

Experiment No.: 1

AIM: Write SRS

THEORY:

Software Requirements Specification For

Job Recruitment System

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1. Introduction

1.1 Purpose

The proposed system bridges the gap between the recruiters and job seekers, by reducing the time and cost of running for job interviews from one place to another. By uploading resumes and setting job search criteria by the job seekers, the recruiters can browse the web application. Recruiters will have the freedom to post the particular jobs with their requirements, can filter their search query, check out the resumes of job seekers, can create their profiles. Job seekers can able to search job on the basis of various category such as organization wise, using their skills, location wise, job type.

1.2 Document Conventions

For Main Heading:

Font size: 18, Font: Times New Roman, Font Type: Bold

For Sub Heading:

Font size: 14; Font: Times New Roman, Font Type: Bold

For Content:

Font size: 12, Font: Times New Roman, Font Type: Regular

1.3 Intended Audience

The intended audience of this document includes faculty members in the Department of T.P.O, the students looking for placements, company HR.

1.4 Product Scope

The project targets the HR Departments of hiring companies, where the recruiters can upload jobs and look out for candidates with the required skills for the job. On the other hand, those seeking for jobs choose from various jobs available. The main modules of the system are Admin, Recruiter and Job Seeker

1.5 References

- Job Portal - A Web Application for Geographically Distributed Multiple Clients
Publisher: IEEE
By: Vivek Kumar Sehgal; Akshay Jagtiani; Meha Shah; Anupriya Sharma; Arpit Jaiswal; Dhananjay Mehta
- A Online Job portal management system By: Keethana Kopuri¹, Gulam Mujtaba Hussain Aqueel², Azbar Sadiqa Jabeen³, Dr.T.K.Shaik Shavali⁴
- Software Engineering PPT By Dr. Bandu Meshram
- Report on Online Job Portal by Urmi Chakravarty
- Grady Booch, J. Rumbaugh, Ivar Jacobson, "The UML Users guide", Pearson

2. Overall Description

2.1 Product Perspective

The Job Recruitment System provides searching of jobs by the job seekers listed. The Recruiter/HR Departments of the companies posting jobs available. The Admin approving the recruiters and job seekers to keep authenticity. It manages the database of jobs, companies, HR Departments, job seekers, skills, resumes.

2.2 Product Features

Admin

- i. Login/Logout: This will help users to login into the system using id and password. A user who has the valid id and password can only login to their respective accounts.
- ii. Manage recruiters/job Seekers: It verifies and authorizes the accounts of a user, that can be either a recruiter or a job seeker, to ensure minimum fake jobs and scams to occur.

Recruiter

- i. Register: In this segment, we will register the new user of the system by entering the required details, this will then be approved by the admins.
- ii. Login/Logout: This will help users to login into the system using id and password. A user who has the valid id and password can only login to their respective accounts.
- iii. Create Job: In this interface, the recruiter who has registered themselves in the system can post the jobs. They can give the requisition specifying the post and skill needed for that post. It also implies the criteria of recruitment the Recruiter has planned for the post.
- iv. Schedule Interview

Job Seeker

- i. Register: In this segment, we will register the new user of the system, by entering the required details.
- ii. Login/Logout: This will help users to login into the system using id and password. A user who has the valid id and password can only login to their respective accounts.
- iii. Apply for Jobs: This module is for the job seeker where they can search all the requisition present in the system. One can filter the search based on their skill and experience of the job. Ones selected a requisition applicant can apply for the post.
- iv. Edit Profile: This feature allows the job seeker to update his/her skills and profile
- v. Check status for the job application applied to

2.3 User Classes

The user classes are:-

1. Admin: Who administrated the overall system by allowing job seekers and recruiters into the system and ensuring authentic entry into the system
2. Job Seeker: The main task is to search from jobs available and update the skills and resume.
3. Recruiter: Uploading of valid vacant jobs for the company and selecting candidate for interview
4. Interview: A recruiter schedules an interview process for the job seeker

5. Job: It is posted by a recruiter for a company and job seeker applies for one.

2.4 Operating Environment

No. of machine: 1.

Processor: Pentium 4 & upward.

