide near-zero downtime. SQL Server also includes support for structured and semi-structured data, including digital media formats for pictures, audio, video and other multimedia data. In current versions, such multimedia data can be stored as BLOBs (binary large objects), but they are generic bit streams. Intrinsic awareness of multimedia data will allow specialized functions to be performed on them. According to Paul Flessner, senior Vice President, Server Applications, Microsoft Corp., SQL Server 2008 can be a data storage backend for different varieties of data: XML, email, time/calendar, file, document, spatial, etc. as well as perform search, query, analysis, sharing, and synchronization across all data types.

Other new data types include specialized date and time types and a Spatial data type for location-dependent data. Better support for unstructured and semi-structured data is provided using the new FILESTREAM data type, which can be used to reference any file stored on the file system. Structured data and metadata about the file is stored in SQL Server database, whereas the unstructured component is stored in the file system. Such files can be accessed both via Win32 file handling APIs as well as via SQL Server using T-SQL; doing the latter accesses the file data as a BLOB. Backing up and restoring the database backs up or restores the referenced files as well. SQL Server also natively supports hierarchical data, and includes T-SQL constructs to directly deal with them, without using recursive queries.

SQL Server includes better compression features, which also helps in improving scalability. It enhanced the indexing algorithms and introduced the notion of filtered indexes. It also includes Resource Governor that allows reserving resources for certain users or workflows. It also includes capabilities for transparent encryption of data (TDE) as well as compression ofbackups. SQL Server supports theADO.NET Entity Framework and the reporting tools, replication, and data definition will be built around the Entity Data Model. SQL Server Reporting Services will gain charting capabilities from the integration of the data visualization products from Dundas Data Visualization, Inc., which was acquired by Microsoft. On the management side, SQL Server includes the Declarative Management Framework which allows configuring policies and constraints, on the entire database or certain tables, declaratively. The version of SQL Server Management Studio included with SQL Server supports IntelliSense for SQL queries against a SQL Server Database Engine. SQL Server also makes the databases available via Windows Power Shell providers and management functionality available as Cmdlets, so that the server and all the running instances can be managed from Windows Power Shell.

2.0 PROJECT MANAGEMENT

2.1 FEASIBILITY STUDY

The feasibility of software can be tested in four dimensions:

2.1.1 Technical Feasibility

This software use technology like Salesforce (Cloud platform), Apex, JavaScript, T-SQL Which are all free and open-source software with active communities backing the system. Recruitment System is a complete job seeking system that requires only a Web-browser to use. It has a wide range of features suitable for all the Recruiter and Customer Support System for getting the solution of different types of Recruitment problems through online. Now we can Conclude that the system is Technical Feasible

2.1.2 Time Schedule Feasibility

We checked whether our system can be ready in time without any error. We have planned the project in 4 Sprints, the actual development is supposed to be completed within the first 3 sprints, the last sprint was reserved for testing and bug fixes after testing and to implement additional features in case customer requirement alters.

2.1.3 Operational Feasibility–

How the project will work and who will use it, all such concerns arise in this phase. We have to study the existing system's problem and is it worth solving or not. This Add-on will save a lot of time and effort of a user to analyse the information and also provide additional functionality to the user. Hence it is operationally feasible.

2.2 PROJECT PLANNING

In the development of this project, we will check in the first Sprint whether our project is feasible functionally, technically and economically. Hence, we gather all the requirements which we need to develop our system. Then, after thoroughly understanding the requirements, we will start development. Our development process divides basically into three parts.

2.2.1 Project Development Approach

Incremental Process Model:

In contrast to software life cycle models, software process models often represent a networked sequence of activities, objects, transformations, and events that embody strategies for accomplishing software evolution. Such models can be used to develop more precise and formalized descriptions of software life cycle activities. Their power emerges from their utilization of a sufficiently rich notation, syntax, or semantics, often suitable for computational Processing.

In the incremental model, there is a good chance that a requirements error will be recognized as soon as the corresponding software is incorporated into the system. It is then not a big deal to correct it. The waterfall model relies on careful review of documents to avoid errors. Once a phase has been completed, there is limited provision for stepping back. It is difficult to verify documents precisely and this is, again, a weakness of the waterfall model.

The incremental model is an intuitive approach to the waterfall model. Multiple development cycles take place here, making the life cycle a "multi-waterfall" cycle. Cycles are divided up into smaller, more easily managed iterations. Each iteration passes through the requirements, design, implementation and testing phases.

A working version of software is produced during the first iteration, so you have working software early on during the software life cycle. Subsequent iterations build on the initial software produced during the first iteration.

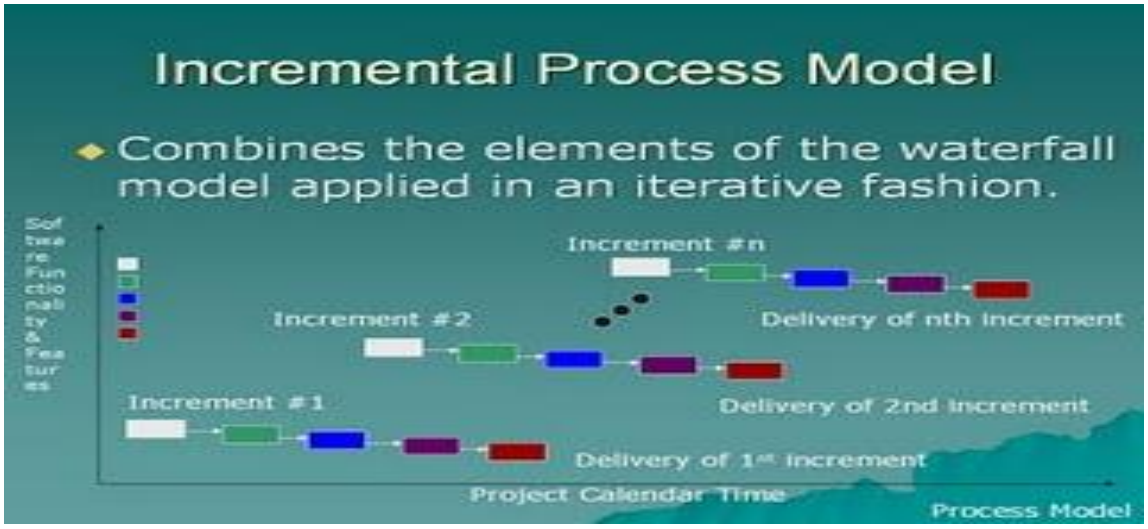


Fig 2.1 Incremental process model

2.2.2 Roles and Responsibilities

Name	Role				
	Analysis	Design	Coding	Testing	Documentation
Jaykumar Bhingaradia	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Table 2.1 Roles and Responsibilities

2.2.3 Group Dependencies:

Here in the development of this Web Site, we are only one group of two members included in it; the task of our work doesn't depend on any other groups. We have to work out on it together. So, there is no group dependency.

3.0 SYSTEM REQUIREMENTS STUDY

3.1 STUDY OF CURRENT SYSTEM

This app intends to fetch data from the Salesforce platform, where different types of salesforce objects and salesforce event log can be monitored and searched and based on that different visualization boards can be created.

3.2 PROBLEMS AND WEAKNESS OF CURRENT SYSTEM

In the current scenario, one weakness is interview scheduling in our portal.

3.3 USER CHARACTERISTICS

The targeted user can be any organization who wants to monitor its salesforce account.

3.4 HARDWARE AND SOFTWARE REQUIREMENT

Hardware Requirement:

- **Processor:** Intel i5 or above
- **RAM:** 8GB or above
- **Hard Disk:** Minimum 5 GB free anytime

Software Requirement:

- **OS:** Windows/Linux/Mac
- **Web Browser:** Chrome, Firefox
- Splunk Enterprise (v7.0.0 or above)
- Salesforce API (v42 or above)

3.5CONSTRAINTS

3.5.1 Regular Policies

As, per the Company's policy any developer has to maintain the Coding Standards and follow Splunk best practices. Also, each and every user should maintain the subversion and commit the modification with appropriate comment so to have track of work and also of the code modification. From the client's perspective, developers should use well known coding standards.

3.5.2 Hardware limitations

The hardware limitation is almost none. If Splunk Enterprise supports the system then Splunk add-on for Salesforce also supports.

3.5.3 Interface to Other Application

This add-on provides the inputs and **CIM**-compatible knowledge to use with other Splunk apps, such as the Splunk App for Salesforce, Splunk Enterprise Security, the Splunk App for PCI Compliance, and Splunk IT Service Intelligence.

3.5.4 Criticality of the application

Criticality means any occurrence of miss operating of the system or any accidental event in software which can damage the resources of software as well as hardware. As per my knowledge there is no criticality in our application.

3.6 ASSUMPTIONS AND DEPENDENCIES

We assume that the end user has a knowledge of basic operation on Splunk. So, the end user can get the best out of our product. Application is dependent only on working on Python 3, Salesforce and Splunk Enterprise not any other applications

4 SYSTEM ANALYSIS

4.1 REQUIREMENTS OF NEW SYSTEM

4.1.1 User Requirements

User requirements include minor details, but most importantly users must be aware that the system works properly with full availability, reliability, security and safety. The user responsibility is as follows:
Users should know how to use the application and should adhere to the guidelines and prescribed standards.

4.1.2 System Requirements

Non-Functional Requirement

- **Usability** the UI of the Splunk App should be user friendly so that users can navigate easily through the app.

- **Accuracy** As we were developing the application, we must make the system that is very accurate in its functions. All the data should keep working properly, keep getting perfect input, process accurately and produce the perfect output. Accuracy is the most important non-functional characteristic or requirement of the system.

- **Reliability** Error handling mechanism must be robust to avoid failure of operation and in case of failure the app reports it to the user without any due harm.

- **Performance and Automation** Application should work fast but here in this case automation is more important than performance. Once the application starts, the user application should complete all tasks without errors and give final visualization dashboards of Splunk App.

Software Requirements and Specification (SRS)

R.1. Authentication System

Description: create user profile as well as find the correct use whether user is valid or not.

R.1.1 Login

Input: Username, password
Output: Directed to home page
Processing: Find user is already register or not then according to the database this give the permission to the user

R.1.2. Sign Up

Input: Username, login, email, password etc.
Output: New user register.

R.2. Job publishes

Input: Enter Detail of form
Output: Create a job in portal

R.3. Apply

Input: Candidate-name, Post, experience, resume, contact information etc.
Output: Generate submission receipt in portal

R.3. Job Search

Input: Job name, Location
Output: Get the data of your job

R.4. profile Generation

Input: Enter personal detail of candidate
Output: Get your profile information in your portal

R.5. Firm registration

Input: Web site name, Address, price per post, maximum price
Output: register particular company

R.6. Publish job in company portal

Input: Position name, Employment Website
Output: Generate job

R.7. Notification

Input: any new event generated in your portal you get notification
Output: according your notification you get action in portal

R.8. chatter

Input: send or receive message to you register account
Output: Data pass between person

R.9. Review

R.9.1 Register review

Input: give review in job position between (1-5 star)
Output: Register

R.9.2 Show average review

Input: Click in job position
Output: Show average review of all given database

R.10. Dashboard (Report)

Reports are very useful for any organization for over view of Recruitment process.
Input: After all, process the collection of data convert in to report in forms like tableau, pie Chart, line chart etc.
Output: As output reports are shown on managers dashboard.

R.11. Support

Input: Name, Email, Subject, Message.
Process: A mail with corresponding details sent to the manager.
Output: Quarry problem.

