**CEBU INSTITUTE OF TECHNOLOGY**

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COLLEGE OF COMPUTER STUDIES

Software Requirements Specifications

for

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Change History

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# Introduction

## Purpose

Syncra is an online professional networking platform that enables users to create a portfolio, showcase their skills, and connect with recruiters. The intended audience includes job seekers, recruiters, employers, and third-party integration services.

## Scope

Syncra will provide:

* User registration, authentication, and profile management.
* Portfolio creation, customization, and file sharing.
* Networking and messaging features.
* Job search, application tracking, and candidate-recruiter matching.
* Administrative and analytics functionalities.

## Definitions, Acronyms and Abbreviations

* **SRS**: Software Requirements Specification
* **API**: Application Programming Interface

## References

#### **1. IEEE Standard for SRS**

* **IEEE 830-1998** – *IEEE Recommended Practice for Software Requirements Specifications*  
  Available at: https://ieeexplore.ieee.org/Xplore/home.jsp

#### **2. Books on Software Engineering & Requirements**

* **Sommerville, Ian (2015).** *Software Engineering (10th Edition).* Pearson.
* **Pressman, Roger (2019).** *Software Engineering: A Practitioner’s Approach (9th Edition).* McGraw-Hill.
* **Wiegers, Karl E., & Beatty, Joy (2013).** *Software Requirements (3rd Edition).* Microsoft Press.

# Overall Description

## Product perspective

Syncra is an independent, self-contained software product designed to serve as an online portfolio and professional networking platform, similar to LinkedIn and JobStreet. It aims to provide individuals with a space to showcase their skills, experience, and accomplishments, while also allowing recruiters and employers to search for and connect with potential candidates. The platform will integrate seamlessly with third-party tools (such as job application portals and social media), but it is designed as a stand-alone product.

Modular Decomposition:

* **Module 1: User Management**
  + Transaction 1.1: User registration and authentication
  + Transaction 1.2: User profile creation and editing
  + Transaction 1.3: Profile visibility and privacy settings
* **Module 2: Portfolio Management**
  + Transaction 2.1: Adding and organizing portfolio items (projects, certifications, work samples)
  + Transaction 2.2: Customizing portfolio templates and layouts
  + Transaction 2.3: Media uploading and file sharing
* **Module 3: Networking & Communication**
  + Transaction 3.1: Connecting with other users (e.g., sending requests)
  + Transaction 3.2: Messaging system for job-related communication
  + Transaction 3.3: Activity feed and post sharing
* **Module 4: Job Search & Recruitment**
  + Transaction 4.1: Job listing browsing and search
  + Transaction 4.2: Application submission and tracking
  + Transaction 4.3: Employer search and candidate matching
* **Module 5: Admin & Analytics**
  + Transaction 5.1: User and content moderation
  + Transaction 5.2: Data analysis and reporting (user activity, job market trends)
  + Transaction 5.3: System performance and health monitoring
* **Module 6: Rating and Review**
  + Transaction 6.1: User Ratings
  + Transaction 6.2: Profile Reviews
  + Transaction 6.3: Reputation Management

## User characteristics

Syncra will have the following user types, each with distinct roles and privileges:

* **Regular Users (Job Seekers)**:
  + Can create and edit their profiles, upload portfolios, search for jobs, and apply to listings.
  + Can connect with other users and participate in networking activities.
* **Recruiters / Employers**:
  + Can browse user profiles, search for candidates, and post job listings.
  + Can message candidates and manage job applications.
* **Admins**:
  + Responsible for maintaining the platform's content and user activity (moderation).
  + Have full access to system-wide analytics, data reports, and user management tools.
* **Third-Party Integrators (Job Portals, External Apps)**:
  + Can interact with Syncra through APIs to retrieve or submit job listings, user profiles, or other data.
  + These integrations will be granted limited access through specific user consent and security protocols.

