CS305 Final Project

Friendify App

Low-Level Design Document

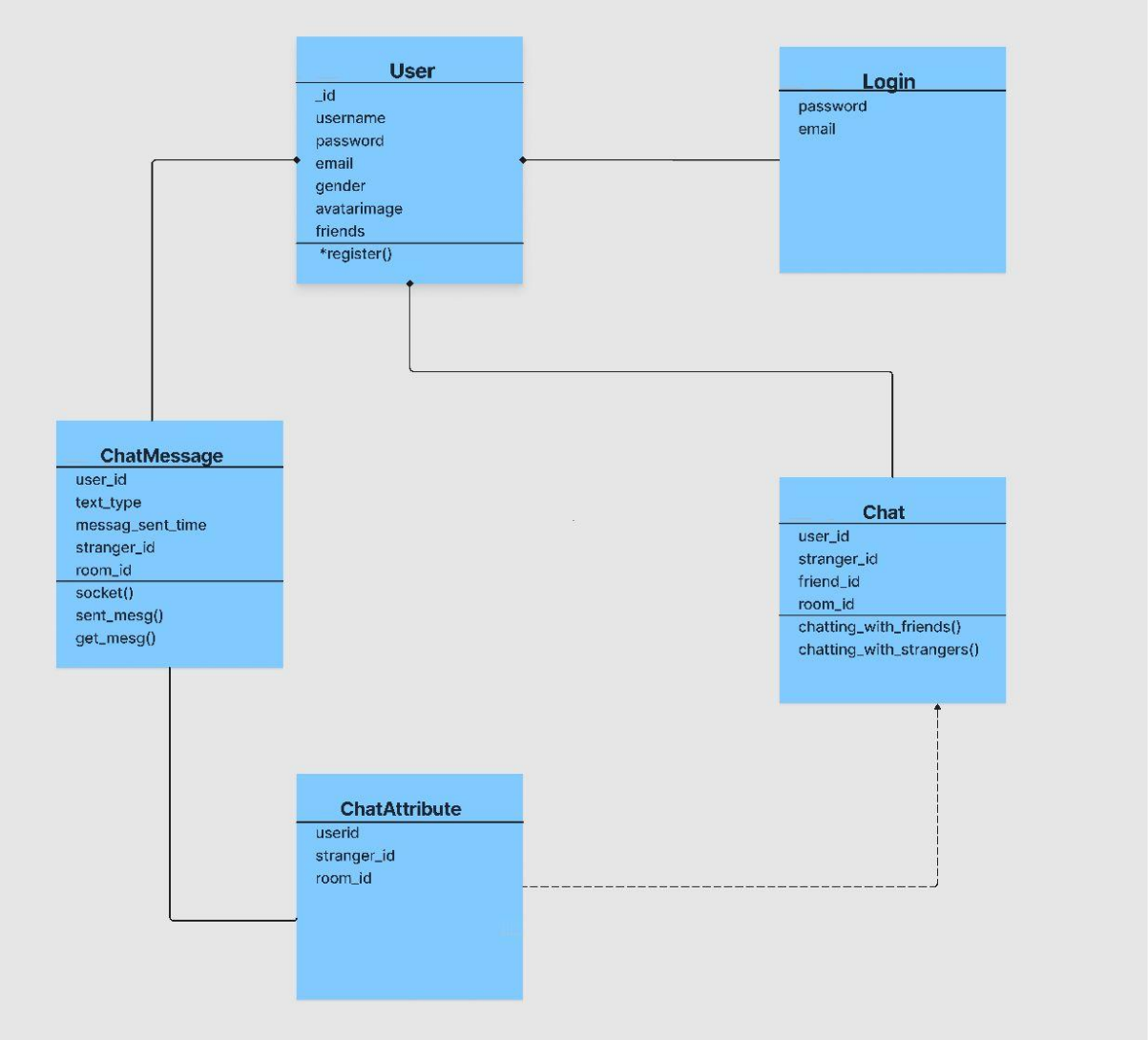
Introduction

Low-level design (LLD) is a component-level design process that involves step-by-step refinement. It's used for designing data structures, software architecture, source code, and performance algorithms. LLD starts with defining data organization during requirement analysis and then refining it during data design. Each component is specified in detail post-build.

