CLASS DIAGRAM: SG!Recycle

ItemScanner

List<Result> outputs

void initState()

CameraHelper

bool isDetecting
CameraLensDirection _direction
Future<void>
initializeControllerFuture

void intializeCamera()

ItemClassifier

List<Result> _outputs

void classifyImage(CameraImage image)

RecyclableSet

Configurator

LocationFinder

LatLng currentLocation

void _getUserLocation()

DistanceCalculator

List<double> recyclingBins
HashMap<MyCoordinates, double>
nearestBinsArray
Coordinates currentUserLocation
List<double> recyclingBinsLat = []
List<double> recyclingBinsLong = []
List<MyCoordinates> recyclingBinsCoord = []
double distanceFromUser

Map<MyCoordinates, double>
compareDistance(MyCoordinates currentLocation,
List<MyCoordinates> binsLocations)
Map<MyCoordinates, double> sortHashMap
(Map<MyCoordinates, double>
nearestRecyclingBins)

BinSet

BinLocations

List<double> recyclingBins

List<double> getBinArray()

PinDropper

List nearestTenBinsList
List nearestTenBinsLats
List nearestTenBinsLong

Map<String, Marker>
createPins(GoogleMapController controller)

PostalVerifier

bool validatePostal(int code)

ManualLocationFinder

LatLng currentLocation

void _getUserLocation()

PostalCodeSet
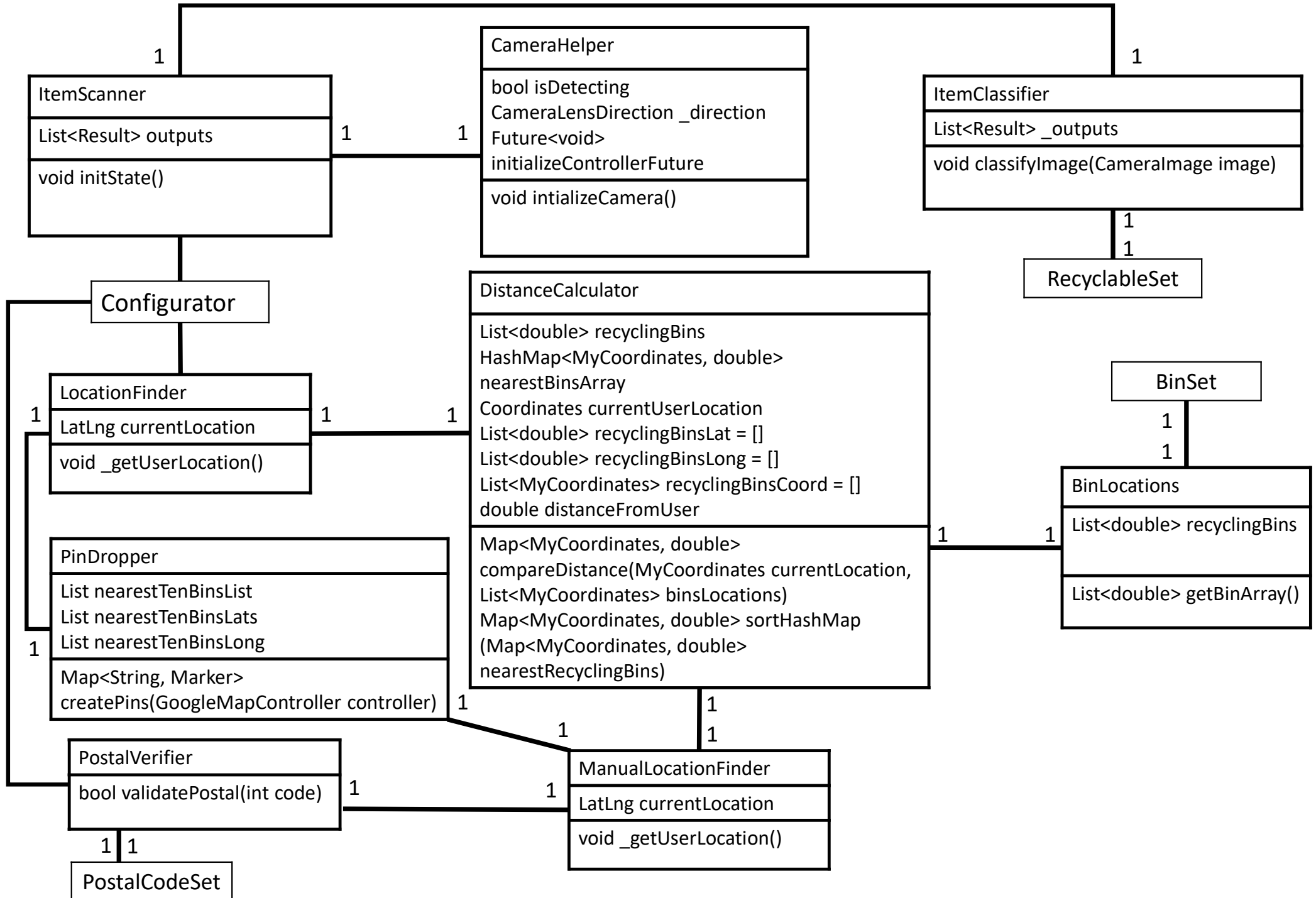
Key Design Issues

Persistent Data/Objects

1) BinLocations

2) RecyclableSet

3) PostalCodeSet

- Storage Management Strategy
    - Relational Database

Key Design Issues

Access Control

	BinSet	RecyclableSet	PostalCodeSet
System	Yes	Yes	Yes
User	No	No	No
Google Map API	Yes	No	Yes
Data.gov	Yes	No	No