

Online Job Portal System for E-Learner Using K-Means Algorithm

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Abstract

Online Job Portal searching is one of the large commercial and informative website providing its services to all kinds of people. Major functionalities of the site include providing services to recruitment agencies, software and hardware development companies, job seekers and e-learners. Here we try to post several jobs based on different technologies and here we try to apply K-Means clustering algorithm in order to cluster the jobs based on user interest and based on his skill sets jobs will be classified and send to individual user.

1. INTRODUCTION

A job is a principal activity in your life that you do to earn money. Like any major effort, planning is essential for a good job hunt. If you are organized and use your time efficiently, then you will contact more people and find more opportunities. Finding a good job is usually a “numbers game” - the more effort you put into it and the more people you contact, the more good quality opportunities you will uncover. The more opportunities you uncover, the more you have the power to choose the best of them. Plan the time you need to find a job into your schedule and set yourself targets. Treat finding a good new job as a job or project in its own right, putting as much effort into it as you would expect to put into your job.

This is particularly important if you are working out a notice period. Here your employer will want you to complete as much work as possible in the time you have remaining. You, on the other hand, need to put as much time as possible into finding your next job. Finding the right balance between your needs and your current employer's needs takes careful management.

Using the Internet is the most beguiling of job search strategies - it promises to help you to find a wide range of jobs with minimal effort. Bear in mind, however, that the best jobs may never be advertised

on the Internet and that dream jobs are as easy for other people to apply for as they are for you. Even then, there are many excellent resources available on the Internet.

Online job searching is one of the large commercial and informative website providing its services to all kinds of people. Major functionalities of the file include providing services of Recruitment Agencies, Software and Hardware development companies, Job seekers and e-Learner.

Your best approach will be to use the Internet for job-hunting. This gives you a reasonable coverage of channels for your time. Whatever you do, though, don't worry about covering the whole job market - there are so many people, agencies, web sites and job boards out there that it would be impossible to speak to, visit or look at them all. Just do as much good quality job hunting as you can fit into the time available.

In order to avoid the problems in the existing system, the new system should provide a facility to the seeker so that they can search for a job by location or a company and should be able to apply if their skill sets matched. The system should also provide a facility to the job provider that they could post a job with all the requirements and skills they need. The system should treat all the job providers and job seekers as the users of the system.

PROBLEM STATEMENT

The present system that exists contains different websites for Job Providers, for Job Seekers and for e-Learners and it is a time taking process. If the user needs to access all these websites, one has to access all these sites differently. This poses to be a problem for the user. Moreover if a user who needs to be both Job Seeker and e-Learner, he needs to access two different websites. Even this is a problem for a user. The only solution to this problem is having a single site that contains all the details related to Jobs, Job Providers and Job Seekers.

PURPOSE

Once Job Providers register with the site by giving the details about their companies, they can achieve the services like getting the resumes of Job seekers, placing the job advertisement for people with specific skills and also advertise about company and products they have developed. The job seekers, can search for the jobs by giving the queries and get the information, and will have access to all services like advanced job search, auto mail about the latest jobs and aptitude tests, FAQ's etc.

OBJECTIVE

The present system that exists contains different websites for Job Providers, for Job Seekers and for e-Learners and it is a time taking process. If the user needs to access all these websites, one has to access all these sites differently. This poses to be a problem for the user. Moreover if a user who needs to be both

Job Seeker and e-Learner, he needs to access two different websites. Even this is a problem for a user. The only solution to this problem is having a single site that contains all the details related to Jobs, Job Providers and Job Seekers.

SCOPE

The proposed system is a combination of the different activities of Job Seekers, Job Providers and e-Learner. The site is proposed to be one of the large commercial and informative website providing its services to all kinds of people. Major functionalities of the site include providing services to recruitment agencies, Software and Hardware development companies, job seekers and e-learners. In spite of having various features, few of the major features are services for job recruiters, job seekers and e-learners.

To accomplish the above problems a project on “Online job searching” was developed with the following objectives:

- a) To enhance the existing techniques for job searching.