## 2.4. Constraints

There are several limitations and constraints that will affect the development of Syncra:

* Regulatory Policies: Compliance with data privacy laws (e.g., GDPR, CCPA) for handling personal information.
* Hardware Limitations: The platform will be designed to work across common devices (desktop, tablet, smartphone) and web browsers. Optimizations will be made for performance but there will be limitations for older devices or browsers.
* Interfaces to Other Applications: The platform will need to integrate with third-party job listing portals (JobStreet, Indeed) and social networks (LinkedIn, Twitter). APIs and OAuth-based integration methods will be used.
* Parallel Operation: The platform needs to support multiple users accessing the site at once, ensuring it can scale to support high traffic, especially during peak usage times.
* Audit Functions: Monitoring and logging of user actions will be required for security, troubleshooting, and compliance.
* Control Functions: The system must allow admins to control the visibility of content, suspend or remove user accounts, and approve/deny content submissions.
* Reliability Requirements: The platform needs to have high uptime (99.9% availability) to ensure users can access their portfolios and job listings at all times.
* Criticality of the Application: Given its purpose as a professional networking and job-seeking tool, uptime and security are critical.
* Safety and Security Considerations: The platform must implement strong encryption (SSL, data encryption) to protect sensitive user information (e.g., job history, personal contact details). User authentication will use secure methods such as multi-factor authentication (MFA).

## 2.5. Assumptions and dependencies

* **Operating System**: The product assumes users will have access to popular operating systems (Windows, macOS, Linux) and modern web browsers (Chrome, Firefox, Safari). Mobile devices will be supported through responsive application.
* **Internet Connectivity**: It is assumed that users will have reliable internet access, as Syncra is a web-based application.
* **Third-Party Integration**: Integration with other job boards and social networks assumes that these services provide reliable APIs and allow proper data sharing between platforms.
* **User Behavior**: The system assumes that users will regularly update their profiles and portfolio items, and employers will actively post job listings and review candidates.
* **Scalability**: The platform’s architecture assumes the ability to scale based on increasing user activity. As the user base grows, additional resources (server capacity, storage, etc.) will be allocated accordingly.

# Specific Requirements

## External interface requirements

### 3.1.1. Hardware interfaces

* Web-based application accessible from desktops, tablets, and mobile devices.
* Application accessible for mobile devices.

### 3.1.2. Software interfaces

*This should specify the use of other required software products (e.g., a data management system, an operating system, or a mathematical package), and interfaces with other application systems (e.g., the linkage between an accounts receivable system and a general ledger system).*

### 3.1.3. Communications interfaces

* Web-based communication using secure HTTPS protocol.
* Real-time messaging using WebSockets.

## Functional requirements

### Module 1 : User Management

#### 1.1 User registration and authentication

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 1.2 User profile creation and editing

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 1.3 Profile visibility and privacy settings

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

##### . . .

### Module 2 : Portfolio Management

#### 2.1 Adding and organizing portfolio items (projects, certifications, work samples)

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 2.2 Customizing portfolio templates and layouts

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 2.3 Media uploading and file sharing

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

### Module 3 : Networking & Communication

#### 3.1 Connecting with other users (e.g., sending requests)

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 3.2 Messaging system for job-related communication

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 3.3 Activity feed and post sharing

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

### Module 4 : Job Search & Recruitment

#### 4.1 Job Listing browsing and Search

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 4.2 Application submission and tracking

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 4.3 Employer search and candidate matching

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

### Module 5: Admin & Analytics

#### 5.1 User and content moderation

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 5.2 Data analysis and reporting (user activity, job market trends)

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 5.3 System performance and health monitoring

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

### Module 6: Rating & Review

#### 6.1 User Ratings

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 6.2 Profile Reviews

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

#### 6.3 Reputation Management

##### Use Case Diagram

##### Use Case Description

##### Activity Diagram

##### Wireframe

## Non-functional requirements

### Performance

* Load time under 5 seconds.

### Security

##### Details

### Reliability

* 99.9% system uptime.