1) Structural Diagrams:

1.1) Class Diagram

The class diagram constitutes a fundamental component of object-oriented modeling, serving as a primary building block in software development. This diagram is employed for the purpose of general conceptual modeling of the application's structure, as well as detailed modeling for translation of the models into programming code. Additionally, class diagrams are utilized for data modeling as well.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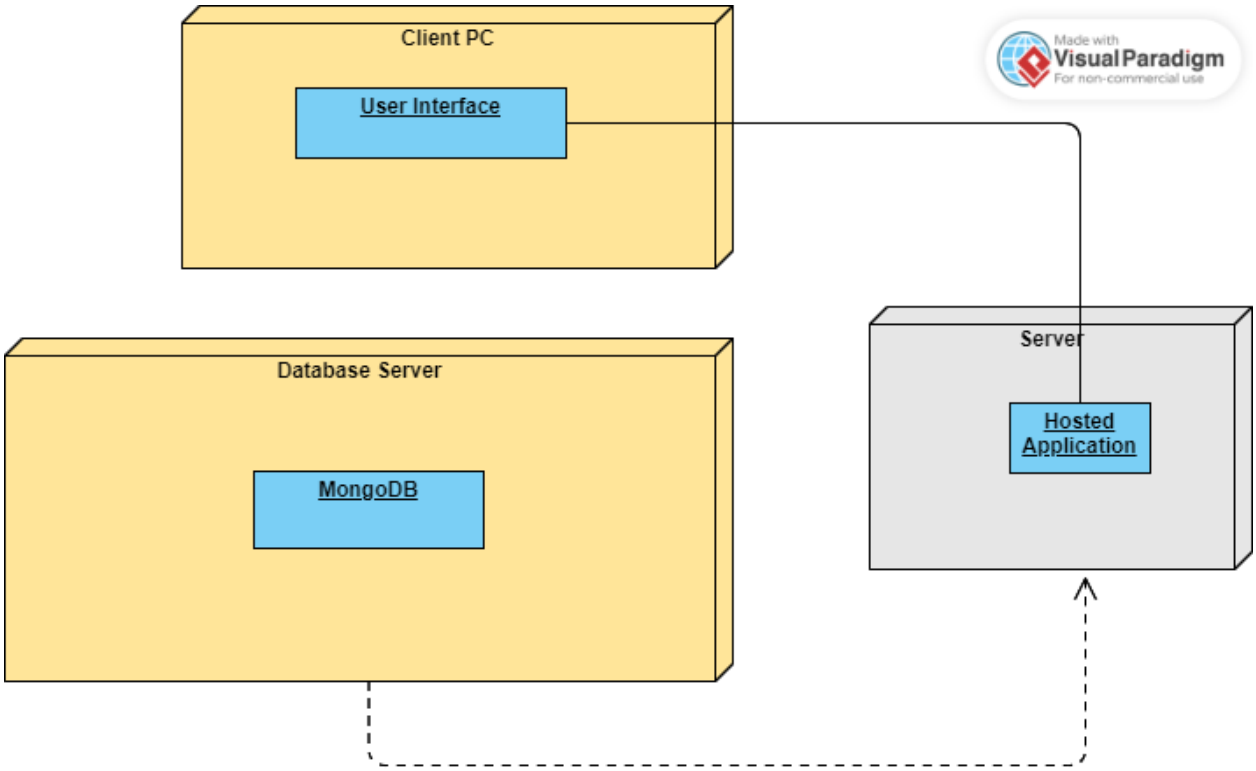
1.2) Deployment Diagram