4.1.3 Use-case diagram

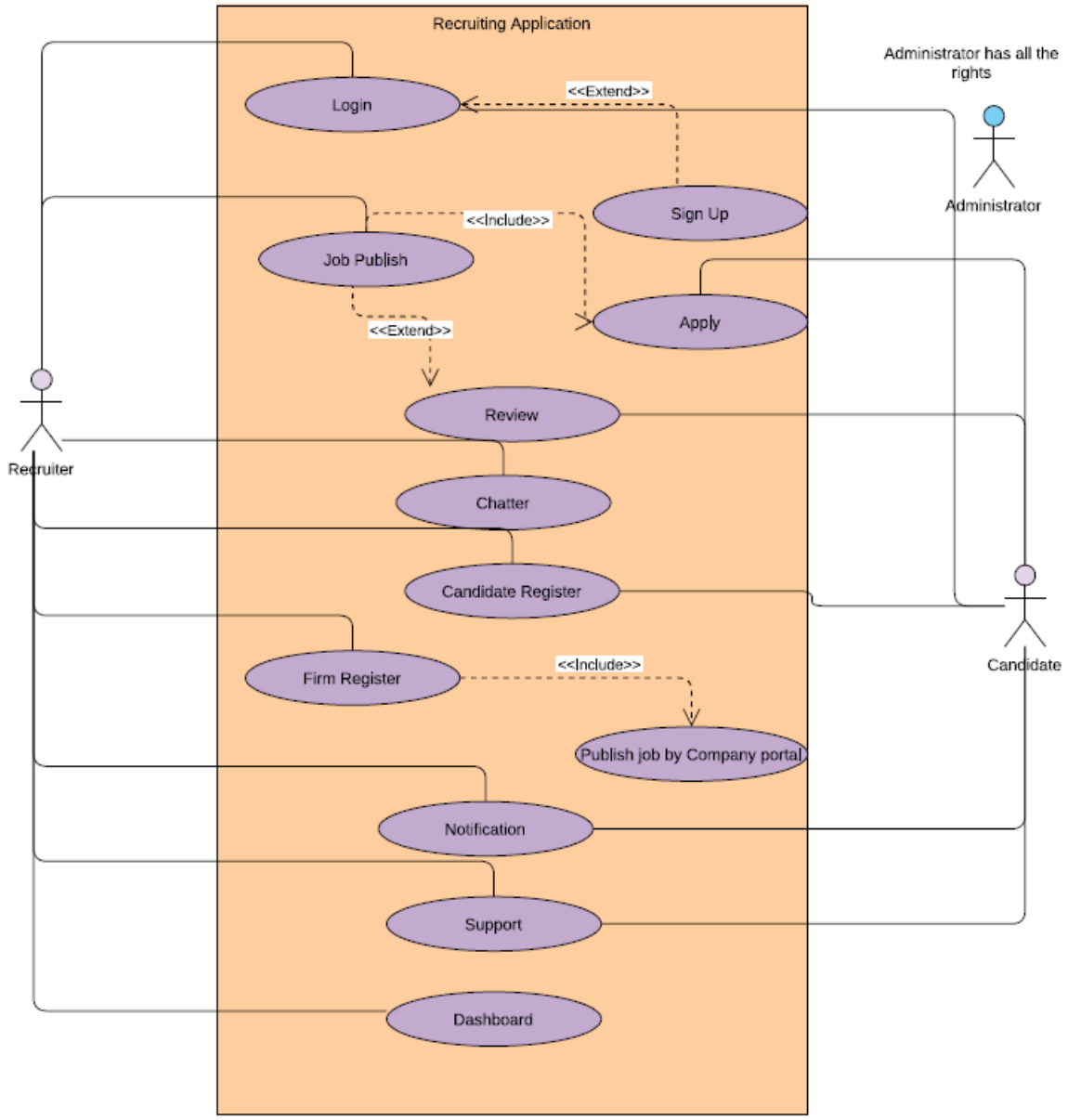


Fig 4.1 Use-Case Diagram

4.2 FEATURE OF NEW SYSTEM

- Candidate find appropriate job and able to apply on particular job.
- Candidate can differentiate Job post according review.
- Recruiter can analysis different data from Dashboard portal.
- Once recruiter satisfied with candidate profile, they can be updating the status link which are automatically notified by notification system to candidate

5.0 SYSTEM ARCHITECTURE

5.1 SYSTEM ARCHITECTURE DESIGN

Systems design is the process of defining the architecture, modules, interfaces, and data for a system to satisfy specified requirements. Systems design could be seen as the application of systems theory to product development. There is some overlap with the disciplines of systems analysis, systems architecture and systems engineering.

Architectural Design
The architectural design of a system emphasizes the design of the systems architecture that describes the structure, behaviour and more views of that system and analysis.

Logical Design
The logical design of a system pertains to an abstract representation of the data flows, inputs and outputs of the system. This is often conducted via modelling, using an over-abstract (and sometimes graphical) model of the actual system. In the context of systems, designs are included.

Physical Design
The physical design relates to the actual input and output processes of the system. This is explained in terms of how data is input into a system, how it is verified/authenticated, how it is processed, and how it is displayed. In physical design, the following requirements about the system are decided.

- Input requirement
- Output requirements
- Storage requirements
- Processing requirements
- System control and backup or recovery

User Interface Design is concerned with how users add information to the system and with how the system presents information back to them. Data Design is concerned with how the data is represented and stored within the system. Finally, Process Design is concerned with how data moves through the system, and with how and where it is validated, secured and/or transformed as it flows into, through and out of the system. At the end of the system design phase, documentation describing the three subtasks is produced and made available for use in the next phase.

Physical design, in this context, does not refer to the tangible physical design of an information system. To use an analogy, a personal computer's physical design involves input via a keyboard, processing within the CPU, and output via a monitor, printer, etc. It would not concern the actual layout of the tangible hardware, which for a PC would be a monitor, CPU, motherboard, hard drive, modems, video/graphics cards, USB slots, etc. It involves a detailed design of a user and a product database structure processor and a control processor. The H/S personal specification is developed for the proposed system

5.1.1 Schema Diagram

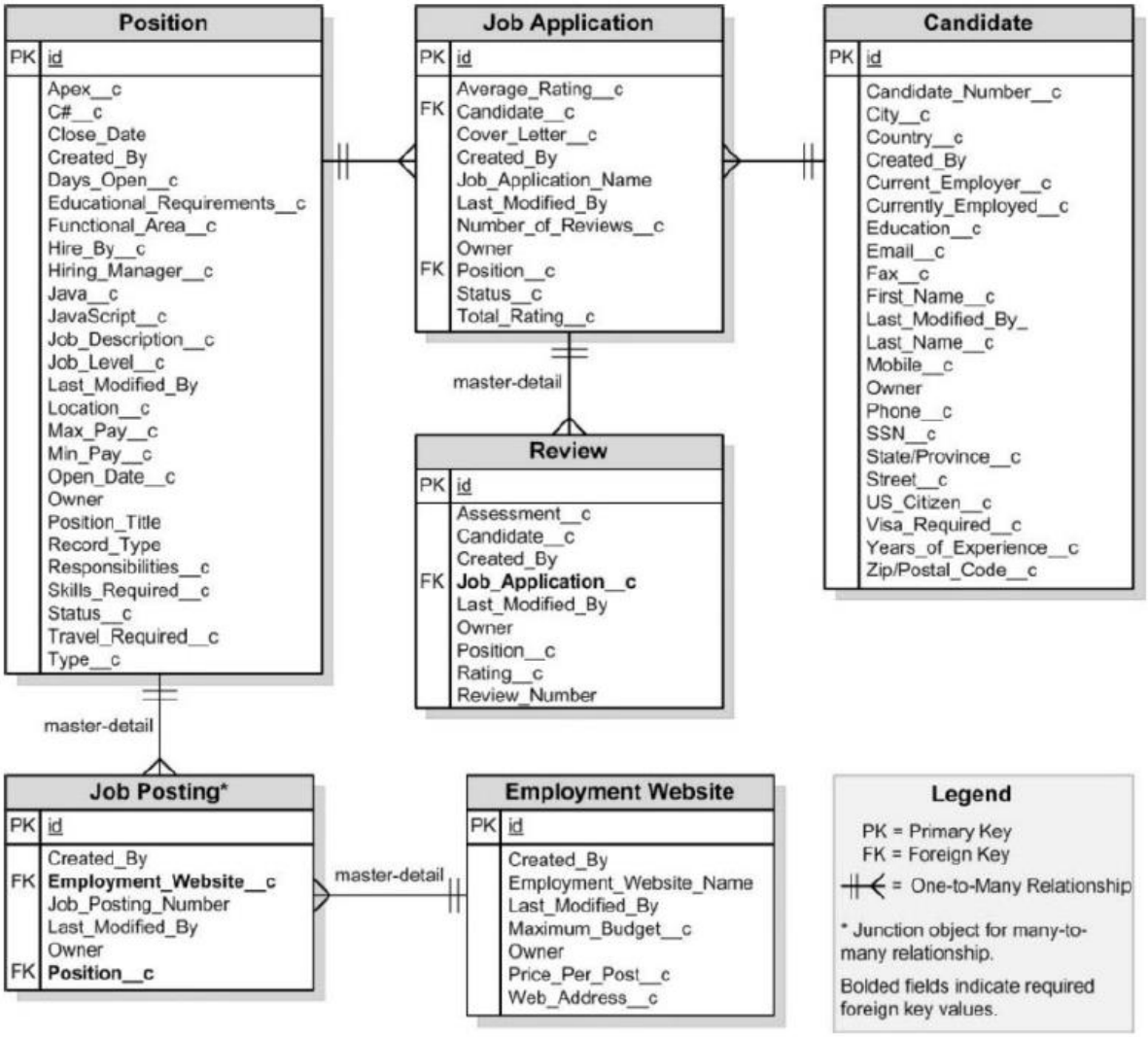


Fig 5.1 Schema Diagram

5.1.2 Sequence Diagrams

Login & Sing up

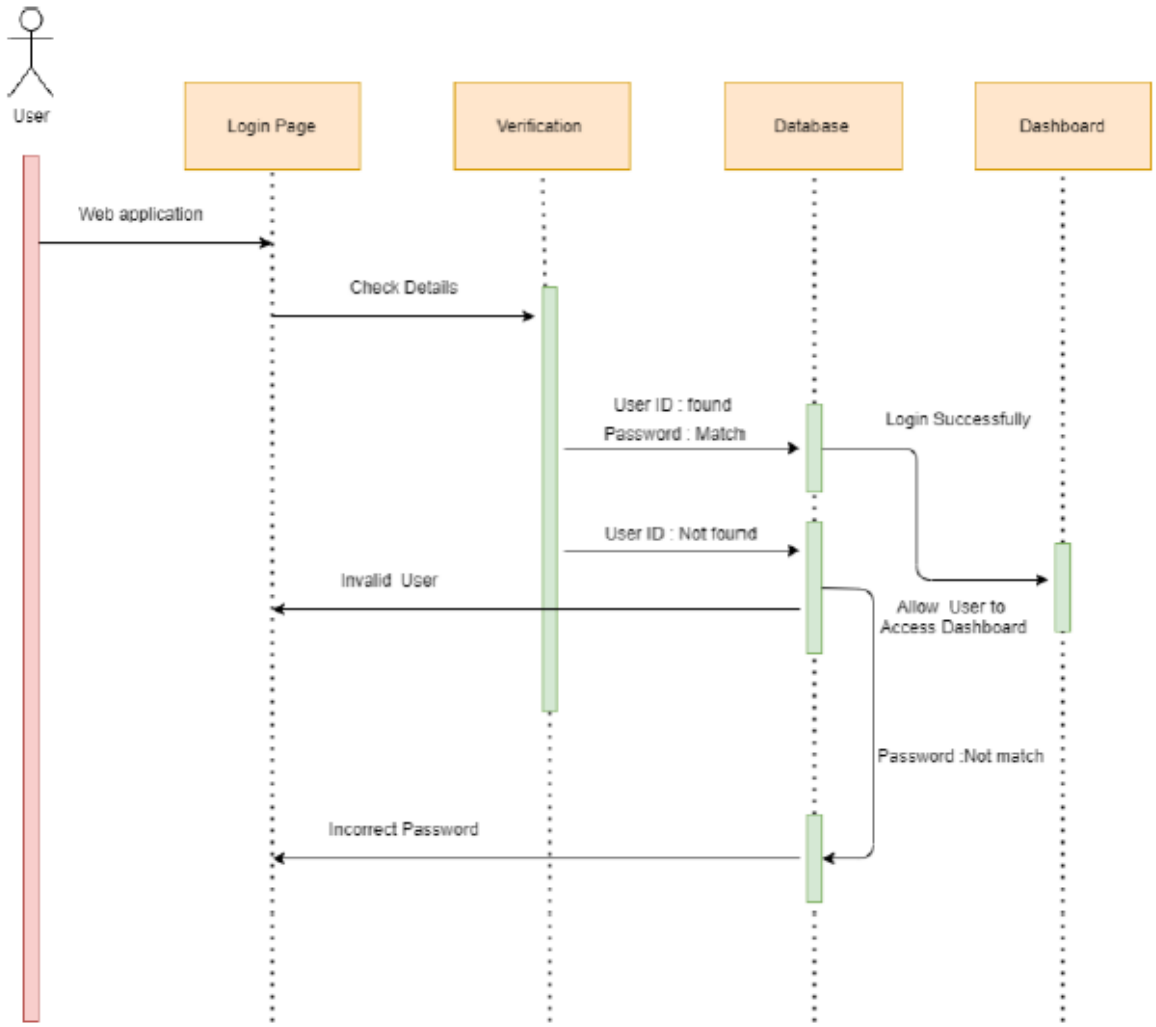


Fig 5.2 Sequence Diagram (Login and Sign up)

Job Publication

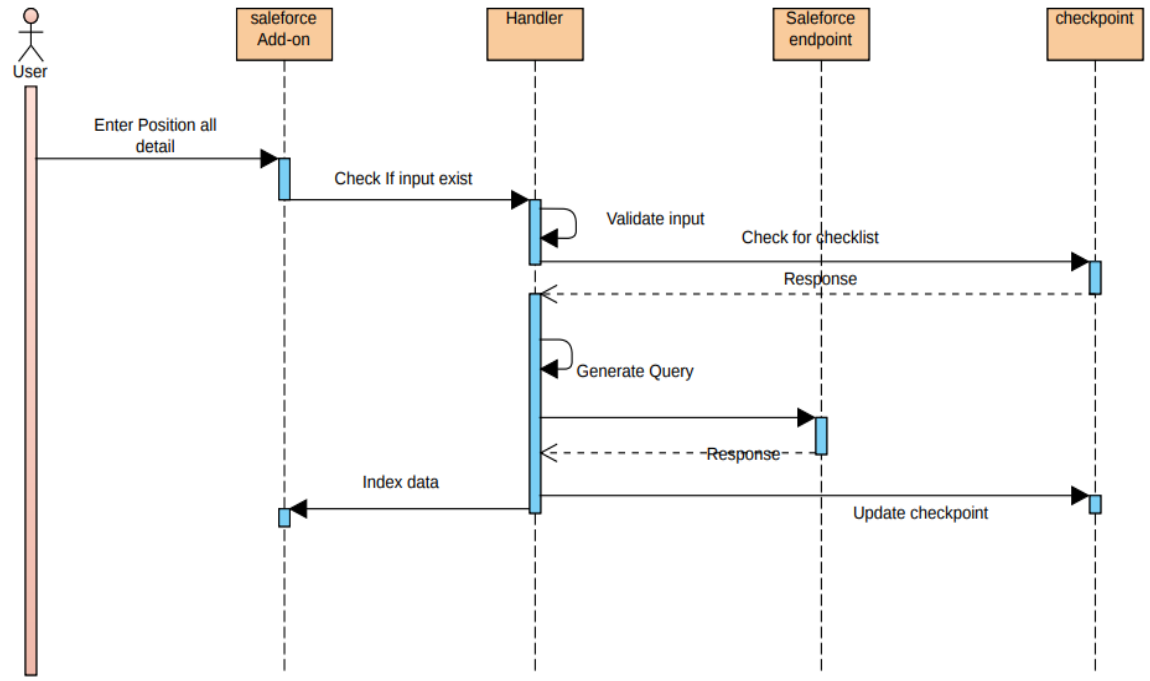


Fig 5.3 Sequence Diagram (Job Publication)

Candidate Registration

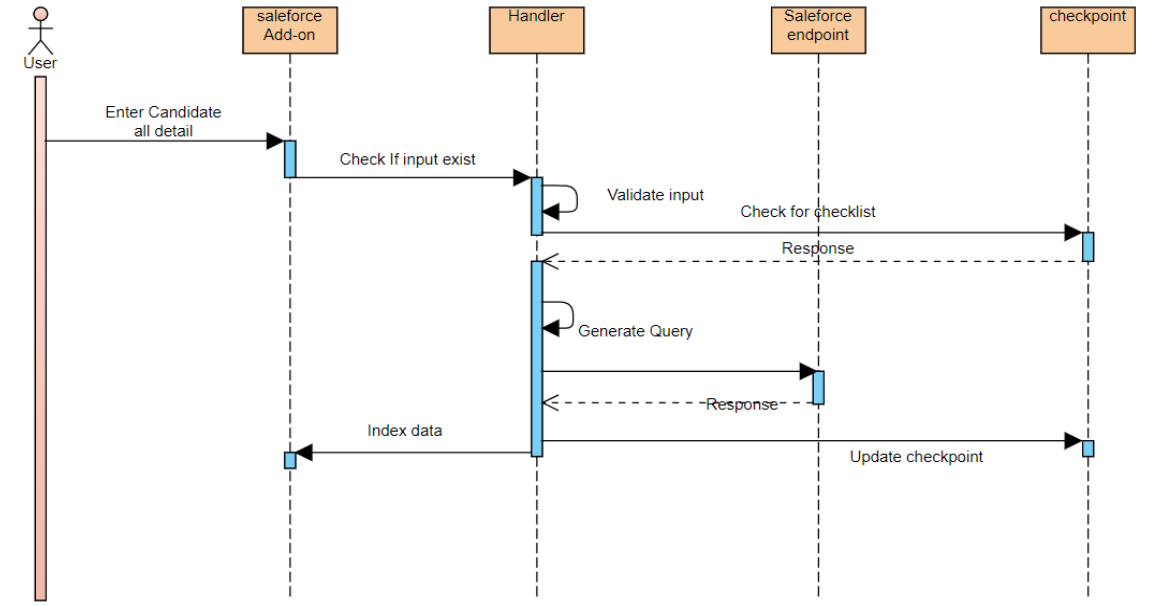


Fig 5.4 Sequence Diagram (Candidate Registration)

Dashboard

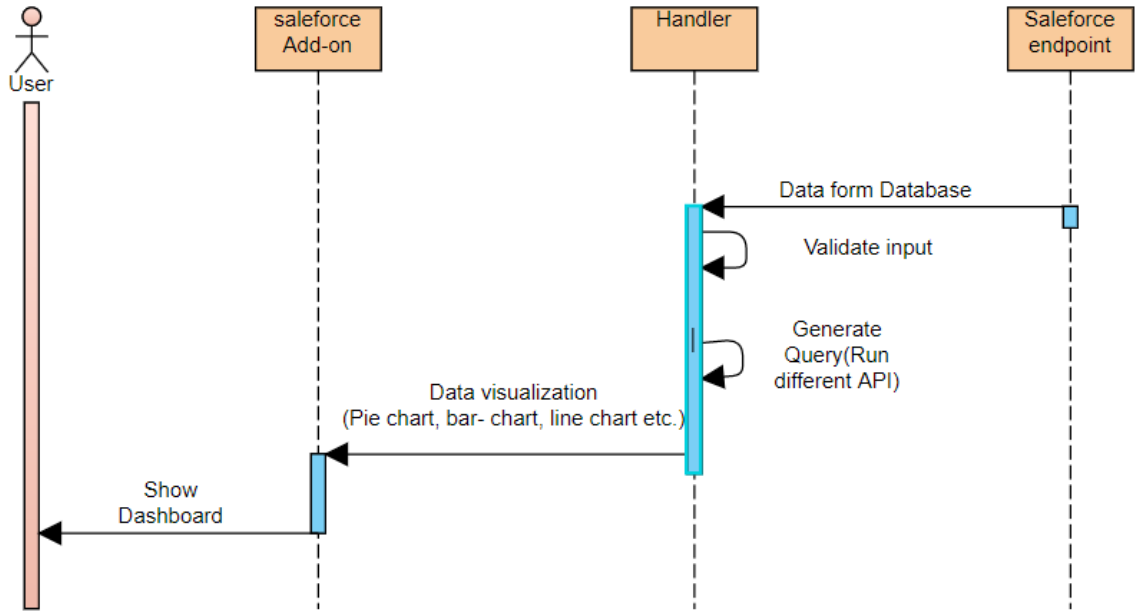


Fig 5.5 Sequence Diagram (O Dashboard)

Apply job

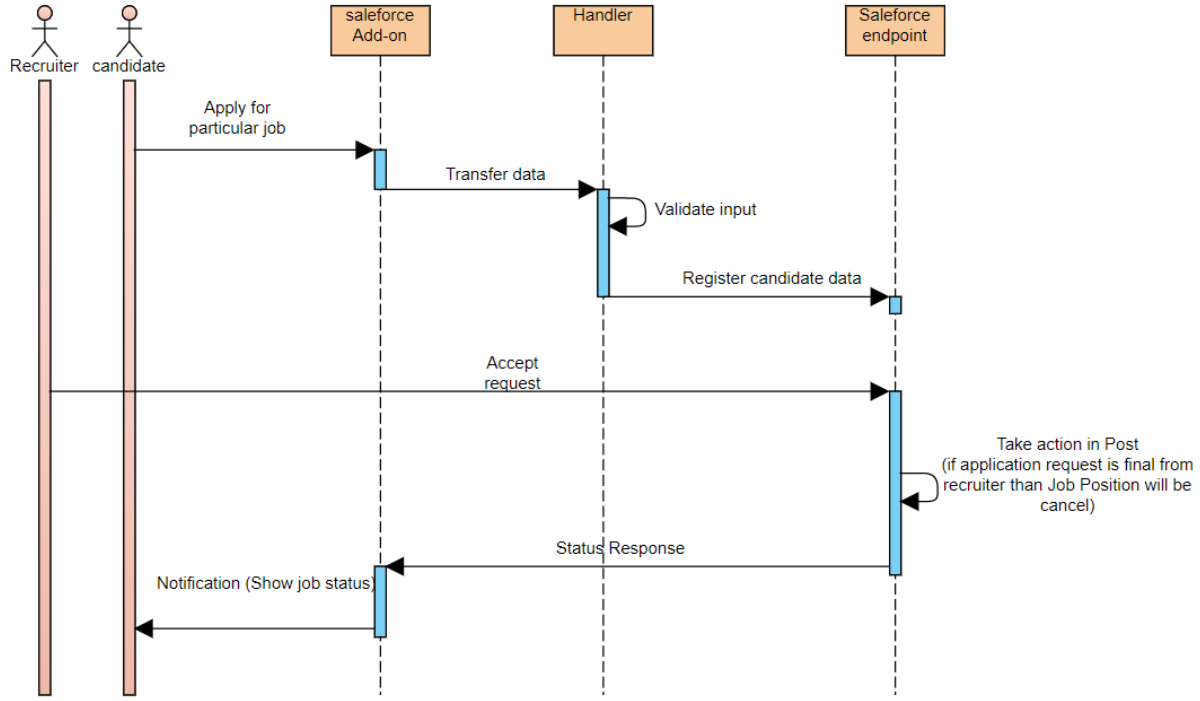


Fig 5.6 Sequence Diagram (Apply job)

Firm Registration

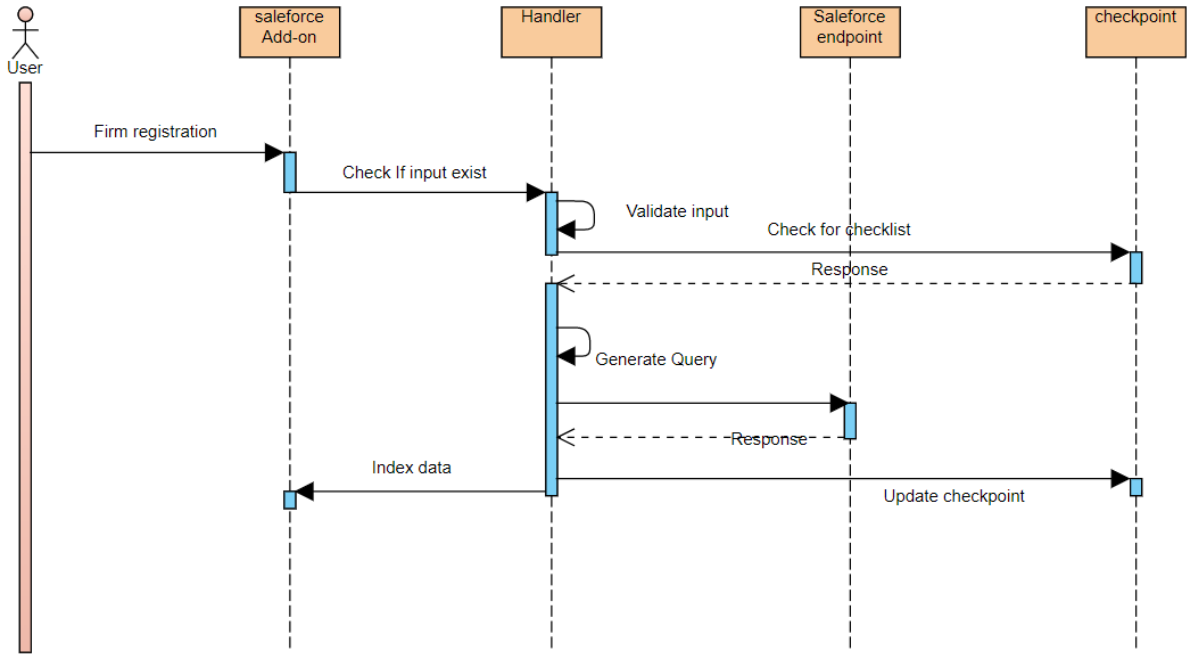


Fig 5.7 Sequence Diagram (Firm Registration)

6.0 IMPLEMENTATION PLANNING

Planning is an essential aspect of any successful project. However, it can be difficult to turn goals and strategy into tangible action, and, therefore, projects of all sizes and across all industries have a high tendency to fail. Implementation planning can reduce this chance of failure by helping turn strategy into action.

6.1 IMPLEMENTATION ENVIRONMENT

The application is a single server multiple client application. Multiple users can log in to use the system.

Multi-user vs. Single-user

Single user applications are the application where it is useful to only one user at a time. While in Multi user given application is used by many users at the same time and thus web application is used by many users at the same time. Our system is a multi-user system as we have more than one user who can use the system at the same time.

GUI vs. Non-GUI

Non-GUI application uses command Prompt for input and output while GUI application has graphics form to interface and other graphics property for various I/O operations and are easy to use Our System is a GUI based and thus easy and effective to use therefore user can easily give input and take Input.

6.2 PROGRAM/MODULES SPECIFICATION

Salesforce Add-on

Here, Salesforce Add-on will help to configure single or multiple inputs from the Salesforce platform. Users can raw search using SPL of particular events and can also perform field extraction. Users can configure log level (DEBUG, ERROR, INFO, WARNING etc..) so if any error occurs then users can see it in the log file.

6.3 CODING STANDARDS

Coding techniques incorporate many facts of software development. Although they usually have no impact on the functionality of the application; they contribute to an improved comprehension of source code. All forms of source code are considered here, including programming, scripting markup and query languages.

The coding techniques defined are not proposed to form an inflexible set of coding standards. Rather, they are meant to serve as a guide for developing a coding standard for a specific software project. standards and for building App and Add-on we followed Splunk Best Practices laid out by Splunk.

Purpose of Coding Standards and Best Practices

To develop reliable and maintainable applications, you must follow coding standards and best practices. The naming conventions, coding standards and best practices described in this document are compiled from our own experience and by referring to various guidelines. There are several standards that exist in the programming industry. None of them are wrong or bad and you may follow any of them. What is more important is, selecting one standard approach and ensuring that everyone is following it.

In this phase of software development, the design is related to a system converted into amachine –readable code that can be compiled and executed. Although the coding phase does not affect the structure of the system, it has a great impact on the internal structure of the module, which affects the testability, under stability of the system.

Implementation and Limitation

Productivity - It's mandatory to use Splunk app structure for better productivity and desired results. So, we have strictly followed Splunk App structure for better productivity and maintainability.

Maintainability - It’s very easy to maintain every conf file and python file if we used Splunk app structure.

Performance - Fetching Indicators and indexing them into Splunk is very fast compared to any other database related operation.

A major challenge for us was to meet the efficiency requirements of the client. Our aim was to achieve a comparison of 1,00,00 to 1,00,00 events which makes it severely complex in terms of time, we successfully resolved it to an efficient logic taking constant time using Python Set.

