Mobile Application Development

Higher Diploma in Science in Computer Science

Produced by

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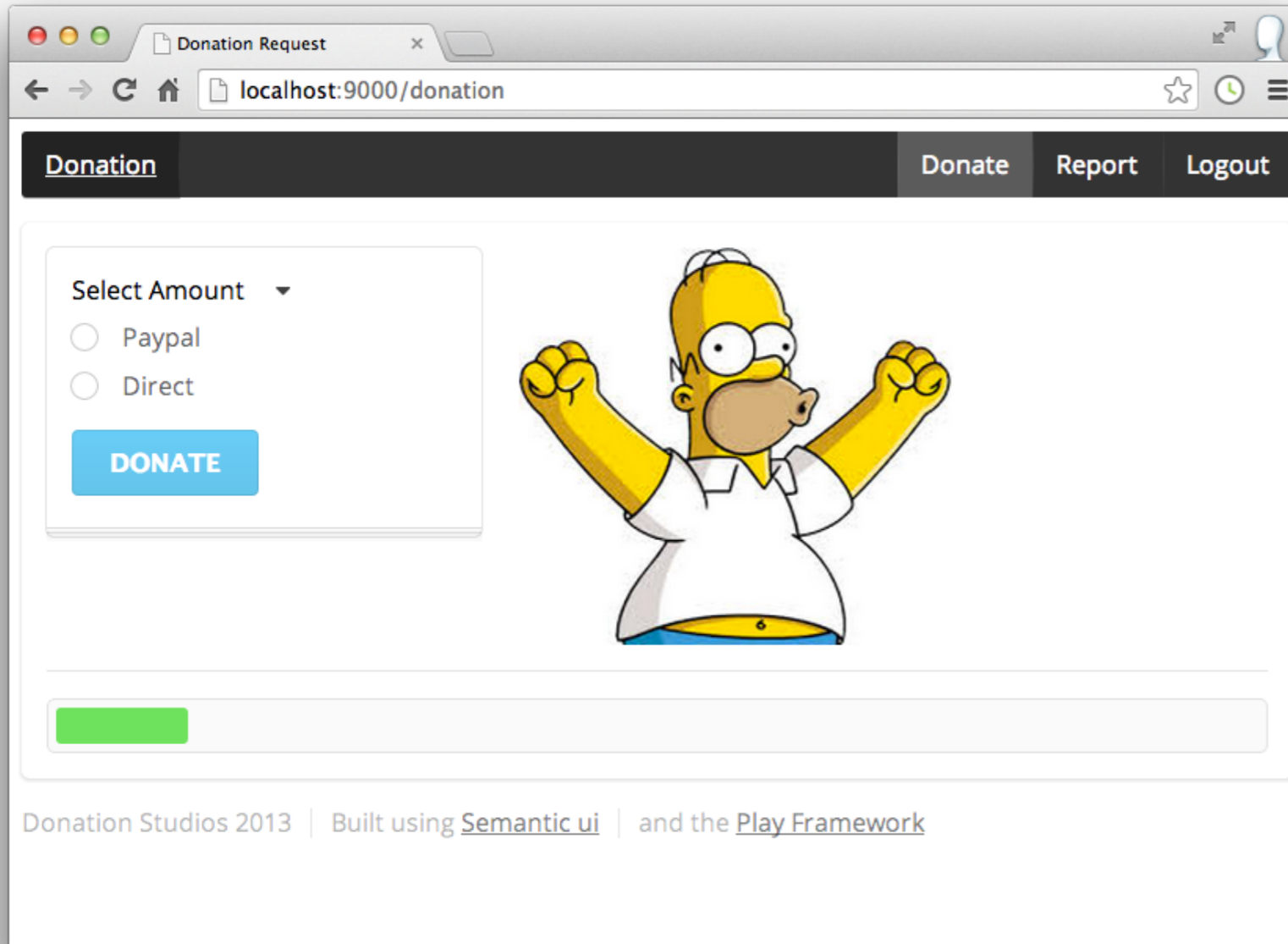Department of Computing, Maths & Physics
