Software Requirements Specification

for

Campus Recruitment System

Group 17

202012013 | 202012027 | 202012069 | 202012072 | 202012087

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1 Introduction

1.1 Purpose
The primary purpose to develop this system is to optimize the recruitment process for college. Besides, the qualified applicants could be sorted by this system based on their qualifications and company requirements. Based on the applicant's skills and areas of interest, the company suitable or the company in which he/she is going to place can be predicted. Another purpose of this system is to facilitate the student (in the college) and the company to register and communicate with the Student Placement Cell (ADMIN).

1.2 Scope
Campus Recruitment System enables the user to have the typical recruitment facilities and features at their disposal. It resolves the typical issue of manual staffing processes and activities into a controlled and closely monitored work flow in the architecture of the application. The objective of this application is to serve as a common meeting ground for the students of DAIICT and companies who want to participate in placement drives of DAIICT. This kind of system is specifically designed for organization to help in solving staffing problems and managing human resource department activities at a higher degree of optimization.

1.3 Definitions, Acronyms and Abbreviations
We have not used any abbreviations, acronyms or definitions.

1.4 References
   I.   Software Engineering: A Practitioner's Approach: Book by Roger S. Pressman
  II.   Introduction to Software Engineering: Ronald J. Leach
III.   Beginning Software Engineering: Rod Stephens

1.5 Overview
The rest of this SRS document describes the various system requirements, interfaces, features and functionalities in details.

2. Overall Description:

A campus recruitment system is proposed for the varying in-campus placement activities to be carried on the single platform which will allow more interactive and effective communication between recruiter companies and students. This provides a more efficient way to the HR department of campus for handling placement activities at one single interface.

This Web-app based system consists of student login, company login, and admin login. This system will allow students and companies both to create, save and update their profile. Companies can post any job opening with detailed information about it, they can push notifications as and when required, they can carry on different phases of the recruitment process, and can also chat with the student if they want. Students can see the profile of companies, apply for jobs, save their job for future reference, chat with the companies asking for more information, see their status and can give feedback to the admin about the system.

The admin has overall rights over the system and can moderate and delete any details not pertaining to college placement rules. The system handles student as well as company data and efficiently displays all this data to respective sides.

2.1 Product Perspective:

This system will be web-based, independent, self-contained and easy-to-use application. This system will provide a user interface for companies, admin and students. If the user does not have an account then he/she can create their account with the credentials which are asked to submit. And then they will be allowed to use the functionalities which are designed for that particular User.

Students can only be able to register themselves by their respective college domain ID.

Admin will already be having an ID and password. The admin will login and manage the student and companies' activities.
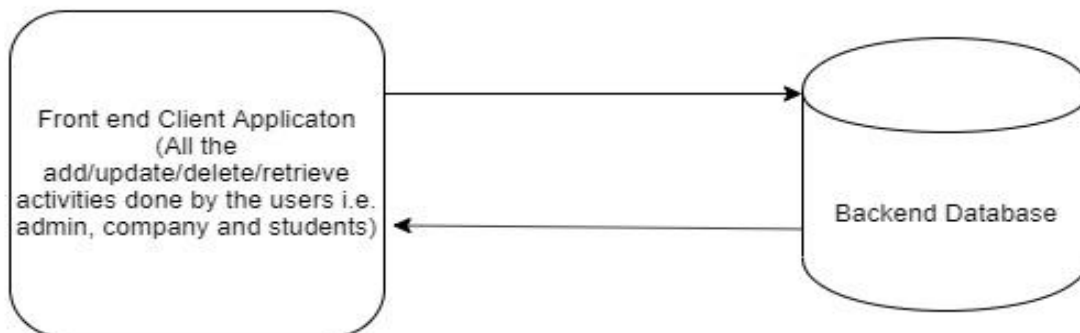
2.1.1 System Interfaces:

None.