7.0 TESTING

7.1 TESTING PLAN

The objective of the system testing is to ensure that all individual programs are working as expected, that the programs link together to meet the requirements specified and ensure that the computer system and the associated clerical and other procedures work together. Systems are not designed as entire systems but they are tested as single system. The analyst must perform both unit and system testing.

Different types of testing methods are available. We have tested our system for different aspects like Does the application meet the goals for which it has been designed? This was a very important question that stood before us as the application was designed to be implemented on such a large network.

To fulfil its goal of being able to run on different systems we went through a series of tests at different places where this is supposed to be used the most. As we need to make our system efficient enough, we need to test it thoroughly.

Finally, we tested the system with the real-time data, for which it is actually designed. We are successful in satisfying our needs as it was designed according to client's requirements. But it is very necessary to maintain this application and so our work is not still over.

7.2 TESTING STRATEGY

Once source code has been generated, software must be tested to uncover as many errors as possible before delivery to the customer. Our goal is to design a series of test cases that have a high likelihood of finding errors. Software testing techniques provide systematic guidance for designing tests that

(1) Exercise the internal logic of software components
(2) Exercise the inputs and outputs domains of the program to uncover errors in program function, behaviour and performance.

During early stages of testing, a software engineer performs all tests. However, as the testing process progresses, testing specialists may become involved. Reviews and other activities can and do uncover errors, but they are not sufficient. Every time the program is executed, the customer tests it! Therefore, you have to execute the program before it gets to the customer with the specific intent of finding and removing all errors. In order to find the highest possible number of errors, tests must be conducted systematically and test cases must be designed using disciplined techniques.

Fig 7.1 Testing Strategy

Testing Objectives

- Testing is a process of executing a program with the intention of finding an error.
- A good test case is one that has a high probability of finding an as-yet undiscovered error.
- A successful test is one that uncovers an as-yet undiscovered error.

Unit Testing

Unit testing is a software development process in which the smallest testable part of an application, called units, are individually scrutinized for proper operation. Unit testing is often automated but it can also be done manually. This testing mode is a component of Extreme Programming (XP), a pragmatic method of software development that takes a meticulous approach to building a product by means of continual testing and revision.

Unit testing involves only those characteristics that are vital to the performance of the unit under test. This encourages developers to modify the source code without immediate concerns about how such changes might affect the functioning of the units or the program as a whole. Once all of the units in a program have been found to be working in the most efficient and error free manner possible, larger components of the program can be evaluated by means of integration testing.

Sub system Testing

After testing each unit, we move on to larger units called sub systems. In subsystem testing we tested the whole Threat Add-on as one system and Threat App as another system. We tested each subsystem and got successful results. We found no errors or bugs after the final test.

System Testing

Now, it’s time for whole System testing. We have found some cosmetic bugs and minor bugs. We have fixed it and tested it again. We worked on each error and exception that we got while testing and most of them are resolved or handled programmatically.

Recovery Testing

It is a system test that forces the software to fail in a variety of ways and verifies that recovery is properly performed.

Performance Testing

It is designed to test the run-time performance of software within the context of an integrated system performance testing occurs throughout all steps in the testing process

7.3 TESTING METHODS

Acceptance Testing

Acceptance testing can be connected by the end user, customer, or client to validate whether or not to accept the product. Acceptance testing may be performed as part of the hand-off process between any two phases of development. The acceptance test suite is run against the supplied input data or using an acceptance test script to direct the tester. Then the results obtained are compared with the expected results. If there is a correct match for every case, the test suite is said to pass.

Alpha & beta testing

The alpha test is conducted at the developer's site by a customer. The software is used in a natural setting with the developer "looking over shoulder" of the user and recording errors and usage problems. Alpha test is conducted in a controlled environment. The beta testing is conducted at one or more customer sites by the end-user of the software. Unlike alpha testing, the developer is generally not present. Therefore, the beta test is a "live" application of the software in an environment that cannot be controlled by the developer.

Black-box testing

Also known as functional testing. Software testing techniques where by the internal working of the item being tested are not known by the tester. For example, in a black box test on software design the tester only knows the inputs and what the expected outcomes should be and not how the program arrives at those outputs. The tester does not ever examine the programming code and does not need any further knowledge of the program other than its specification.

The advantages of this type of testing include:

- The test is unbiased as the designer and the tester are independent of each other.
- The tester does not need knowledge of any specific programming languages.
- The test is done from the point of view of the user, not the designer. Test cases can be designed as soon as the specifications are complete.

The disadvantages of this type of testing include:

- The test can be redundant if the software designer has already run a test case.

- The test cases are difficult to design. Testing every possible input stream is unrealistic because it would take an inordinate amount of time: hence many program paths will go untested.

White Box Testing

Also known as glass box, structural, clear box and open box testing. A software testing technique where by explicit knowledge of the internal workings of the item being tested are used to select the test data. Unlike black box testing, white box testing uses specific knowledge of programming code to examine outputs. The test is accurate only if the tester knows what the program is supposed to do. He or she can then see if the program diverges from its intended goal.

7.4 TEST CASES

To minimize the number of errors in software, a rich variety of test design methods have evolved for software. These methods provide the developer with a systematic approach to testing. More importantly, methods provide a mechanism that can help to ensure the completeness of the test and provide the highest likelihood for uncovering errors in software.

An engineering product can be tested in one of the two ways:

- Knowing the specified function that product has been designed to perform, tests can be conducted that demonstrate each function is fully operational while at the same time searching for errors in each function:
- Knowing the internal workings of a product, tests can be conducted to ensure that "all gear mesh ", that is, internal oppression are performed according to specifications and all internal components have been adequately exercised. Here are the test cases that we had made for our application.

Table 7.1 Test Case

Test ID	**Test Scenario**	**Expected Results**	**Actual Results**	**Test Status**
1	Basic Auth: Add all valid value and account should be create	Account should be created successfully	Account created successfully	passed
2	Data Input: If any required field is not entered then it will show error message	Error message should be displayed in top of form	Error message displayed on top of form	Passed

3	Functional: Password and token should be stored in encrypted from	Password and token should not be in readable form in conf file	Password and token are not in readable form	Passed
4	Change Pass: For valid old pass value the pass should be Updated to new pass	Validate old pass and update the new pass	Validated and pass changed successfully	Passed
5	Publish New Job Position: New position should be created	Position should be created and show into all the portal	Create new position as well as show this position into candidate portal	passed
6	False data while register new position: Check validation rules	Form should be shows error	Shows error message while enter wrong data	passed
7	create New candidate profile: New position should be created	profile should be created and show into all the portal	Create new candidate profile in portal	passed
8	False data while register new position: Check validation rules	Form should be shows error	Shows error message while enter wrong data	Passed
9	create New Firm registration: New Employment Website should be created	Company should be registration and show into all the portal	Create new Firm registration in portal	passed
10	False data while register new position: Check validation rules	Form should be shows error	Shows error message while enter wrong data	Passed
11	Notification: change the status of applied job	Notification should be getting by candidate in their portal	Get notification of job status in candidate portal	passed
12	Support: Fill up hole from and send query to recruiter	Query should be reach into register recruiter email id	Get email on recruiter email id	passed
13	Apply job: Candidate apply job in particular job	Status should be shown in recruiter portal and recruiter should able to get candidate information	Recruiter get data of candidate who applied for that job	passed

14	Dashboard: Applied any job in current publish job	Dashboard all report should be updated according requirement	All reports are Updated in dashboard	passed

8.0 USER MANUAL

8.1 ABOUT USER MANUAL

User manual is a document that explains to users how to use or operate something, such as a software program, some other component or application

8.2 SCREENSHOTS

Login

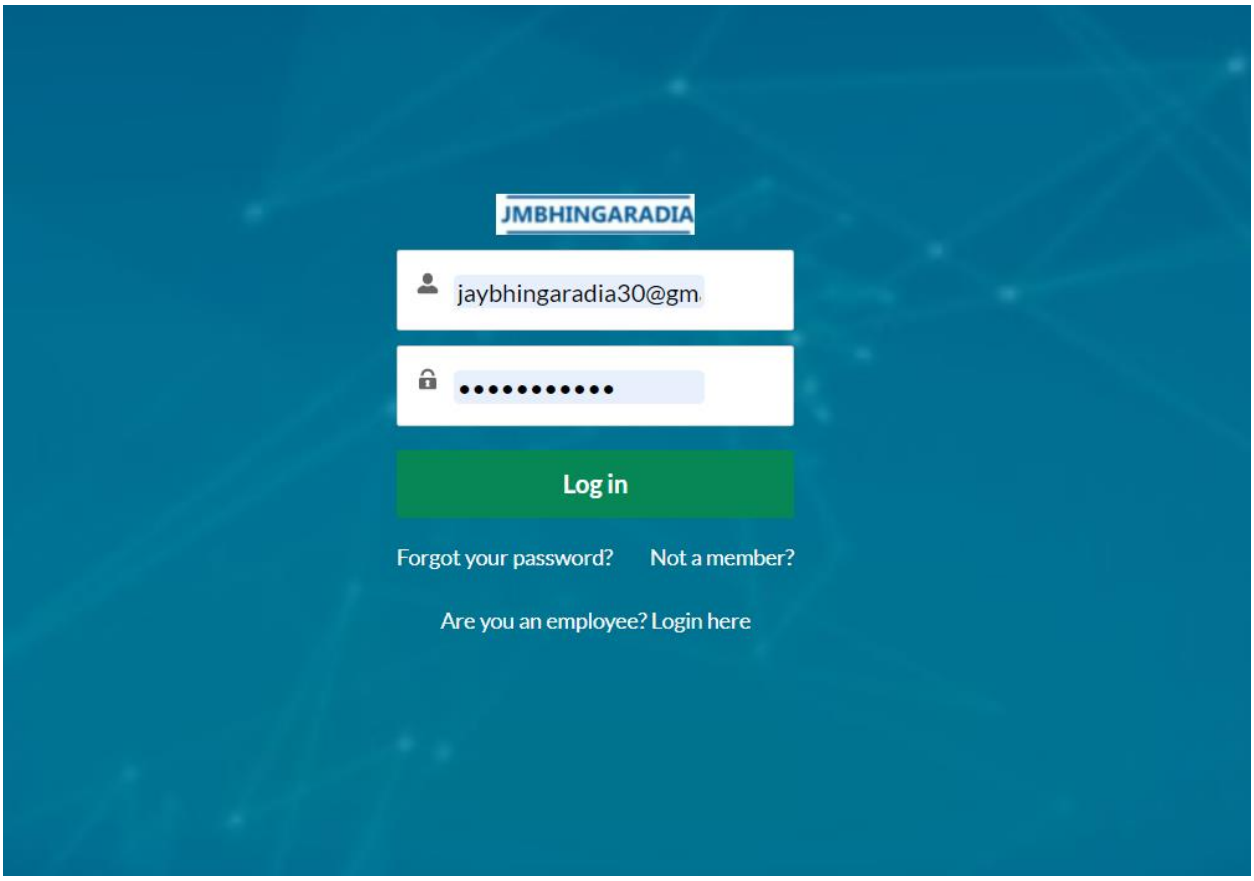


Fig 8.1 Login Page

Description: Users can login to the application using their username and password, in case of problems logging in, the user should contact the Administrator.

Sing up

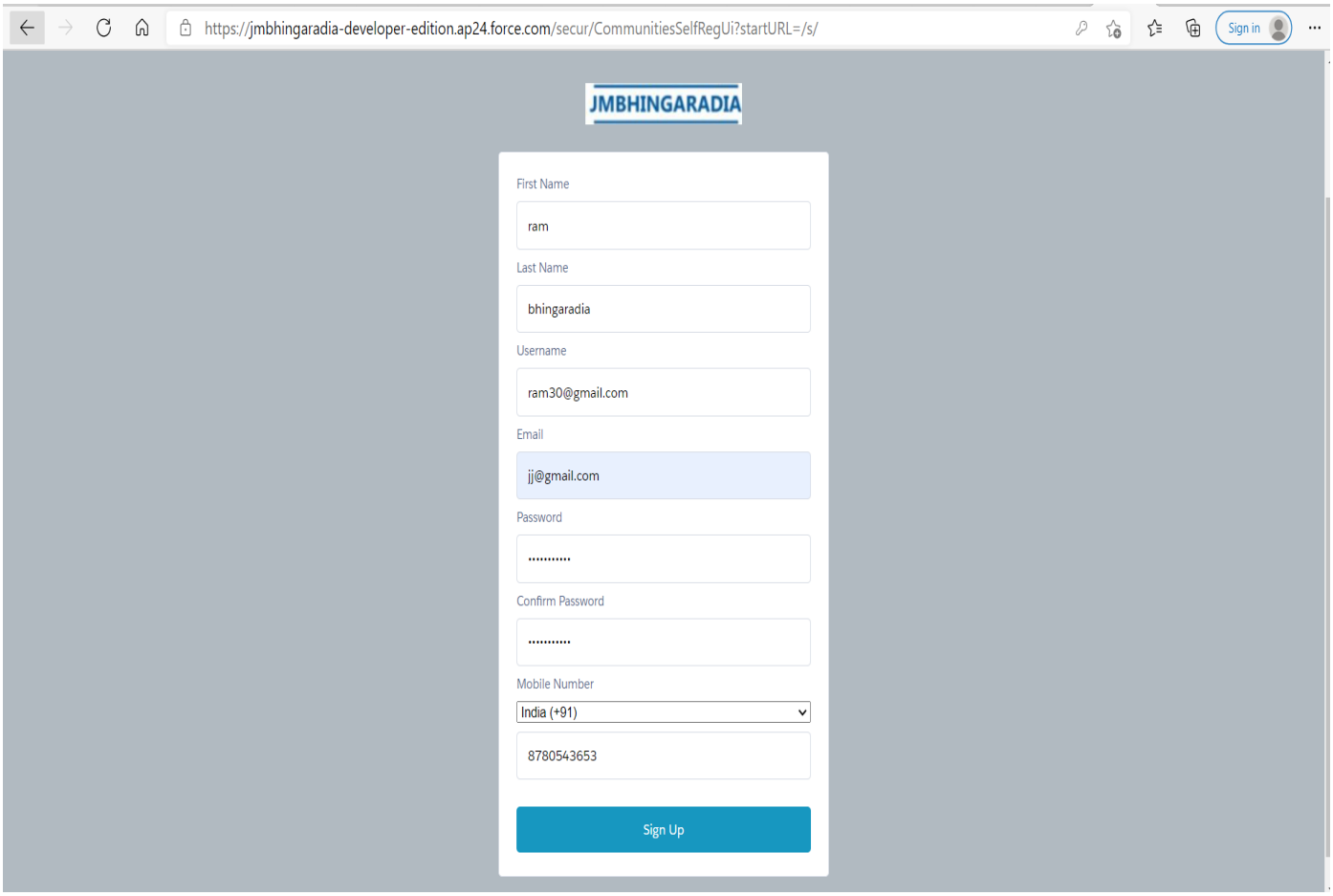


Fig 8.2 Signup Page

Description: Users are able to register for new account. All fields are mandatory. E-mail id should be unique.

