

CONFIGURABLE EMPLOYEE HIRING DOCUMENTATION ORGANIZER

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Abstract—The first step for an employee or employer while joining a company is to record their documentation about their achievements. Having an organized system helps the HR associate store the files safely, secured and well organized. In this digital age and with growing employees in each company, it's quite a challenging task to store all the physical copies and it is vital to store the documents electronically.

This project streamlines the hiring and onboarding process of employees within the HR system. Our Hiring Documentation Organizer provides the new employee with all the onboarding documentation and keeps a record of the paperwork. Employees will be able to add and download the files which are requested for onboarding. Once approved by HR the documents will be employee records with ease.

I. INTRODUCTION

1.1 PURPOSE:

The purpose of documentation organizer is that even though you may have to do it for each employee, the format you follow can and should be the same for each applicant. Here are some notes to include.

Typically, a job posting will detail the requirements concerning skills, education and experience that the best candidate will possess. This part of interview documentation will recap those job-related facts, such as computer programs a new hire would need experience in, and then exp Pros of Employee hiring Organizer

Can post n number of jobs through online website

Can easily maintain records irrespective of natural calamities and man-made mistakes

1)Can reduce manpower

2)Faster transition times

3)Shows career path potential

Cons of Employee hiring organizer

1)Fake employee can apply for jobs

2)Need to maintain the website properly and protect it from hackers

3)Simple authentication can lay paths to fraudster.

Makes diversity difficult in how the applicant stacks up objectively in each of the requirements for the job. This information can be documented from the candidate's own answers. For example, if managing websites is part of the requirements of the job and the candidate possesses more than five years' experience managing websites, the interviewer

would notate that as the skill lining up with the candidate's abilities. Notes about a candidate's appearance or physical attributes should never be part of an interview documentation process. These are the very things that could be used against you in legal proceedings.

1.2 Domain Analysis & Research:

Over the years ago, when organizations need to hire people to their companies, they used to give advertisements on news paper and after hiring they will be storing their respective files in lockers.

Pros of Manual Hiring:

1)There will be correct data and accurate check up

2)No proxy and no fake people are allowed for applying jobs

3)Traditional method

Cons of Manual Hiring:

1)Data can be loss due to natural calamities

2)Man-made mistakes

3)Requires lot of man – power to maintain

4)One advertisement can cover only one type of job positions in one organization

As technology is growing day by day, we have got updated with new technologies where we can post available job positions and can store all the required documents from the employee. So, the technology brings new updating features to make man life easy but still it has some cons.

Pros of Manual Hiring Organizer:

1)Can post n number of jobs through online website

2)Can easily maintain records irrespective of natural calamities and man-made mistakes

3)Can reduce manpower

4)Faster transition times

5)Shows career path potential

Cons of Employee hiring organizer

1)Fake employee can apply for jobs

2)Need to maintain the website properly and protect it from hackers

3)Simple authentication can lay paths to fraudster.

4)Makes diversity difficult

1.3 Problem Statement

The term "hire" means "to employ" or "to obtain services for a fee [1]." When you hire someone, you are employing or paying them to perform a certain task for you. A step-

by-step method for hiring a new employee is an efficient and successful hiring process in which a business determines its talent needs, recruits from its talent pool, and hires the best-qualified individuals. The hiring problem is a well-known decision-making problem in the analysis of algorithms. The problem is solved by designing an efficient algorithm to choose the best candidate from a list of n candidates.

1.4 User Requirements

- 1) Every registered employee has a smartphone with a supported web browser.
- 2) Every registered HR people has a smartphone with a supported web browser.

1.5 Stakeholders:

The audience of this system will be:

1. Employee
2. HR people

This application will manage by third party that connects all organizations and employees

1.6 Intended Use:

To facilitate the automation of Configurable hiring documentation organizer using Software.

1.7 Project Scope:

The most important thing an employer can do is to meticulously document each step when it comes to hiring employees, as well as the retention or termination process.

This means taking detailed notes about relevant matters such as their professional demeanor, their job-related experience, and their ability to communicate effectively. These notes can protect you in the event you are later sued for some alleged discrimination. Developing protocols for hiring employees, retention, and termination that are employment law compliant will minimize your exposure to unnecessary litigation.

