

### Comment (Entity)

- Store which user it came from
- Store the message of the user

### User (Entity)

- Store User info
- Store admin status
- Store Devices associated with the user
- Store QR Codes associated with user
- QRCode
- LeaderBoard Controller

### QRCode (Entity)

- Store QR Code worth
- Store QR Code image URL (if any)
- Store QR Code location (if provided)
- Store which users have it
- User
- QRCodeController

### CurrentUserHelper

- Store the Name, and personal info about user
- Store hardware Unique ID
- Store Current Location
- Store Firebase ID of their user document
- QRCodeController
- LeaderBoardController
- FirestoreController

## LocationHelper

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| <ul style="list-style-type: none"><li>• Constantly update the user location</li><li>• Call the location-changed listeners once the new location is stored</li></ul> | <ul style="list-style-type: none"><li>• CurrentUserHelper</li><li>• LocationUpdatedListeners</li></ul> |
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## QRCodeDialog

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| <ul style="list-style-type: none"><li>• Display QR Codes to view profile</li><li>• Display QR Code to transfer profile</li></ul> | <ul style="list-style-type: none"><li>• QRCode</li><li>• User</li></ul> |
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## FirestoreController

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| <ul style="list-style-type: none"><li>• Save / Retrieve QR Codes</li><li>• Save / Retrive Users</li><li>• Save / Retrive Comments</li><li>• Save location Images</li></ul> | <ul style="list-style-type: none"><li>• User</li><li>• QRCode</li><li>• Comment</li><li>• QRCodeController</li><li>• LeaderBoardController</li></ul> |
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## QRCodeController

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| <ul style="list-style-type: none"><li>• Save / Update QR Code To Firebase</li><li>• Find worth of QR Codes</li><li>• Respond to certain QR Code activities (View profile &amp; Transfer profile)</li><li>• Add location to QRCode</li></ul> | <ul style="list-style-type: none"><li>• CurrentUserHelper</li><li>• QRCode</li><li>• User</li><li>• FirestoreController</li></ul> |
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## LeaderboardController

- Organize users listed by rank
- Filter Users based on the search term
- Calculate current user's rankings

- User
- CurrentUserHelper
- FirestoreController

## SplashScreenActivity

- Navigate to the correct next activities based on owner status.
- Populate CurrentUserHelper

- FirestoreController
- CurrentUserHelper

## ViewProfileActivity

- Display profile
- Display options to generate QR Codes to View and Transfer profiles
- Display all user's QR Codes
- Redirect to comments
- Redirect to specific QR Code

- QRCode
- User
- CurrentUserHelper
- QRCodeDialog

## EditProfileActivity

- Save changes to user
- Display current user info

- FirestoreController
- User

**User (Role)**

- Take Pictures of QR Codes
- View their QR Codes
- View their total QR Codes Score and Number
- Delete their QR Codes (Optional)
- Take pictures of location
- Record GeoLocation
- View Map
- View other players
- Generate QR Codes to share / transfer profile
- Comment on QR Codes

- QRCode
- Comment
- Leaderboard
- FirestoreController

**Owner (Role)**

- See / Delete any players
- See / Delete any QR Code

- QRCode
- User
- FirestoreController