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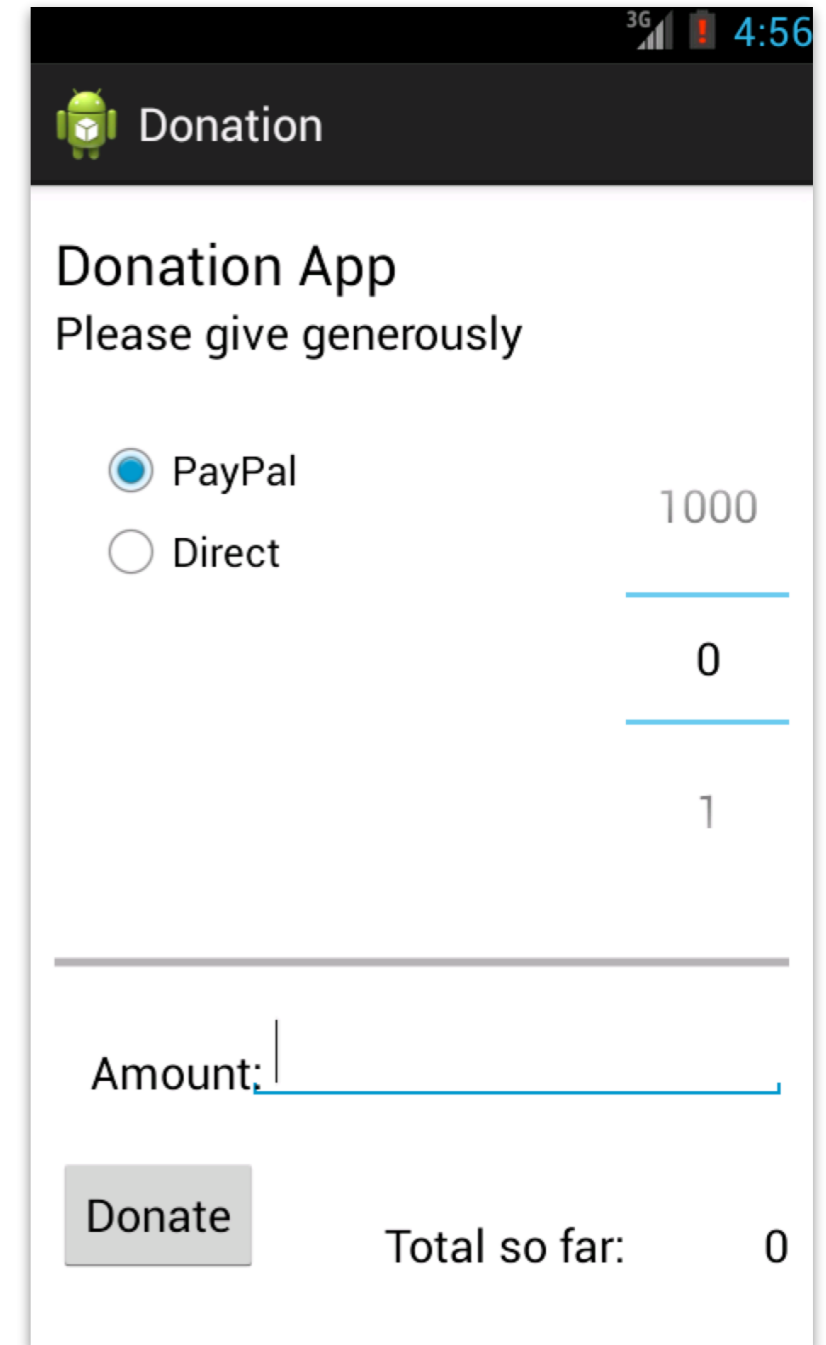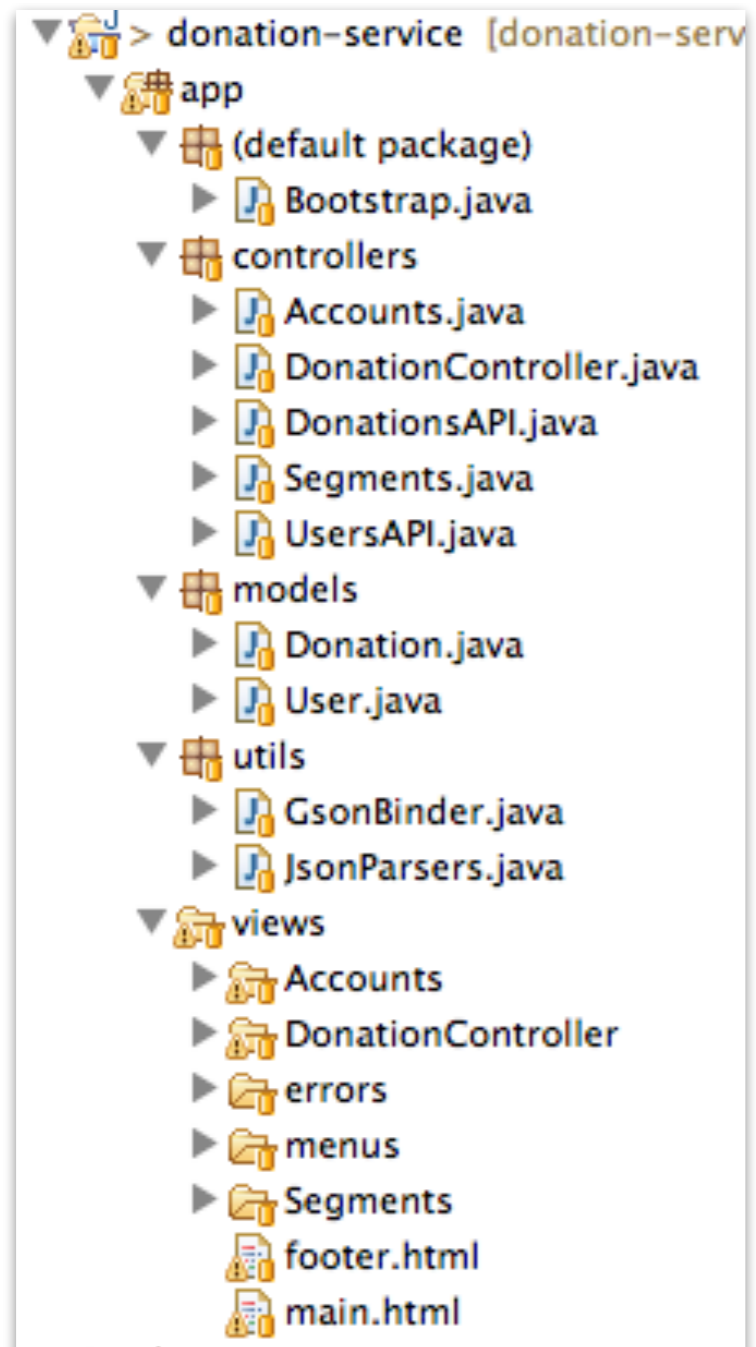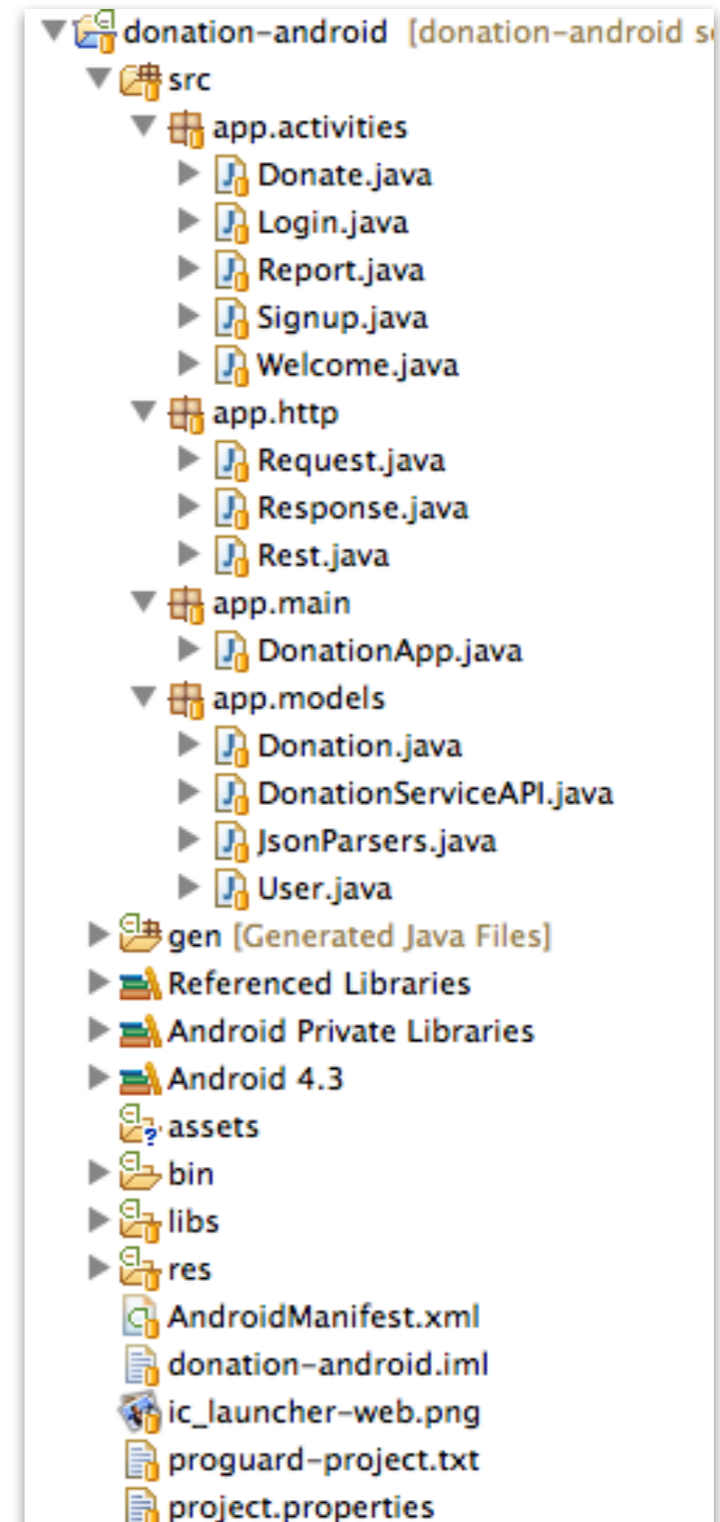INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

