activities

Activity_Login

-username : TextField
-password : TextField
-login : Button
-register : Button
-workOffline : Button

+toRegisterActivity(View v) : void
+tomainMenu(View v) : void
+getPageData(View v) : void
+checkLoginDetails() : boolean

Activity_MainMenu

- smallButtons : ButtonContainer
- largeButtons : ButtonContainer
-recordingQueue : RecordingsQueue

+toRecordings(View v) : void
+toPlantSpecies(View v) : void
+toEditRecordings(View v) : void
+logout(View v) : void

Data (Recordings Queue)

Activity_Register

-username : TextField
-password : TextField
-confirmPassword : TextField
-creatAccount : Button

+createAccount(View v) : void
+toMainMenu(View v) : void
+getPageData(View v) : void
+checkIfAccountExists() : boolean
+checkIfPasswordsMatch() : boolean

Activity_Settings

-GPS : Slider
-sendPrompt : Slider
-WiFi : RadioButtons
-savePhotoToDevice : Slider

+getData(View v) : void
+updateSessionSettings() : boolean
+toMainMenu(View v) : void

Utilities (Settings)

Activity_PlantSpecies

-commonName : TextField
-latinName : TextField
-addSpecies : Button

+getData(View v) : void
+toMainMenu(View v) : void

Activity_Recordings

-imageContainer : ImageContainer
-name : TextField
-reserve : TextField
-plant : TextField
-longitude : TextField
-latitude : TextField
-notes : TextArea

+toPlantSpecies(View v) : void
+toMainMenu(View v) : void
+getPageData(View v) : void
+getData(View v) : void
+getDate() :
+constructRecording() : Recording

Activity_EditPlantSpecies

-plant : Species
-edit : Button
-delete : Button
-reset : Button

+editPlant(Species r) : void
+fillList() : String[]
-getPlant(String uid) : Species

Activity_EditRecordings

-record : Recording
-edit : Button
-delete : Button
-reset : Button

+editRecording(Recording r) : void
+fillList() : String[]
-getRecording(String uid) : Recording

ui

ButtonContainer

-content : Button[]
-location : Point
-size : Dimension

+ButtonContainer(int numberOfButtons, Dimension containerSize, Struct layoutOptions)
+ButtonContainer(RecordingQueue recordings, int numberOfButtons)
+getButton(int i) : Button

Activities - Main_Menu

Button

-size : Dimension
-position : Point

+Button(int height, int width)
+changeColour() : void
+onClick() : void

ImageContainer

-image : Gallery

+invokeCameraFunctionality(View v) : Image
+addImageToGallery(Image img) : void
+removeImageFromGallery(Image img) : void

SmallButton

-status : Status

+getStatus() : Status

<<Enumeration>>
Status

-complete
-processing
-failed

data_processing

FormatChecker

-validAbundance : char[]
-validLatitudeMax : int
-validLatitudeMin : int
-validLongitudeMax : int
-validLongitudeMin : int
-validPhoneLength : int

+checkAbundance(String abundance) : char
+checkPhoneNumber(String number) : int
+checkLatitude(int latitude) : int
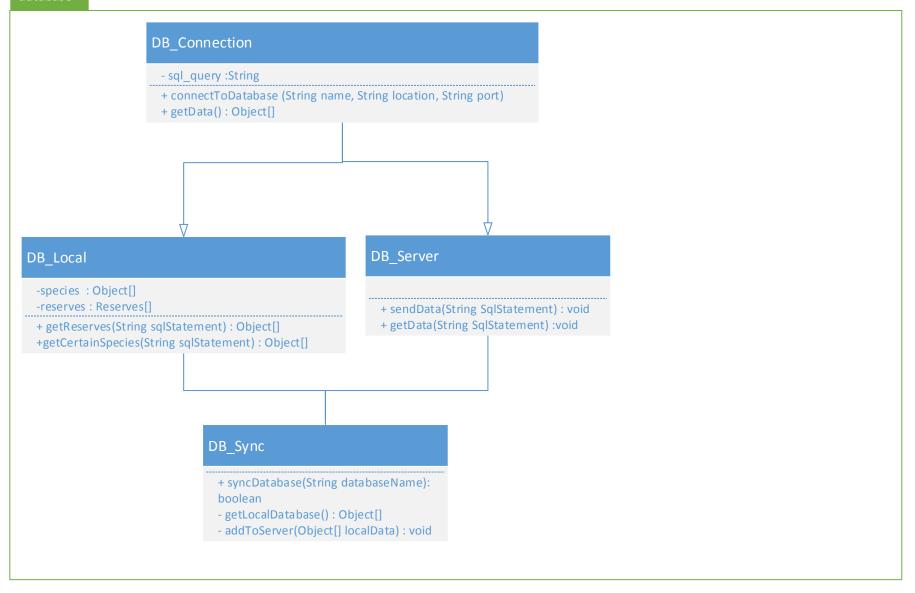+checkLongitude(int longitude) : int

