**Use Case: Start Application**

Application

splashScreen: Activity

applicationName: string

applicationLogo: image

userIsLoggedIn: boolean

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displaySplashScreen()

login()

viewMainScreen()

**Use Case: Login**

User

username: string

password: string

LoginScreen

username: string

password: string

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createAccount()

login()

Application

userIsLoggedIn: boolean

currentUserName: string

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viewMainScreen()

ApplicationServer

username: string

password: string

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validateUser()

**Use Case: Create Account**

CreateAccountScreen

username: string

email: string

firstName: string

lastName: string

password: string

errorMessageField: string

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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[]

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validateCurrentGPSLocationOnMap()

loadExcursion()

startRecordingRoute()

addObservation()

stopRecordingRoute()

editExcursion()

saveExcursion()

logout()

exit()

viewObservation()

Excursion

route: GPS[]

observations: Observation[]

**Use Case: Load Excursion**

MainScreen

currentExcursion: Excursion

currentExcursionHasChanged: Boolean

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saveCurrentExcursion()

displayCurrentExcursion()

LoadExcursionScreen

availableExcursions: ExcursionInfo[]

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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

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startRecordRoute()

updateRouteOnMap()

Excursion

route: GPSLocation[]

**Use Case: Add Observation**

AddObservationScreen

title: String

description: String

GPSLocation: GPSLocation

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getCurrentGPSLocation()

getDateAndTime()

saveObservation()

cancel()

MainScreen

currentMap: Map

currentExcursion: Excursion

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updateMap()

Observation

title: string

description: string

GPSLocation: GPSLocation

date: Date

time: Time

**Use Case: View Observation**

ViewObservationScreen

title: string

description: string

GPSLocation: GPSLocation

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loadFields()

editObservation()

back()

MainScreen

currentExcursion: Excursion

Observation

title: String

description: String

GPSLocation: GPSLocation

**Use Case: Edit Observation**

EditObservationScreen

title: String

description: String

GPSLocation: GPSLocation

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loadFields()

saveObservationChanges()

deleteObservation()

cancel()

Application

currentExcursion: Excursion

**Use Case: Stop Recording Route**

MainScreen

isRecordingRoute: Boolean

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stopRecordingRoute()

**Use Case: Edit Excursion**

EditExcursionScreen

excursionName: String

excursionDescription: String

walkableExcursion: Boolean

publicExcursion: Boolean

observationList: (title, edit button)

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loadFields()

checkCurrentExcursionName ()

saveExcursion()

editObservation()

cancel()

**Use Case: Save Excursion**

MainScreen

currentExcursion: Excursion

defaultExcursion: Excursion

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checkCurrentExcursionName ()

editExcursion()

saveExcursion()

displayUploadSuccessMessage()

displaySaveSuccessMessage()

**Use Case: Log Out**

Application

currentUser: string

MainScreen

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displayLogOutConfirmationDiaglogBox()

logOut()

logIn()

**Use Case: Exit**

MainScreen

uploadingExcursionInProgress: Boolean

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exitApplication()

displayWaitOnUploadMessage()