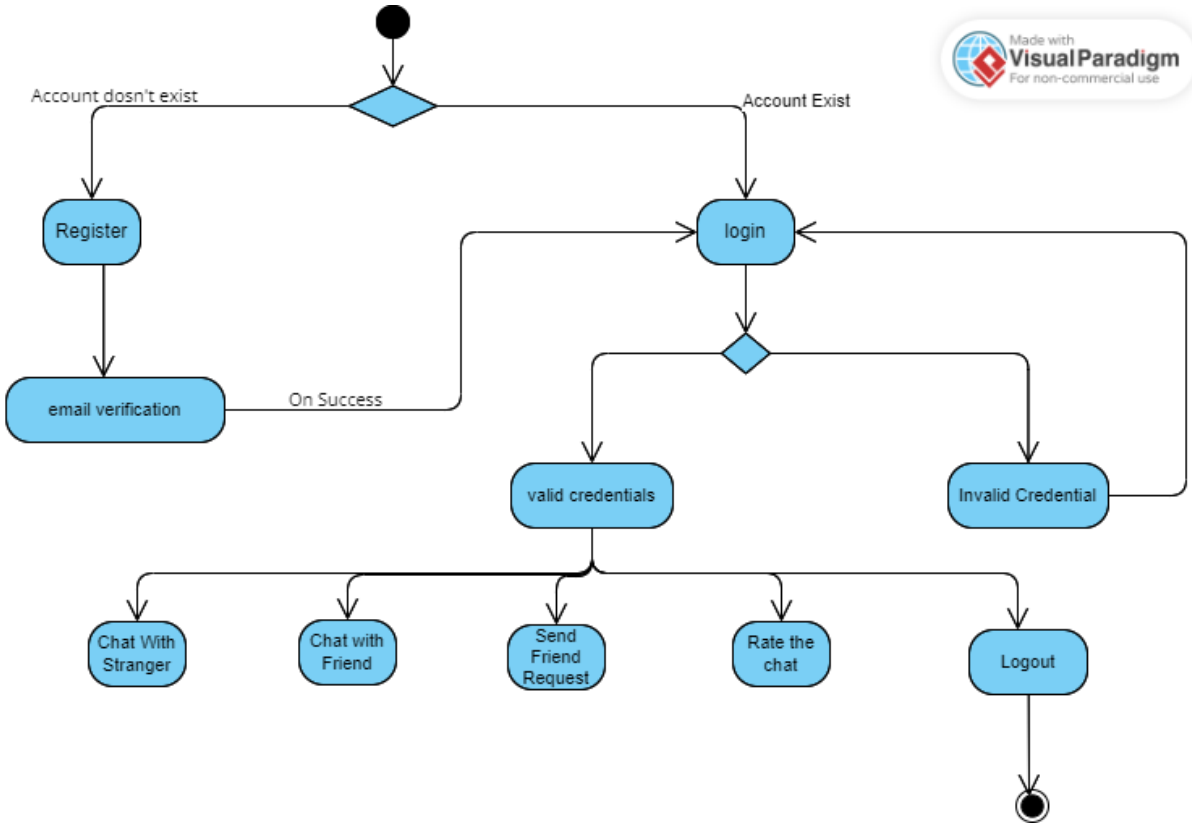
A deployment diagram is a type of UML diagram that depicts the execution architecture of a system. It represents the various nodes, such as hardware and software execution environments, and the middleware that connects them. The primary function of the deployment diagram is to provide a visual representation of the system's deployment topology, including the distribution of components across different nodes, and the communication pathways between them. By using this diagram, software architects and developers can gain a better understanding of the system's infrastructure and identify potential bottlenecks or issues in the deployment architecture.



2) Behavior Diagram

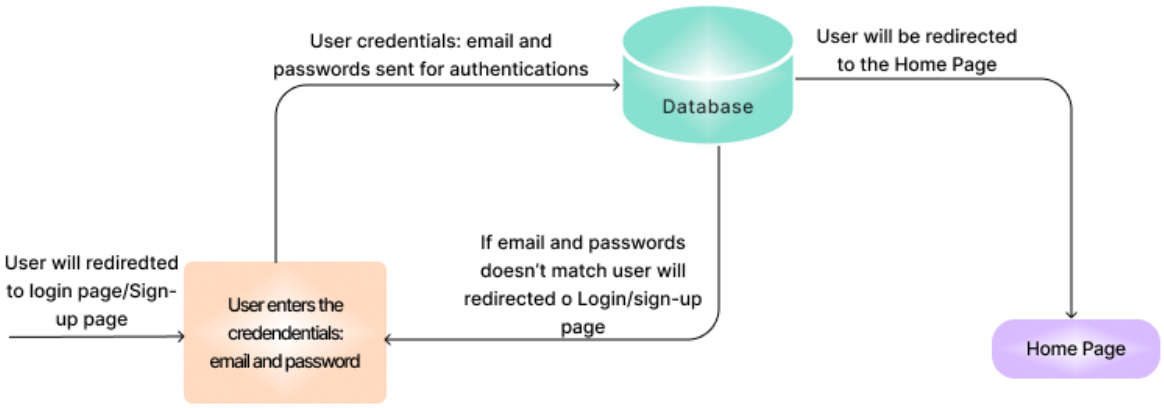
2.1) Activity Diagram

An activity diagram is a type of behavioral diagram that illustrates the behavior of a system. It visually represents the control flow of an activity, from its initiation to its completion, and shows the various decision paths that may occur during its execution. The primary purpose of an activity diagram is to provide an overview of the steps involved in a particular activity, highlighting the conditions and constraints that may affect its execution. By using this diagram, system designers and developers can analyze and optimize the processes involved in an activity, identify potential problems, and ensure the overall efficiency of the system.