LogonChecker

+checkLogin(String uid, String password) : boolean

**Activities
(Activity_Login)**

ConnectivityChecker

+checkWifi() : boolean
+checkGPS() : boolean

database

DB_Connection

- sql_query :String

+ connectToDatabase (String name, String location, String port)
+ getData() : Object[]

DB_Local

-species : Object[]
-reserves : Reserves[]

+ getReserves(String sqlStatement) : Object[]
+getCertainSpecies(String sqlStatement) : Object[]

DB_Server

+ sendData(String SqlStatement) : void
+ getData(String SqlStatement) :void

DB_Sync

+ syncDatabase(String databaseName):
boolean
- getLocalDatabase() : Object[]
- addToServer(Object[] localData) : void

exceptions

ExistingAccountException

+ExistingAccountException(String error)

IncorrrectFormatException

+IncorrectFormatException(String error)

LogonException

+LogonException(String error)

DatabaseConnectionException

+DatabaseConnectionException(String error)

UploadFailureException

+UploadFailureException(String error)

NoSearchResultsException

+NoSearchResultsException(String error)
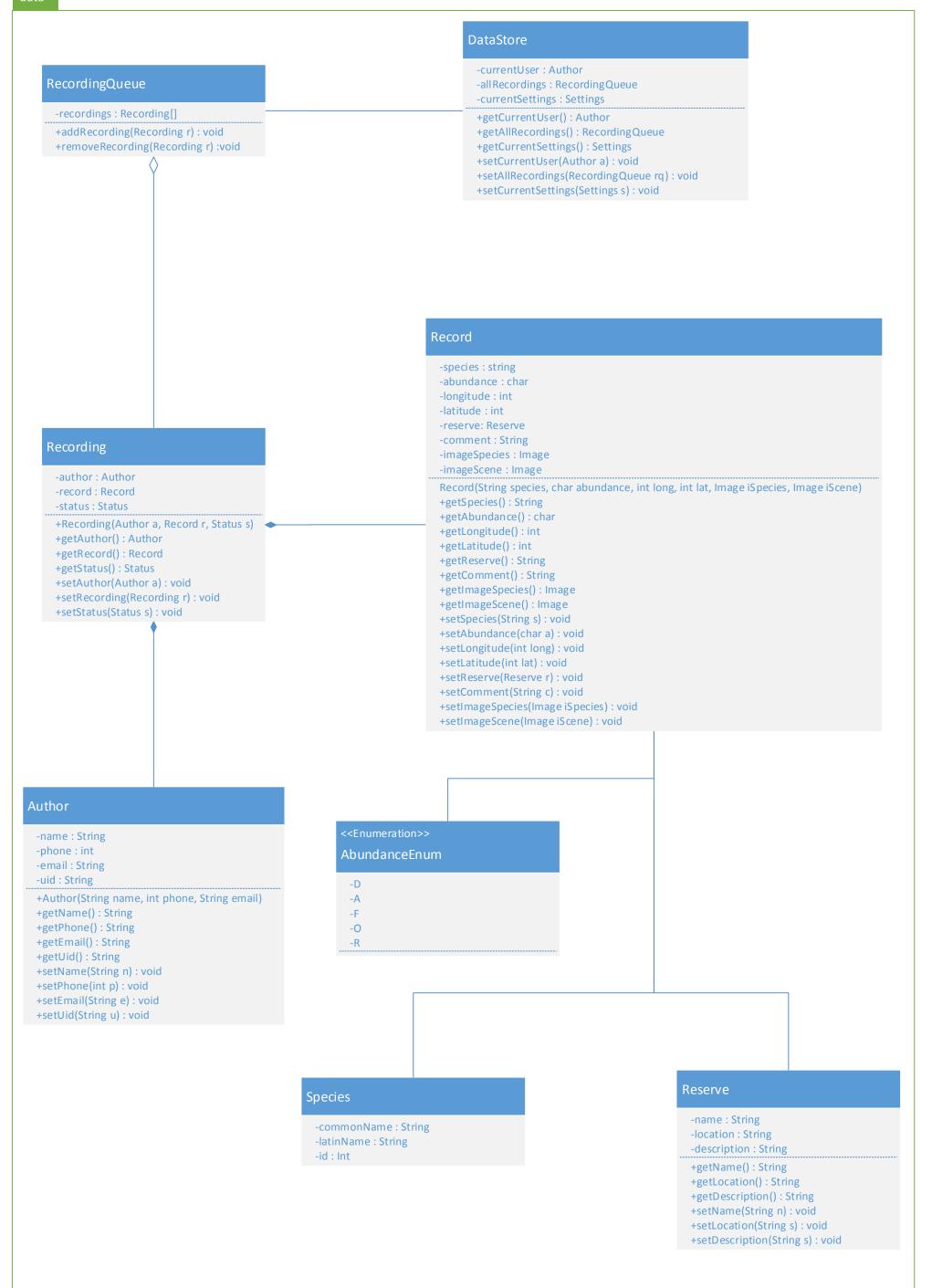
utilities

