

Local Storage Management :-

1. Storage Options Used:

- Hive for local database storage.
- Flutter Secure Storage for storing sensitive data like encryption keys.

2. App Initialization:

- In the main function, a FutureBuilder is used to call the checkStatus() function.
- checkStatus() checks whether the user is logged in or not. The login status is stored in a Hive box, updated during login or logout.
- Based on the user's login status, they are navigated to either the Home Screen or Login Screen.

3. Handling Encryption Keys:

- Key Storage: Encryption keys are stored in Flutter Secure Storage.
- Key Management:
 - Before navigation, the getKey() function executes to check if an encrypted key is stored in secure storage.
 - If no key exists, a new encryption key is generated, and the Hive box is opened with this new key.
 - If a key is already present, the box is opened with the existing key.

4. Login Behavior:

- If the user is logged in, the encrypted key is already stored, and the existing Hive box is opened using that key.

5. Account Creation:

- During account creation, a key-value pair of the user's email and phone number is stored in the Hive box.

6. Account Login:

- During login, a key-value pair of the user's User ID and email is stored in the Hive box.
- The authentication status is updated to Logged In in another Hive box.

7. Account Logout:

- The clearKey() function is called to:
 - Remove the encryption key from secure storage.
 - Close the existing open Hive box.
- The authentication status is updated to Logged Out in the Hive box.
- The user is navigated back to the Login Screen.