Home page

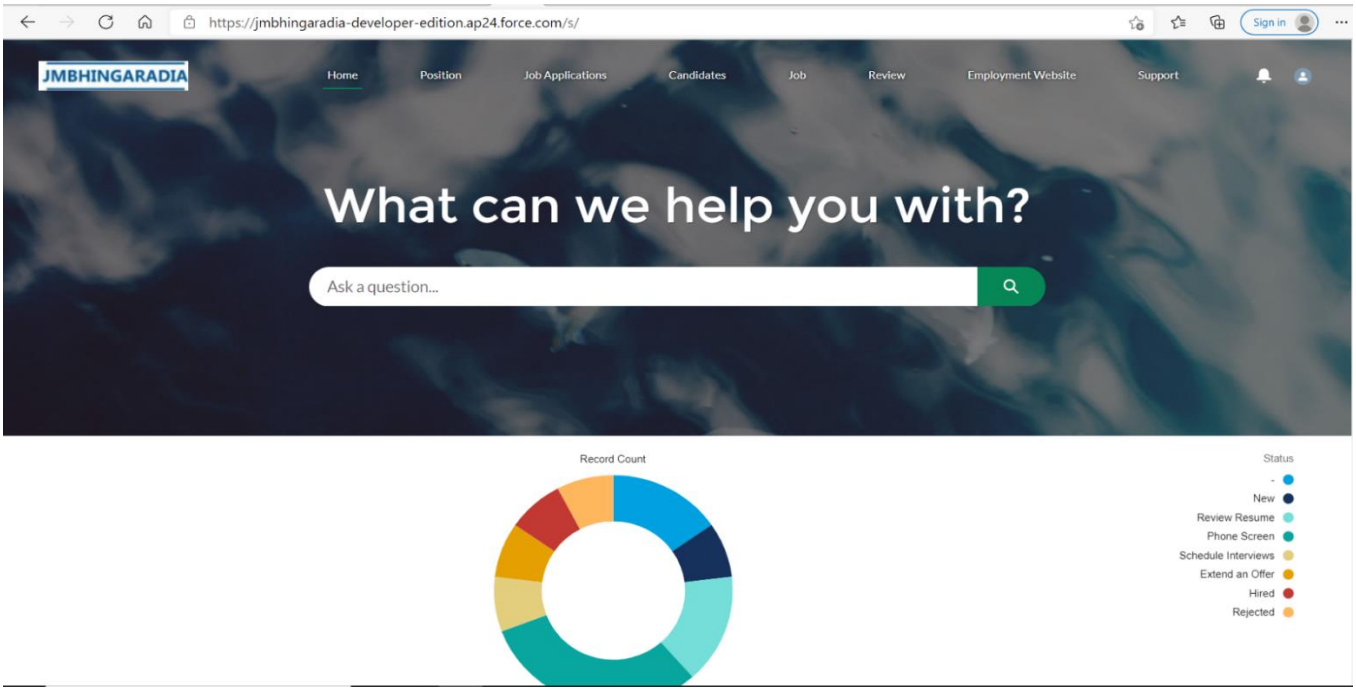


Fig 8.3 Home Page

Report

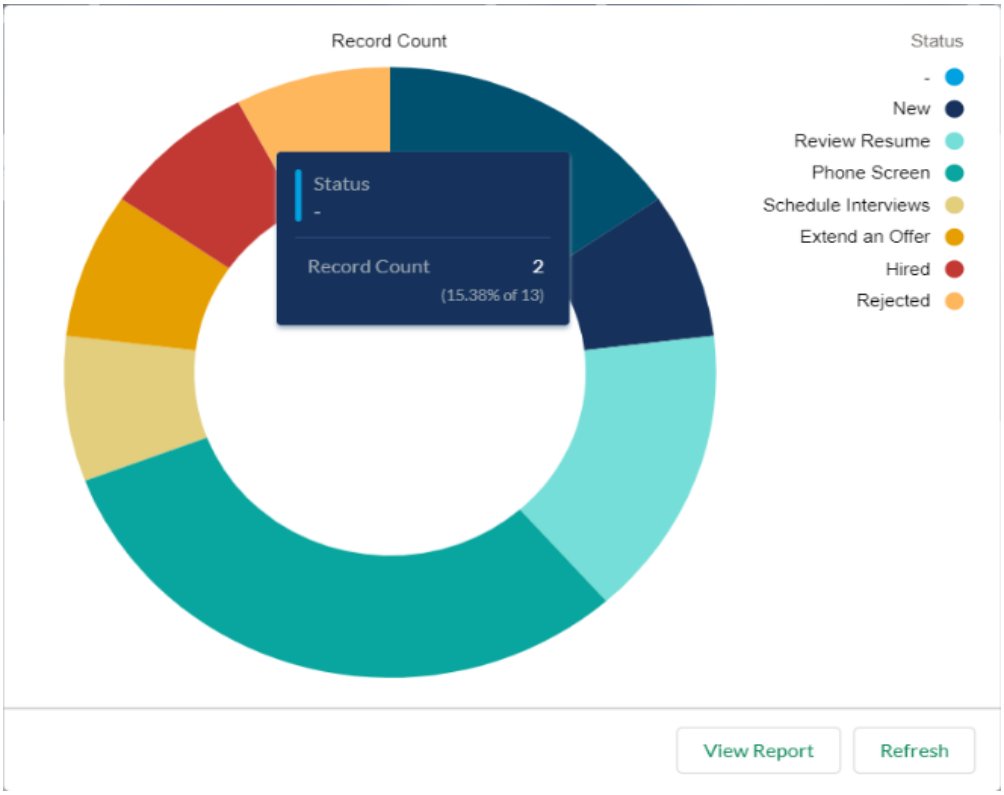


Fig 8.4 Report

Description: Show the status of Job application like which phase application run

Profile

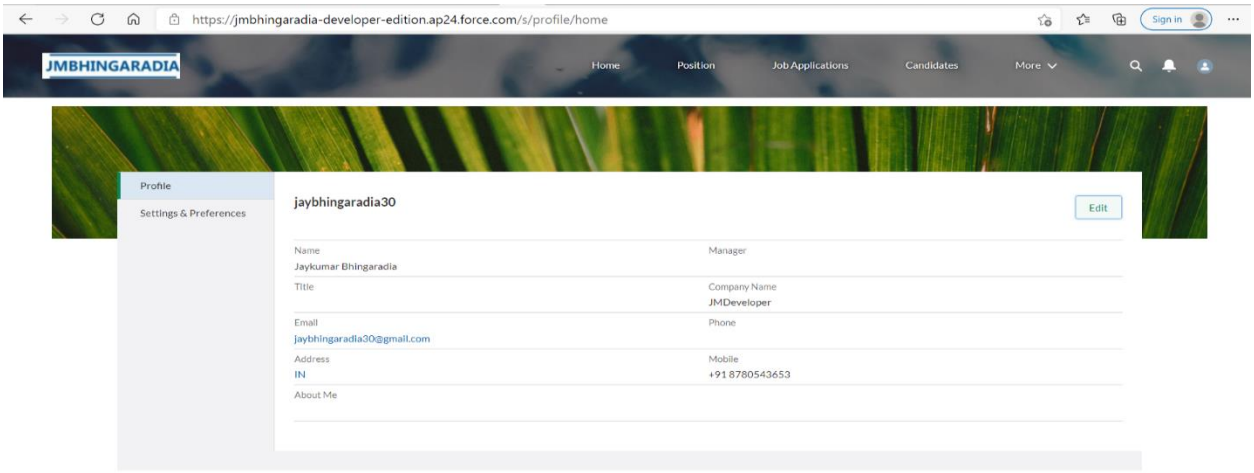


Fig 8.5 Profile

Description: Show the user detail in this profile page

New job publishes:

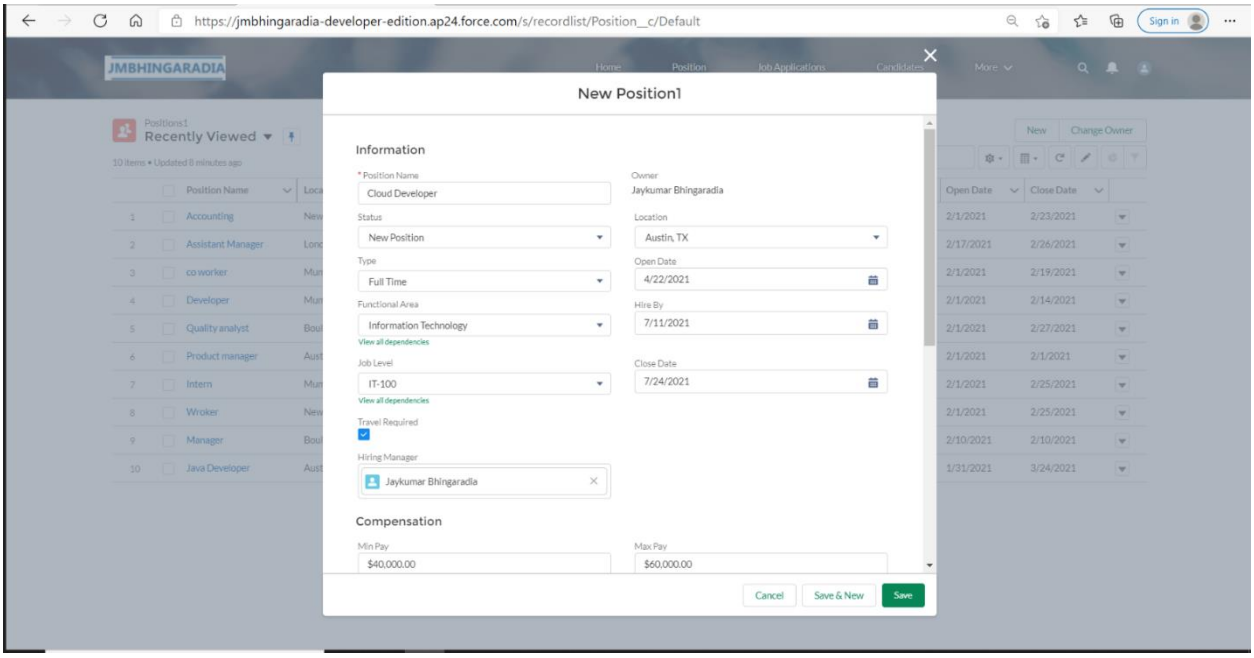


Fig 8.6.1 New job publishes

Description: Using this you can publish job in this website for hiring purpose.