Hard disk: 80 GB

RAM: 256 MB & upward

Java: JDK8.1, JRE8.0

Server: Apache tomcat 7.0

Database: Oracle10g

Operating system: Windows-xp & upward

2.5 Design and Implementation Constraints

- The user should have sufficient knowledge of computers.
- The users must know the English language, as the user interface will be provided in English.
- The browser using should support JSP
- The user need internet connectivity

2.6 Assumptions and Dependencies

- Jobseeker should be from any fields.
- Only admin have all the privileges.
- Candidate can only fill the registration form.
- Candidate cannot apply for job after deadlines.
- The project is done on the basis of selection of candidates for the company
- Every user should be comfortable working with computer and net browsing

3. External Interface Requirements

3.1 User Interfaces

The key rules are

- Placed the user in control with program the interface do what the user desire.
- Reduced the user's memory load with less command based and intuitive shortcuts.
- Make the interface consistent

Login Form

Job Recruitment System	
Login Form	
Username	<input type="text"/>
Password	<input type="password"/>
Type	<input type="text"/>
<input type="button" value="Login"/>	<input <="" td="" type="button" value="Forgot Password?"/>
<input type="button" value="Sign Up"/>	

Registration Form (Job Seeker/Recrutier)

Job Recruitment System	
Registration Form	
Username	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>
Type	<input type="text"/>
Education Details..	
Personal Details...	
<input type="button" value="Register"/>	<input type="button" value="Go Back"/>

Admin Dashboard

Job Recruitment System				
Admin Dashboard				
	Profile	Manage Users	Accept Users	

Job Seeker Dashbard

Job Recruitment System				
Job Seeker Dashboard				
Profile	Upload Resume	Search Job	Message	Feedback

Recruiter Dashboard

Job Recruitment System			
Recrutier Dashboard			
Profile	View Posted Job	Post a Job	Search Jobseeker
	Message	Feedback	

Search Jobs

Job Recruitment System				
Job Seeker Dashboard				
Profile	Upload Resume	Search Job	Message	Feedback
<div><div>Keywords<div>java</div></div><div>Location<div>mumbai</div></div><div>Experience<div>2</div></div><div>Expected Salary<div>10000</div></div><div>Search Job</div></div>				

Post a Job

Job Recruitment System			
Recrutier Dashboard			
Profile	View Posted Job	Post a Job	Search Jobseeker
	Message	Feedback	
<div>Job ID <input type="text"/></div> <div>Job Title <input type="text"/></div> <div>Job Description <input type="text"/></div> <div>KeySkills <input type="text"/></div> <div>Salary <input type="text"/></div> <div>Minimum Experience <input type="text"/></div> <div>Role <input type="text"/></div> <div>Location <input type="text"/></div> <div>Post A Job</div>			

3.2 Hardware Interfaces

No. of machine: More than 1.
Processor: Pentium 4 & upward.
Hard disk: 80 GB
RAM: 256 MB & upward
LAN card (Each system)
Keyboard
Mouse
Color Monitor.
Networking environment

3.3 Software Interfaces

For server:

Java: JRE5.0
Server: Apache tomcat 5.5
Database: Oracle9i
Operating system: Windows-xp & upward

For client system:

New version of java enabled web browser.
Operating system: Windows-xp & upward

3.4 Communications Interfaces

The Recruitment System will be connected to the World Wide Web.

4. System Features

4.1 Job Seeker Module:

- Registration: This is to add the job seeker into the system, this is done only after admin approval
- Login: This module is responsible for verifying the user whether they are valid or not or comes in which category.
- Job Search: This module will help Job Seeker to search jobs across portal based on there location and profile.
- Apply for Job: This module is responsible for applying for jobs. Here Job Seeker can apply for jobs from any where, any time.
- Check Job Status: Within this module Job Seeker can check their job status for which they applied for..
- Feedback: Through this a user can pass their opinion about the company to the server

4.2 Job Recruiter Module:

- Registration: This is to add the job recruiter into the system, this is done only after admin approval
- Login This module is responsible for verifying the user whether they are valid or not or comes in which category.
- Post Job: Through this module recruiter can post jobs.
- Job Seeker Search: This module will help recruiters to find job seekers. Based on job profile and location recruiter can search for job seekers.
- Select for Interview: Through this module Recruiter can select job seeker for interview.
- Feedback: Through this a user can pass their opinion about the company to the server.

