42904 - CLOUD COMPUTING AND SOFTWARE AS A SERVICE



Assignment 2 – Application Development Using Force.com PaaS

HR Management

Team Members

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Abstract

The main aim of this report is to demonstrate the creation of a cloud computing application that has been developed using the "salesforce.com" platform. We have developed an HR management system that helps the candidate to apply for the available Job Positions, which will later be evaluated by the HR Team and Technical Team of the organisation. The "Job Application Portal" prototype for the HR management system developed using salesforce highlights features such as object creation, custom field creation, application of data validation rules, creating user profiles, assigning security levels and roles, task creation, task approvals, including auto-generated emails.

Keywords: Cloud Computing, Salesforce, PaaS, HR Management, Job Application Portal.

1. Introduction

In the current era, monitoring a huge number of "Job Applications" have been a tedious process for both the organisation as well as job applicants. Hence, to make the "Job Application Process" hassle-free for both the organisation and applicants, a suitable "Human Resource Management" application was build using salesforce. By using this, HR Management system, the job applicants were able to apply and view the status of the job application and at the same recruitment team of the organisation were able to review and monitor the applications easily.

1.1. Organisation Background:

We have created this HR Management prototype for our organisation using salesforce to minimise the time consumption for evaluating and monitoring job applications as well as to increase the productivity of the work efficiently. Since we follow a two-step evaluation format for job application, our recruitment team consists of both the HR team and Technical Team.

- 1. Candidates can apply for the job position by filling up the Job Application form.
- 2. Once the job application is submitted, HR will be notified regarding the new application.
- 3. After the application has been reviewed by the HR team, they can either approve or reject the application based on their skill set.
- 4. Based on the HR approval, the job application will be redirected to secondary evaluation, which is also reviewed by Technical Team.

1.2. Organisation Specific Use-Cases:

- 1. Candidates:
- a. Candidates can view the job positions.
- b. Can create, edit and delete the job application.
- c. Can view the status of the application.
- 2. Employer (HR Team):
- a. Can create, view, edit and delete the job position.
- b. Can view, edit, and evaluate the job application and can either accept or reject the job application.
 - I. Accepted:
 - Sends the job application to the Tech team for review.
 - II. Rejected:
 - Sends the rejection email to the candidate.

3. Employer (Tech Team):

- a. Can create, view, edit and delete the job position.
- b. Can view, edit, and evaluate the job application and can either accept or reject the job application.
 - I. Accepted:

Sends acceptance email to the candidate.

II. Rejected:

Sends the rejection email to the candidate.

<u>Application-URL</u>: <u>https://uts-1b2-dev-ed.my.salesforce.com/a015g00000LGfYU</u>

Credentials:

1. Applicant:

Email-id: saurabh.kumar2@student.uts.edu.au

Password: qwerty123

2. HR Team:

Email-id: saurabh.kumar1@student.uts.edu.au

Password: qwerty123

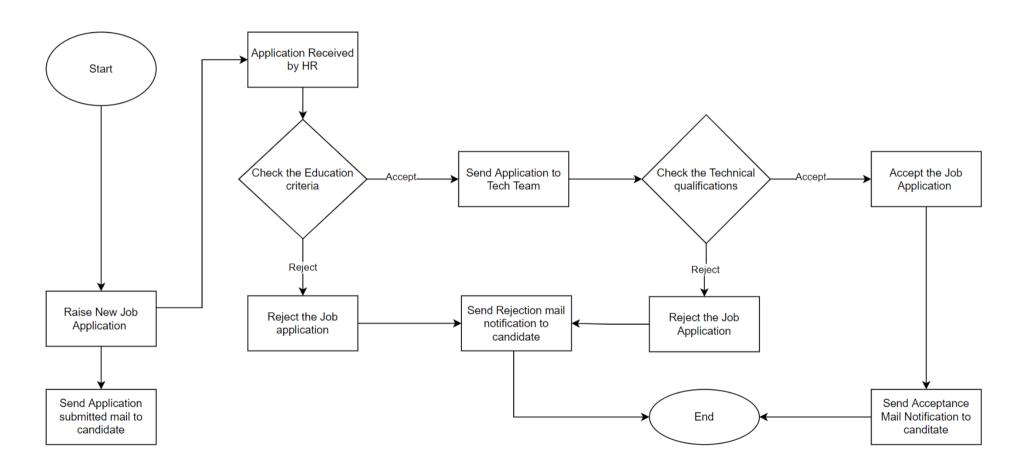
3. Tech Team:

Email-id: star21cloud@gmail.com

Password: Star@2021

2. System Modelling Section:

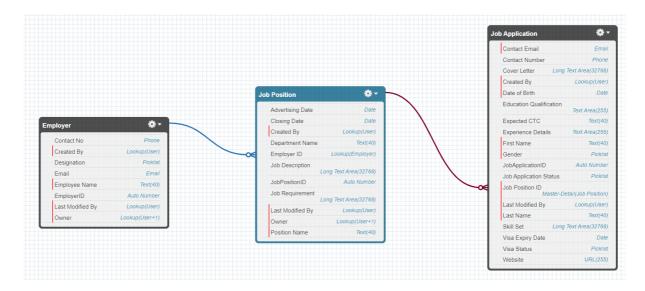
2.1. Workflow Diagram



Workflow Steps:

- 1. Start the Application
- 2. The candidate will enter their personal, previous employment and visa details to raise the new Job application.
- 3. Career's Team will send the Confirmation of Application submitted mail to the candidate.
- 4. The new job application of the candidate will be assigned to the HR Team for evaluation approval.
- 5. HR Team will evaluate the Educational Criteria in the assigned application according to the requirements posted in the corresponding Job position.
- 6. Based on the evaluation,
 - 6.1. If HR Team approve the application, then the team will assign the application process to the Technical Team for further technical evaluation of the candidate.
 - 6.2. If HR Team rejected the application, then the HR Team will send the rejection email to the candidate.
- 7. The technical team of the company will verify the assigned job application for technical qualification (like skillset and previous experience) as per the requirements posted in Job.
- 8. Based on the evaluation,
 - 8.1. If Tech Team approves, then the Job acceptance email will be sent to the candidate.
 - 8.2. If Tech Team rejects the application, then the Job rejection mail will be sent to the candidate.

2.2. Data Model for the Job Application Portal:



The virtual representation Data model that we decide for the HR management for the Job application portal consists of 3 objects. The three objects are Employer, Job Position and Job Application. There are two different relationships that are used to associate between the above three objects.

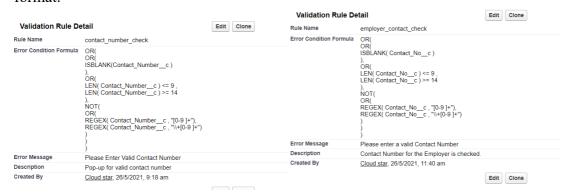
The relationship between objects in the above diagram:

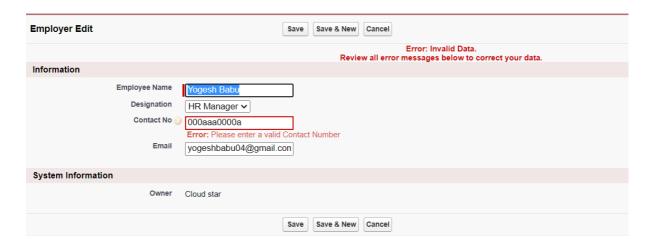
- ❖ Employer ←→ Job Position → Lookup Relationship
- ❖ Job Position ← → Job Application → Master-Detail Relationship

Validation Rules:

1. employer contact check & contact number check:

Both Validations are used to validate whether the entered contact numbers are incorrect format.



