

2. Identify the various requirements development activities like Elicitation, Analysis, Specification and Verification for the given Scenario, develop an SRS document.

Resume builder webapp

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1. INTRODUCTION:

It is an application that simplifies the task of creating a resume for individuals. The system is flexible to be used and reduces the need of thinking and designing an appropriate resume according to qualifications. The system is developed to provide an easy means for creating a professional looking resume.

1.1 Document conventions:

- We describe what features are in the scope of the software and what are not in the scope of the software to be developed.
- Create different system users and assign different roles with related permissions.
- Manage all the account details such as user name, phone numbers, address, websites, email addresses of all the user from one central location.
- Track all the users and their contact details.
- Confirmation of end user identity and will verify which users are authorized to receive support.
- Maintain history of each user and their related information.
- User can select the format of their resume from the given templates.
- User can update or edit their resume.
- Users can take print of their resume.
- Interface for filling up the information like Skill sets, Training and Visa details.
- Having collaboration with various companies.
- Companies can search the employees on the basis of skills sets.
- Companies can send invitation on their accounts.
- Giving alerts to the user if he requests for one.
- User can utilize various applications such as chatting, search engine, weather reports, latest news etc.
- User authentication

1.2 Requirement's elicitation techniques

Requirements Elicitation is all about obtaining information from stakeholders. In other words, once the business analysis has communicated with stakeholders for understanding their requirements,

it can be described as elicitation. It can also be described as a requirement gathering. Requirement elicitation can be done by communicating with stakeholders directly or by doing some research, experiments. The activities can be planned, unplanned, or both.

Planned activities include workshops, experiments. Unplanned activities happen randomly. Following tasks are the part of elicitation:

Prepare for Elicitation

Conduct Elicitation

Confirm Elicitation Results

Requirements Elicitation Techniques

1) Stakeholder Analysis

Stakeholders can include team members, customers, any individual who is impacted by the project or it can be a supplier.

2) Brainstorming

This technique is used to generate new ideas and find a solution for a specific issue. The members included for brainstorming can be domain experts, subject matter experts.

3) Interview

This is the most common technique used for requirement elicitation. Interview techniques should be used for building strong relationships between business analysts and stakeholders.

4) Document Analysis/Review

This technique is used to gather business information by reviewing/examining the available materials that describe the business environment. This analysis is helpful to validate the implementation of current solutions and is also helpful in understanding the business need.

5) Focus Group

By using a focus group, you can get information about a product, service from a group. The Focus group includes subject matter experts.

6) Interface Analysis

Interface analysis is used to review the system, people, and processes. This analysis is used to

identify how the information is exchanged between the components. An Interface can be described as a connection between two components.

7) Observation

The main objective of the observation session is to understand the activity, task, tools used, and events performed by others.

8) Prototyping

Prototyping is used to identify missing or unspecified requirements. In this technique, frequent demos are given to the client by creating the prototypes so that client can get an idea of how the product will look like.

1.3 Purpose

Develop an Internet Application for automating the process of Resume Writing.

This would be facilitating the employees to make and print their resumes in a proper format. In addition, it will be facilitating the higher management to search the employees depending upon their skills sets and other attributes.

The Basic Requirement is to have a centralized repository of all the skill holders in the organization so that an employee with a particular skill set can be immediately found in case of urgent requirement.

1.4 Project Scope

Manage all the account details such as user name, phone numbers, address, email address of all the users from one central location.

Track all the users and their contact details.

Confirmation of end user identity and will verify which users authorized to receive support.

Maintain history of each user and their related information.

User can select format of resume from the given templates.

User can update or edit their resume.

Users can take print of their resume.

Interface for filling up the information like Skill sets, Training and Visa details.

Having collaboration with various companies.

Giving alerts to the users if he requests for one.

User can utilize various applications such as chatting, search engine etc.

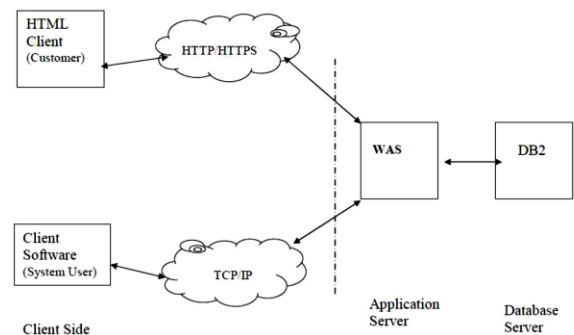
2. Overall description:

Describe the general factors that affect the product and its requirements

2.1 Product perspective

- The web pages (XHTML/JSP) are present to provide the user interface on customer client side.
- Communication between customer and server is provided through HTTP/HTTPS protocols.
- The Client Software is to provide the user interface on system user client side and for this TCP/IP protocols are used.

On the server-side web server is for EJB and database server is for storing the information.



2.2 Product features

Track Account Level Data: In this module, receivables from customer are maintained.

User Contact Information: It maintains all the details (Personal, Official, Contact, and Company) of the customer.

Maintaining Logs: Activities of the System Users can be tracked through the logs, which is maintained by the system. Some other features include PDF format support, the ability to duplicate resumes, and you can even use a photo if you want.

2.3 User classes and characteristics

Every user should be comfortable of working with computer and net browsing. He must have basic knowledge of English too.