4.3 Administrative module:

- Login: This module is responsible for verifying the user whether they are valid or not or comes in which category.
- Reports: Within this module administrator can view various reports like list of jobs/jobseekers/recruiters.
- Add/Delete: Through this module, administrator can remove job seeker profiles/recruiter profiles/jobs.

5. Functional Requirements

5.1 Use Case Description

5.1.1 Use Case: Registration

Name	Register
Summary	A new user (a user which doesn't have an account) should first register into the system to use it. This feature will allow the user to enroll into the system if the user is a new user and doesn't already have an existing account.
Rationale	The user can access the system
Actor	Job Seeker and Recruiter
Pre-Condition	None
Basic course of Event	<ol style="list-style-type: none">1. User opens the desired module of the system.2. The system displays GUI the registration.3. User enters the valid details required to join the system4. Submits the form
Post- Condition	User is registered and wait for approval from Admin

5.1.2 Use Case: Login

Name	Login
Summary	Job seeker can change information into their profiles which include profile edit, delete, and update.
Rationale	After registration of the user, the valid user can login into the system
Actor	All Users
Pre-Condition	<p>The login name and password should match with the login name and password provided while registering.</p> <p>If the username and or password do not match, the user cannot login successfully into the system.</p>
Basic course of Event	<ol style="list-style-type: none">1. User opens the desired module of the system.2. The system displays GUI the login form3. The user writes its username, password and type4. If valid, usercan login into the system. If the username and or password do not match, the user cannot login successfully into the system.

Post-Condition	User goes to his/her dashboard
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5.1.3 Use Case: Manage Profile

Name	Manage Profile
Summary	USercan change information into their profiles which include profile edit, delete, and update.
Rationale	If there is unnecessary date and fake profiles that are running on the site then Admin will have rights to remove or delete the profile.
Actor	All Users
Pre-Condition	Profile and record must exist
Basic course of Event	<ol style="list-style-type: none"> 1. User opens the desired module of the system. 2. The system displays GUI of different pages. 3. User will input the necessary data into the fields. 4. System will update the record as per requirements.
Post- Condition	User receives the notification that profile has been approved or profile has been updated.

5.1.4 Use Case: Upload CV

Name	Upload CV
Summary	Job seeker can post his/her CV on job portal
Actor	Job seeker
Pre-Condition	New Jobs and other features should be displayed.
Basic course of Event	<ol style="list-style-type: none"> 1. Job seeker search for a specific job category. 2. The system displays GUI for the new jobs and features. 3. Job seeker clicks on the new jobs option and upload his/her CV there. 4. System will show all the CV on the admin and job seeker end.
Post- Condition	CV successfully uploaded.

5.1.5 Use Case: Apply/Search for Job

Name	Search/Apply Jobs
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Summary	Job seeker can search for jobs related to his interest using filters, if interested he can apply for the job
Rationale	Job Seeker is searching for a job
Actor	Job Seeker
Pre-Condition	Job Seeker must have an account
Basic course of Event	<ol style="list-style-type: none"> 1. Jobseeker access the required page to search the job. 2. System will show the appropriate GUI for searching and filtering the jobs 3. Job Seeker will fill all the required fields and describe the category and type of a job. 4. If, he/she is interested he will Apply for the job
Post- Condition	Apply for the job and wait for Interview notification.

5.1.6 Use Case: Job Application Status

Name	Job application status
Summary	Job seeker can check its status either their application is accepted.
Rationale	If their application is accepted and rejected, then they must know about the status, so that they can further proceed.
Actor	Job seeker
Pre-Condition	Job should have been applied for
Basic course of Event	<ol style="list-style-type: none"> 1. The job seeker login to system and check status of his application 2. The system displays GUI for the job application page. 3. Job seeker clicks on the page and check its status. 4. System will show all the results regarding their post on the jobs.
Post- Condition	Result successfully shown to the job seeker

5.1.7 Use Case: Post jobs

Name	Post Jobs
Summary	Recruiter can post the job
Rationale	Recruiter wants to find the right employees for specific job.
Actor	Recruiter
Pre-Condition	Recruiter must have a task and reasonable price for that task

Basic course of Event	<ol style="list-style-type: none"> 1. Recruiter access the required page to post the job. 2. System will show the appropriate GUI for posting the project. 3. Recruiter will fill all the required fields and describe the category and type of a project. 4. System will post the job.
Post- Condition	Anyone can see the posted job and apply for it after registration.