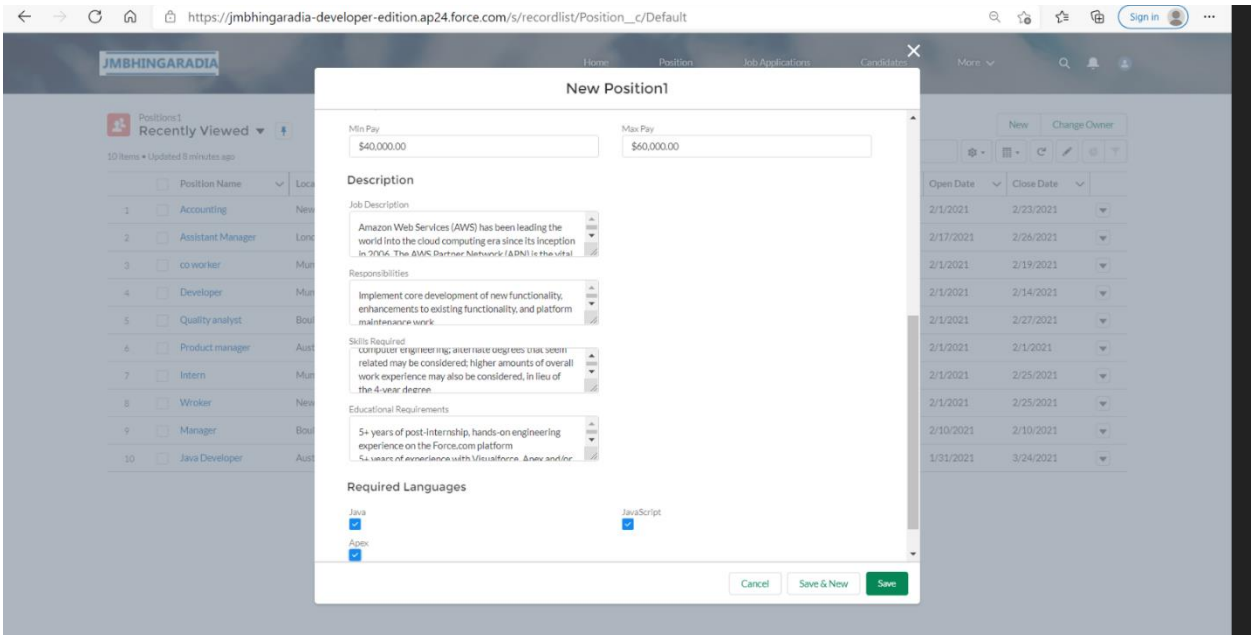


Fig 8.6.2 New job publishes

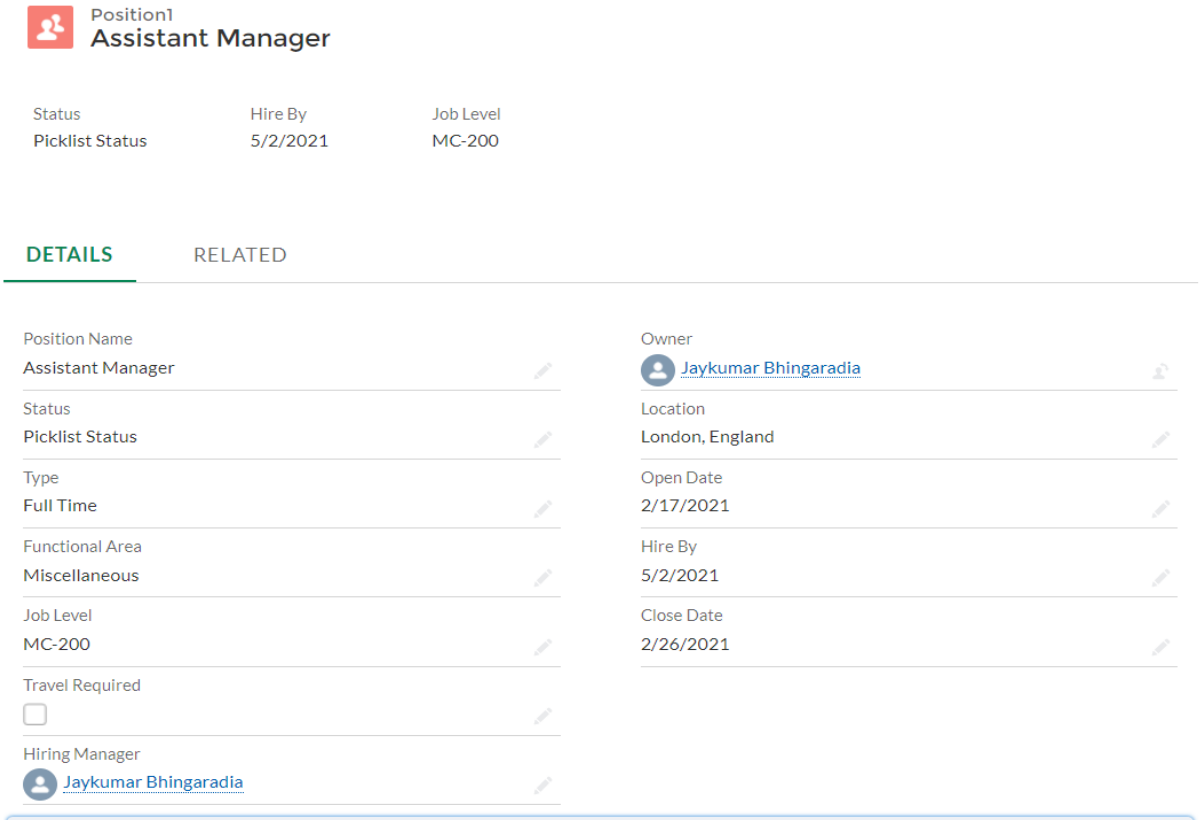


Fig 8.6.3 New job publishes

Candidate registration:

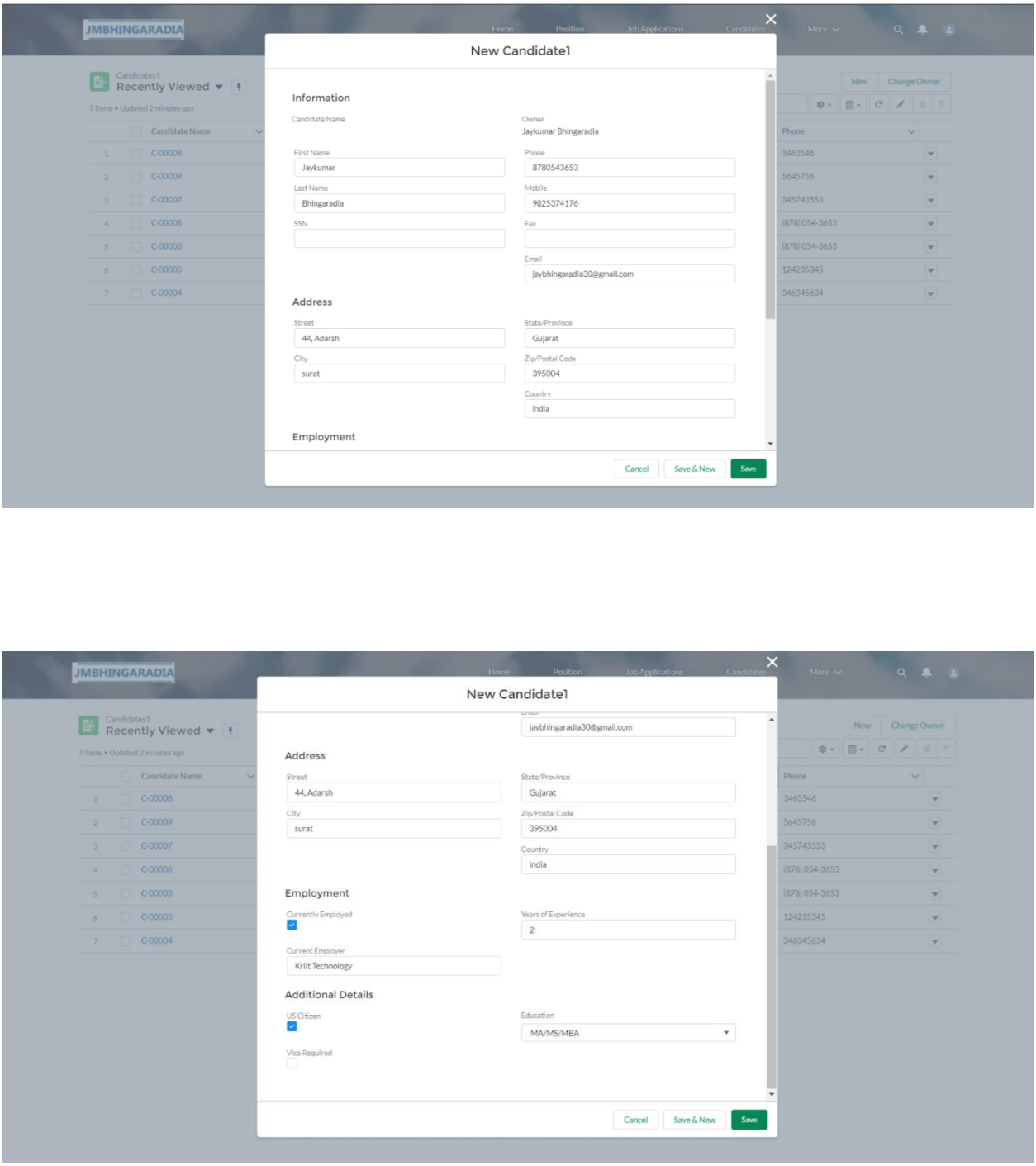
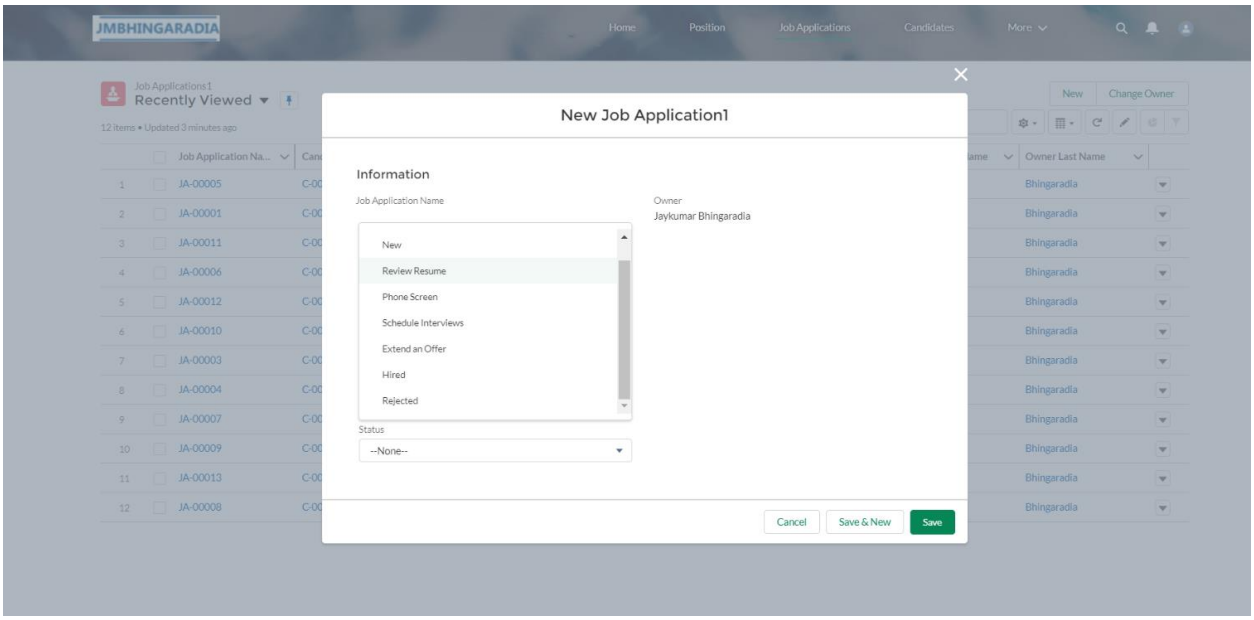


Fig 8.7 Candidate registration

Description: here you can register your candidate.

Apply Job


JMBHINGARADIA
Home
Position
Job Applications
Candidates
More
Job Applications1
Recently Viewed
12 items • Updated 3 minutes ago
New
Change Owner
Job Application Na...
Owner Last Name
JA-00005
JA-00001
JA-00011
JA-00006
JA-00012
JA-00010
JA-00003
JA-00004
JA-00007
JA-00009
JA-00013
JA-00008
Bhingaradia
New Job Application1
Information
Job Application Name
Owner
Jaykumar Bhingaradia
New
Review Resume
Phone Screen
Schedule Interviews
Extend an Offer
Hired
Rejected
Status
--None--
Cancel
Save & New
Save