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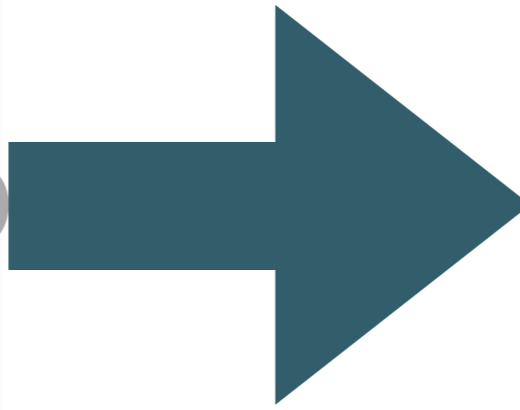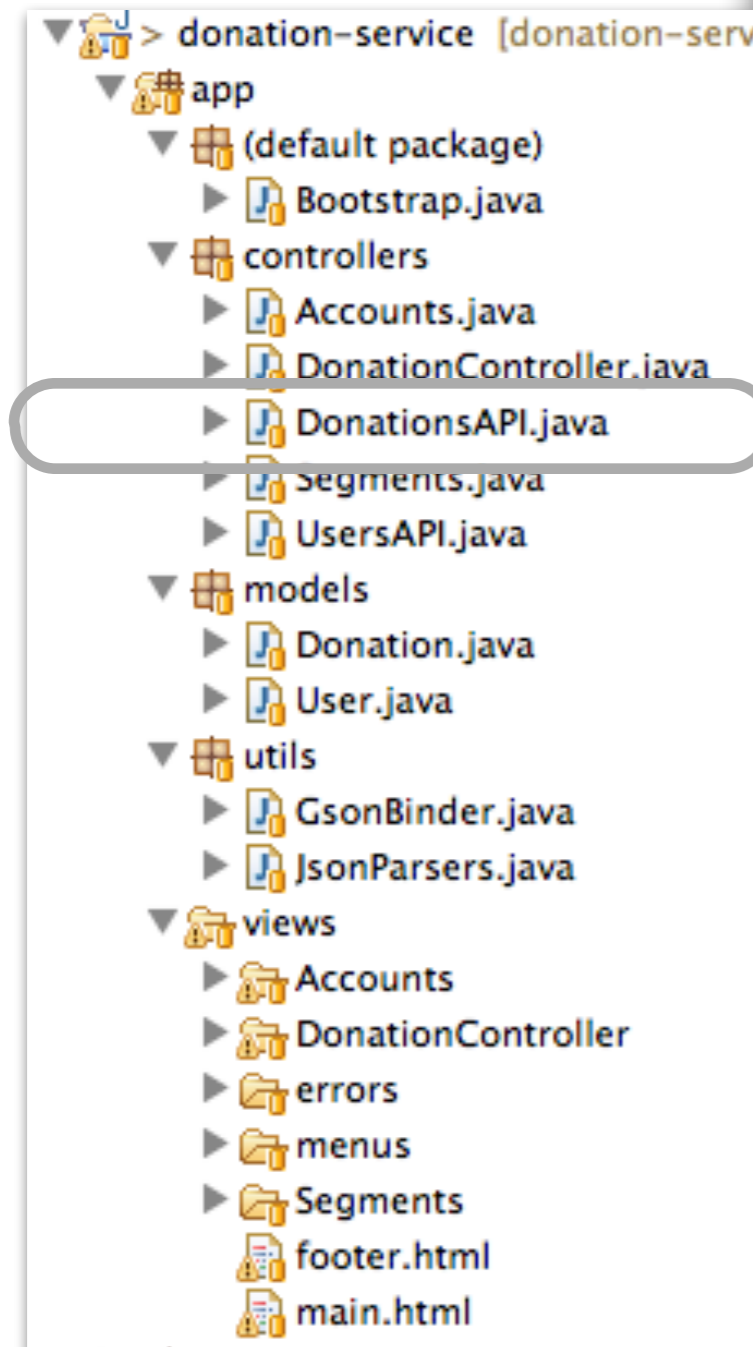support unit

Donation Projects

donation-service

donation-android

donation-service

- ▼ > donation-service [donation-serv
  - ▼ app
    - ▼ (default package)
      - ▶ Bootstrap.java
    - ▼ controllers
      - ▶ Accounts.java
      - ▶ DonationController.java
      - ▶ DonationsAPI.java
      - ▶ Segments.java
      - ▶ UsersAPI.java
    - ▼ models
      - ▶ Donation.java
      - ▶ User.java
    - ▼ utils
      - ▶ GsonBinder.java
      - ▶ JsonParsers.java
    - ▼ views
      - ▶ Accounts
      - ▶ DonationController
      - ▶ errors
      - ▶ menus
      - ▶ Segments
      - footer.html
      - main.html

donation-android

- ▼ donation-android [donation-android s
  - ▼ src
    - ▼ app.activities
      - ▶ Donate.java
      - ▶ Login.java
      - ▶ Report.java
      - ▶ Signup.java
      - ▶ Welcome.java
    - ▼ app.http
      - ▶ Request.java
      - ▶ Response.java
      - ▶ Rest.java
    - ▼ app.main
      - ▶ DonationApp.java
    - ▼ app.models
      - ▶ Donation.java
      - ▶ DonationServiceAPI.java
      - ▶ JsonParsers.java
      - ▶ User.java
  - ▶ gen [Generated Java Files]
  - ▶ Referenced Libraries
  - ▶ Android Private Libraries
  - ▶ Android 4.3
  - assets
  - ▶ bin
  - ▶ libs
  - ▶ res
  - AndroidManifest.xml
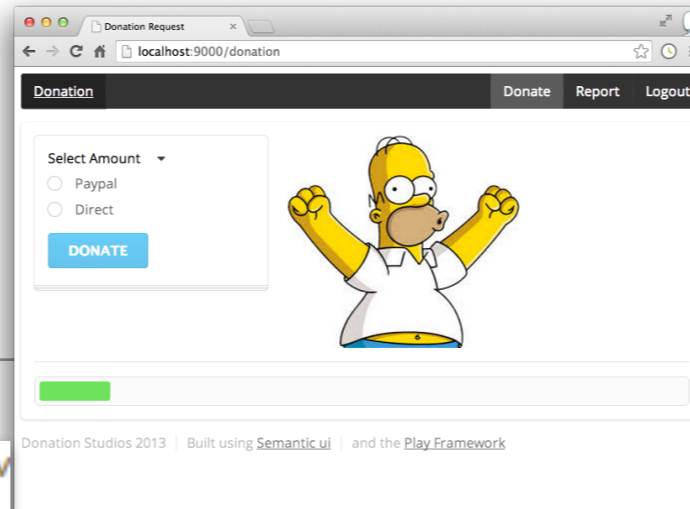 - donation-android.iml
  - ic_launcher-web.png
  - proguard-project.txt
  - project.properties

donation-service

Expose the model as a REST api for consumption by any interested clients (android or other)

```
GET      /api/users
GET      /api/users/{id}
POST     /api/users
DELETE   /api/users/{id}

GET      /api/users/{userId}/donations
GET      /api/users/{userId}/donations/{id}
POST     /api/users/{userId}/donations
DELETE   /api/users/{userId}/donations/{id}
```
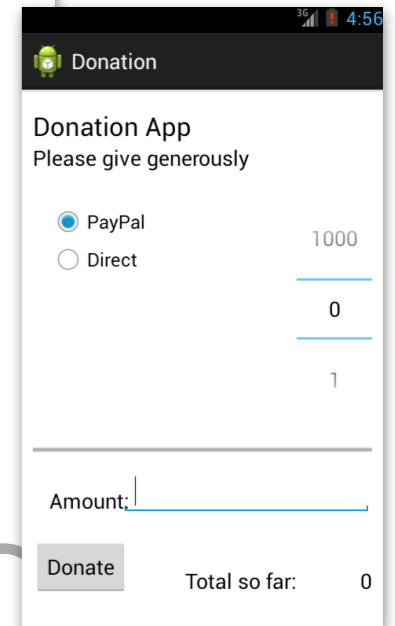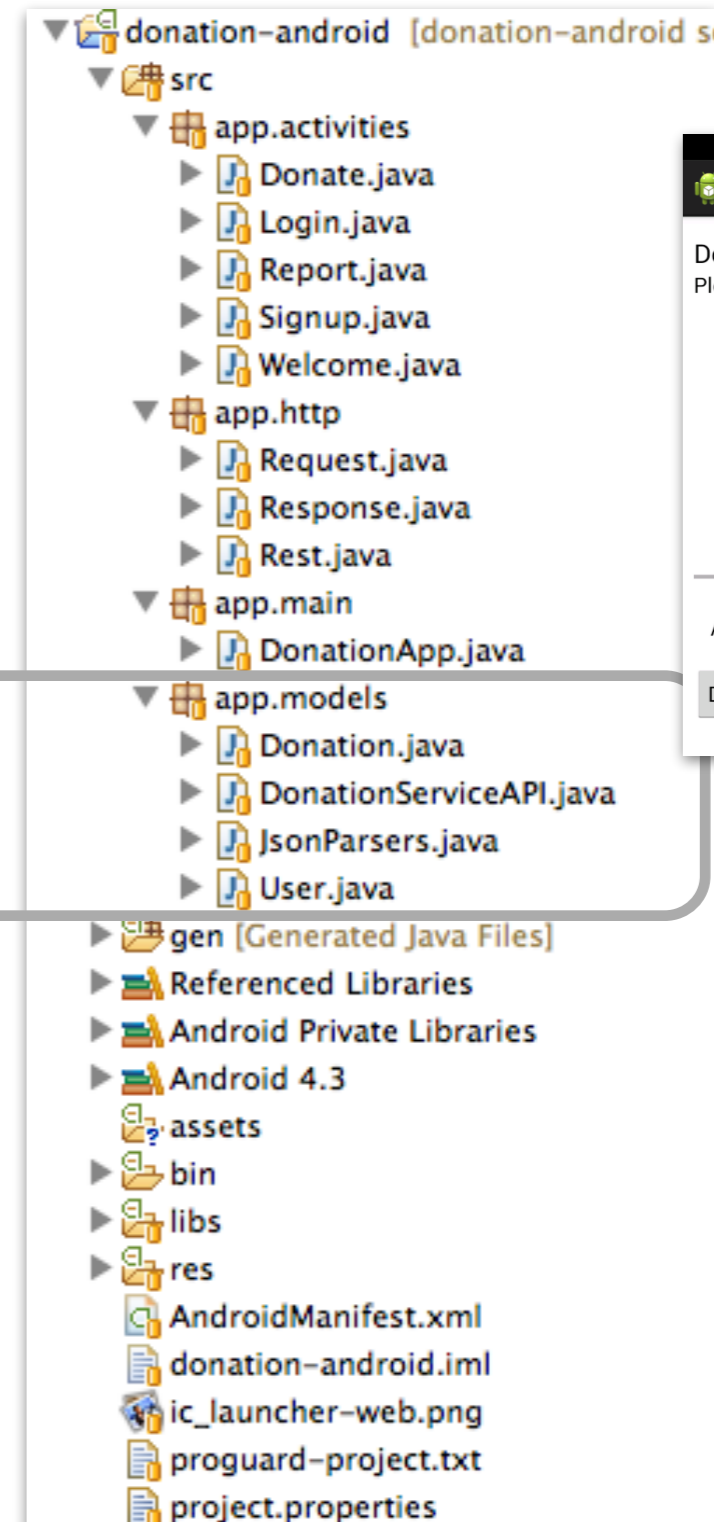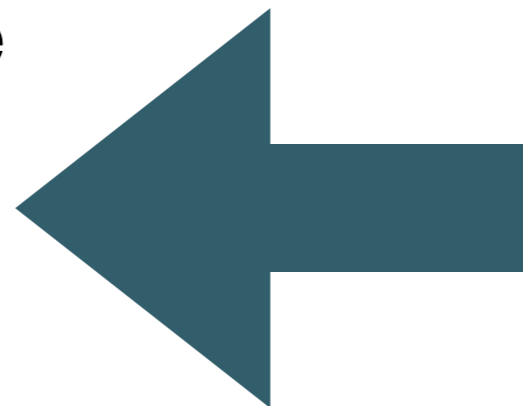
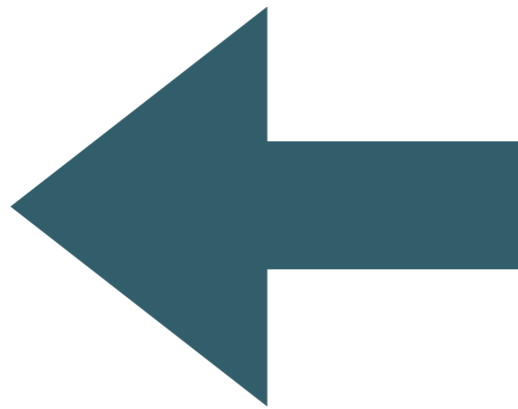# donation-android