5.1.8 User Case: View Job seeker profile

Name	View Job seeker profile
Summary	Recruiter can search the job seeker by name and can view the whole portfolio of job seeker.
Rationale	If a Recruiter has a job then he can search the job seeker and see entire profile of all employees or jobseekers.
Actor	Recruiter
Pre-Condition	Recruiter must be existing in a list and Job Seeker has applied for the Job
Basic course of Event	<ol style="list-style-type: none"> 1. The user indicates that the system is to perform a search function. 2. System responds by the requesting the search term and shows the results. 3. System will show the entire job seeker in a relevant field in which Recruiter wants.
Post- Condition	Recruiter can see whole information about the job seeker.

5.1.9 Use Case: Hire Jobseeker

Name	Hire Job seeker
Summary	Recruiter can hire the employee for a specific job required
Rationale	Recruiter has a job and wants to search the employee for the project if found, Recruiter will hire schedule the interview.
Actor	Recruiter
Pre-Condition	Recruiter should have posted a job.

Basic course of Event	<ol style="list-style-type: none"> 1. The user indicates that the system is to perform a search function. 2. System responds by the requesting the search term and shows the results 3. System will show the entire list of job seeker. 4. System will send the interview notification to the job seeker.
Post- Condition	Job seeker will receive the notification that he or she has been asked for interview.

5.1.10 User Case: Handle Users

Name	Handle Users
Summary	Admin can view all the user's proceedings.
Rationale	If admin wants to job seeker and recruiter to be added to the system or denied.
Actor	Admin
Pre-Condition	Job Seeker or Recruiter has registered through the website
Basic course of Event	<ol style="list-style-type: none"> 1. Job Seeker or Recruiter has registered through the website 2. Admin verifies the details and credentials of the user 3. If valid, he admits them into the system, else removes them
Post- Condition	Job Seeker and Recruiter's account will be created

5.2 Functional Requirements

Functional Requirement Id	Requirement Name	Details of requirement	Priority
FR001	Authentication	The system will provide functionality to all the users once they log onto the system with their user name and password. On the basis of their type, they will be directed to different pages or section	Essential
FR002	Login declined	If user enters wrong username and password it will show the error message.	Essential
FR003	Admin approval	The admin can approve the request of job seeker and recruiter to the syste,	Essential
FR004	Job Posting	Recruiters can post jobs, and specific details	Essential
FR005	Registration form	A job seeker or recruiter can register online to apply for the job or as employee	Essential
FR006	Reset password	Due to privacy concerns any registered user in the system can change their login password	Essential
FR007	Upload CV	Job seeker can upload their CV including cover letter to apply for job	Essential
FR008	Download CV	Admin can download CV of the applicant from the system	Essential
FR009	Admin Rejection	The admin if suspicious can deny the request of user to join the system	Essential
FR010	Update Job Details	Admin can make changes to the job listed already	Essential
FR012	Change address	All users can change their address as required.	Essential
FR011	Change skills, education and other details	The job recruiter/seeker can edit his details on the profile	Essential
FR013	Apply for job	Job seeker can apply for job after registration.	Essential
FR014	Suspend a user	Admin can suspend a user from system as required.	Essential

FR015	Reference no for application	System will generate a reference no for job seeker application.	Essential
FR016	Categories jobs	Recruiter can select a category to post a job.	Essential
FR017	Feedback form	Job seeker can send feedback to admin by contact us page.	Essential
FR018	Search Jobs	Job seeker can search for job by typing key words.	Essential
FR019	Email confirmation of registration	Job seeker will get an email after registration is completed.	Essential
FR020	Submit registration form	After filling registration form job seeker can submit the application	Essential
FR021	Cancel Registration form	If job seeker does not want to submit the form, they can cancel it	Essential
FR022	Job Alerts	Job seeker can receive job alerts by message about specific job category	Essential
FR023	Job Alerts	Recruiters can receive job alerts by message after job seeker apply for the job	Optional
FR024	Logout	The user can logout from the system to avoid unauthentic access	Essential
FR025	Create a Job	A recruiter can add a job to the system with all its details	Essential

6. Non-functional Requirements

6.1 Performance Requirements

- Response Time: The splash page or information page should be able to be downloaded within a minute using a 56k modem. The information is refreshed every two minutes. The system shall respond to the member in not less than two seconds from the time of the request submittal. The system shall be allowed to take more time when doing large processing jobs.
- Throughput: The number of transactions is directly dependent on the number of users.