2.1.2 User Interfaces:

The Web-app application will have easy-to-use and user-friendly interface. Following are the interface that will be provided:

1) Registration Interface: This interface will ask the user to provide the necessary details in order to verify him/her. This interface will only deal with company and student users of the system.
2) Login Interface: This interface will ask users to provide their login credentials and role. User Roles can be student, company and admin.
3) Company Dashboard Interface: This page will display all the functionality that company can access to fulfil the different task. i.e., options or tabs which will direct company to the particular activity like chat with a student, give feedback, upload a job post, see notifications etc.
4) Upload post Interface: This interface will be provided to companies where they can post the detailed information about the vacancy. Pre-defined structure will be provided to companies which can be used to perform uploading tasks.
5) View/update previous posts: This interface will display the job posts which are posted by themselves. This interface will include the list of students who applied for that job and the comments of the students on that particular job.
6) Initiate Interview: This Interface will be used when companies want to initiate the interview on video call with students who have passed in previous phases.
7) Post coding test links: This interface will be provided to students and companies where companies will be able to post the link for the coding test if required and students can access it.
8) Chat interface: This interface will be provided to users and companies by which they can communicate directly to each other.
9) Feedback Interface: with the help of this, company and student can provide their view about the system to the administrator.
10) Notification Interface: With this screen, Company and admin can push notification in general as and when required. Students are only allowed to view this screen.
11) View Student data: This interface will show the information about one particular student.
12) View all Posts: This screen will be provided to students. Students can view and navigate through different categorized posts and also can apply through it. Apply will redirect students to the specific page for applying for a job.
13) Apply for Job: This screen consists of details about applying for a job. Students have to submit different asked details and can also provide Resume if it's being asked.
14) Profile Interface: This interface will further be divided and provided to students and company to create their respective profiles.
15) View/update profile: This screen will show the added profile to students and companies individually and they will be able to update their profile through this screen.
16) Upload Resume: This will be provided to students to allow them upload their resumes and save those files for future references.
17) View/Withdraw Applications: In this screen, students will be able to see the previously submitted applications and can change them any time.
18) Access Study material: Students can access study Material with the help of this screen.

19) View save post: This screen will show the saved post of students individually.
20) Contact information Interface: This interface will give the information about the admin and contact information of responsible personnel.
21) Approve Companies: This interface is only for Admin. By this, Admin can see the details of Companies asking to use the system. Admin can take action after verifying the companies respectively.
22) Post study Material: This interface is only for admin. Admin can post study material links at this interface.
23) Add jobs: This screen will allow admin to see and allow/disallow jobs in order to display it on system.
24) View feedback: Admin will access feedback by this screen.

2.1.3 Hardware Interfaces:

1) Screen Resolution should be at least 800 X 600 in order to view the content of the Web-Application clearly.
2) Some functionality of the system requires internet connection, So the computer must be connected to the internet. Wired or Wireless network is not the concern here.

2.1.4 Software Interfaces:

1) The system is self-contained and no data is supposed to share with the third party
2) System will work fine on any window-based operating system having i3 or above processor to get the best service from the system.
3) Visual Studio Code – For developing Web-application.
4) Web-app will work fine on Any Web browser. (Chrome Most-preferred)
5) Programming Language Used: NodeJS
6) Database Used: MySQL

2.1.5 Communication Interfaces:

None.

2.1.6 Memory Constraints:

1) Required Hard-disk: at least 5 GB for best service
2) Required Memory: at least 1 GB RAM

2.1.7 Operations:

1) All the backup and recovery operations on data of the users will be performed from database at server side.
2) Users of the system will be able to maintain their individual data records from the web-application only.
3) Admin of the system can manipulate data operations when needed.
4) Users will be able to perform different operations only after login into the system.

2.1.8 Site Adaptation Requirements:

Machines at the users' side should be able to support hardware and software interfaces which are defined in previous sections

2.2 Product Functions

This Web-application can only be used by the approved and verified user. Users can only access functionality which is provided to them based on their roles (Company, Admin, Student).