Act as a proxy for the donation service.

i.e. Android app uses these classes to:

- read users/donations from donation-service

- update/delete users/donation on donation-service

donation-android
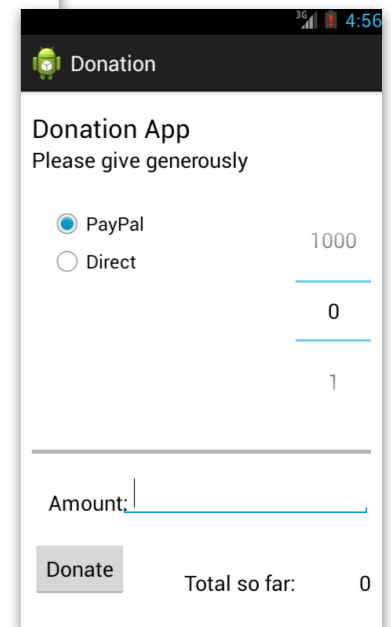
Reusable classes to suport HTTP Rest style interaction with the donation-device
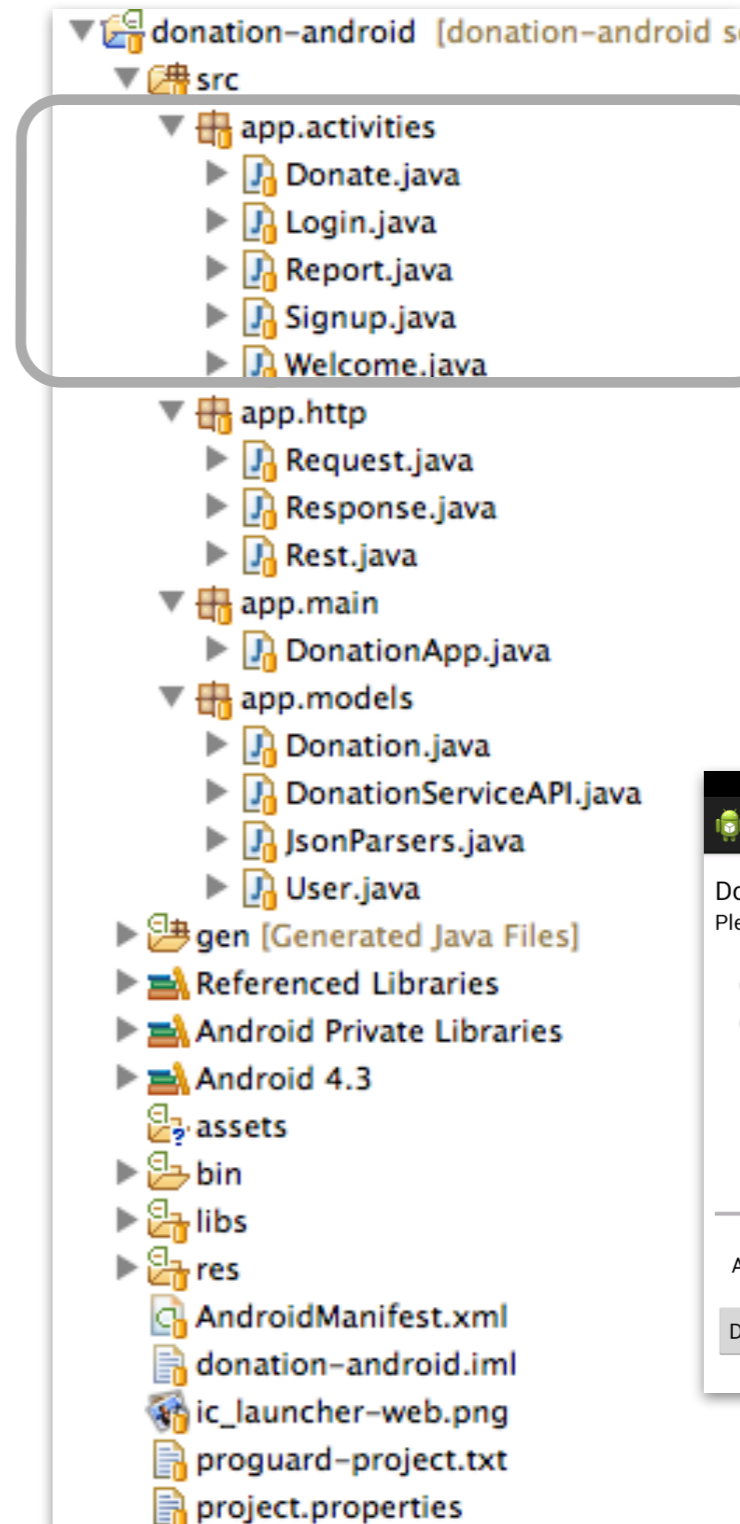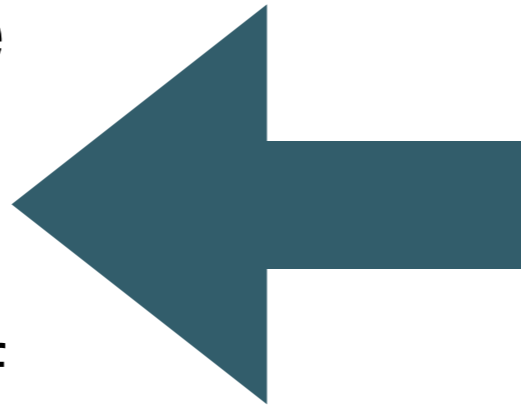
donation-android

