

Mobile Application Development

MyRent - Adapt for use with MongoDB

Waterford Institute of Technology

November 18, 2016

John Fitzgerald

Service

Play Framework

Accommodate auto-generated database id

Play example provided for reference and comparison purposes:

- Residence auto generated
- Residence id extends Model, not GenericModel
- You todo: refactor **id** type changes to String

```
@Entity
public class Residence extends Model {

    // Long id;
    public String geolocation;
```

Service

Play Framework

Provided for reference and comparison purposes:

- Residence update method introduced

```
/**
 * Update this residence by replacing all fields with those of other.
 * @param other The residence whose fields (excluding the id) replaces
 * existing.
 */
public void update(Residence other) {
    geolocation = other.geolocation;
    date = other.date;
    . . .
    zoom = other.zoom;
    photo = other.photo;
}
```

Service

ResidenceAPI

Refactor create residence method.

- Parameter object doesn't have id.
- Generate Residence, use its id and echo back residence + id.

```
public static void createResidence(JsonElement body) {  
    Residence residence = gson.fromJson(body.toString(), Residence.  
        class);  
    Residence res = new Residence();  
    residence.id = res.id;  
    residence.save();  
    renderJSON(gson.toJson(residence));  
}
```

JUnit test

Obtain id from service

In setup necessary to obtain residence id from service

- Create residence
- Echo back res obj + id
- Initialize local residences **id** fields

```
@Before
public void setup() throws Exception {

    for (int i = 0; i < NUMBER_RESIDENCES; i += 1) {
        Residence res = service.createResidence(residences[i]);
        residences[i].id = res.id;
    }
}
```

Android client

Obtain id from service in background thread (ResidenceListFragment)

This is code where **id** auto-generated:

```
case R.id.menu_item_new_residence:  
    Residence residence = new Residence();  
    portfolio.addResidence(residence);  
    Intent i = new Intent(getActivity(),  
        ResidencePagerActivity.class);  
    i.putExtra(ResidenceFragment.EXTRA_RESIDENCE_ID, residence.id);  
    startActivityForResult(i, 0);  
    return true;
```

Android client

Obtain id from service in background thread (ResidenceListFragment)

Move create new residence code to worker thread

```
@Override
public void onResponse(Response<Residence> response,
                       Retrofit retrofit) {
    Residence res = response.body();
    if (res != null) {
        portfolio.addResidence(res);
        Intent i = new Intent(getActivity(),
                               ResidencePagerActivity.class);
        i.putExtra(ResidenceFragment.EXTRA_RESIDENCE_ID, res.id);
        startActivityForResult(i, 0);
    }
}
```



Except where otherwise noted, this content is licensed under a Creative Commons Attribution-NonCommercial 3.0 License.

For more information, please see <http://creativecommons.org/licenses/by-nc/3.0/>



Waterford Institute of Technology
INSTITIÚD TEICNEOLAÍOCHTA PHOIRT LÁIRGE