To provide services to job seekers, job providers and e-learners

2. LITERATURE SURVEY

INRODUCTION

Literature survey is the most important step in software development process. Before developing the tool, it is necessary to determine the time factor, economy and company strength. Once these things are satisfied, ten next steps are to determine which operating system and language used for developing the tool. Once the programmers start building the tool, the programmers need lot of external support. This support obtained from senior programmers, from book or from websites. Before building the system the above consideration r taken into for developing the proposed system.

RELATED WORK

A. Job Procurement:

Old and New Ways Job seeking usually involves different ways to look for jobs such as through personal contacts, direct telephone calls to employers, job agency office, scanning online job listings, etc. [3]. Before the Internet, became widely uses as a method of seeking jobs, jobseekers spent a lots of time using various methods to look for job openings. Today, jobseekers use online methods which are very convenient and save a lot of time. Galanaki [5] lists the following methods to be the traditional (old) ways for recruitment:

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

These old job seeking methods are too slow, stressful, challenging and also lack quality [6]. In addition, the applicants have to consider the cost and the amount of time to get the information they need, and other preparations they have to make. Finding all available job vacancies is a main step at in the job-seeking process. The Internet is now a powerful tool that jobseekers can use. Today, there are many sites that advertise job positions to be filled by people with certain skills in various fields. The Internet plays an important role in the area of human resource planning and development. Most planning and development organizations are now using computer technology and the Internet for staff recruitment. It should be noted that although the Internet has facilitated the process of job-seeking, it has not replaced the traditional methods, completely. **B. Importance of Job Portals**

In the age of technology, the Internet has become the main source of information for jobseekers. Large corporations, Institutions, and universities include information on career Prospects on their websites. According to a survey, 70% of the workforce uses websites or portals on the Internet to Search for jobs in France. These websites or portals provide search engine to access information on job opportunities.

3. EXISTING SYSTEM

The present system that exists contains different websites for Job Providers, for Job Seekers and for e-Learners and it is a time taking process. If the user needs to access all these websites, one has to access all these sites differently. This poses to be a problem for the user. Moreover if a user who needs to be both Job Seeker and e-Learner, he needs to access two different websites. Even this is a problem for a user. The only solution to this problem is having a single site that contains all the details related to Jobs, Job Providers and Job Seekers. In the existing system we don't have such a common platform.

LIMITATION OF EXISTING SYSTEM

The following are the limitation of existing system. They are as follows:

1. It is not effective way
2. Maintenance cost is high
3. Hence a lot of manual effort is going on to search for the related jobs from various web sites and then try to apply for valid job matched with skill set.
4. No Data mining algorithms are applied

4. PROPOSED SYSTEM

In this we discuss about the proposed system with functionalities like providing services to recruitment agencies, software and hardware development companies, job seekers and e-learners. Here we try to post several jobs based on different technologies and here we try to apply K-Means clustering algorithm in order to cluster the jobs based on user interest and based on his skill sets jobs will be classified and send to individual user.

ADVANTAGES OF THE PROPOSED SYSTEM

The following are the advantages of the proposed system. They are as follows:

1. K-means algorithm is efficient in finding the relevant jobs based on skill set.
2. Here we provide resume management service in this application,for preparing resumes in efficient way.
3. Low maintenance cost.
4. It is user friendly.

5. SOFTWARE PROJECT MODULES

Implementation is a stage where theoretical design is converted into programmatic manner. The implementation will be divided into number of modules like 3 modules

1. Job ProviderModule
2. Job Seeker Module
3. E-Learner Module

Now let us discuss about each and every module in detail

5.1 Job Provider Module

Once **JOB PROVIDERS** register with the site by giving the details about their company, they can achieve the services like getting the resumes of job seekers, placing the job advertisement about company and products they have developed. The following are the roles of job provider :

1. Registration
2. Login
3. Add job
4. List job
5. List of Applicants
6. Deleting a Job
7. Change profile
8. Change password

