Kingdom of Saudi Arabia
Ministry of Education
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College of Computer
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المملكة العربية السعودية وزارة التعليم جامعة الأمير سطام بن عبدالعزيز

Project: Software Engineering Project Linkedin

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i. Introduction:

This report proposes enhancing LinkedIn to address issues and improve user experience. LinkedIn has revolutionized professional networking, but improvements can make it more efficient and effective for individuals and businesses.

ii. Problem Statement:

LinkedIn currently faces several challenges that hinder its ability to fully meet the needs of its users. These challenges include a cluttered interface, limited search functionality, difficulty in identifying relevant connections, and a lack of personalization. These issues often lead to a suboptimal user experience and hinder the platform's potential for professional growth.

iii. Background:

LinkedIn is a global professional network launched in 2003 with millions of users. It offers features such as job search, messaging, and professional groups. Improvements are necessary for a seamless and personalized experience.

iv. Proposed Solution:

We plan to enhance LinkedIn by revamping the user interface, implementing advanced search algorithms, and providing personalized recommendations to users based on their preferences and behavior.

v. Work Plan:

To implement these enhancements, we have devised a comprehensive work plan divided into three phases:

i. Research and Analysis:

- Conduct a thorough analysis of user feedback and identify key pain points.
- Study industry best practices and examine successful professional networking platforms.
- Analyze technical feasibility and identify potential challenges.

ii. Design and Development:

- Collaborate with UX/UI experts to create an intuitive and visually appealing interface.
- Implement advanced search algorithms and improve the relevancy of search results.
- Develop machine learning models to personalize user recommendations.

iii. Testing and Deployment:

- Conduct extensive testing to ensure the platform is robust and bug-free.
- Gather user feedback and iterate on the design and functionality.
- Deploy the enhanced LinkedIn platform and monitor its performance.

vi. **Project Requirements:**

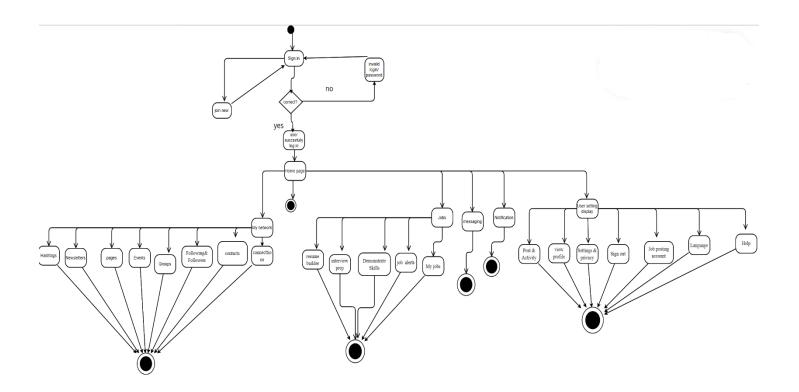
i. Functional Requirements (FR):

Functional Requirements (FR):			
ID	Priority	Description	
R1	High	The platform should have a visually appealing and user- friendly interface, providing easy navigation and a seamless user experience	
R2	High	Implement advanced search algorithms to enable users to find relevant connections, job opportunities, and content quickly	
R3	Intermediate	Develop machine learning models to provide personalized recommendations based on user preferences and behavior	
R4	High	Enhance the messaging system to allow users to communicate more efficiently and effectively	
R5	High	Improve the job search feature to make it easier for users to find relevant job openings	
R6	Intermediate	Provide users with more customization options for their profiles, allowing them to showcase their skills and accomplishments effectively	
R7	High	Integrate LinkedIn with other professional tools and platforms to enhance its functionality and provide users with a seamless experience	
R8	High	Implement robust privacy and security measures to protect user data and maintain the integrity of the platform	

