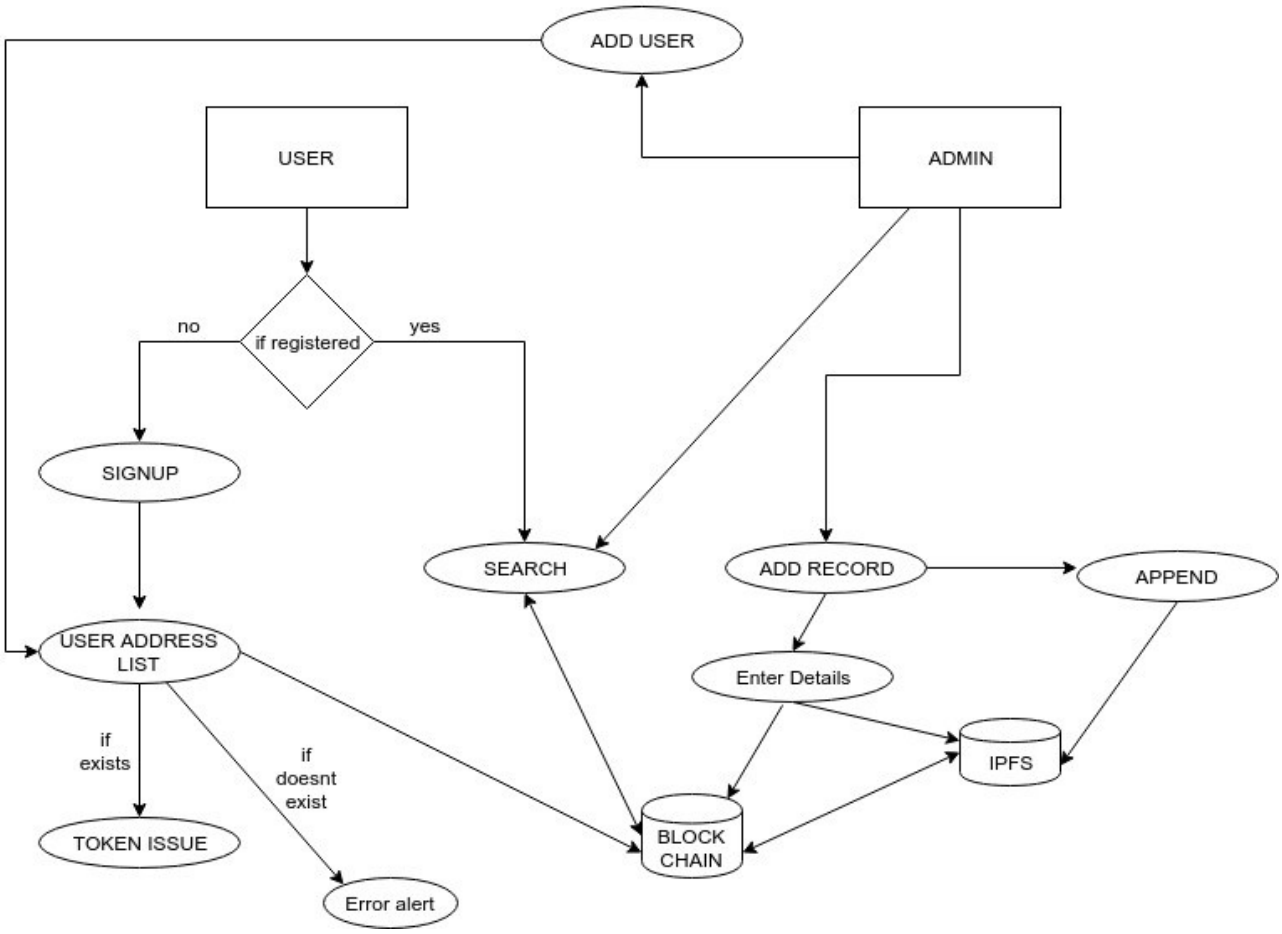
HIGH LEVEL DESIGN

GOALS AND GUIDELINES

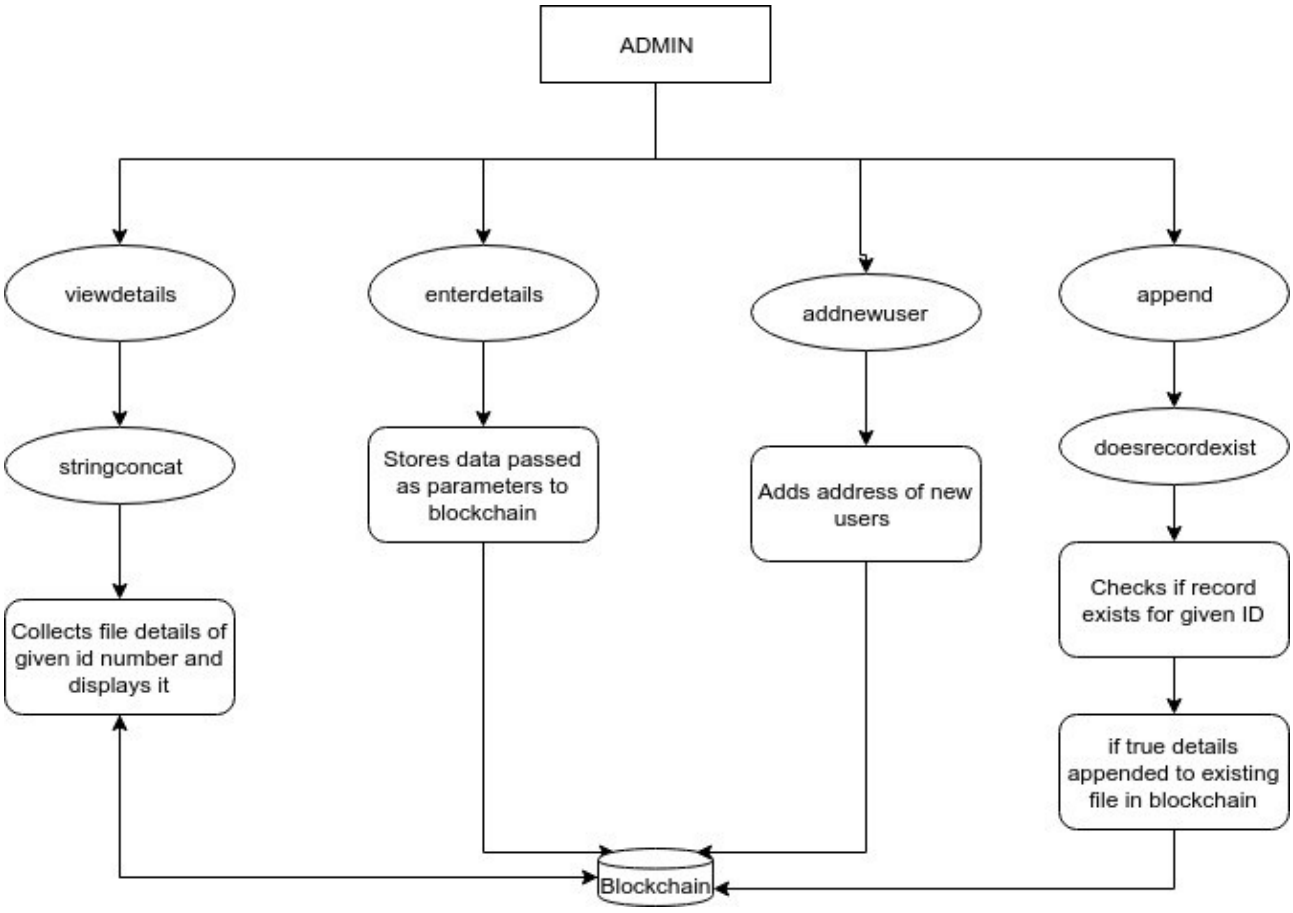
The goals of our project is to create an immutable database to store the criminal records. The present is that of a regular database which is not secure and editable which questions the credibility of the documents. So the thought of overcoming these shortcomings led to the development of a blockchain environment for storing the criminal records.

DATA FLOW DIAGRAM

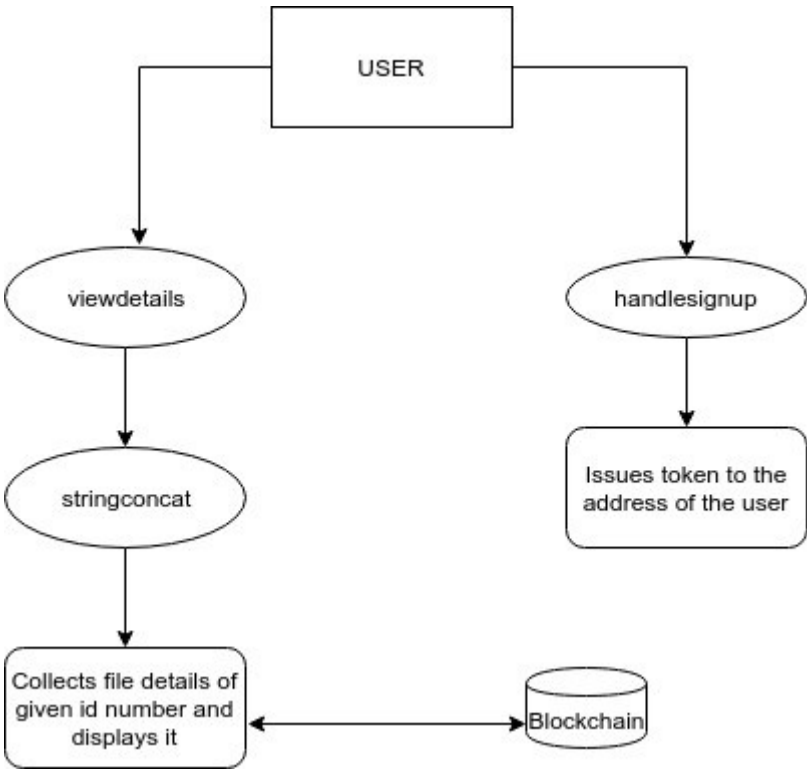


SOLIDITY LOGIC DIAGRAM

ADMIN MODULE



USER MODULE


USER
viewdetails
handlesignup
stringconcat
Issues token to the address of the user
Collects file details of given id number and displays it
Blockchain

DOCUMENTATION OF CODE FLOW

Admin Module

The admin has no restrictions and is straight away directed to home.
In the home, the admin can perform the following 4 functions.
1)Enter Details
2)Append Details
3)Add New User
4)Search Details

Enter Details : This functionality allows the admin to enter details of a person to the blockchain
by associating it to a unique id.

Append Details : This function checks if the person is already in the data base and appends the details that are entered.

Add New User : The admin can use this function to allow access for an address to the application.

Search Details : All Users who have access to the application can search for the details of the intended person using the unique id.

User Module

The users receive only restricted entry to the application. They are only permitted to search for the information using Search Details. But before entering the application they are made to go through a verification process to ensure that they have enough tokens for access.

Does Node Exist : This function checks whether the user’s address is registered by the admin for allowing access to the application

Handle SignUp : This function issues the access token to the user on signup and grants access.