Occasionally an employer will need to terminate an employee who is not performing up to expectations or who creates a hostile work environment. For example, an employee who continually demonstrates bias against a coworker because of the coworker's race, gender, religion, or sexual preference should be terminated.[1]

Recruiting top talent is time consuming and costly. When you have finally identified the ideal candidate for employment, the last thing you want to do is lose them to a competitor.

For startups, onboarding can be perplexing since your culture is still embryonic. At its core, however, bringing on a new employee is about walking your talk and basic sensitivity. It means being authentic and verifying representations you made during the interview process about who you are and what you are about.

2. Overall Description

2.1 Product Perspective:

The key idea of the application is to present a software solution which is automated, fast, and inexpensive. In the domain analysis above, we saw that existing solutions to this problem are costly. The existing software solutions are automated leading to increases efficiency and accuracy.

However, every software developer and manager should note that processes are very important. It is necessary to follow a certain predefined process in software development. It helps developers understand, evaluate, control, learn, communicate, improve, predict, and certify their work. Since processes vary with the project's size, goals, and resources, as well as the level at which they are applied (e.g., the organization level, the team level, or the individual level), it is always important to define, measure, analyze, assess, compare, document, and change different process.

2.2 Definitions:

User: Employees who has registered and apply for jobs

HR: HR people from a specific organization

Admin: who manages software and establish connection between User and Organizations

2.3 Project Plan

This project has eight phases to be completed within the timeline. Initial project set up for frontend and backend, Creating Models for the Project, implementing authentication logic in the backend for login functionality, Creating API for registration and login form in back-end, Designing UI Registration Page for user, Designing UI Login Page for Admin, designing database table for storing and accessing data, Testing and Debugging the Application with login and registration functionality. The expected time for the project will be around three months.

2.4 Product Features

1. User can register through web application by login into the registration page, by uploading his/her resume and cover letters, adding their education history, work experiences. Employment contradicts with digital signature, contact information and Bank details.

2. The admin can view the uploaded documents, add recruiter. Admin will send mail to the user and make live chat.

3. This application will be a Web application. It will be available on the Web Browser.

4. The System should be provided for the existing data; it allows users to enter their existing accounts. Availability of the system with minimal downtime.

2.5 Resources Used

- a) Database: My SQL Workbench
- b) Languages Used: HTML, JavaScript
- c) Framework Used: Bootstrap
- d) Web pages: Java server pages

2.5 Functionalities Provided by Admin and System

Here are the functionalities we implemented:
Different types of people and their roles:

They are a. User, b. Admin and c. system.

1.User: User can register through web application by login into the registration page, by uploading his/her resume and cover letters, adding their education history, work experiences. Employment contradicts with digital signature, contact information.

2.HR: The HR can view the uploaded documents and can request for additional documents if required and connect to the user for the recruitment process.

3.Admin: The System should be provided for the existing data; it allows users to enter their existing accounts. Availability of the system with minimal downtime and establish the path between User and HR.

3. Design

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process, or a system in sufficient detail to permit its physical realization.

Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation, and testing that are required to build and verify the software.

The design activities are of main importance in this phase because, in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing on the reliability and maintainability of the system. Design is the only way to accurately translate the requirements into finished software or a system.

Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data.

3.1 Design Methodology

There are a variety of methods which can be used to design a website as large as this, but we choose to stick to the 'Evolutionary Model' for software development. The model is discussed below in detail.

3.2 The Evolutionary Incremental Model

Evolutionary software models are iterative. They are characterized in a manner that enables software engineers to develop an increasingly more complete version of the software.

That is, initially a rapid version of the product is being developed and then the product is developed to a more accurate version with the help of the reviewers who review the product after each release and submit improvements. Speciation, development and validation are interleaved rather than separate in the evolutionary software process model.

These models are applied because the requirements often change so the end product will be unrealistic, whereas a complete version is impossible due to tight deadlines it is better to introduce a limited version to meet the pressure.

Thus, software engineers can follow a process model that has been explicitly designed to accommodate a product that is gradually completed over time.