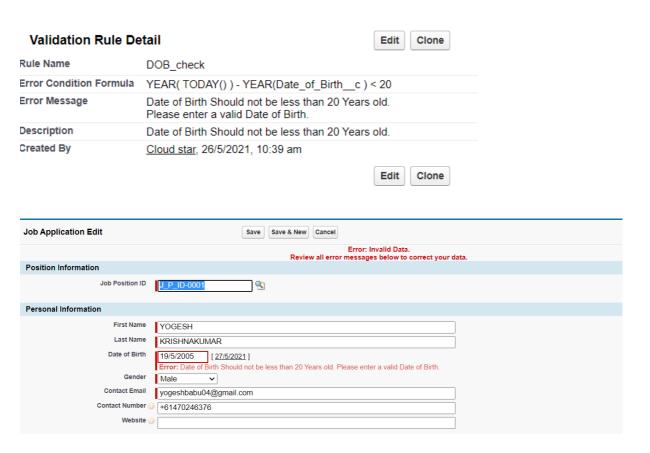


2. DOB_check

The Date of Birth field will be checked in this validation. The validation condition is the age of the candidate should be greater than 20 Years old.

Job Application Validation Rule

Back to Job Application

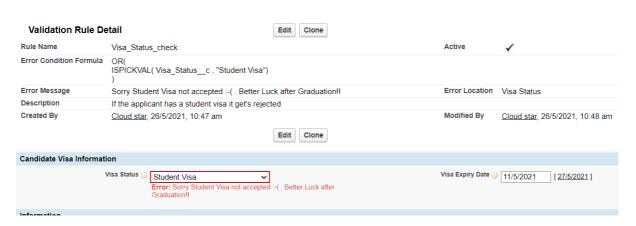


3. Visa_Status_check

If the visa status of the candidate is 'Student Visa', then the application will not get saved. And will show the error message.

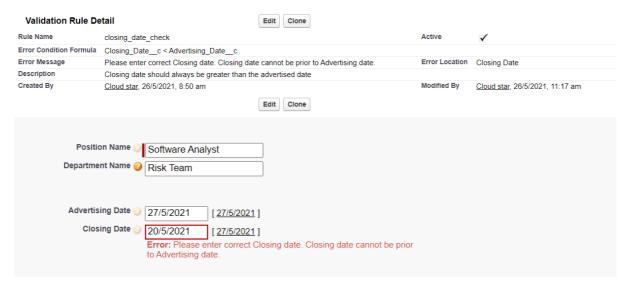
Job Application Validation Rule

Back to Job Application



4. closing date check

If the closing date is prior to the Advertising date, then this validation check will be invoked.



Organisation-wide default:

Organisation-wide default was implemented for the Applicant who is the most restricted user of our "Job Portal" application. The Applicant was only given the read access to the records in Job Position tab and he is not allowed to edit or delete the job positions record.



As mentioned in the above screenshot, the organisation-wide defaults is restricted to be given a "Public Read Only" access according to which all the users can view the objects and the records, but only the record owner will be allowed to edit it.

Also, our application shares access to the records using "Role Hierarchies". This will ensure that according to the given organisation role, the access of the given role will be automatically provided to the roles which lies above that role.



Here, the record owner of the Job Positions will be the HR and Technical Team which has been assigned to the Employer profile.

2.3. Customer User Profile/s with a description of each profile:

Our application has mainly two profiles. The first profile is for Employers of our Company A, named as "Recruiters", and the second profile is named "Applicant" for the candidates who will be applying for the jobs. The security settings are different for both profiles. The Employer profile has been assigned to the HR and Technical Team role responsible for assessing the job applications, and the Applicant profile has been assigned to the candidates.

1. Recruiter

• The recruiter has all the level of access in the Job Portal application.

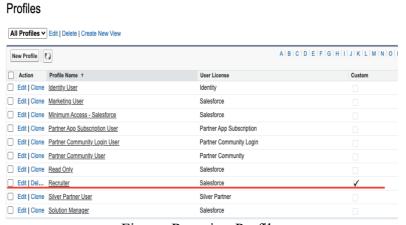


Figure: Recruiter Profile

• They have all the create, read, edit and delete object-level permissions.