Settings

-useGPS : boolean
-promptToSend : boolean
-sendOnWiFiOnly : boolean
-savePhotoToDevice : boolean

+setUseGPS(boolean gps) : void
+setPromptToSend(boolean pts) : void
+setSendOnWifi(boolean sow) : void
+setSPTD(boolean sptd) : void
+getGPS() :boolean
+getPTS() : boolean
+getSOW() : boolean
+getSPTD() : boolean

**Activities
(Activity_Settings)**

data

DataStore
- -currentUser : Author
- -allRecordings : RecordingQueue
- -currentSettings : Settings
- +getCurrentUser() : Author
- +getAllRecordings() : RecordingQueue
- +getCurrentSettings() : Settings
- +setCurrentUser(Author a) : void
- +setAllRecordings(RecordingQueue rq) : void
- +setCurrentSettings(Settings s) : void

RecordingQueue
- -recordings : Recording[]
- +addRecording(Recording r) : void
- +removeRecording(Recording r) :void

Record
- -species : string
- -abundance : char
- -longitude : int
- -latitude : int
- -reserve: Reserve
- -comment : String
- -imageSpecies : Image
- -imageScene : Image
- Record(String species, char abundance, int long, int lat, Image iSpecies, Image iScene)
- +getSpecies() : String
- +getAbundance() : char
- +getLongitude() : int
- +getLatitude() : int
- +getReserve() : String
- +getComment() : String
- +getImageSpecies() : Image
- +getImageScene() : Image
- +setSpecies(String s) : void
- +setAbundance(char a) : void
- +setLongitude(int long) : void
- +setLatitude(int lat) : void
- +setReserve(Reserve r) : void
- +setComment(String c) : void
- +setImageSpecies(Image iSpecies) : void
- +setImageScene(Image iScene) : void

Recording
- -author : Author
- -record : Record
- -status : Status
- +Recording(Author a, Record r, Status s)
- +getAuthor() : Author
- +getRecord() : Record
- +getStatus() : Status
- +setAuthor(Author a) : void
- +setRecording(Recording r) : void
- +setStatus(Status s) : void

Author
- -name : String
- -phone : int
- -email : String
- -uid : String
- +Author(String name, int phone, String email)
- +getName() : String
- +getPhone() : String
- +getEmail() : String
- +getUid() : String
- +setName(String n) : void
- +setPhone(int p) : void
- +setEmail(String e) : void
- +setUid(String u) : void

<<Enumeration>>
AbundanceEnum
- -D
- -A
- -F
- -O
- -R

Species
- -commonName : String
- -latinName : String
- -id : Int

Reserve
- -name : String
- -location : String
- -description : String
- +getName() : String
- +getLocation() : String
- +getDescription() : String
- +setName(String n) : void
- +setLocation(String s) : void
- +setDescription(String s) : void

filtering

<<Interface>>
IFilter

-data : Object[]

+getData() : Object[]
+filterData(Object[] dataToFilter) : Object[]
+numberOfObjectsOrder() : int

AlphabeticalFilter

-data : Object[]

+getData() : Object[]
+filterData(Object[] dataToFilter) : Object[]

AuthorFilter

-data : Object[]

+getData() : Object[]
+filterData(Object[] dataToFilter) : Object[]

DateFilter

-data : Object[]

+getData() : Object[]
+filterData(Object[] dataToFilter) : Object[]

LocationFilter

-data : Object[]

+getData() : Object[]
+filterData(Object[] dataToFilter) : Object[]

SpeciesFilter

-data : Object[]

+getData() : Object[]
+filterData(Object[] dataToFilter) : Object[]