

# Model

| Player   |
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| Collaborator: Database, Camera, Comment, DisplayPlayerInfoButton           |
| Responsibility: represent a player and keeps its corresponding information |

| Database   |
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| Collaborator: QRCode, Player, Geolocation                      |
| Responsibility: stores the information of players and QR codes |

| QRCode                                      |
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| Collaborator: QRCodeScanner, Database       |
| Responsibility: store corresponding QR Code |

| QRCodeScanner  |
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| Collaborator: QRCode, ScanningButton                           |
| Responsibility: Scan photo and process it to return the QRCode |

| Geolocation  |
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| Collaborator: Database   |
| Responsibility: represent and stores the corresponding information of a location |

| Comment  |
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| Collaborator: Player   |
| Responsibility: represent and store the corresponding information of a comment |

# View

| Profile  |
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| Collaborator: DisplayPlayerInfoButton, Player                                      |
| Responsibility: Displays player's corresponding data, provides UI to update Player |

| Map                                      |
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| Collaborator: Database, Geolocation      |
| Responsibility: Displays nearby QR codes |

| Leaderboard                                    |
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| Collaborator: Player, Database                 |
| Responsibility: Displays top players as a list |

| PlayerSearchPage   |
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| Collaborator: Player, Database                                   |
| Responsibility: Implements interface to search for other players |

| CollectionActivity                       |
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| Collaborator: CommentActivity, Databas   |
| Responsibility: the activity to show the |

# Controller

| DisplayPlayerInfoButton            |
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| Collaborator: Database, Player     |
| Responsibility: represent a Player |

| ScanningButton                           |
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| Collaborator: QRCode, DataBase           |
| Responsibility: Open camera for scanning |

| DisplayNearbyCodeButton               |
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| Collaborator: Database, QRCode map    |
| Responsibility: Display nearby QRcode |

| SearchPlayerButton                                    |
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| Collaborator: Database, player                        |
| Responsibility: search for other users using username |

| WriteCommentButton  |
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| Collaborator: Database, player, Comment                                   |
| Responsibility: A Edit text that retrieve about a QRCode in the database. |

| PlayerSearchPage  |
|---|
| Collaborator: Database, player                                  |
| Responsibility: Implements interface to search for other player |

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| ent                       |
| nt, Profile               |
| comment and store comment |

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| <b>Camera</b>  |
| <b>Collaborator:</b><br><b>QrCodeScanner</b>                                     |
| <b>Responsibility:</b> Implement<br>with the functionality of<br>taking pictures |

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| <b>collection Page</b> |
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| <b>CommentActivitiy</b>  |
| <b>Collaborator:</b><br><b>CollectionActivity, Database</b>                  |
| <b>Responsibility:</b> the<br>activity to show the<br>comment of the QR code |

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| <b>CommentActivitiy</b>   |
| <b>Collaborator:</b><br><b>Database</b>                           |
| <b>Responsibility:</b> the<br>activity to show the friend<br>page |

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| <b>FriendPageActivity</b>   |
| <b>Collaborator:</b><br><b>Database</b>                           |
| <b>Responsibility:</b> the<br>activity to show the friend<br>page |

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| <b>MapsActivity</b>                                  |
| <b>Collaborator:</b><br><b>Database</b>              |
| <b>Responsibility:</b> represent<br>the map Activity |

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| <b>QRCodeActivity</b>  |
| <b>Collaborator:</b><br><b>CollectionAcitivity,<br/>DataBase</b>               |
| <b>Responsibility:</b> the<br>activity to show the QR<br>code information page |

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| <b>ScannedBarcodeAcitivity</b>                                |
| <b>Collaborator:</b><br><b>QRCode,<br/>DataBase</b>           |
| <b>Responsibility:</b> the<br>activity to scan the QR<br>code |



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| <b>ScoreBoardActivity</b>  |
| <b>Collaborator:</b><br><b>CollectionActivity,</b><br><b>DataBase</b>          |
| <b>Responsibility: the</b><br><b>activity to show the</b><br><b>scoreboard</b> |

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| <b>SearchActivity</b>   |
| <b>Collaborator:</b><br><b>Player,</b><br><b>DataBase</b>                       |
| <b>Responsibility: the</b><br><b>activity to show the</b><br><b>search page</b> |