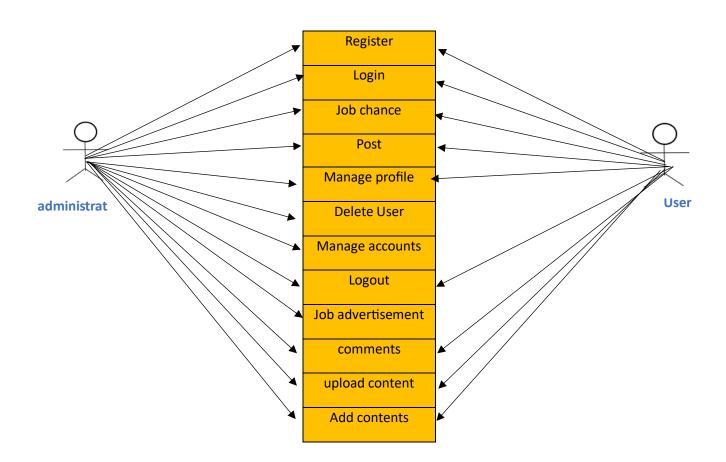
ii. Non - Functional Requirements (NFR):

Non - Functional Requirements (NFR):				
ID	Priority	Description		
R1	High	Ensure that the enhanced LinkedIn platform is highly responsive, with minimal loading times and no system slowdowns		
R2	High	Design the platform in a way that allows it to handle a rapidly growing user base and increased traffic without compromising performance		
R3	High	Ensure the platform operates reliably and experiences minimal downtime or service interruptions		
R4	High	Ensure that the enhanced LinkedIn platform is available to users 24/7, with minimal scheduled maintenance or downtime		
R5	Intermediate	Design the platform to be accessible to users with disabilities, following industry standards and guidelines		
R6	High	Implement robust data backup and recovery mechanisms to ensure the integrity and availability of user data		
R7	High	Implement advanced security measures, including encryption, secure authentication, and protection against potential threats such as hacking and data breaches		
R8	High	Ensure that the enhanced LinkedIn platform complies with relevant data protection regulations, such as GDPR, to protect user privacy and maintain legal compliance		

vii. Activity diagram:



viii. <u>Project Use Case Modelling:</u>



i. Table 1:

Live chatting scenario		
Use case name	Start live chatting	
actor	User 1	
Difficulty	easy	
Pre-condition	1-creating account 2-add contact 3-start live chat	
Post-condition	1-choose a contact to chat live	
process	1-choose a contact to chat with 2-start live chat	

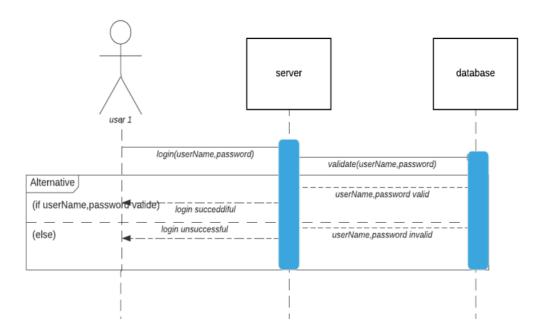
ii. Table 2:

Login Scenario		
Use case name	Log in	
actor	User 2	
Difficulty	easy	
Pre-condition	creating account	
Post-condition	User can use the functionality of the system	
process	1-enter a username 2-enter a password 3-log in	

ix. Creating Sequence Diagrams:

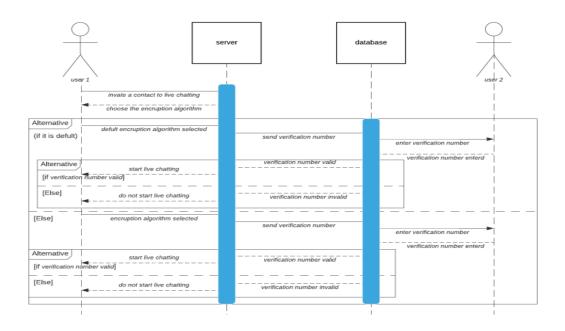
i. Diagram 1:

Login diagram:



ii. Diagram 2:

Live chat diagram:



x. Creating a Class Diagram:

