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**PROJECT 1**

**E-Recruiters**

## **CHAPTER ONE: INTRODUCTION**

### **BACKGROUND INFORMATION**

Job search is the process whereby people look for job due to unemployment or unsatisfied with current job. People usually search for job posts or vacancies that they qualify to apply to. Job posts, according to Richardson (2003), is the practice of publicising an open job to jobseekers (often by literally posting it on bulletin boards) and listing its attributes, such as criteria of knowledge, qualification, skill and experience.

According to Anne (2011), job search is the process that aims to match job seekers to suitable job opportunities. From an economics perspective, job-search theory is concerned with individuals' decisions to accept or reject job offers given the cost of searching and the reservation wage. A sociological perspective on job search takes into account more aspects of the job-search process such as motivating factors leading individuals to search and activities that lead to job offers being made.

Unemployment has been serious social issue faced by both developing and developed countries. One of the reasons for this problem is the unfair distribution or lack of information on job opportunities so people are unable to know the new job vacancies. It means that there are some jobs available, but jobseekers do not have access to that information. An efficient search of the internet might help to jobseekers in their job hunt.

Based on research, there are a lot of potential employees for different firms but may suffer in the name of "there are no jobs" yet their skills are highly needed in the day-to-day running of firms somewhere. Companies may as well experience failure in part of their departments due to lack of qualified personnel to handle various activities.

To avoid these, a portal that could be easy to use for both of them would help to some extent business needs and employee needs.

### **Existing System**

In existing system Employer has to give advertisement in newspaper for job vacancies. Employer has to spend lots of money for giving advertisement in newspaper. Job Seeker has to read various newspapers for job related advertisement.

Job Seeker has to prepare a resume and send job application along with resume to particular company or organization. Upon receiving applications from job seeker employer has to shortlist the applications and send call letters to selected candidates. Thus we can say that existing system is time consuming. There is a wastage of extra resources and money in existing system. The following are some of the problems encountered in the existing systems.

- i. No feedback mechanism
- ii. No use of social media and social networking sites such as Facebook, Twitter, etc.
- iii. No SMS and email integration
- iv. No Resume Upload
- v. Friendly and interactive graphical user interface
- vi. Candidates unable to personalize or customize their pages or interfaces
- vii. Less Security

## **PROBLEM STATEMENT**

Good quality work is done by quality people and hence, the effectiveness of an organization depends on its staff, their training, organization and discipline.

Many of the existing job portals allow for employees and employers to link up with each having similar privileges in that they can message each other and make post. As such, there are cases of scammers who hide in the name of posting jobs as companies and end up stealing from innocent job seekers.

The procedure of the existing system may exploit both the employees and employers yet they can link up directly.

## **PROPOSED SOLUTION**

It is necessary to develop this system to help solve the problems that are stated above.

The bridge between employer and employees is made shorter in that they can communicate on a one to one platform eliminating the middlemen who make the whole exercise longer and insufficient.

## **AIM OF THE STUDY**

Thousands of job seekers move from one business to another every day in to go search of a job. This process of seeking job is a huge task that job seekers have through every day before they get job as it is time consuming and also costly.

The main aim of the research is to develop a web-based system that will hopefully eliminate or reduce the manual work in job searching process and also reduce cost and time when advertising their job vacancies. The system will provide job seekers the platform where they can search for jobs easily and faster.

The main aim is to link employers and employees all around the globe on a platform they can communicate and advertise themselves.

By so doing, the industrial gap is reduced and there is smooth flow of firms since labour is closer and employees can successfully apply for jobs that suit them from a variety posted.

## **OBJECTIVES**

The main objective of this system is to manage the details of interview, post job, call letter, search job, employer registration.

It manages all the information about interview, employer, and employer registration.

