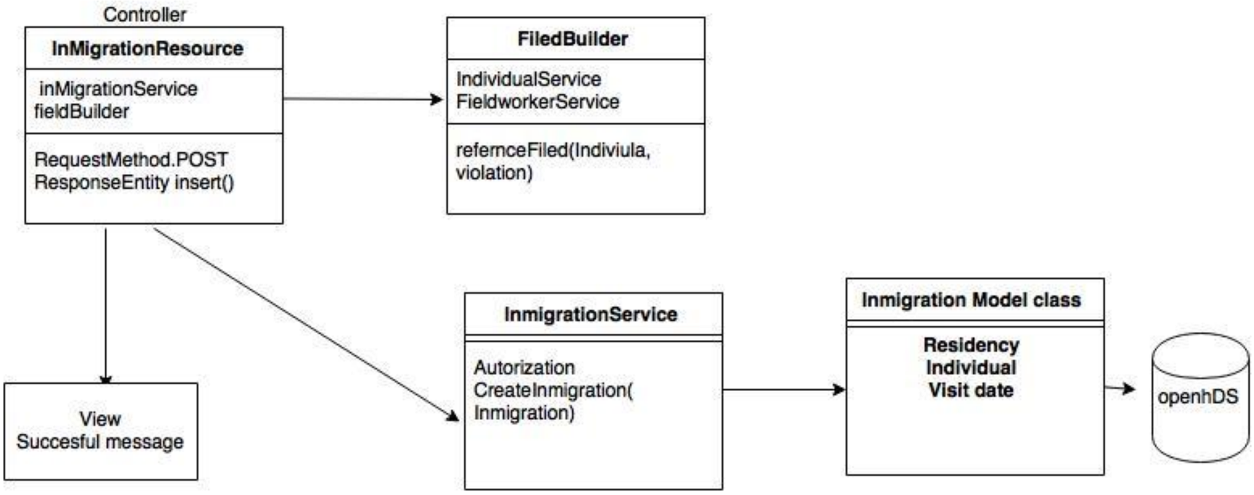
Web Service functionality via in-migration event:

In the OpenHDS, the In-migration entity represents information about the individual who is migrating to a particular residency. It has properties such as individual, residency, and origin, reason for migration, record date and visit date, fieldworker. Client requests for creating the in-migration entity whenever individual migrate from the cuurent recidency. The request of URL pattern /inmigrations is mapped to the InmigrationResource class. Control is passed to the handler method insert(Inmigration inmigration) when the controller receives the request to create the in-migration entity. This method is annotated with @RequestMapping(method=RequestMthod.post).

The AbstractResource's method createResource(inmigration) get called within this handler method. The AbstractResource instantiate the ConstraintViolations cv object. It is injected as the parameter to the method setReferenceFields(item, cv) of InMigration controller class. The setRefernceField method matches the fieldworker and visit entities data against the corresponding saved entities in the database. It also checks for null violations. The violation occurred during this process are added using addViolation("error message") method. This violation later checked in the class AbstractResource class using the method cv.hasViolation(). The response is sent back to the controller class if any violation occurred. During this, the http status code is updated to identify the bad request.

An another controller method saveResource(item) get called if there are no violations during the setRefernceField() method. It uses the Inmigrationservice to create Immigration entity in the database. The createInmigration(InMigration migration) method is annotated with the @Authorized. Hence, user 's privilege for create entity has been checked before processing this request. Once the authorization is successful, the access to createInMigration() service method is granted. In this method, residency fields are updated. checkValidIndividual checks for the migration type and duplicate individual data. Request will not get processed if violation occurrs. The individualService's evaluateIndividual () checks for the null individual and duplicate individual. The length of ext id is validated using the Individual generator class. The proper error messages are conveyed using the ConstraintViolations. Thus, individual, residency are first validated and created while creating the inmigration event. If the validation is successful the entity is created by calling EntityService create() method. This method also check for certain custom validation by making call to the validator.validateEntity() . If there are no validation error, create () method of GenericDao get called to create the entity in the database.

The copy of in-migration object is passed to the ResponseEntity along with the HttpStatus.Created after the successful creation of inmigration event. Then the response is sent back to the controller.


Controller
InMigrationResource
inMigrationService
fieldBuilder
RequestMethod.POST
ResponseEntity insert()
FiledBuilder
IndividualService
FieldworkerService
refernceFiled(Indiviula, violation)
View
Succesful message
InmigrationService
Autorization
CreateInmigration(Inmigration)
Inmigration Model class
Residency
Individual
Visit date
openhDS