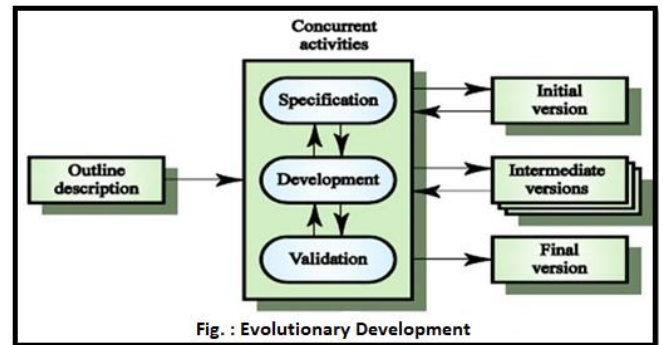


Figure 2.3: The Evolutionary Model

3.2.1 Steps in the Evolutionary Model

- 1.The software requirement is first broken down into several functional units that can be incrementally constructed and delivered.
- 2.We first developed the core modules of the system.
- 3.The core modules do not need services from the other modules.
- 4.The non-core modules need services from the core modules.
- 5.The initial product skeleton is refined into increasing levels of capability by adding new functionalities in successive versions.
- 6.Each Evolutionary version may be developed using an iterative waterfall model of development.
- 7.Each successive version of the product is fully functioning software capable of performing more work than previous versions.

3.2.2 Merits

- 1)Users are actively involved in the development.
- 2)There is no such role for the developer after the application is successfully deployed.
- 3)Since in this methodology a working model of the system is provided, the users get a better understanding of the system being developed.
- 4)Errors can be detected much earlier.
- 5)Quicker user feedback is available leading to better solutions.
- 6)Missing functionality can be identified easily.

3.2.3 Demerits

If there are any critical problems found in the system which cannot be resolved by the admin and other users and needs the developer to rectify and resolve them. Now, if any Django developer other than those who developed the system, he/she first needs to fully study the report, and the coding files. Otherwise, a single error can cause the system to crash and make the portal inaccessible to the stakeholders.

3.2.4 Areas of applications

- 1) Evolutionary model should be used when the desired system needs to have a lot of interaction with the end users.
- 2) Typically, online systems and web interfaces have a very high amount of interaction with end users and are best suited for the Evolutionary model. It might take a while for a system to be built that allows ease of use and needs minimal training for the end user.
- 3) This model ensures that the end users constantly work with the system and provide feedback which is incorporated into the prototype to result in a usable system. They are excellent for designing good human-computer interface systems.

3.2.5 Why Evolutionary Model

The Evolutionary Model requires that small versions of the model be designed and be sent for review by the client and if the client is not satisfied, the part goes back to the developmental phase and made again with the amendments. The features of this model were very similar to ours as we made a small portion of the system and had it reviewed by our guide as well as the authorities asked for their suggestions, took them and then remodeled the portion. Also, we had several team members contributing to various parts of the system, which also required severe testing and assessment of whether the individual designs could be integrated with the entire system, which facilitated the cause of the prototype model.

The Evolutionary model is also extremely well suited for designing web applications and our system required our clients to get familiar with it, this also enabled us to use this model.

4. Data Flow Diagram

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination.

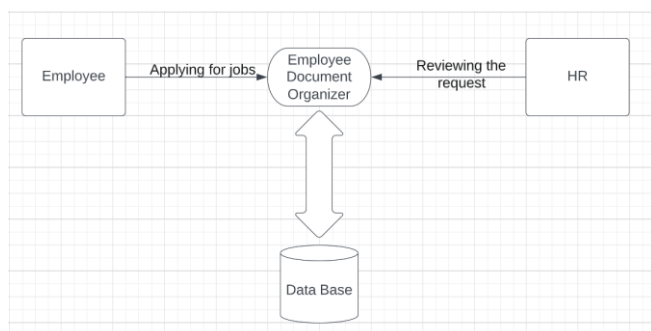


Figure 4.1: Level 0 Data Flow Diagram

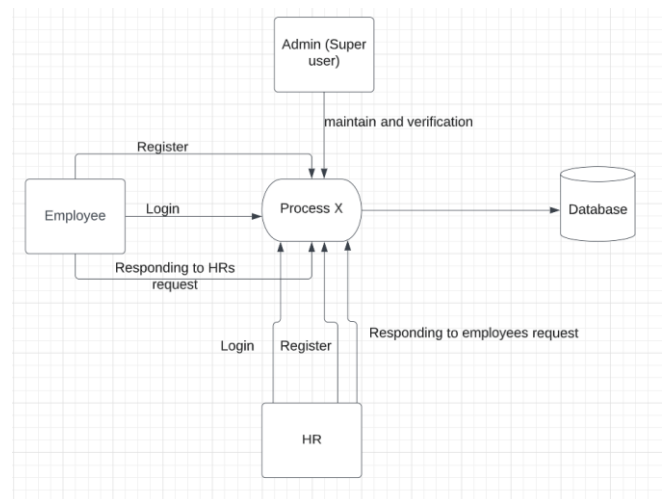


Figure 4.2: Level 1 Data Flow Diagram

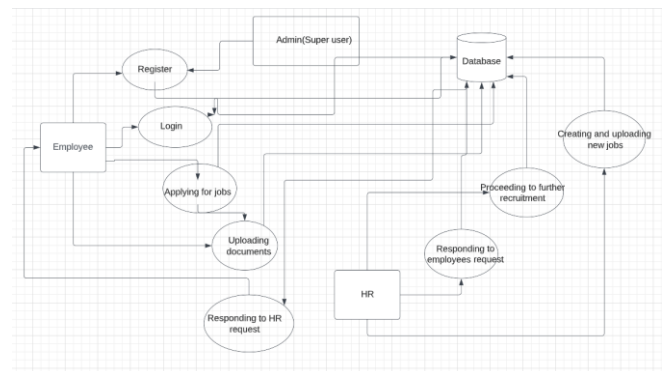


Figure 4.3: Level 2 Data Flow Diagram

5. Object-Model Diagram

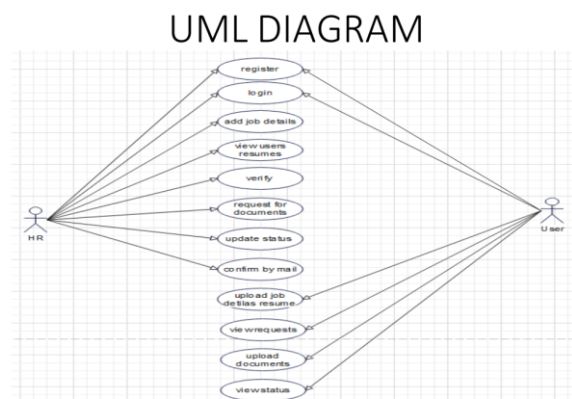
The following figure is an Object-Model Diagram which shows the model of the configurable employee hiring documentation organizer entity. It represents all the visual instruments of database tables and the relations between employees, HR, Admin. It used structured data also to define the relationships between structured data sets of employees hiring documentation functionalities.

6. Unified Modelling Language:

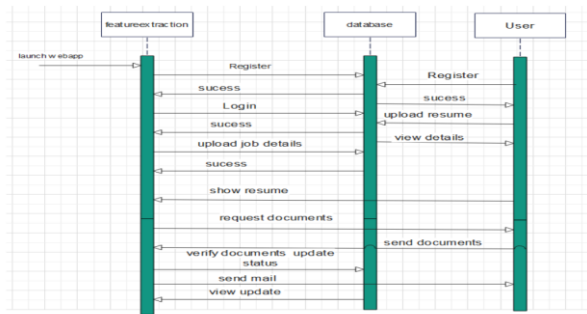
6.1 UML Diagram

6.2 Sequence Diagram

6.3 Class Diagram



SEQUENCE DIAGRAM

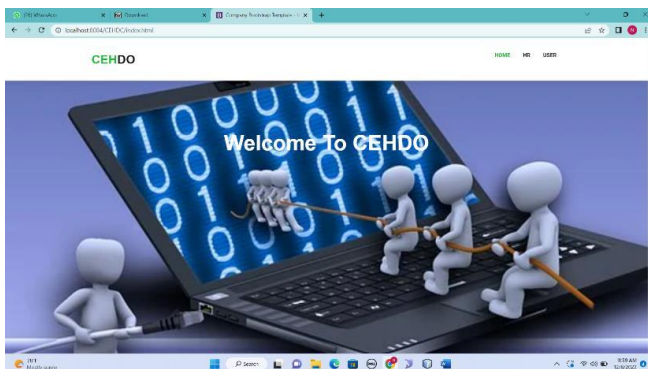


7. Conclusion:

The package was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project. It provides a friendly graphical user interface which proves to be better when compared to the existing system. It gives appropriate access to authorized users depending on the permissions. Moreover, the inbuilt security of Django makes the system more secure.

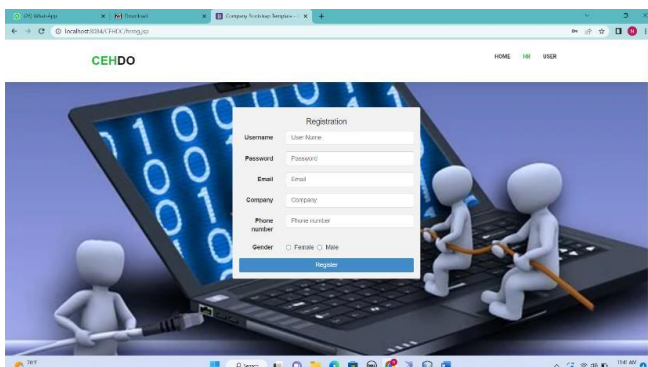
8. Result:

Login Page:

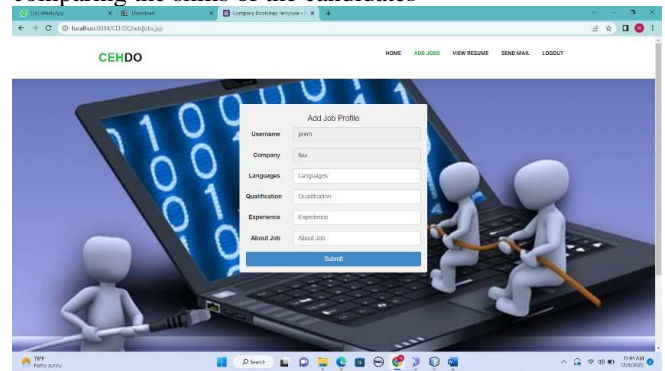


HR Login:

Step 1: Registration of HR



Step 2:HR Functionalities - HR can add the job for comparing the skills of the candidates



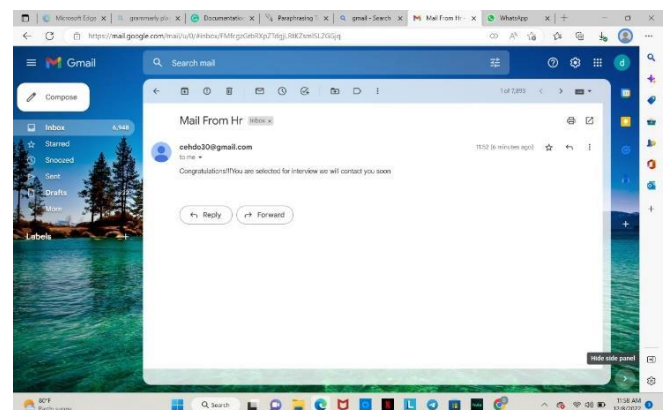
Step 3 - HR can view the resume of the candidates and can check the skills



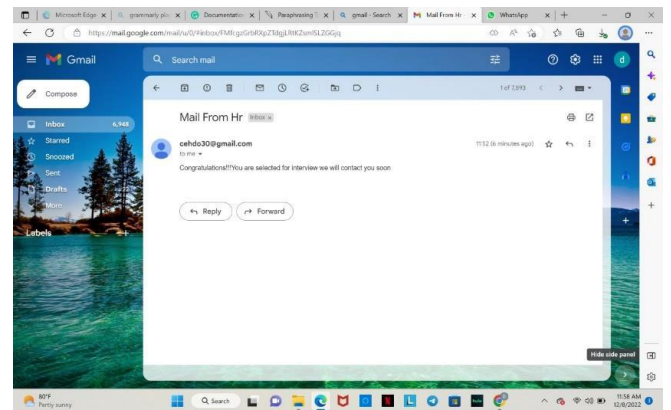
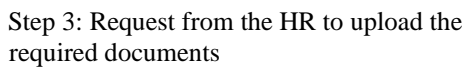
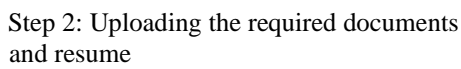
Step 4 - When HR wants to send an email to candidate if he is okay with the skills



Step 5 - HR sends an email to candidate



Step 1: User Registration



- [1] [Human Resource Management – Open Textbook \(umn.edu\)](#)
- [2] [Open-source software development - Wikipedia](#)
- [3] [Evolutionary Learning Models with Open AI | by Branco Blagojevich | ml-everything | Medium](#)
- [4] [MySQL - Wikipedia](#)
- [5] [6 Best Open Source HTML Editors - Techwire](#)
- [6] [What is .NET Framework? A software development framework. \(microsoft.com\)](#)
- [7] [15 best open source uml diagram projects. \(findbestopensource.com\)](#)
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