Activities of the application

Make use of 'app.models' to interaction with donation-service

donation-service-play-test

- Designing, building and testing android application is a substantial challenge in its own right

- If the app is depending on an external API exposed by some other application, then this is a significant additional layer of complexity

- To reduce risk, consider building a project whose sole purpose it to test and verify correct usage of the external API
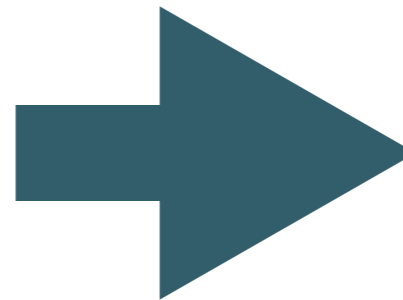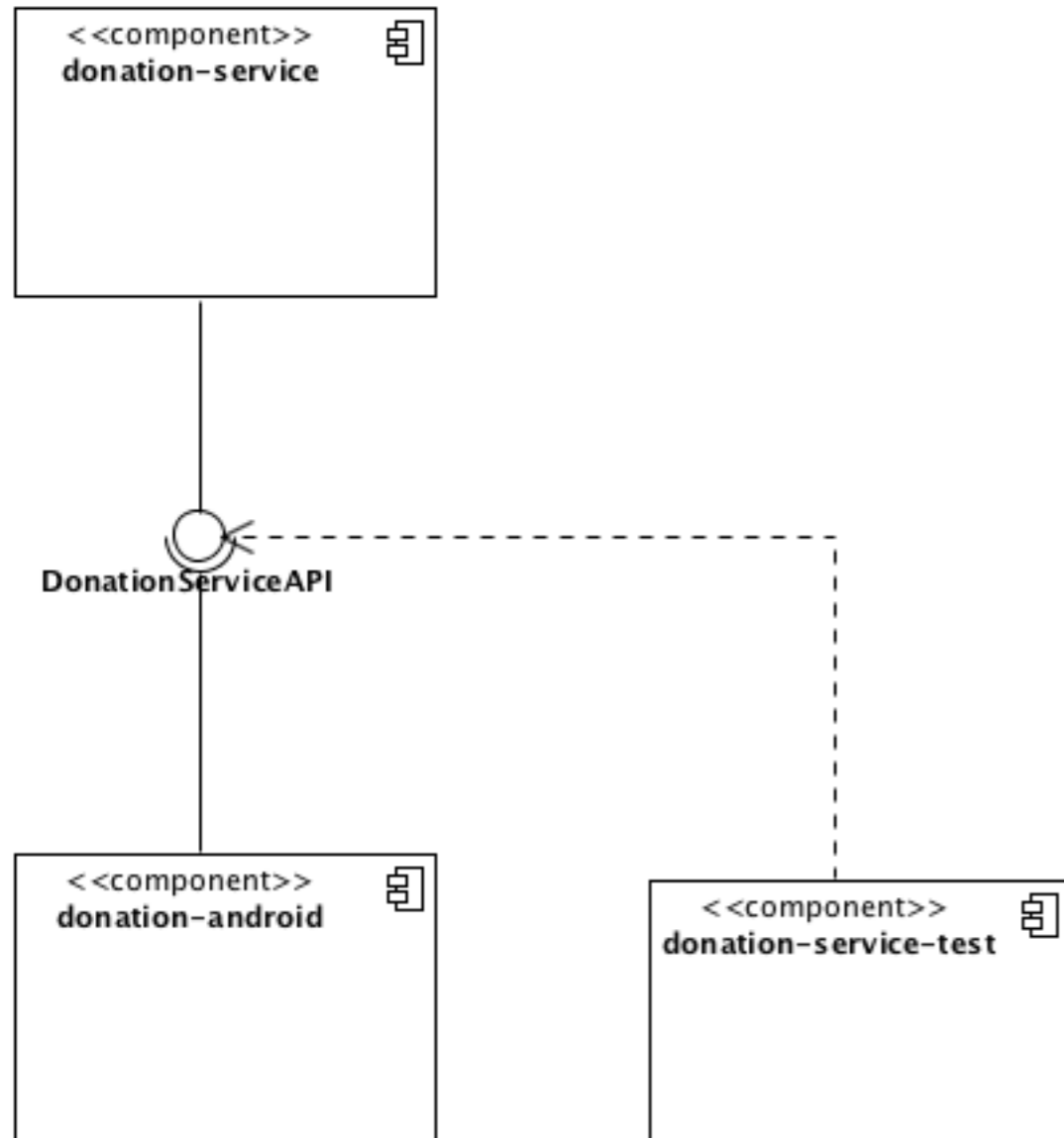
Configuration