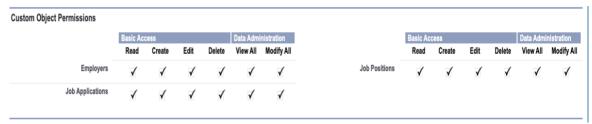


Figure: Object-level Security for the Recruiter profile

• They have access to all the tabs of the application.



Figure: Tab-level Security for the Recruiter profile

- A recruiter can create, update and delete Job Position and Employer.
- The HR and Tech Team are the two roles that are defined and assigned to the Recruiter profile.
- User "Rachel HR" is created and assigned to the HR role.
- User "Cloudstar" is created and assigned to the Technical Team role.

2. Applicant

• Applicant profile is for the candidates who are applying for the jobs.

Profiles

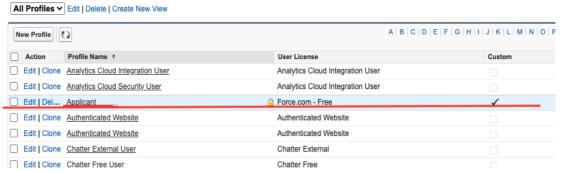


Figure: Applicant Profile

- They have created, read, edit and delete access for Job Application.
- Only read access for the Job Positions.



Figure: Object-level Security for the Applicant profile

• They have no tab-level access to the Employers tab.

| Custom Tab Settings | | | |
|---------------------|-------------|---------------|------------|
| Employers | Default Off | Job Positions | Default On |
| Job Applications | Default On | | |
| | | | |

Figure: Tab-level Security for the Applicant profile

• User "Saurabh Applicant" is created and assigned to this profile.

2.4. Prototype System Screen and Description:

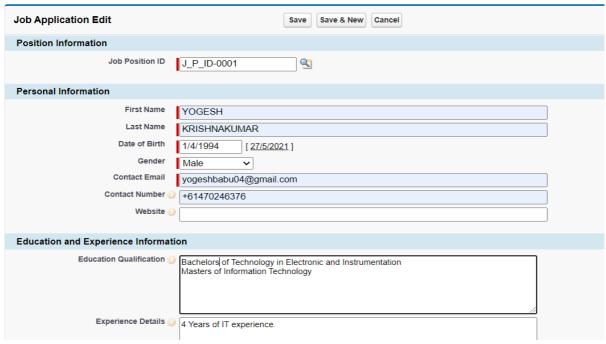
1. Candidate User – Saurabh Applicant ID

As per the profile security access and Tab level security, Candidates can only be able to access the *Job applications* and *Job Positions* but not *Employer* Tab

User can check the available positions from the *Job positions* tab and raise the application from *Job Applications* Tab.



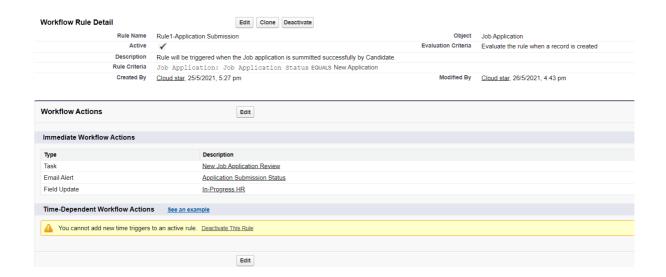




By default, the Job application status will be 'New Application'.

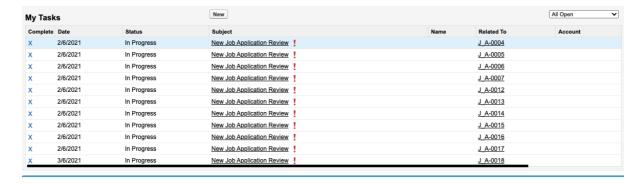
Once the application is saved, then according to the workflow rule, three workflow actions will be taken by the application.

- ❖ The first action is to create a task to send the new application to the 1st Approver the HR Team.
- ❖ The second action is to send an email alert to the candidate to mention that the application is submitted successfully.
- The third action is the field update for the 'Job Application Status' to 'In Progress: Assigned to HR.'



