**LOST–FOUND PORTAL**

**About**

This part of the Application would provide a platform to view all the items lost or found inside the Institute Campus. A user would be able to perform the following operations inside the Portal –

1. View the List of Lost Items
2. View the List of Found Items

The Users would be provided the facility of adding a new Item in the list of items lost, if they have lost an item, by providing the following details –

1. Name of Item
2. Item Owner
3. Photo (Optional)
4. Time of Missing of Item
5. Place where the Item was last seen
6. Item Description

An item object would be created with the above details and this item would be added in the list of Lost Items. The user would also have the option of removing the item from the list.

Any user, if founds an item whose details matches to any List Item of the Portal, would have the option to contact the Item Owner and the return the item to it. The Item Owner, on finding his belongings, can then mark the Item as found and remove it from the list of Lost Items.

If any user finds an item, he would be provided the facility to add a new item in the list of found items by providing the following details –

1. Name of Item
2. Photo (Optional)
3. Time when Item was found
4. Place where the Item was found
5. Item Description

The Owner of the item can then claim the Item by selecting the ‘Claim’ Option of the Item Found. This would notify the user who found the item and then he could contact the person for return of the item.

**ITEM CLASS**

A User-Defined Class named ‘Item’ would be used to store the details of a particular item being lost or found.

The Class ‘Item’ would contain the following variables –

1. Item Type (Lost/Found) String
2. Item Name String
3. Item Photo Uri
4. Item Owner String (U-ID)
5. Item Founder String (U-ID)
6. Time, when Item was lost Time
7. Time, when Item was found Time
8. Place, where Item was last seen String
9. Place, where Item was found String
10. Item Description String

**USE OF FIREBASE**

Following features of Firebase Console would be required in the development and use of the Portal –

1. **Firebase Authentication**
   1. This would be required to authenticate the Current User and check whether the User belongs to the Institute or not.
   2. It would also be required to identify the name and contact details of the User who found a Lost Item, or the one whose item is lost.
   3. The ‘U-ID’ of the users would be used to fill up the details regrading user information of the Item.
2. **Firebase Realtime Database**
   1. This would be used to store the details of the Items being lost or found.
   2. The Data Structure in the Firebase Database would be as follows:
3. **Firebase Storage**
   1. This would be required to Store Image Files of the Items of the Lost-Found Portal.
   2. Images would be stored according to the same data structure as of Realtime Database.
   3. Name of Image File would be same as the Push-ID of the Item in the Realtime Database.

**OPERATIONS PERFORMED BY THE USER**

**General User**

**Lost Items:**

1. Can see all the lost items
2. Can claim any lost item
3. Can add a new lost item
4. Can remove an item that has been lost by the user and the item is not resolved

**Found Items:**

1. Can see all the found items
2. Can claim any found item
3. Can add a new found item
4. Can remove an item that has been found by the user and the item is not resolved.

**Resolved Items:**

1. Cannot see the full list of resolved items
2. Can only see the list of items that have been found or lost by the user and are resolved.

**Gymkhana Member**

They would not have any special privilege in the lost-found portal. They would need to use General Login for accessing the Lost-Found Portal. The Portal would be fully automated.

**PORTAL STRUCTURE**

The Main Page of the Portal would comprise of the following attributes:

1. Lost-Found Meter
   1. Would comprise of statistics related to the Lost-Found Portal
   2. Would contain the following properties:
      1. Total Items Lost
      2. Total Items Found
      3. Total Items Resolved
      4. Items Lost Today
      5. Items Found Today
      6. Items Resolved Today
      7. Items Lost in this Week
      8. Items Found in this Week
      9. Items Resolved in this Week
2. Lost Items Button
3. Found Items Button
4. Your Lost Items
5. Your Found Items