Major Product functions of system are listed below:

1) Companies and students will be able to register themselves after the verification process is completed.
2) All the functionality based on the role of user can only be accessed after logging in to the system with the authorised credentials.
3) Users (with the role of Student) will be able to see the jobs posted by the registered companies and can also apply if it suited with his/her eligibility.
4) Users (with the role of Student) can also view/Withdraw applications submitted by himself/herself.
5) Users (with the role of Student and company) will be able to add/update their own profile.
6) Users (with the role of Student) will be able to save jobs for the future references.
7) Users (with the role of Student) can initiate chat with specific companies if needed.
8) Difference phases of the recruitment process can be conducted with the facility of video call and posting coding test links by company with students.
9) Users (with the role of Company) will be able to communicate with students via chats and comments on our system.
10) Users (with the role of Company) will be having the facility of posting a different job with detailed information.
11) Users (with the role of company and admin) can push notifications in general to inform regarding any information.
12) Users (with the role of company and admin) can see and review the profile of any user.
13) Users (with the role of admin) can approve/ disapprove the company requests to avoid faulty registrations.
14) Users (with the role of admin) can add jobs to the database which will be reflected to the system.
15) Users (with the role of admin) can manage data flow of the system.
16) Users (with the role of admin) can view the feedback about the system.

2.3 User characteristics

1) Education: Sufficient knowledge of English language to operate and access systems efficiently.
2) Experience: Users (with the role of student) should be well informed about the placement structure process and should have adequate knowledge of how to apply for desired jobs, how to upload different files required.
3) Users (with the role of company) should know the placement policy of the campus and recruitment process.
4) Technical expertise: Users of the system should be comfortable using web-application connected with an internet facility.

2.4 Constraints

1) As the time span of the system is being restricted, some functionality is not being added to the current system i.e., company's past records with campus, Reports generated from different placement drives.
2) Most of the functionality of the system can be accessed after logging into the system.
3) Some functionality will not be accessible without an Internet facility.
4) Students should have a working college domain ID to be eligible for getting facilities of the System.

2.5 Assumptions and Dependencies

1) Users of the system have good knowledge of English Language.
2) This system is designed for only one college.
3) Users of the system have a good internet connection.
4) User (role with student) is having the working college domain ID.
5) There will be only one authorised Company for a particular id.

2.6 Apportioning of Requirements

1) Generating reports on past statistics of different companies will be available in future scope of the system.
2) Analysis reports of the placement drives could be obtained in future scope of the system.

3 Specific Requirements

3.1 External Interface Requirements

3.1.1   User Interfaces
Following screens can be accessed by the users in the system

1) **Login Page:**
   a) **Users:**
      i)   Student
      ii)   Company
      iii) Admin
   b) **Details:** Login Page will be available to all the users and will allow users to use other pages of the system according to the user's role. Fields:
      i)   Email ID - Input in email address format.
      ii)   Password - Minimum 8 characters to maximum 12 characters.
      iii) Role - Values: Admin, Student, Company.

2) **Student Registration Page:**
   a) **Users:**
      i)   Student
   b) **Details:** This page will allow students to register and with proper input, students then will be able to login and use other features that are allowed to students.
      i)   Email ID - Input in email address format.
      ii)   Full Name - Alphabets only. At Least 6 characters.
      iii) Password - Minimum 8 characters to maximum 12 characters.
      iv)   Confirm Password - Same as Password field

3) **Edit Profile Page for Student**
   a) **Users:**
      i)   Student
      ii)   Admin
   b) **Details:** This page allows a student to change his/her profile.
      Students can add details like about me, address details, add/edit profile image, education, add website, experiences, skills, certificates, attach a resume and various details.
      There will be a button to submit the changes if any.
      Students can also change their password,

4) **Browse Jobs Page (Student's Landing Page)**
   a) **Users:**
      i)   Student
      ii)   Admin
   b) **Details:** This page will allow the listed users to browse jobs.
      This page will have a paginated list of jobs that are posted by the companies.
      Each job in the list will contain very basic details of the job like company's logo, company's name, job title, location, salary range etc along with a button to apply for the job.
      Users can filter jobs by searching name, tags and location.

5) Job Details Page
   a) Users:
      i)   Student
      ii) Admin
   b) Details: This page will show the details of a job posted by a company to the above mentioned users.
   Will contain company details like it's logo, name, company description, address, contact details, social media links etc.
   Will also contain job details like title, salary, job description, responsibilities, required skills, required qualifications etc.
   There will be a button to allow students only to apply for jobs and one button to bookmark that job.