6.2 Security Requirements

Login verification:

- Jobseeker will be asked for username, password and type will provide the detail about the type of user, to access jobseekerhome only jobseeker type is accessible.
- For the adminhome, it will only demand their username & password and type as admin.
- For the recruiterhome, it will request username, password and type as recruiter.

Hidding the Home Page name from external people: Through this, we will provide double security from external users for the Job Seekers, Recruiters and as well as Administrator Home Page: By Hiding home page name. If unfortunately, they know then username verification works as a security for us.

6.3 Safety Requirement

- The server should always be confirmed to run properly and the data are saved to the database at consecutive intervals.
- Power is a significant feature and the power supply should be always taken care of.
- Power supply must be uninterrupted. Unsaved data might be lost due to sudden power failure.
- The database may get crashed at any point of time due an operating system failure or any other reason. Therefore a reliable backup system has been implemented.
- Safeguard the system and server side and database from People ,earthquake, fire, temperature, humidity etc.

6.4 Business Rules

Frequency of use can be varied depend on where it is used.

6.5 Usability requirement

- The system shall allow the users to access the system form the internet using HTML or its derivative technologies. The system uses a web browser as an interface.
- Since all users are familiar with the general usage of browser, no specific training is required.
- The system is user friendly and self-explanatory.

6.6 Serviceability requirement

Mean Time between Failures (MTBF): The system will be developed in such a way that it may fail once in a year.

6.7 Manageability requirement

The software must be looked upon every hour for any instability or any unlawful activity. The number of users per hour should be tracked, the number of users returning to the system and failure statistics should be noted.

6.8 Recoverability requirement

Recoverability is the ability to restore function and data in the event of a failure. The failure of system must be found within 30 minutes and repair should take less than 2 hours.

6.9 Data Integrity requirement

User data is confidential and should be stored in an encrypted way, to prevent unauthorized access and misuse. Information regarding airlines must be treated with utmost confidentiality. Users must be told to upgrade their passwords periodically, to improve security and confidentiality of their data. Encryption keys must not be made publicly available at any cost.

6.10 Capacity requirement

The system is capable of handling 250 users at a time.

A large amount of data will be stored on such a platform, hence the data storage should be as efficient as possible. Data access and data management should be efficient. Since many users do not have large amounts of internet data that can be used, the platform should efficiently use network resources, and not consume unnecessary data bytes for communication. It should also not store much cache data on the user side, to keep the application size small.

6.11 Availability requirement

- The service should not be denied at any time to any authorized user. Routine maintenance should be performed at hours of low user activity, to reduce the number of users inconvenienced. If the platform is not available for use by any user, at any point, efforts should be taken to make it available with as little delay as possible.
- The system is available 100% for the user and is used 24 hours a day and 365 days a year.
- The system shall be operational 24 hours a day and 7 days a week.

6.12 Scalability requirement

With the increase in users over 500 that is double the capacity of the system the, performance will be affected and would slow down. To integrate greater number of users the bandwidth of the server and ability to respond to queries should be continuously monitored and improved.

6.13 Interoperability requirement

- The system can be adapted to run on computers other than the one for which it was designed.
- Degree of hardware independence: There is no interdependence between the hardware components
- Implementation language: the JSP pages can be run on all web browsers

6.14 Reliability requirement

The system should be robust and recovery schemes must be provided to restore the system state in case of a crash. User data should be backed up at periodic intervals. The software size should be kept as small as possible, since smaller systems have lower chances of crashing, and are therefore more robust. The code should also be capable of handling edge cases, and the implementation should be abstracted to prevent modification by any outsider.

6.15 Maintainability requirement

The maintenance of the system shall be done as per the maintenance contract.

6.16 Regulatory requirement

The system shall be comply with the TCP/IP protocol standards and shall designed accordingly.

The coding standards and naming conventions will be as per the American standards.

6.17 Environmental requirement

The system should be developed in a well-lit and cool room to maintain the server. There should be less interference in the wireless signals in case of wireless connectivity to the internet. the temperature within the range of 18 °C to 23 °C and the humidity within the range of 50 % to 70 % independent of weather conditions.

CONCLUSION: Thus, from this experiment I drafted the software requirement specification document for the case study of Job Recruitment System.