3-Provide a high-level diagram showing the components of the system and their interactions (Flask API, MongoDB, XRPL).

User

%3CmxGraphModel%3E%3Croot%3E%3CmxCell%20id%3D%220%22%2F%3E%3CmxCell%20id%3D%221%22%20parent%3D%220%22%2F%3E%3CmxCell%20id%3D%222%22%20value%3D%22%26lt%3Bfont%20style%3D%26quot%3Bfont-size%3A%2018px%3B%26quot%3B%26gt%3BFront-end%20Application%26lt%3B%2Ffont%26gt%3B%22%20style%3D%22rounded%3D0%3BwhiteSpace%3Dwrap%3Bhtml%3D1%3B%22%20vertex%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20x%3D%2240%22%20y%3D%2240%22%20width%3D%22200%22%20height%3D%2260%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%223%22%20style%3D%22edgeStyle%3DorthogonalEdgeStyle%3Brounded%3D0%3BorthogonalLoop%3D1%3BjettySize%3Dauto%3Bhtml%3D1%3BexitX%3D0.5%3BexitY%3D0%3BexitDx%3D0%3BexitDy%3D0%3B%22%20edge%3D%221%22%20source%3D%224%22%20parent%3D%221%22%3E%3CmxGeometry%20relative%3D%221%22%20as%3D%22geometry%22%3E%3CmxPoint%20x%3D%22100%22%20y%3D%22150%22%20as%3D%22targetPoint%22%2F%3E%3C%2FmxGeometry%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%224%22%20value%3D%22%26lt%3Bfont%20style%3D%26quot%3Bfont-size%3A%2018px%3B%26quot%3B%26gt%3BFlask%20API%20Server%26lt%3B%2Ffont%26gt%3B%22%20style%3D%22rounded%3D0%3BwhiteSpace%3Dwrap%3Bhtml%3D1%3B%22%20vertex%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20x%3D%2240%22%20y%3D%22150%22%20width%3D%22120%22%20height%3D%2260%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%225%22%20value%3D%22%22%20style%3D%22endArrow%3Dnone%3Bdashed%3D1%3Bhtml%3D1%3BdashPattern%3D1%203%3BstrokeWidth%3D2%3Brounded%3D0%3B%22%20edge%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20width%3D%2250%22%20height%3D%2250%22%20relative%3D%221%22%20as%3D%22geometry%22%3E%3CmxPoint%20x%3D%2290%22%20y%3D%22150%22%20as%3D%22sourcePoint%22%2F%3E%3CmxPoint%20x%3D%22140%22%20y%3D%22100%22%20as%3D%22targetPoint%22%2F%3E%3C%2FmxGeometry%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%226%22%20value%3D%22%22%20style%3D%22shape%3Dlink%3Bhtml%3D1%3Brounded%3D0%3B%22%20edge%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20width%3D%22100%22%20relative%3D%221%22%20as%3D%22geometry%22%3E%3CmxPoint%20x%3D%22160%22%20y%3D%22179.5%22%20as%3D%22sourcePoint%22%2F%3E%3CmxPoint%20x%3D%22260%22%20y%3D%22179.5%22%20as%3D%22targetPoint%22%2F%3E%3C%2FmxGeometry%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%227%22%20value%3D%22%26lt%3Bfont%20style%3D%26quot%3Bfont-size%3A%2018px%3B%26quot%3B%26gt%3BMongo%20DB%26lt%3B%2Ffont%26gt%3B%22%20style%3D%22rounded%3D0%3BwhiteSpace%3Dwrap%3Bhtml%3D1%3B%22%20vertex%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20x%3D%22260%22%20y%3D%22150%22%20width%3D%22120%22%20height%3D%2260%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%228%22%20value%3D%22%22%20style%3D%22shape%3Dlink%3Bhtml%3D1%3Brounded%3D0%3B%22%20edge%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20width%3D%22100%22%20relative%3D%221%22%20as%3D%22geometry%22%3E%3CmxPoint%20x%3D%22380%22%20y%3D%22179.5%22%20as%3D%22sourcePoint%22%2F%3E%3CmxPoint%20x%3D%22480%22%20y%3D%22179.5%22%20as%3D%22targetPoint%22%2F%3E%3C%2FmxGeometry%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%229%22%20value%3D%22%26lt%3Bfont%20style%3D%26quot%3Bfont-size%3A%2018px%3B%26quot%3B%26gt%3BXRPL%26lt%3B%2Ffont%26gt%3B%22%20style%3D%22rounded%3D0%3BwhiteSpace%3Dwrap%3Bhtml%3D1%3B%22%20vertex%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20x%3D%22480%22%20y%3D%22150%22%20width%3D%22120%22%20height%3D%2260%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%2210%22%20value%3D%22%26lt%3Bfont%20style%3D%26quot%3Bfont-size%3A%2018px%3B%26quot%3B%26gt%3BAuthentication%20and%20Data%20Processing%26lt%3B%2Ffont%26gt%3B%22%20style%3D%22rounded%3D0%3BwhiteSpace%3Dwrap%3Bhtml%3D1%3B%22%20vertex%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20x%3D%2240%22%20y%3D%22260%22%20width%3D%22230%22%20height%3D%2260%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%2211%22%20value%3D%22%22%20style%3D%22endArrow%3Dnone%3Bdashed%3D1%3Bhtml%3D1%3BdashPattern%3D1%203%3BstrokeWidth%3D2%3Brounded%3D0%3B%22%20edge%3D%221%22%20parent%3D%221%22%3E%3CmxGeometry%20width%3D%2250%22%20height%3D%2250%22%20relative%3D%221%22%20as%3D%22geometry%22%3E%3CmxPoint%20x%3D%2290%22%20y%3D%22260%22%20as%3D%22sourcePoint%22%2F%3E%3CmxPoint%20x%3D%22140%22%20y%3D%22210%22%20as%3D%22targetPoint%22%2F%3E%3C%2FmxGeometry%3E%3C%2FmxCell%3E%3C%2Froot%3E%3C%2FmxGraphModel%3E

Front-end App

Flask API Server

Authentication

MongoDB

User Data

XRP Transaction

4-Create a flowchart showing the sequence of steps when a user interacts with the API (e.g., registration, login, balance retrieval, sending payment).

User Choose to   
Send Payment

Authentication

Login

User Choose To

Start

Payment Details

Data Validation

User Provides Data

XRPL Transfer

User Authenticated

User Registered

Registration

Balance Retrieval

END

4-Create a flowchart illustrating the process of sending XRP from one user to another through the XRPL.

Start

Is Transaction Successfully

Transaction Status  
Check

Create XRPL Transaction

Verify User A’s   
XRP Balance

XRPl Transaction   
Preparation

User A provides Recipient Amount

User A Provides Recipient Info

Transaction  
Failed

Transaction  
Completed

Update User B’s Balance

Update User A’s Balance

Yes

No

User A Initiate XRP  
Transfer