6) View Company Page
   a) Users:
      i)   Student
      ii) Admin
   b) Details: This page will contain company details like it's logo, name, company description, address, contact details, social media links etc.
   It will also contain a list of openings in the company.
   It will also have a button to bookmark companies for students only.

7) Applications Page
   a) Users:
      i)   Student
      ii) Admin
   b) Details: This page will show a list of all the job applications which the student applied for and the status of the application with few details about the jobs.

8) Bookmarked Jobs Page
   a) Users:
      i)   Student
   b) Details: This page will show a list of all the jobs that the student bookmarked with a little details of the job along with the option to remove the bookmark.

9) Bookmarked Companies Page
   a) Users:
      i)   Student
   b) Details: This page will show a list of all the companies that the student bookmarked with a little details of the companies along with the option to remove the bookmark.

10) Notifications Page:
   a) Users:
      i)   Student
      ii) Admin
      iii) Company
   b) Details: This page will show a list of notifications from the system with respect to the users.

11) Inbox Page:
  a) **Users:**
    i) Student
    ii) Company
  b) **Details:** Users will be able to see a list of other users and the last message exchanged between them.
  Users can select a message and all the messages exchanged between both the users will be displayed.
  Users can also send new messages to another user.
  Users can also send a request for a video call to another user.

12) Video Call Page:
  a) **Users:**
    i) Student
    ii) Company
  b) **Details:** Users can video call with another user by either sending a request via inbox or by accepting another user's request.
  During video call users can end the video call, turn on/off their camera or mic.

13) Send Feedback Page:
  a) **Users:**
    i) Student
    ii) Company
  b) **Details:** User will get a text editor so send feedback to the system.

14) Company Registration Page:
  a) **Users:**
    i) Company
  b) **Details:** A company can register itself to the system by feeling basic details about itself as below:
    i) Email id - In standard email address format.
    ii) Company Name - Alphanumeric, maximum 20 characters.
    iii) Company Type - Will have a list of company types like IT, Hardware etc.
    iv) Company Description - Textarea.
    v) Address - Textarea
    vi) Person Name(Point of contact) - Alphabets, maximum 20 characters.
    vii) Contact number - Numeric and special characters(+, SPACE) allowed with max length of 15

15) Edit Profile Page for Company
  a) **Users:**
    i) Company
    ii) Admin
  b) **Details:** Company can edit it's profile and also can the admin.
  They can edit basic details of the company like company description, address, contact number etc.
  They can also change their logo and social media links.
  Company can also change its password as well.

16) Post Job Page
- **a) Users:**
  - i) Company
- **b) Details:** This page allows users to fill up job details.
  It has a form like structure with basic job details to be filled like role, role type, salary, responsibilities, required skills, location, tags(useful for sending job alerts) etc.

17) Update Job Page
- **a) Users:**
  - i) Company
- **b) Details:** This page allows companies to edit the details of a job posted earlier.

18) View Applicants Page
- **a) Users:**
  - i) Company
  - ii) Admin
- **b) Details:** This page allows companies to check the list of applicants that applied for a particular job.
  List will give you basic details like name, image, a button to view applicant's resume, also a button to add applicant to list of chosen applicants for next stage.

19) View an Applicant
- **a) Users:**
  - i) Company
  - ii) Admin
- **b) Details:** This page will give details of that applicant.

20) Admin Landing Page
- **a) Users:**
  - i) Admin
- **b) Details:** This page will show admin his basic features in sections like latest jobs, latest job applications by students, latest companies who registered, latest messages etc.
  It will also have a menu to view each section in full details.

21) Approve Company Page for Admin
- **a) Users:**
  - i) Admin
- **b) Details:** This page will give you the registration details of the company and will give you buttons for verification and rejection.

22) Manage Feedbacks Page
- **a) Users:**
  - i) Admin
- **b) Details:** This page will show a list of feedback in three sections depending on the user type that sent the feedback which are students, companies and all.
  Each section will have to option feedback by keywords or sort them by time.
  Admin will also have the option to reply to them or delete them.