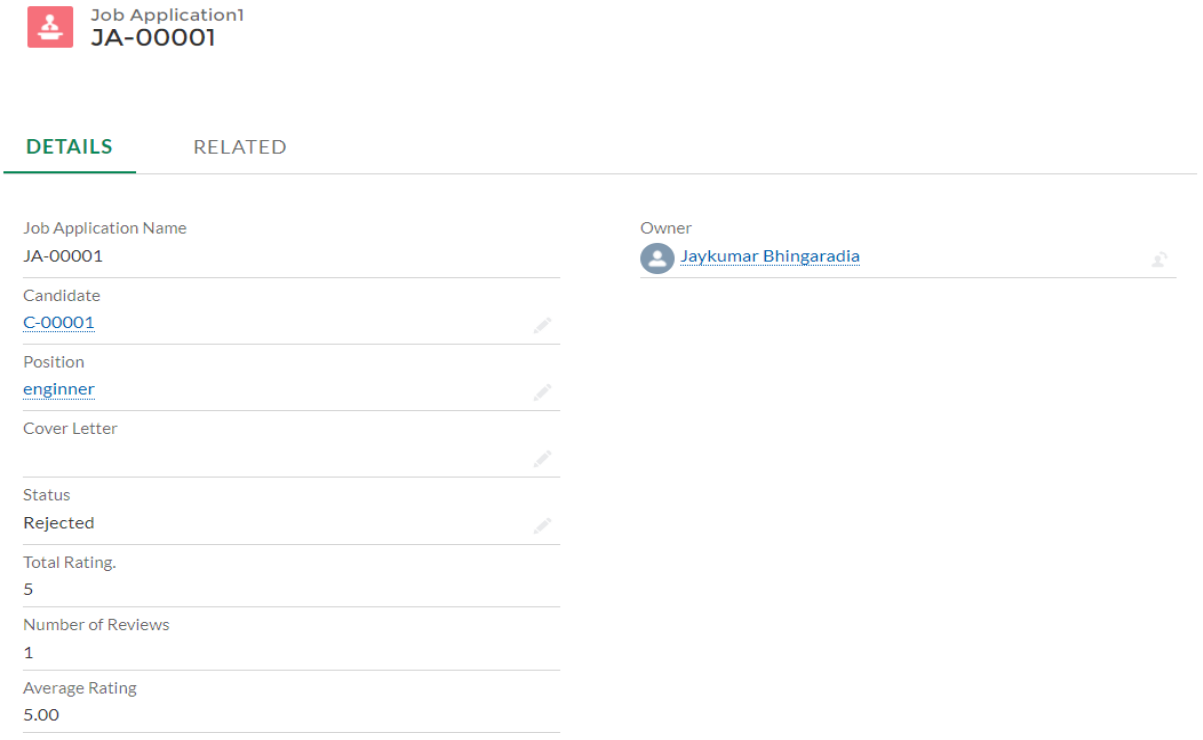
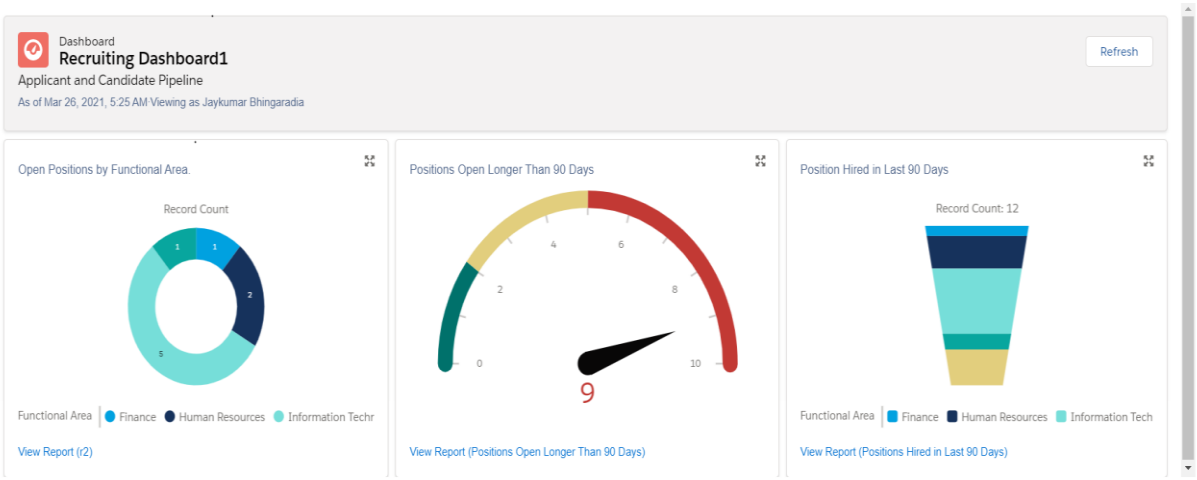
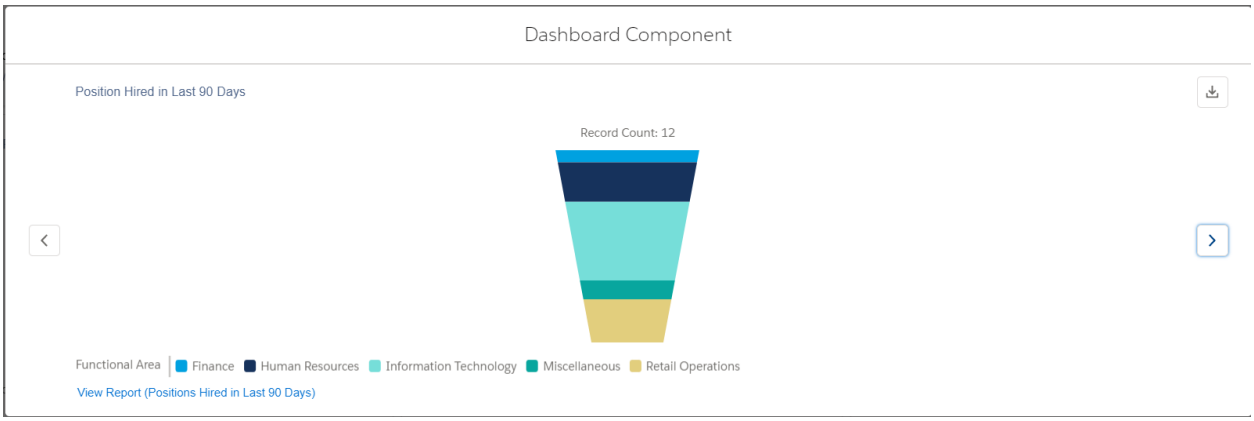

Job Application1
JA-00001
DETAILS
RELATED
Job Application Name
JA-00001
Candidate
C-00001
Position
enginner
Cover Letter
Status
Rejected
Total Rating.
5
Number of Reviews
1
Average Rating
5.00
Owner
Jaykumar Bhingaradia

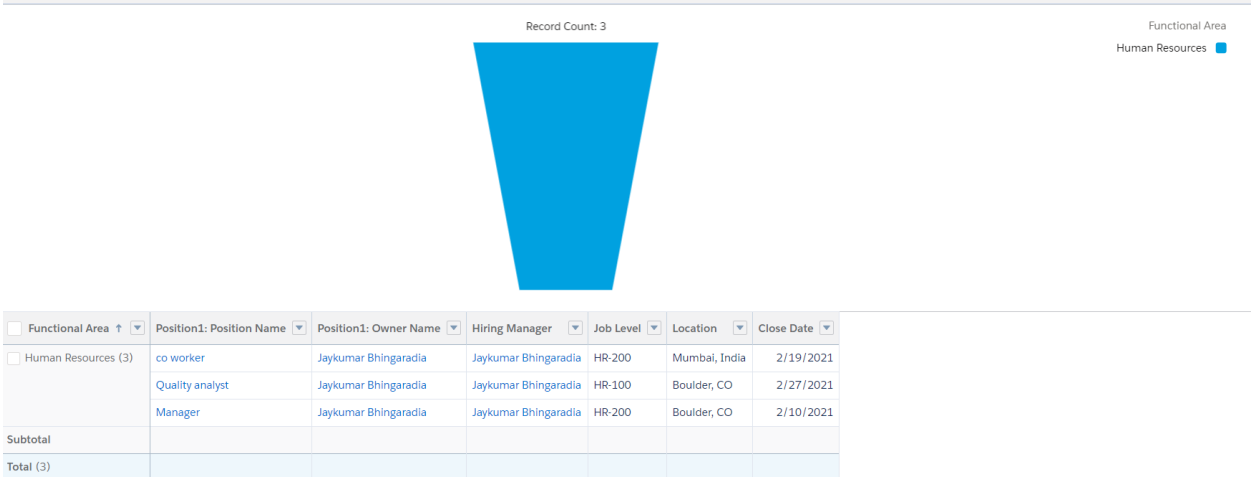
Fig 8.8 Apply Job

Description: You can apply on particular job position.

Dashboard:







Functional Area	Position1: Position Name	Position1: Owner Name	Hiring Manager	Job Level	Location	Close Date
Human Resources (3)	co worker	Jaykumar Bhingaradia	Jaykumar Bhingaradia	HR-200	Mumbai, India	2/19/2021
	Quality analyst	Jaykumar Bhingaradia	Jaykumar Bhingaradia	HR-100	Boulder, CO	2/27/2021
	Manager	Jaykumar Bhingaradia	Jaykumar Bhingaradia	HR-200	Boulder, CO	2/10/2021
Subtotal						
Total (3)						

Description: You can analysis of all data from this dashboard reports.

Fig 8.9 Dashboard

Notification

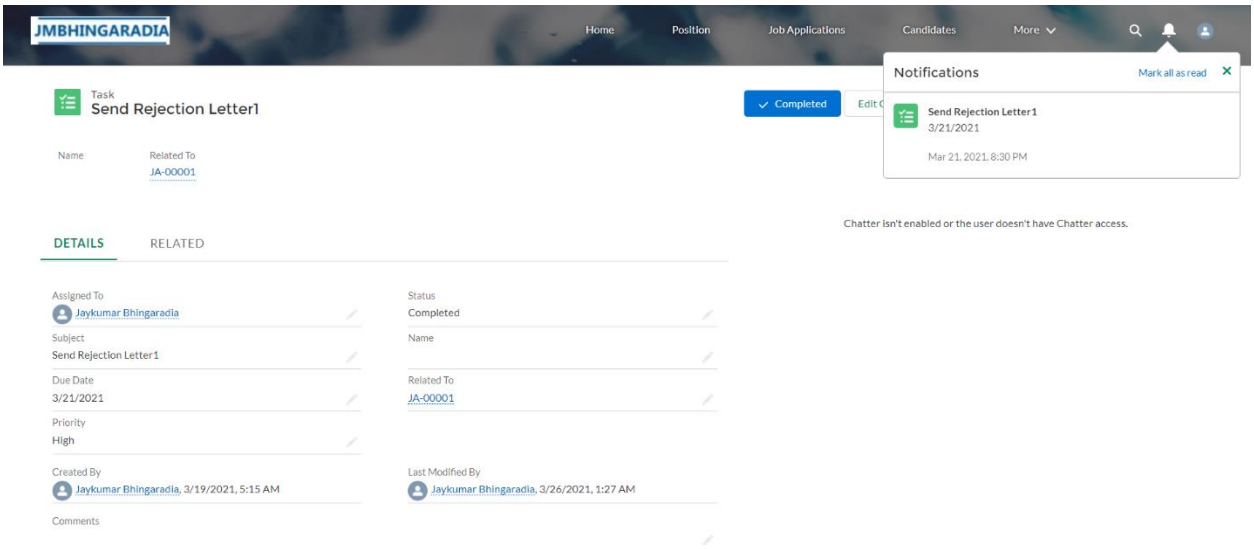


Fig 8.10 Notification

Description: You get any alert message in this portal.

Support

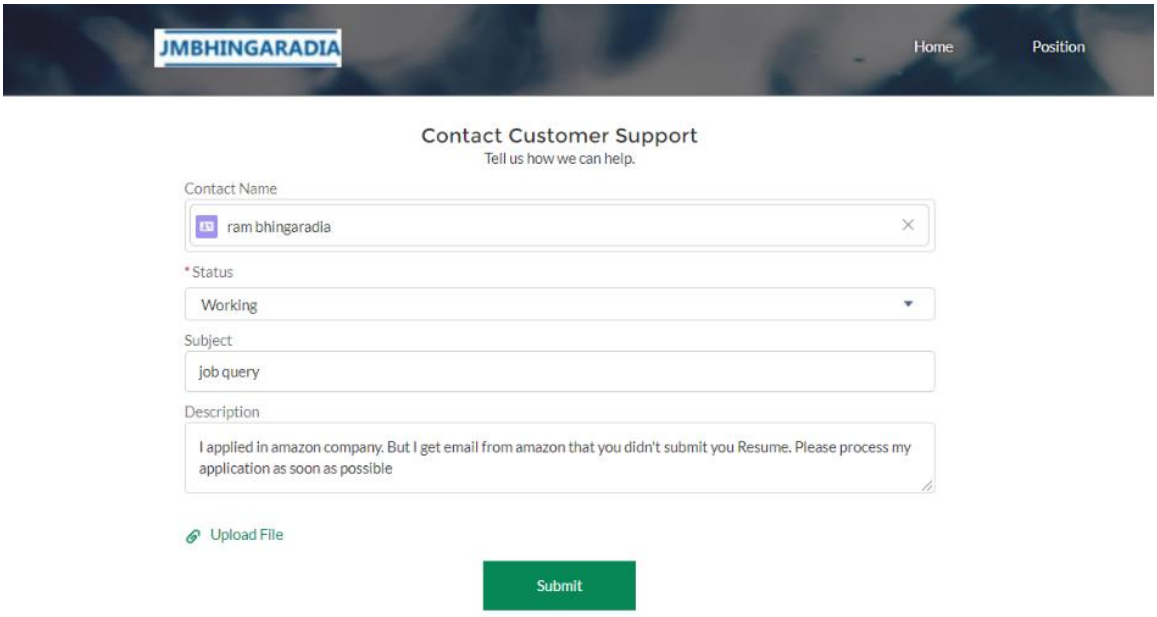
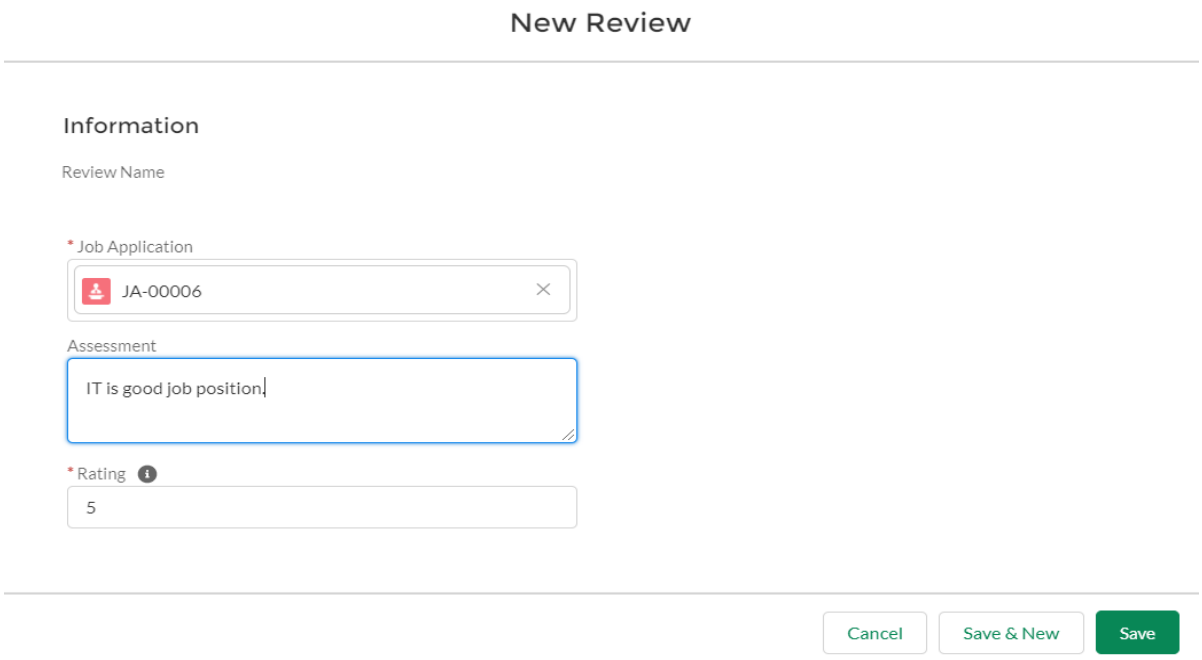


