Class: User

Responsibility:
-Take photos of QR or bar codes or locations
-Scan codes
-Have total score
-Have scanned codes
-View high score list
-View map
-Have username and contact info
-Be authenticated
-See codes they scanned and number of codes, see total user score
-view other players profiles
-check if others have scanned same code
-browse qr codes

Collaborator:
Map, High score list, UserList, ScoreTracker, CodeList, ScannableCode, Camera, Authetnicator, Geolcoation

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Class: ScannableCode

Responsibility:
-Have picture taken by user
-Get scored by ScoreTracker
-Have geolocation
-Be displayed on map
-Store user comments

Collaborator:
Camera, User, ScoreTracker, GeoLocation, Photo

Class: Camera

Responsibility:
-Take photos of QR codes

Collaborator:
ScannableCode, Photo

Class: Photo

Responsibility:
-Contains a picture of a scannable code object, or that object's location
-User can view photo

Collaborator:
Camera, ScannableCode

Class: UserList

Responsibility:
-Display all users
-Allow owner to delete users

Collaborator:
User, ScoreTracker, UserListView

Class: QRScanner

Responsibility:
-Scan QR codes

Collaborator:
User, ScoreTracker, ScannableCode, Camera

Class: Map

Responsibility:
-Show user location
-Show locations of scanned codes

Collaborator:

Class: ScoreTracker

Responsibility:
-Track the scores of codes on account
-Sort codes from worst-best score and vice-versa
-Show statistics: Sum of scores, total number
-Remove codes at user will

Collaborator:
User, ScannableCode, ScoringSystem

Class: UserData

Responsibility:
-Store user data
-Retrieve data for a given user

Collaborator:
User, UserListView, CodeListView, HighScoreList, CodeList, HighScoreListView, ControlPanelView Authenticator, Owner, QRCodeView, UserList

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Class: Owner

Responsibility:
-Be a user
-Delete other users
-Delete QR codes
-Delete Photos

Collaborator:
User, ScoreTracker, ScannableCode, Camera, Authenticator, CodeList, Geolcoation

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Class: HighScoreList

Responsibility:
-Show total scores and sum codes of users in descending order
-Show user's own ranking

Collaborator:
User, ScoreTracker

Class:Scoring System

Responsibility:
-Get QRcode contents
-Calculate a SHA-256 hash of QR code
-Generate score
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Collaborator:
Score tracker
ScannableCode

Class: GeoLocation

Responsibility:
-Determines player's location
-Determines location of other QR codes

Collaborator:
Map, ScannableCode, User

Class: Authenticator

Responsibility:
-Determine if user is player or owner
-Knows current user id

Collaborator:
User

Class: PhotoView

Responsibility:
-Display Photos taken

Collaborator:
User, Camera, Photo

Class: WelcomeScreenView

Responsibility:
-Display text to welcome user to app
- Sign in button
- Sign up button

Collaborator:
User, Authenticator

Class: CodeListView

Responsibility:
-Display codes and scores

Collaborator:
User, ScannableCode, ScoreTracker

Class: Database

Responsibility:
-Connext with external database
-Store and retrieve user data

Collaborator:
User, UserData

Class: QRCodeView

Responsibility:
-Display QR code
-Diplay score
- Be deleted by owner
- Have optional object photo

Collaborator:
User, scannable code,

Class: ControlPanelView

Responsibility:
-Display codes
-Have buttons to scan new code
-Have buttons to view user codes
-Search button
-UserProfileButton
-Map button
-Show user name and score/rank

Collaborator:
User

Class: MapView

Responsibility:
-Display map
-Display ScannableCodes on map
-Zoom in, zoom out

Collaborator:
User, Map, Geolocation

Class: HighScoreListView

Responsibility:
-Display high scores

Collaborator:
User, ScoreTracker

Class: UserProfileView

Responsibility:
-Display user profile

Collaborator:
User,

Class: UserListView

Responsibility:
-Display users
-Delete button
-open user profiles
-Edit user profiles

Collaborator:
User, UserList