23) Post Article Page
   a) **Users:**
      i)　Admin
   b) **Details:** Admin will have a fully featured textbox to write articles and post it.

3.2 System Features

3.2.1 Job Management

Description
The system will allow the various registered companies to post their job offerings on the system. The post will state detailed information and requirements. The student will view the jobs offered by different companies and apply if they are interested and meet the requirements. The company then has control over the posted jobs; they can delete the post or edit when essential.

Validity Checks
   I.　The addition, deletion and updation of jobs is only restricted to registered companies.
   II.　The job postings will be available only for the students registered on the website.

Sequencing Information
The jobs can be posted only after the offering company is registered on the website. There are some predefined job titles and their basic information which the company can use when creating a job posting.

Error Handling/response to abnormal situations
If any of the validations for the job posting form gets violated, then an appropriate prompt message should be displayed to this company. If any student does not meet the job requirements then an appropriate prompt message should be displayed to this student.

3.2.2 Application Management

Description
If a student is interested in a job then he/she can apply for that and an application will be generated by the system. And also if a student wants to withdraw an application he/she can withdraw it within a specified period. Once an application has been generated,the company can view that application and also accept or reject it.

Validity Checks
   I.　Once an application has been generated, it can be withdrawn by the student only in a specific period of time set by the company.

Sequencing Information
A job must be posted by the company before any student can apply for it and after applying for a job, an application will be generated.

Error Handling/response to abnormal situations
If any of the above validations/sequencing flow does not hold true, appropriate error messages will be prompted to the user for doing the needful.

3.2.3 Resume Management

Description
The resume will be uploaded by a student on their profile in PDF format.
Validity Checks
  I.   Uploaded files must be of PDF format.
  II.   The PDFs must not exceed a size of more than 5MB.
Sequencing Information
None
Error Handling/response to abnormal situations
If the file size exceeds 2MB, then an appropriate prompt message should be displayed to this student.

3.2.4 Notifications

Description
If a job is posted by a company then students will be notified by the system through notification. Companies will be notified by the system of how many students applied for jobs. If a student's application has been accepted then he will be notified by the student.
Validity Checks
None
Sequencing Information
None
Error Handling/response to abnormal situations
None

3.2.5 Chat and Video Call

Description
The system will allow the student to communicate with the companies through chat or video call. Video calls will be initiated by the company only.
Validity Checks
None
Sequencing Information
None
Error Handling/response to abnormal situations
None

3.2.6 Article Management

Description
Admin can provide articles and references to students that will be helpful for interviews

Sequencing Information
None

Error Handling/response to abnormal situations

If any of the above validations/sequencing flow does not hold true, appropriate error messages will be prompted to the user for doing the needful.

3.3 Performance Requirements

None

3.4 Design Constraints

1) The Admin will have to monitor the validity of the information on the website to minimize fraudulent companies and misleading student details.

3.5 Software System Attributes

1) The key software quality attributes are *Availability*, *Reliability* and *Usability*.
2) As the system is expected to be 24/7 working. Accessibility is important.
3) A simple but quality user interface is developed to make it easy to understand and
4) required less training.
5) The error message displayed is more descriptive and can be easily understood.

3.6 Logical Database Requirements

The database will consist of the following information:
1) **Admin Details:** Admin Email, Name
2) **Student Details:** Student Email, Student Name, Degree, Enrollment Year
3) **Company Details:** Company Email, Name, Address Line 1, Address Line 2, Contact
4) **User Details:** User Name, Email Id, Password, Role
5) **Job Details:** Job ID, Job Title, Posting Location, Offer Type, Job Description, Requirements, Salary
6) **Application Details:** Student Email, Job ID, Date Applied, Date Withdrawn, Status
7) **Resume Details:** Student Id, Resume File, Date Modified
8) **Article Details:** Admin Id, Article File, Date Modified
9) **Feedback Details:** Feedback Id, Description, Date Modified, User ID

3.7 Other Requirements

None