Fig 8.11 Support

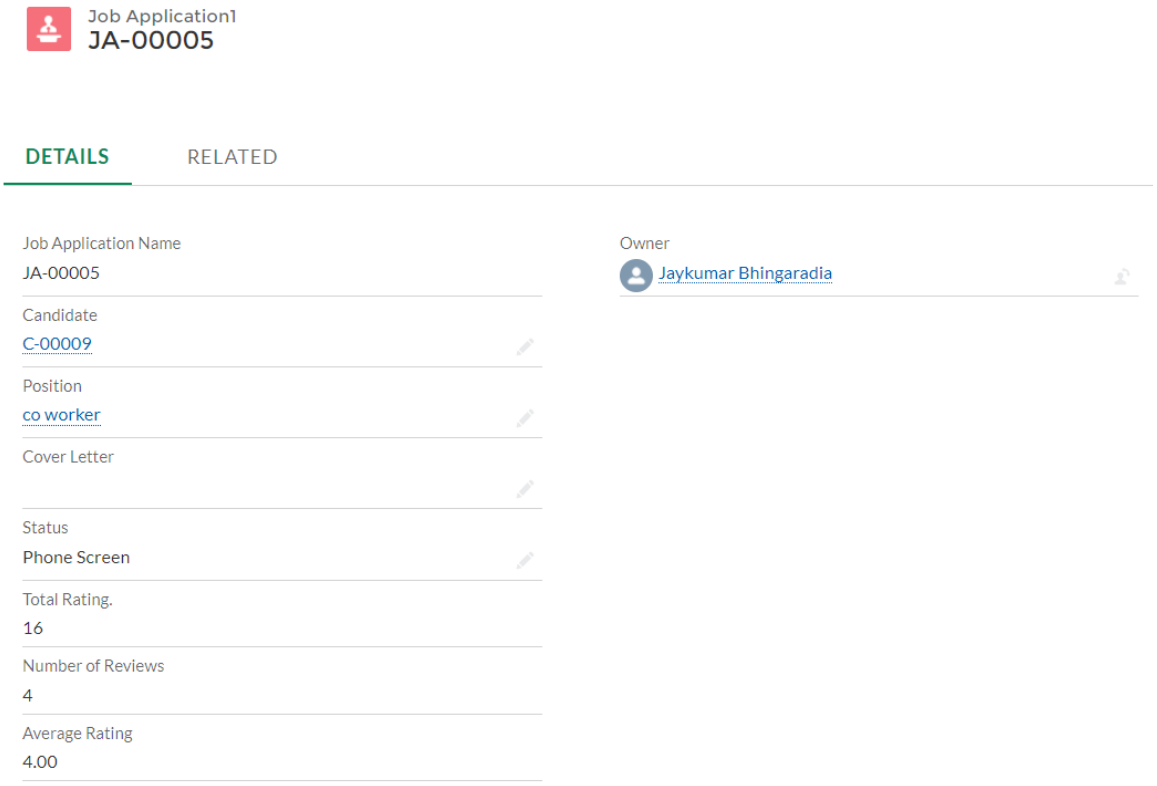
Description: This is helpful when you put any difficult while you applied for any job.

Review



8.12.1 Review

Description- you can review on particular publish job.



8.12.2 Review

Company profile

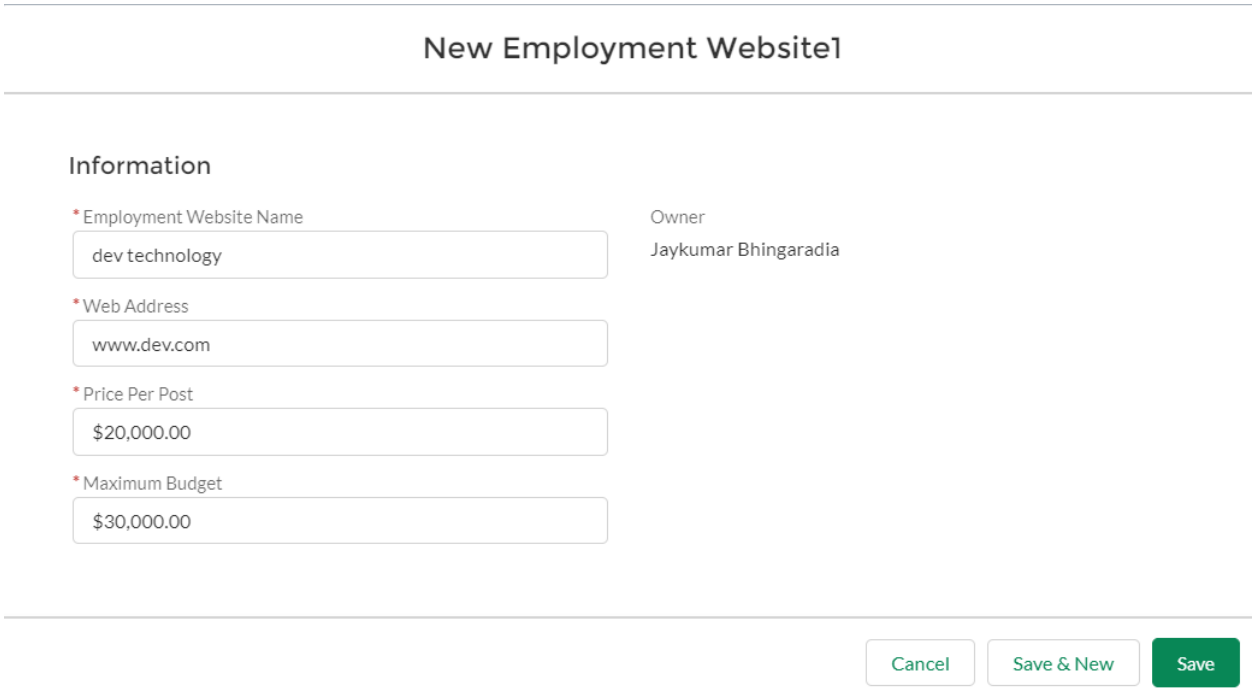


Fig 8.13.1 Company profile

Description: This is a form of register your company profile.

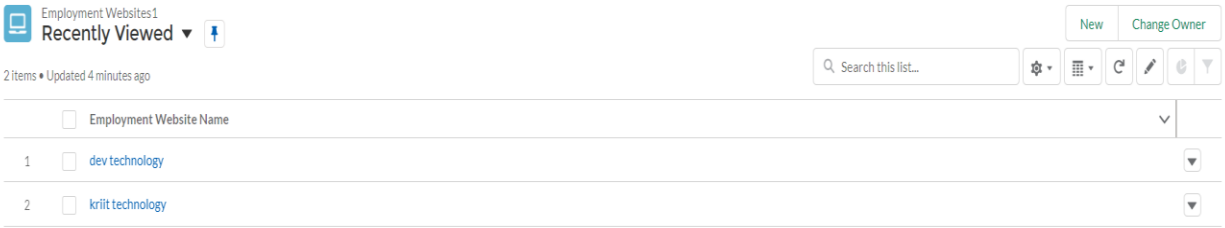


Fig 8.13.2 Company profile

Description: Here you show register company.

Apply job Company wise

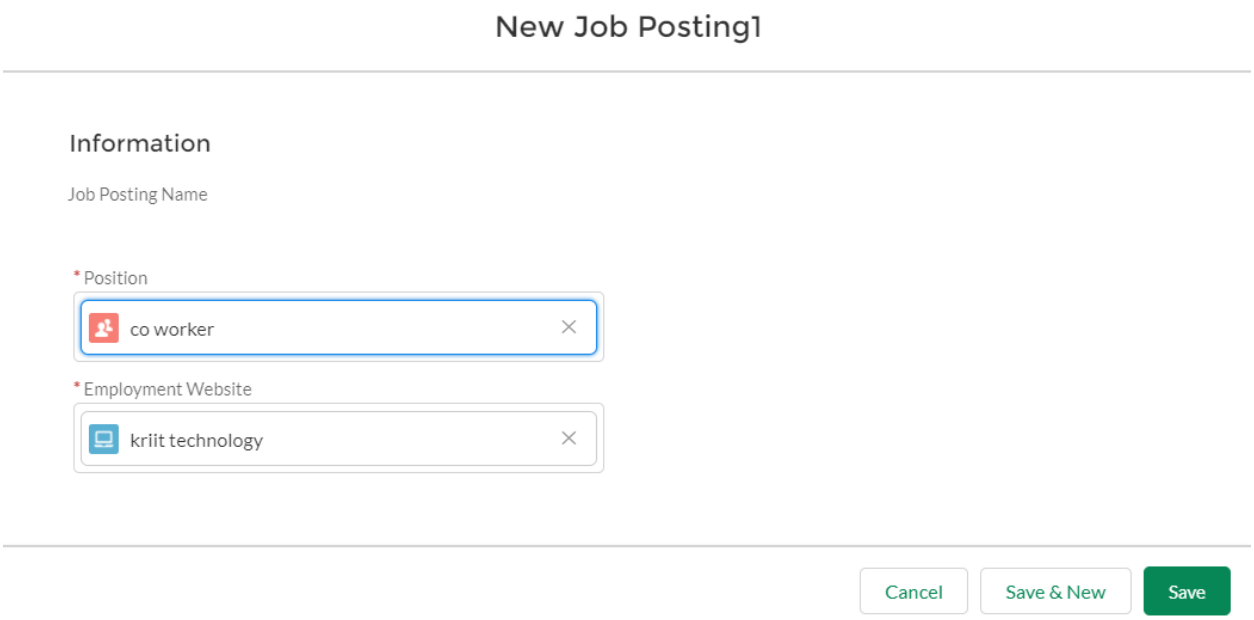


Fig 8.14.1 Apply job Company wise

Description: This is a form of register position in your company profile.

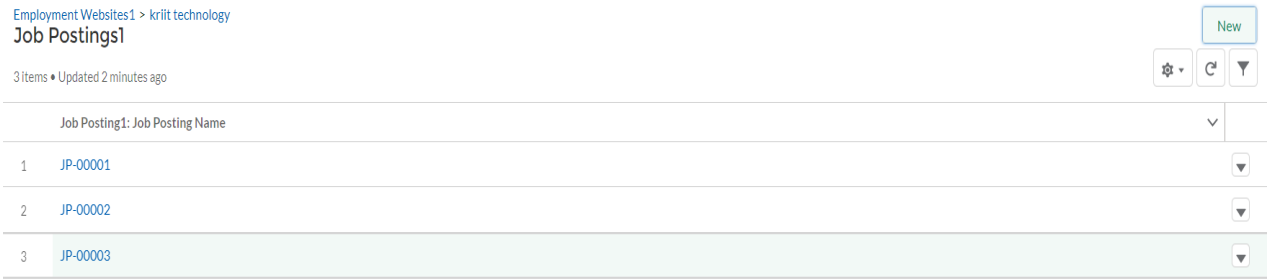


Fig 8.14.2 Apply job Company wise

Description: Here you can show the job position according to company profile.

9.0 LIMITATIONS AND FUTURE ENHANCEMENT

9.1 LIMITATIONS

- System has not any trend set base mechanism to promote Job position.
- To get the best out of our product we assume that the end user knows the basics of Salesforce
- Fast internet connection is expected.
- We have tested application only on the Windows platform
- User permission aren't yet given to the current project
- we have not tested with actual live Data.

9.2 FUTURE ENHANCEMENT

- Provide more dashboards to obtain more statistical information out of data.
- Make the salesforce API version configurable.
- Map facility may be possible to implement in Future.
- Implement validation for salesforce basic authentication.

10.0 CONCLUSION

Thus, from the successful of the application, it is concluded that it will help the User who are currently pass out from college or Job seeker. Application will never face any problem in doing the error less project with the planning & tracking operation of that particular System.
At the end of this report, we would like to conclude that we have successfully implemented the project which is much secure and user friendly.

REFERENCES

- Trailhead REST API docs for Salesforce: https://trailhead.salesforce.com/en/content/learn/modules/api_basics/api_basics_rest
- Python Docs: https://docs.python.org/3/
- Salesforce API docs: https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/intro_what_is_rest_api.htm
- Splunk Dev: https://dev.splunk.com/
- Splunk Answers: https://answers.splunk.com/
- Splunk Docs: https://docs.splunk.com/Documentation

EXPERIENCE

In the prior one and half weeks, we are given our project definitions and instructed to have thorough idea of the same from our project guide. Thereafter we were provided with our systems to start our actual project work.

During our developing period, we actually came to know regarding to the sale forces, Java Script, Splunk Enterprise, SQL Server connectivity by the various tests going on into our project. We also came to know how Visualforce are being created by keeping in mind various standards and legends.

Also, got the Actual Experience how an IT firm works and manages its assets according to the Project Requirements. The whole process of project development takes place systematically, maintaining information about each task, following daily scrum (agile development) and following software development cycles.

We were also supposed to give presentation of our progress periodically towards project guide as well as external faculty of viva examination