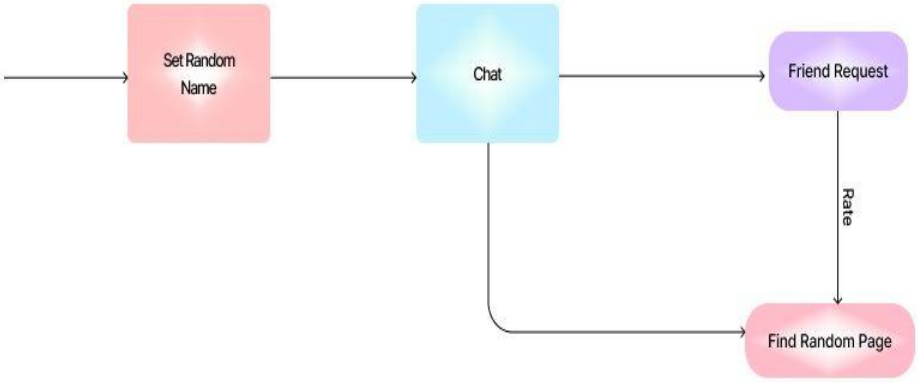


3) Use Cases

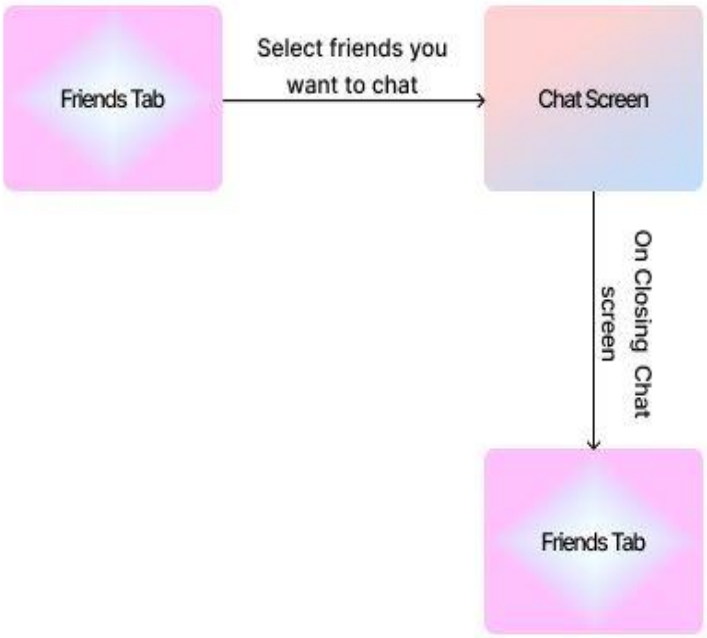
Name	Authentication And Authorization
Description	Login and Registration functionality
Actor	Anybody
Course of Events	1) Login page that allows one to either sign up or sign in (if already registered) 2) If the user wishes to sign in, the registration page is opened that asks for their gender, name, id and password 3) Post registering the user will receive a link on their mentioned id, they need to click on it to verify their account. 4) Verified accounts can sign in using their id and passwords.



Name	Chat with stranger
Description	Verified users can anonymously chat with other random users online
Actor	Anybody
Course of Events	1) Users can enter a random username and click on find the user. 2) The user is allotted a room randomly containing some random person who is also logged in. 3) Along with texts 4) While chatting with strangers, the user can send them a friend request. If accepted, the stranger is added to the friend's tab.



Name	Chat with friend
Description	The friends tabs contains the list of strangers who have accepted your friend request.
Actor	Anybody
Course of Events	1) User may start a chat with any member from his/her friend list who are logged in at that moment. 2) Anonymity of user is still maintained (only username and avatar is visible).



Name	Rate chat
Description	Rating the stranger based on the conversation.
Actor	Anybody
Course of Events	1) After a call has ended, the user is prompted to rate the stranger out of 5. 2) This rating is stored in the database along with the number of people that have rated him/her. 3) In the my profile section the user can see their rating.