2. Employer (HR and Technical Team):

Once the task is assigned to the HR Team, then the assigned HR can view the task on their home page under My Tasks.



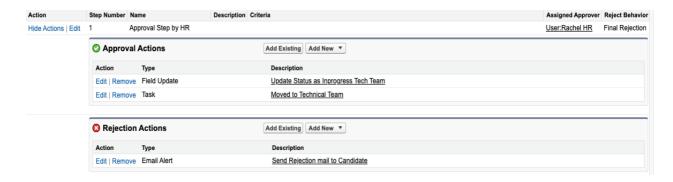
After clicking the Job Application number, the assigned HR will be able to see the Job Application Detail of the candidate. The HR can then check the required details and at the same time should start the Approval process of the candidate application by clicking on the "Submit for Approval" button.

The Approval process has two steps:

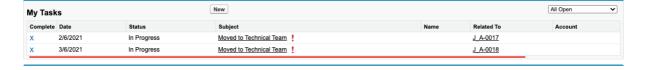
- 1. In the first step, the HR is responsible to accept/reject the candidate's application. If the HR wants to approve the application two approval action will be triggered:
 - a. The Application status field will change to "In Progress-Tech Team".
 - b. A new task will be created for the Technical Team

If the HR wants to reject the application:

- a. An Email Alert will be sent to the candidate for rejection.
- b. Also, the final rejection process will follow that will update the Application Status field to "Rejected"



2. In the second step, the technical team will receive the task to accept/reject the candidate application based on the technical skills.

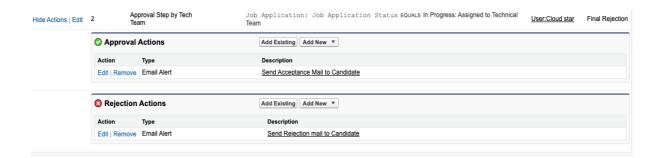


If the Technical Team approves the application:

- a. An acceptance Email Alert will be sent to the candidate.
- b. The Final approval step will follow which will update the Application Status to "Accepted".

If the Technical Team rejects the application:

- a. A rejected Email Alert will be sent to the candidate.
- b. The Final Rejection step will follow which will update the Application Status to "Rejected".



Apart from this, there is an implementation of Time Dependent Workflow Rule where once the task has been assigned to the Technical Team and the Application Status remain as "In Progress-Assigned to Technical Team" for 2 days, an email alert will be sent to them to finish the approval process of the application.



3. Contribution of each group member:

All the team members contributed equally to develop the HR Management application.

| Team Members | Contribution in percentage (100 %) |
|--------------------------|------------------------------------|
| Saurabh Kumar | Equal |
| Yogesh Babu Krishnakumar | Equal |
| Nivetha Anand | Equal |

4. Conclusion and Future Work:

This report presents the Job Application Portal (JAP) that was developed using the Force.com cloud platform. Force.com is a software that provides Platform as a Service (PAAS) which help to build an effective customer relationship management (CRM) solution. Further, the salesforce platform has given us tremendous experience by providing ease in developing the application using drag and drop, personalised content blocks, real-time tracking of status and real-time triggers as well. The "Job Application Portal" of the HR Management system further makes use of real-time tracking of application status, automatic email notifications, security control, conditional time triggers and task automation that is provided by salesforce. Hence, the Job Application Portal of the HR management system fulfils all the significant business requirements and can be deployed for immediate use by the organisation.

At present, the system was kept simple for the ease in use of tracking the job application, which helped us to gain a depth understanding of concepts using the force.com platform. As the system has future scope, it can further be enhanced by:

- 1. Implementing an Email notification for submission of documents in case if the candidates are accepted for the Job Position.
- 2. Another tab and an object can be created to view the candidate's status on acceptance or rejection of the offer.
- 3. The organisation's employees can be added to the employer profile who can view the new employee details. These employee details are filled in by the HR team based on the acceptance of offer letter status by the candidates.