

CLASS NAME:

User/Entrant

Responsibilities:

- Stores entrant profile info (name, email, phone).
- Joins or leaves waiting lists.
- Accepts or declines invitations.
- Receives notifications about results.
- Views history of past events.

Collaborators:

- Event (joins/leaves waiting list)
- NotificationManager (receives updates)
- ProfileManager (edits/deletes info)

CLASS NAME:

Waiting_List

Responsibilities:

- Stores entrants who have registered interest.
- Allows adding/removing entrants.
- Tracks entrant count and status (pending, selected, declined)

Collaborators:

- Event (belongs to event)
- Entrant (entries)
- LotteryManager (selects entrants)

CLASS NAME:

QRCode_Manager

Responsibilities:

- Generates QR codes for events.
- Decodes scanned QR codes to retrieve event info.

Collaborators:

- Event (QR code contains event ID)
- FirebaseService (fetches event data)

CLASS NAME:

Organizer

Responsibilities:

- Creates and manages events.
- Sets registration period and capacity.
- Initiates lottery draws.
- Manages entrants and replacements.
- Sends notifications to entrants.

Collaborators:

- Event (creates and owns)
- LotteryManager (draws entrants)
- NotificationManager (sends updates)
- FirebaseService (stores event data)

CLASS NAME:

Lottery_Manager

Responsibilities:

- Randomly selects entrants from waiting list.
- Draws replacements if participants decline.
- Ensures fairness and logs results.

Collaborators:

- WaitingList (draws from)
- NotificationManager (sends result updates)
- Organizer (initiates draw)

CLASS NAME:

Profile_Manager

Responsibilities:

- Handles creation, editing, and deletion of entrant profiles.
- Saves updates to Firebase.
- Retrieves event participation history.

Collaborators:

- Entrant, FirebaseService

CLASS NAME:

Admin

Responsibilities:

- Manages system-level content (events, profiles, images).
- Reviews logs of notifications.
- Removes users or events that violate policy.

Collaborators:

- FirebaseService (deletes or reviews data)
- Event, Entrant, Organizer (manages these entities)

CLASS NAME:

Notifcation_Manager

Responsibilities:

- Sends in-app or push notifications to entrants and organizers.
- Handles opt-in/out preferences.
- Logs all notifications for admin review.

Collaborators:

- Entrant, Organizer, Administrator
- FirebaseService (stores logs)

CLASS NAME:

GeoLocation

Responsibilities:

- Obtains device location when joining waiting list.
- Validates if location requirement is enabled.

Collaborators:

- Entrant, Event, Organizer, FirebaseService

CLASS NAME:

Event

Responsibilities:

- Holds all event details: title, description, capacity, registration period.
- Maintains waiting list, selected entrants, confirmed entrants.
- Generates QR code.
- Links to poster image.

Collaborators:

- Organizer (owner)
- Entrant (waiting list and attendees)
- LotteryManager (draws winners)
- FirebaseService (sync data)

CLASS NAME:

FireBase_Manager

Responsibilities:

- Connects to Firebase for storing and retrieving data.
- Manages event documents, profiles, and real-time updates.
- Handles authentication (device-based login).

Collaborators:

- Event, Entrant, Organizer, Administrator
- NotificationManager