The purpose of the project is to reduce the manual work for managing the interview, post job, employer, and call letter

It also provides the following:

1. To detect and identify the needs of recruiters and job seekers which was incorporated into the system

2. To design, develop and implement an effective and efficient job portal system
3. To develop a job portal that allows employers to post job advertisements
4. To minimize the time consumed in job searching process and provide full time accessibility
5. To develop a job portal that allows job seekers to search for jobs and upload their resume.
6. To have an easy to use interface for both employers and job seekers
7. To filter job applications by only allowing applicants who have met some defined criteria to reach the employer.

## **THE SIGNIFICANCE OF THE STUDY**

Many trends have emerged in today's business world. These changes especially those related to information technology are shaping the industry with numerous dynamics that a successful 21<sup>st</sup> century business cannot avoid to ignore.

The fact that many of students in institutions of higher learning have skills that may be tapped into firms and have a significant positive effect in the running of firms, there is obviously a need to provide a favourable platform for them to sell their skills and services to the corporate world that needs them.

## **SYSTEM SCOPE**

Employers should create employer accounts while job seekers create employee accounts to allow them to post jobs and apply for jobs respectively.

Once logged in, an employee can update their profile, view posted jobs and apply for them and give feedback to the developer.

The developer can be reached via short messaging service in a 24-hour a day active number in case of any issue.

Employers as well while logged in can view profiles of registered job seekers, contact them if need be and post jobs publicly for interested employees to apply for the same.

Some of the features of this system are:

- ✓ It alerts job seekers through an email and SMS when a job is posted, when chosen for a job, etc.
- ✓ Job seekers upload their resume.
- ✓ It keeps information of recruiters and job vacancies available.
- ✓ It keeps information of job seekers like personal details, educational details, skills, experience, etc.
- ✓ Communication between job seekers and the company.
- ✓ It contains feedback mechanisms.
- ✓ It satisfies user requirements.
- ✓ A good user interface.

The system also enforces some security mechanisms. If one is not an authorized system user, he/she will not be able to access it.

## **ASSUMPTIONS**

The assumptions we are holding on the system users include:

- Job seekers and job providers will give honest information.
- Job seekers and job providers have access to internet connection.

## **LIMITATIONS**

Considering the efforts to make the system efficient the limitations cannot be ruled out. Although the system is made easy to be used even to those who are not conversant with computer, there are always limitations which include the following:

- i. Offline reports of interviews, call letter cannot be generated due to batch mode of execution
- ii. The system can only be accessed where there is supply of internet.
- iii. The system can only be used by computer literate fellows.
- iv. Issue of scammers will not be fully addressed.

## **CHAPTER TWO: LITERATURE REVIEW**

### **INTRODUCTION**

One may argue that the most important task that a company has to undertake is recruitment. Finding new talent in the market is incredibly difficult and Human Resource managers across the world have tried different methods of recruitment in order to find the best possible candidates for their organizations. The employee is an integral part of the organization and recruiting new employees who will improve the organization and take it forward.

Before the Internet, became widely used as a method of seeking jobs, jobseekers spent a lot of time using various methods to look for job opportunities. Nowadays, jobseekers use online methods which are very efficient and save a lot of time.

The following methods to be the traditional (old) ways for recruitment:

1. Employment recruitment agencies
2. Internal hiring
3. Job fairs
4. Advertising in the mass media such as newspapers
5. Advertisement in television and radio
6. Management Consultants
7. Existing employee contacts
8. Schools colleges or universities students' services department.

These old jobs seeking methods are too slow, stressful, challenging and also lack quality (Mauno, et al., 2007).

In this age of technology, the Internet plays an important role in the area of Human Resource Management and has also become a powerful tool that job seekers can use to get the information they need at less cost and within the shortest possible time. Most organisations in the world now uses computer technology and the Internet for the recruitment of their staff.



Observation has shown that although the Internet has made the process of job seeking easier and faster, it has not completely replaced the manual or traditional methods for recruitment

## **RELATED SYSTEMS**

Some of the related systems are Recruitment Agencies, LinkedIn which is a professional web portal.

### **1. LinkedIn**

It is more of a social media platform but emphasizes on professionalism. Different people from different professions create accounts and can share a lot.