2.4 Operating environment

The server-side components of the software system must operate within a Linux operating system environment. The client-side components of the software system must operate within common web browser environments using Secure Sockets Layer (SSL) / Transport Layer Security (TLS) cryptographic protocols at a minimum encryption level of 128 bits. The minimum set of browsers that must be supported is:

- Apple Safari 7+
- Google Chrome 44+

3. Project requirements

3.1 Functional requirements

- There are different modules which helps user in many ways such as:
- Easy to edit and update resume.
- Free resume hosting.
- Easy to add documents like certificates and achievements.
- Wide range of resume formats.
- Expert guidance at every step of resume building.

3.2 Non-functional requirements

- Very secure Use HTTPS/SSL for transmission during the login process.
- Easy to use and customizable interface
- Ability to add & maintain faculty resume.
- Users must be able to configure the positioning of various elements. (Which is 1st, 2nd and so on).
- Easy to add various elements such as new publications, or research grants.
- Ability to have resume in Microsoft Word, PDF & plain text format
- Email functionality for all the above formats.

- System should email users if they lost their username/password via email.
- Free Resume hosting
- Wide range of resume formats
- Expert guidance at every step of resume building
- Search for a particular candidate by skills

3.3 User requirements

- User requirements are typically written when discussing the use cases for a project.
- Automatic parsing of resume
- LinkedIn, Outlook & Gmail
- Searchable Candidate Database
- Applicant Tracking
- Allow Candidate to Update Profile
- AI-based Profile Matching
- Candidate Self Service Portal
- Reports
- End-to-End Communication History

3.4 System requirements

System requirements include software and hardware requirements.

Software requirements are:

1) Front-end

- Web Technology: PHP
- Languages Used: PHP, JavaScript, HTML, CSS. Web Server: IIS

2) Back end

- Database: SQL Server

3) Operating System

- Windows 9x
- Any Operating System compatible with WWW

Hardware requirements are:

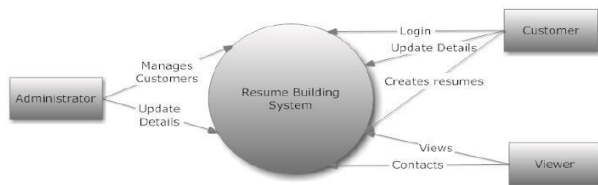
- Processor: Intel Pentium 4.0
- RAM: 2GB
- Hard disk: 500 GB

4. Requirement's validation techniques

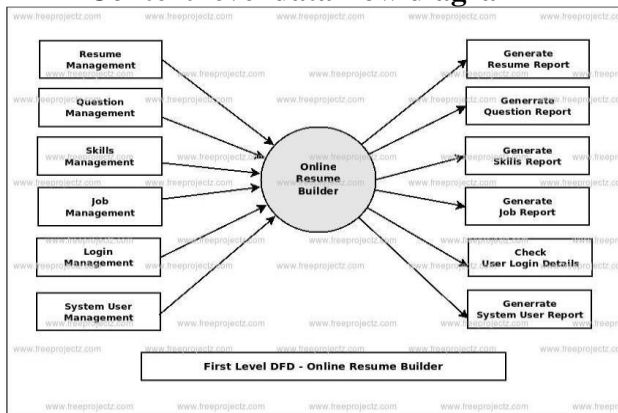
4.1 Prototyping

This includes the basic structure for customer verification.

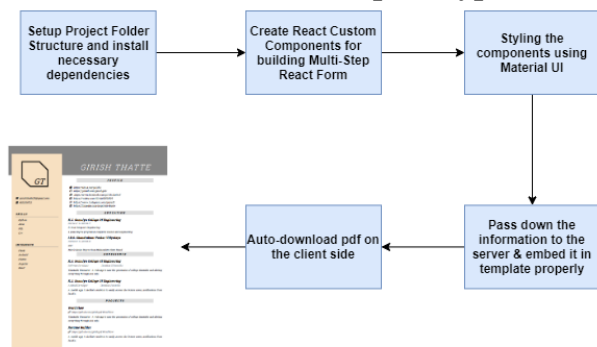
Figure: Context Level Data Flow Diagram



Context level data flow diagram



Online resume builder prototype



Resume builder prototype

4.2 Test case design

In testing phase, test Lead will prepare a test plan based on the SRS. Tester will analyze the SRS and will discuss with corresponding resources like Team Lead / Project Lead / Peers If there are any questions. Then tester will prepare the test cases based on the SRS and test plan. They will execute the test cases when the code is released to QA environment. If any test cases fail, the testers will

open a Bug ticket and assign it to the corresponding developer, and tester will retest the defect when it's fixed. Testers will conduct Regression testing and in some cases User Acceptance Testing (UAT). When the UAT is done, the code will be deployed to Production environment.

4.3 Security issues

Antivirus Software

- Install antivirus software and set to automatic updates.

Authentication

- Encrypt passwords when authenticating; do not transmit passwords in clear text.

Passwords

Passwords used on Laboratory IT must meet one of the approved password requirement templates.

- Template 1
 - Minimum 14 characters
 - Strong on the strength meter (e.g. zxcvbn)
 - Change every year
- Template 2
 - Minimum 8 characters
 - 1 lowercase letter
 - 1 uppercase letter
 - 1 number
 - 1 special character

Network Services

Secure network services on your computer as follows:

- Only activate network services needed to support your work.
- Unnecessary network services increase your risk of compromise.
- Limit network access to only computers that need access.

Example: Webservers are a network service. Only use them if you need to and only open your webserver to the Internet if it's a public service; otherwise, limit access to within the Berkeley Lab perimeter.

5. References

- relevant. Software, perforce.com,
- nvlpubs.nist.gov, altexsoft.com.