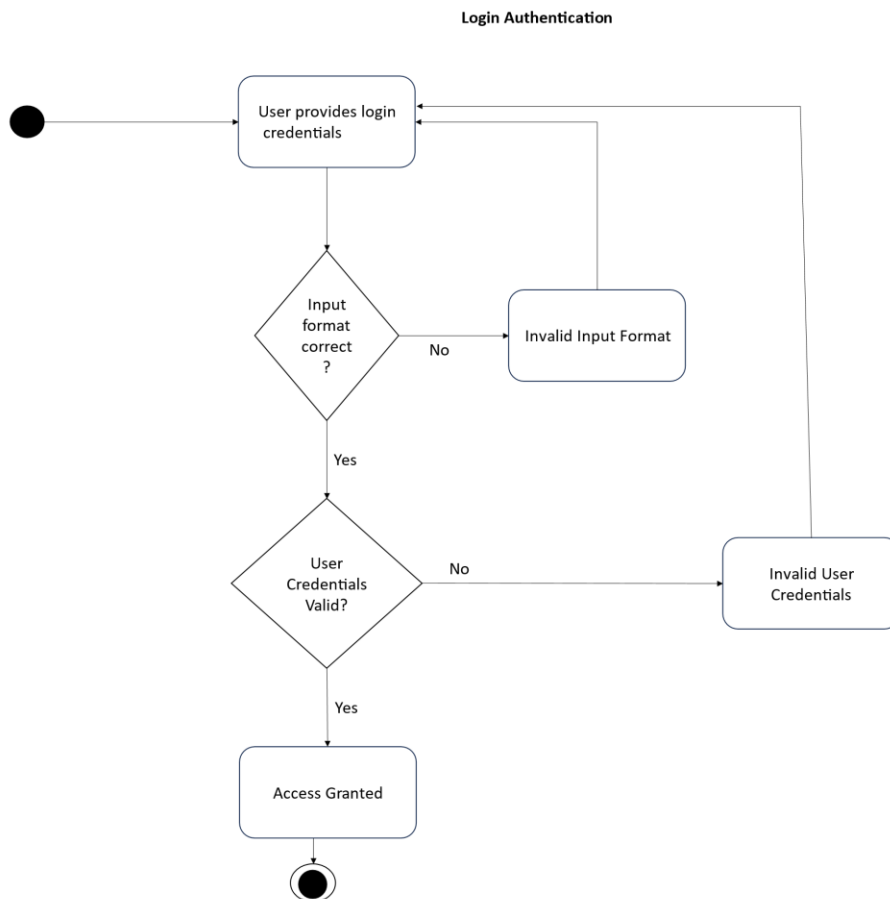


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SYSTEM IMPLEMENTATION
Algorithms and Data Structures
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Algorithm 1: Login Authentication

Description: This algorithm verifies user credentials during the login process to ensure secure access to the Dream forge platform.

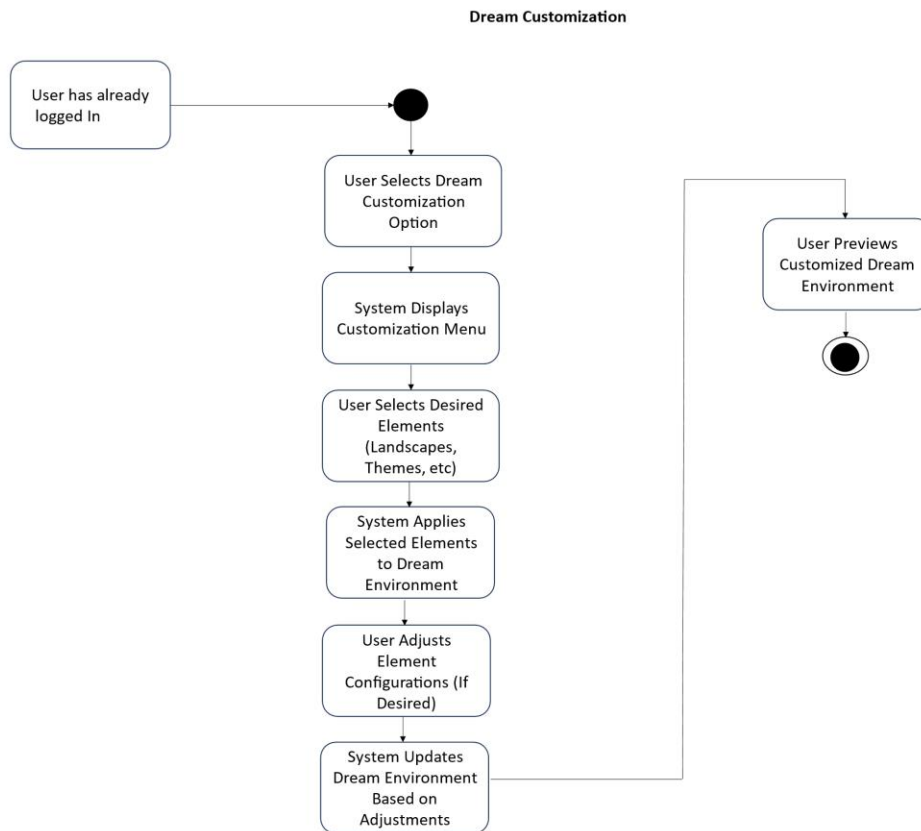
Activity Diagram:



Algorithm 2: Dream Customization

Description: This algorithm empowers users to tailor their dream environments based on their preferences, selecting various elements such as landscapes, themes, and ambient settings.

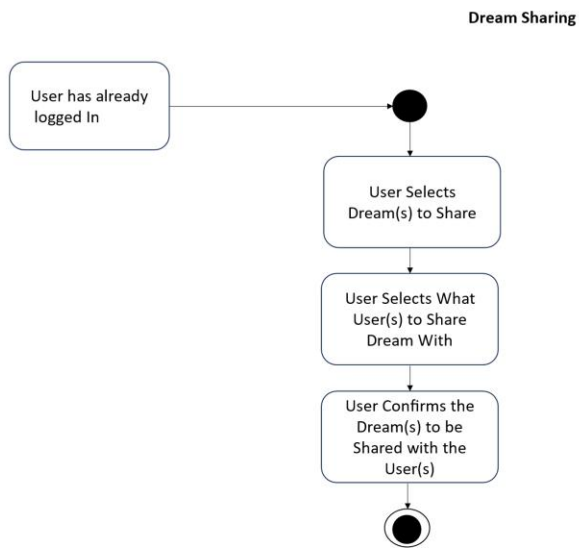
Activity Diagram:



Algorithm 3: Dream Sharing

Description: This algorithm facilitates the seamless sharing of dream creations among users, enabling them to showcase their imaginative worlds and inspire others.

Activity Diagram:



Data Structure:

Yes, our system utilizes complex data structures to efficiently manage and organize user data and dream creations. One of the key data structures employed is a hash table, which is used to store user information and dream metadata. We chose a hash table for its excellent performance characteristics, particularly in terms of fast data retrieval and insertion times. Additionally, hash tables offer flexibility in accommodating varying data sizes and types, making them well-suited for our dynamic DreamForge platform.