5.2 Job Seeker Module

The **JOB SEEKERS** can search for the jobs by giving the queries and get the information and they will have access to all the services like advanced job search, employment news and FAQ's. They can also have the access to the general interviews. The following are the roles of job seeker:

1. Registration
2. Login

3. Search job
4. Applying For a Job
5. Change profile
6. Change password

5.3 E-Learner Module

In this module the user can have the following operations such as :

1. Finding several Resumes
2. Different Types of Resume based on profession

Interview Tips

6. OUTPUT RESULTS

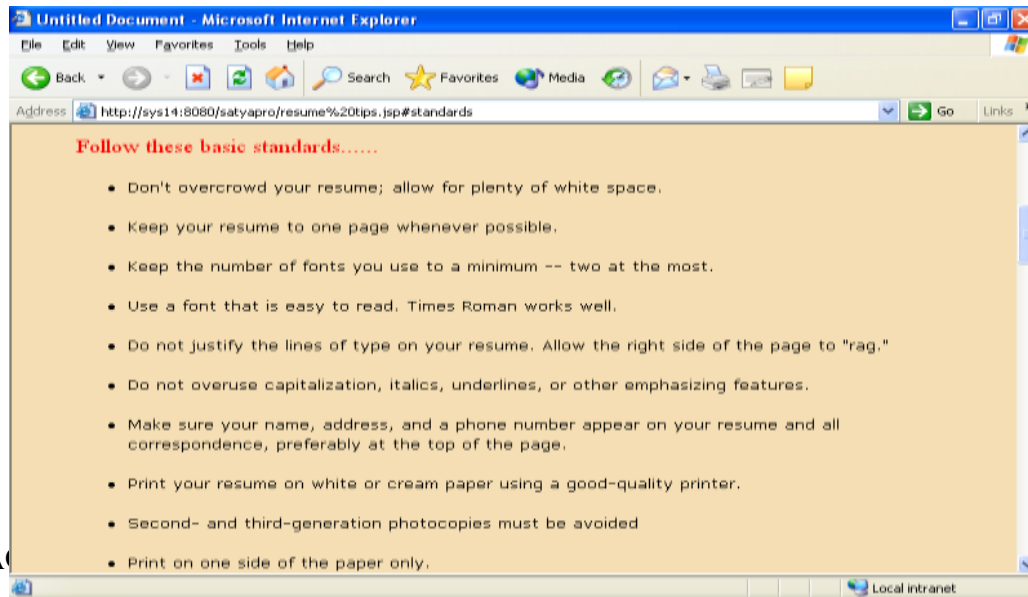
Resume Tips Form:

The following is the form showing the resume tips.



Basic Standards Form:

The following is the form showing the basic standards of resume tips.



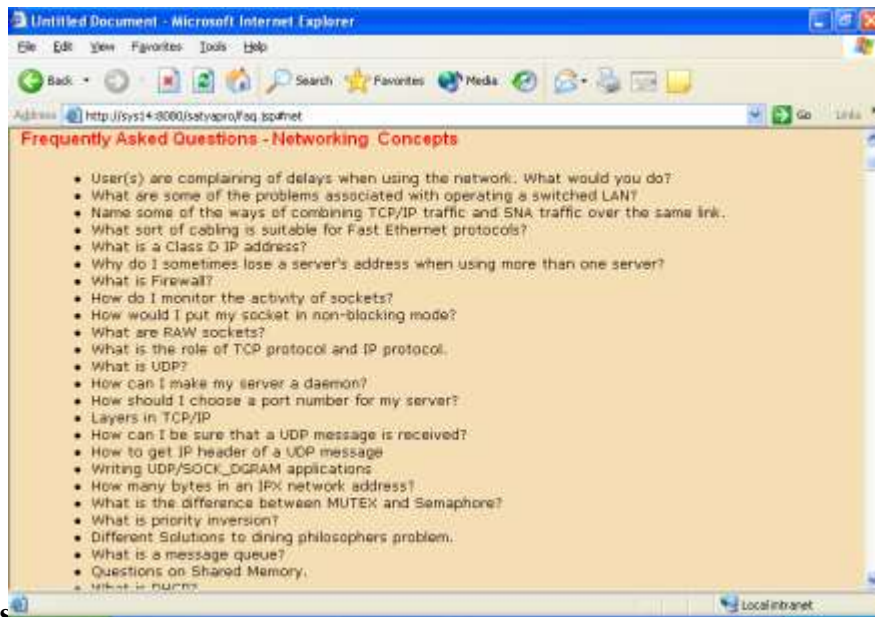
FAQ

The following is the form showing FAQ's.