Users can make posts on job adverts and domain knowledge as well as queries they think people can help increase their knowledge on the same.

As such, job can be applied by following the given instructions, usually an email for applicants to send their resumes.

### **2. Recruitment Agencies**

Recruitment agencies is one of the traditional methods used for recruitment.

Employment Recruitment agency is an organization that matches job seekers to recruiters or employers. Job seekers registers with the agency providing all the personal and necessary information needed to apply for a job and the agency searches for job vacancies. Clients are notified when they have been accepted for a job. Some of the examples of recruitment agencies in Kenya are Frank Management Consult Ltd and Jawabu Consultancy Limited.

The following are the features of these the systems;

- a) Displays job vacancies
- b) Job Seekers registration
- c) Storing application data
- d) Interview process initiation
- e) Scheduling Interviews

Storing Interview results for the applicant and finally hiring of the applicant some of the functionalities the systems lacks;

- No resume uploads
- No SMS notification
- No Email notification
- Less security
- The required investment of time
- The interfaces may discourage some potential employers and employees.
- There's no guarantee that someone has the expertise they claim.

### **Proposed System**

The development of this career Portal System will save job seekers time and money that would have been spent on manually visiting organisations to look for job vacancies and also the time and money employers would have spent to make bill boards, flyers, and posters and to pay radio stations for announcements. And also, employers are able to view and search for good and quality job candidates.

### **HOW THE PROPOSED SYSTEM WILL SOLVE THE WEAKNESSES**

1. Authentication of users
2. Save time & work load for employers and employees on registration and profile updates can be done progressively.
3. High performance
4. Security
5. Advanced job searches by keywords such as region, city, date, category, status
6. Advanced company search by keywords such as region, city, category, status
7. Send and reply messages
8. Report or send feedback
9. Email and SMS notification
10. Site personalization

11. User friendliness, Ease of access and well-defined interface.

12. Resume upload and download

## **CHAPTER THREE: METHODOLOGY**

### **Introduction**

This section of the project describes or includes three main areas: data collection procedures, software development methodology and development tools and platform. In the development of a system, it is important to obtain the accurate, necessary and needed requirements to ensure good and quality system development.

Having the system requirements is not enough since there are varying needs and change becomes constant. As such, a methodology of choice was one that could allow changes to be made incrementally.

### **Software Development Methodology**

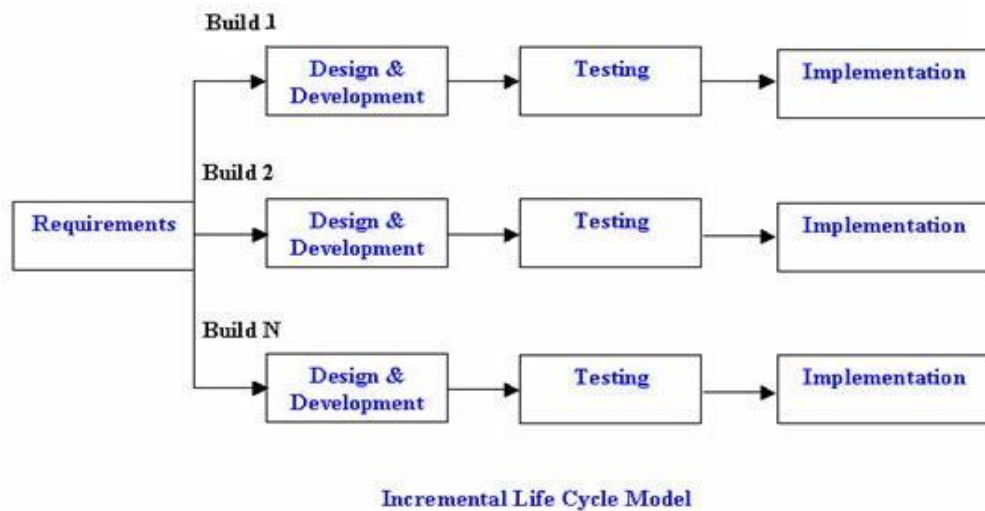
A software development methodology in software engineering is a framework that is used to structure, plan and control the process of developing an information system. A methodology defines a paradigm to be used and a precise lifecycle to be used. In the development of this system, an Iterative Methodology was used to ensure systematic and sequential flow of the system stages and also considering error fixing during and after development.

