Use Case: Start Application

Application
      splashScreen: Activity
      applicationName: string
      applicationLogo: image
      userIsLoggedIn: boolean
      ----
      displaySplashScreen()
      login()
      viewMainScreen()

Use Case: Login

User
      username: string
      password: string

LoginScreen
      username: string
      password: string
      ----
      createAccount()
      login()

Application
      userIsLoggedIn: boolean
      currentUserName: string
      ----
      viewMainScreen()

ApplicationServer
      username: string
      password: string
      validateUser()

Use Case: Create Account

CreateAccountScreen
      username: string
      email: string
      firstName: string
      lastName: string
      password: string
      errorMessageField: string
     ----
      comparePasswords()
      createAccount()
User
      username: string
      email: string
      firstName: string
      lastName: string
      password: string

ApplicationServer
      ensureEmailDoesNotExist()
      ensureUserNameDoesNotExist()
      createNewUser()

Use Case: View Main Screen

Application
    userIsLoggedIn: Boolean

MainScreen
    currentExcursion: Excursion
    defaultExcursion: Excursion
    currentMap: Map
    currentLocation: GPSLocation
    activeButtons: Button[]
    ----
    validateCurrentGPSLocationOnMap()
    loadExcursion()
    startRecordingRoute()
    addObservation()
    stopRecordingRoute()
    editExcursion()
    saveExcursion()
    logout()
    exit()
    viewObservation()

Excursion
    route: GPS[]
    observations: Observation[]

Use Case: Load Excursion

MainScreen
    currentExcursion: Excursion
    currentExcursionHasChanged: Boolean
    ----
    saveCurrentExcursion()
    displayCurrentExcursion()

LoadExcursionScreen
    availableExcursions: ExcursionInfo[]
    ----
    cancel()
    downloadExcursion()
    setCurrentExcursion()

Application
    excursionList: Excursion[]

ApplicationServer
    excursionList: Excursion[]

Use Case: Start Recording Route

MainScreen
     currentExcursion: Excursion
     routeRecordingInterval: int
     currentPosition: GPSLocation
     currentMap: Map
     isRecordingRoute: Boolean
     ----
     startRecordRoute()
     updateRouteOnMap()

Excursion
     route: GPSLocation[]

Use Case: Add Observation

AddObservationScreen
     title: String
     description: String
     GPSLocation: GPSLocation
     ----
     getCurrentGPSLocation()
     getDateAndTime()
     saveObservation()
     cancel()

MainScreen
     currentMap: Map
     currentExcursion: Excursion
     ----
     updateMap()

Observation
     title: string
     description: string
     GPSLocation: GPSLocation
     date: Date
     time: Time

Use Case: View Observation

ViewObservationScreen
     title: string
     description: string
     GPSLocation: GPSLocation
     ----
     loadFields()
     editObservation()
     back()

MainScreen
     currentExcursion: Excursion

Observation
     title: String
     description: String
     GPSLocation: GPSLocation

Use Case: Edit Observation

EditObservationScreen
     title: String
     description: String
     GPSLocation: GPSLocation
     ----
     loadFields()
     saveObservationChanges()
     deleteObservation()
     cancel()

Application
     currentExcursion: Excursion

Use Case: Stop Recording Route

MainScreen
      isRecordingRoute: Boolean
      ----
      stopRecordingRoute()

Use Case: Edit Excursion

EditExcursionScreen
      excursionName: String
      excursionDescription: String
      walkableExcursion: Boolean
      publicExcursion: Boolean
      observationList: (title, edit button)
      ----
      loadFields()
      checkCurrentExcursionName ()
      saveExcursion()
      editObservation()
      cancel()

Use Case: Log Out

Application
      currentUser: string

MainScreen
      ----
      displayLogOutConfirmationDiaglogBox()
      logOut()
      logIn()

Use Case: Save Excursion

MainScreen
      currentExcursion: Excursion
      defaultExcursion: Excursion
      ----
      checkCurrentExcursionName ()
      editExcursion()
      saveExcursion()
      displayUploadSuccessMessage()
      displaySaveSuccessMessage()

Use Case: Exit

MainScreen
      uploadingExcursionInProgress: Boolean
      ----
      exitApplication()
      displayWaitOnUploadMessage()