Klasses

Player

- crew = *object*
- screenName = *string*
- chosenAvatar = *int*
- isInGame = *bool*
- location = *array of coordinates*
- constructor()
  gets all data of the user and assigns to object properties
  Exception: history isn't loaded in constructor
- downloadData(property)
  fetches the data of the specified property and updates the user
- uploadData(property, value)
  uploads specified property to given value
- joinCrew(crew_id)
  joins the user to the specified crew by changing inGame property and in firebase
- leaveCrew()
  leaves current user from current crew
- changeAvatar()
- getHistory()
- sendMessage(text)
  sends message to crew by storing them in data
- updateLocation(location)
  gets player location and changes property and updates firebase with uploadData()
- checkPagePermission(page)
  checks if player should be able to view this page, if not a redirect page is returned

CrewMember

- screenName = *string*
- chosenAvatar = *int*
- location = *array of coordinates*
- constructor()
  gets all data of the crewmember and stores them in properties

Crew

- ingame = *bool*

- moderator = *user_id*
- players = *array of crewMembers*
- game = *object of game* (if one is present)
- constructor(crew_id)
  gets all data of the user and assigns to object properties
- changeCaptain()
  changes the captain when current captain leaves
- changeGameDuration(duration)
  changes duration if moderator
- changeGameRadius(radius)
  changes radius of the game zone if moderator
- changeGameMode(*int* mode)
  changes gamemode of the game if moderator
- removePlayer(user_id)
  removes player if moderator
- startGame()
  starts the game if moderator
- stopGame()
  stops the game if moderator by calling game.terminateGame()

Game

- duration = *int*
- radius = *int*
- centerpoint = *array of coordinaten*
- gamemode = *int*
- tagger = *array of users*
- constructor()
  gets all game data and assigns to object properties
  sets a pause to teminateGame() after given duration
  sets an interval to Player.updateLocation()
  sets a listener to messages collection => showNewMessage()
  sets a listener to location collection => isOutOfBounds(), isTagged()
  set interval to update dots on map
- distanceToTagger()
  loops over all taggers and measures their coordinates to the yours
- distanceToCenter()
  measures the distance of the user to the center
- isOutOfBounds()
  checks if distanceToCenter() is larger then radius
- isTagged()
  checks if distanceToTagger is small enough then calls changeTagger() and reroutes to infected-page + updateTaggerDistance()
- updateTaggerDistance(distance)

updates the distance indicator on screen

- changeTagger(user_id)
  changes the tagger
- terminateGame()
  reroutes to end screen and changes var in firebase and stops all listeners to firebase
- showNewMessage()
  adds the new message to the chat

Mapbox

- addRunners(*array* runnerLocations)
  adds dots to the map where to runners are
- addPlayer(*array* location)
  add a dot where the player is

Event

- addClickEvent(*string* element_id)
  adds an event to element with element_id
- clearClickEvent(*string* element_id)
  clears an event of element with element_id

PageDataCollector

contains a method for every page and returns an object with all necessary data for that page

DBSyncer

Handles all database transactions and makes sure all client side is updated

- addGameDbListeners()
  Adds all onsnapshot functions for:

Firebase

- users (id)
  - screen name
  - chosen avatar

  - crew_id
  - isIngame
  - location
  - history
    - plague_games_won
    - plague_games_lost
    - games
      - date
      - crew_id
- crews (id)
  - crew_code
  - isPlayin
  - gameMode
  - duration
  - zone_radius
  - members
    - users_id
    - ...
    - moderator
  - taggers
    - user_id
    - ...