### **Iterative model**

Iterative process starts with a simple implementation of a subset of the software requirements and iteratively enhances the evolving versions until the full system is implemented. At each iteration, design modifications are made and new functional capabilities are added. The basic idea behind this method is to develop a system through repeated cycles (iterative) and in smaller portions at a time (incremental).

Here, requirements are broken down into multiple standalone modules of software development cycle.

It is usually done in steps from analysis design, implementation, testing and maintenance.



## Design and Development

The requirements which the software is going to satisfy are listed and detailed and then presented to the programmer(s)

The flowchart of the program or the software code to be written in the next stage using the preferred programming language, is created at this stage. This stage relies on the previous two stages for its proper implementation and also proper design at this stage, ensures an execution in the next stage. If during the design phase, it is noticed that there are some more requirements for designing the code, the analysis phase is revisited and the design phase is carried out according to the new set of resources.

Based on the algorithm or flowchart designed, the actual coding of the software was carried out. This is the stage where the idea and flowchart of the application is physically created or materialized. A proper execution of the previous stages ensures a smooth and easier implementation of this stage.

## Testing

Software testing is the process of evaluating a software item with the intent of detecting bugs or differences between given input and expected output. In other words, testing is a verification and validation process. The system went through various types of testing to validate and verify if it has met the functional and non-functional requirements. It is a way of checking software to ensure that it has all the required functionality that's specified within its

functional requirements. The following describe the types of tests that were conducted to verify and validate this system.

### **System Testing**

System testing is level of software testing where testing is conducted on a complete integrated System to evaluate the system's compliance with it specified requirements. This type of testing is performed on the system entirely.

### **Unit Testing**

Unit testing is a level of software testing where individual units/components of a software are tested. Unit testing is the first level of software testing. The purpose is to validate that each unit of the software performs as designed

### **Implementation**

This is the last stage of the software development in the waterfall model. A proper execution of all the preceding stages ensures an application as per the provided requirements and most importantly, it ensures a satisfied client. If the client demands further enhancements to be made to the existing software, then the development process must begin anew, right from the first phase which is requirements.

After an evolution, a better version of the software is developed. Every cycle comes up with a working software.

### **Why iterative model?**

From the nature of my project, involvement of two parties; employers and employees, and further decomposition being possible, this model favors my software in that by breaking down, it will establish a better understanding of the system and later on linking them to form the hybrid system won't be a hard nut to crash.

## **Advantages**

- With every increment, operational product is delivered.
- Issues, challenges and risks identified from each increment can be utilized/applied to the next increment.
- Parallel development can be planned.
- Testing and debugging during smaller iteration is easy

## **Disadvantages**

1. More resources may be required.
2. End of project may not be known which a risk is.

## **Data collection methods and tools**

Data collection methods in my research were:

- i) Surveys and questionnaires – Job seekers and providers were to answers questions that helped me capture their Bio Data that helped in category divisions of jobs that could suffice majority of their categories n fields of specialization.
- ii) Written sources – Books and journals are a great reference point especially on what is the data of the specific domain that is documented already.

These sources have been providing some data as backdated and hence the need for interviews.

- iii) Interviews – Interviews helped a big deal to establish clear data that was well clarified where need be. Interviewing job seekers especially brought to light relationships among various professions in the capabilities of various job seekers besides the explicit definition of their courses.

## **Tools**

**Stratification** - The technique takes a large amount of data from multiple sources and puts it into subgroups, allowing patterns to emerge.

It was used to separate data gathered from the various sources so that patterns can be seen and different job categories can be established for the various levels of education be established.

As such, the number of our target population lies largely in the undergraduates and college students. There was high demand for part time and freelancing categories of jobs.