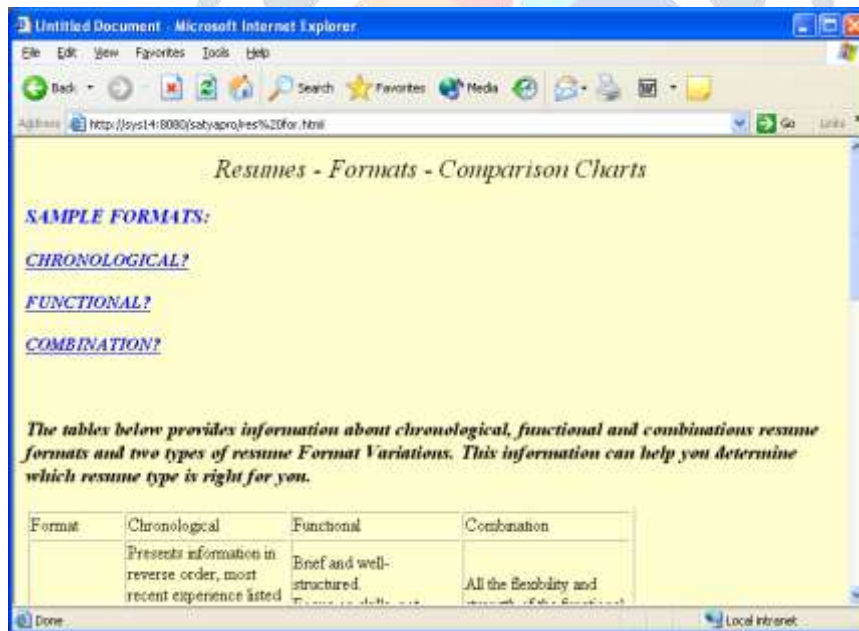
FAQ's in Networks:

The following is the form showing FAQ's in networking concepts.



Sample Resumes.

The following is the form showing sample resumes.



Job Seeker Registration Form:

The following is the form for the registration of a new job seeker.

The screenshot shows a web browser window with the URL <http://localhost:8080/onlinejob/registration.jsp>. The page title is "New jobseeker Registration". The form contains the following fields and values:

- Username:
- Password:
- Confirm Password:
- Email Address:
- Fullname:
- Acad. Qualification:
- Skill Set:
- Experience:
- Date Of Birth:
- Exp. In Years:

Buttons: Register, Back

Job seeker home page:

The following is the form showing the home page of the job seeker, displaying various jobs and their details along with options for changing password, profile.

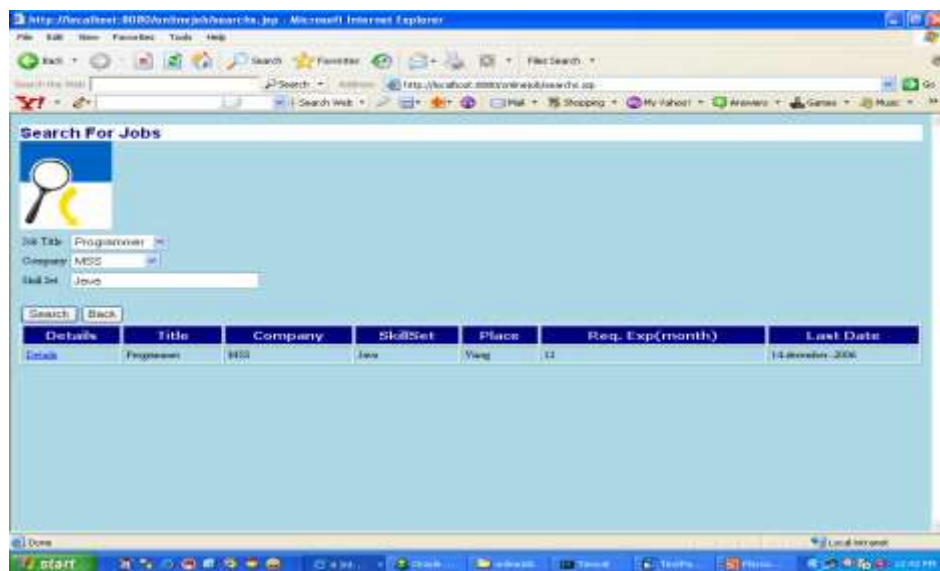
The screenshot shows a web browser window with the URL <http://localhost:8080/onlinejob/jobseekerhome.jsp>. The page title is "Welcome To rajesh". The page contains the following elements:

- Welcome message: Welcome To rajesh
- Navigation links: [Search For Jobs](#), [Change Profile](#), [Change Password](#), [Logout](#)
- Section: Recently Added Jobs
- Table with 7 columns: Details, Title, Company, SkillSet, Place, Req. Exp.(months), Last Date

Details	Title	Company	SkillSet	Place	Req. Exp.(months)	Last Date
Details	Testings	MCS	Web/Java	BTD	12	2006-12-18 00:00
Details	Test/Dev	INFOSYS	Web/Java	PL/BE	12	2006-12-18 00:00
Details	Developer	MCI	Java/JSP	Hyderabad	12	2006-12-18 00:00
Details	Programmer	MCS	Java	Bang	12	2006-12-18 00:00

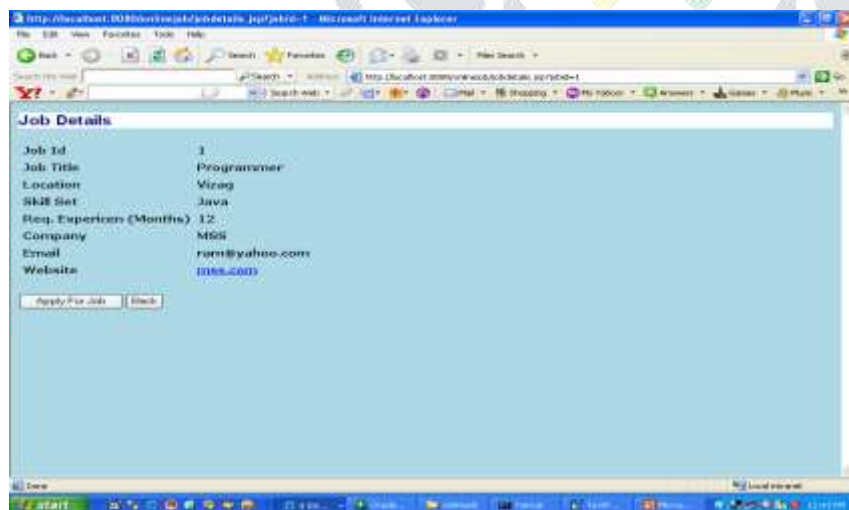
Search Jobs Form:

The following form is used for searching jobs.



Job Details Form:

This form displays the details of the job selected where he can apply for the job.



7. CONCLUSION

The visibility of the online tender handling solution is now increasing dramatically worldwide in recent years. Since last year, more than 70 major demonstrations have been performed and approximately 200 additional country organizations, regional authorities or individual authorities have heard about online tendering. Online tendering as a tool to specify decision criteria, issue on line tenders and evaluating responses using this methodology. In all these cases the feed back was extremely positive and the users claimed they had .This project is having a broad future scope as it can be extended to provide services to the customers (seekers or employers) online. This system can be implemented for online transactions without the intervention of the authority. If it is done so, the employer can post a job and a jobseeker can search for a job from anywhere in the world. He can apply for the required job without wastage of time. In other words the future scope is to provide the service over the Internet.

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