- donation-android
  depends upon
  (requires) a stable
  donation-service in
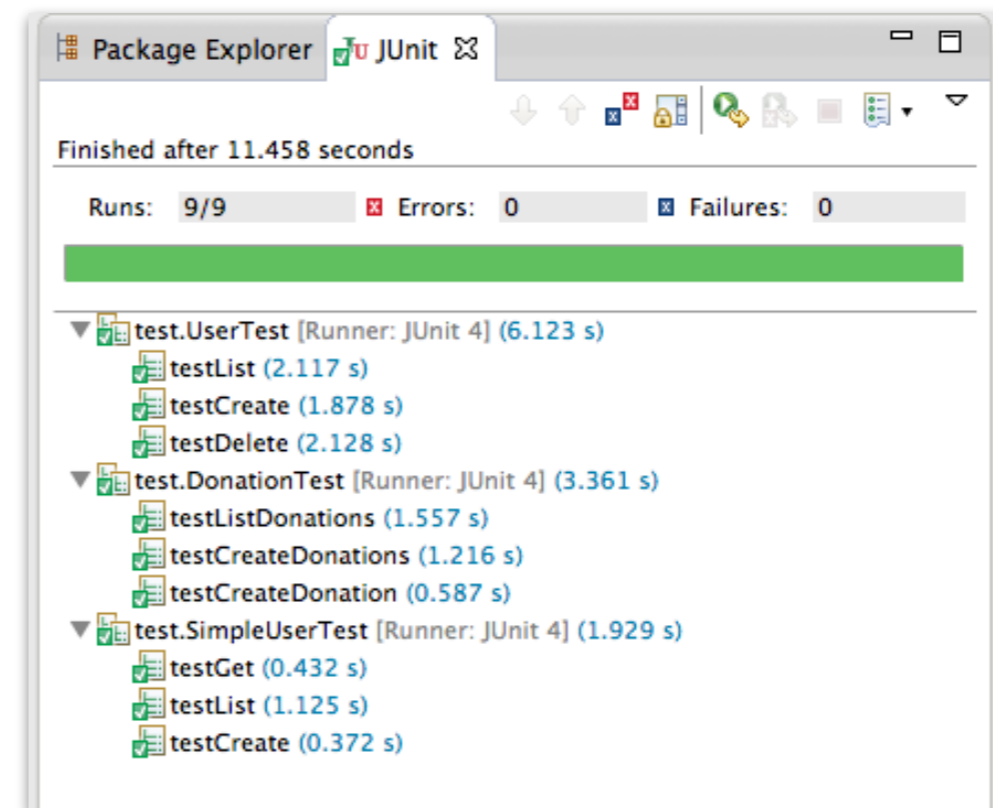 order to operate
  effectively.

donation-service-test

- Independently test the donation-service

- Use http/rest interface

- Use as many of the donation-android classes as possible to perform the tests
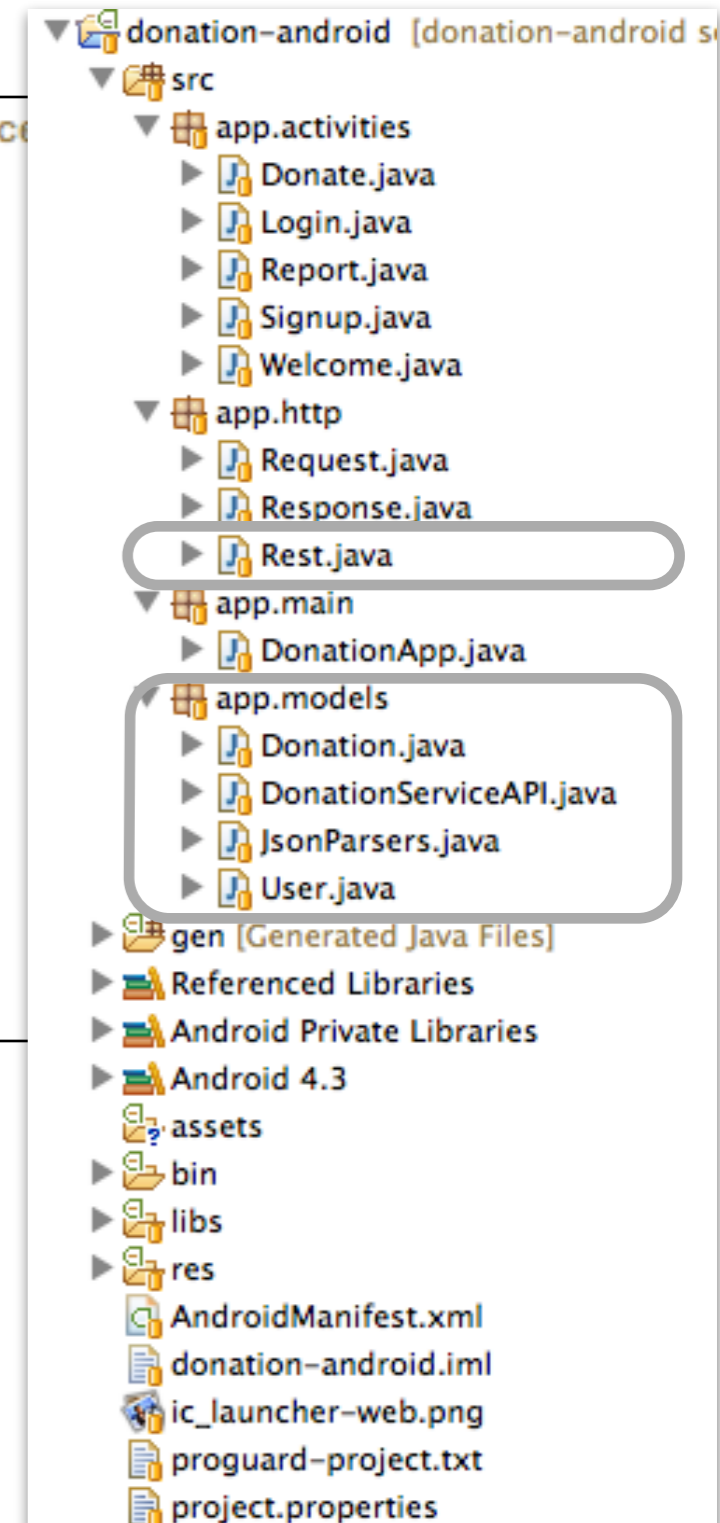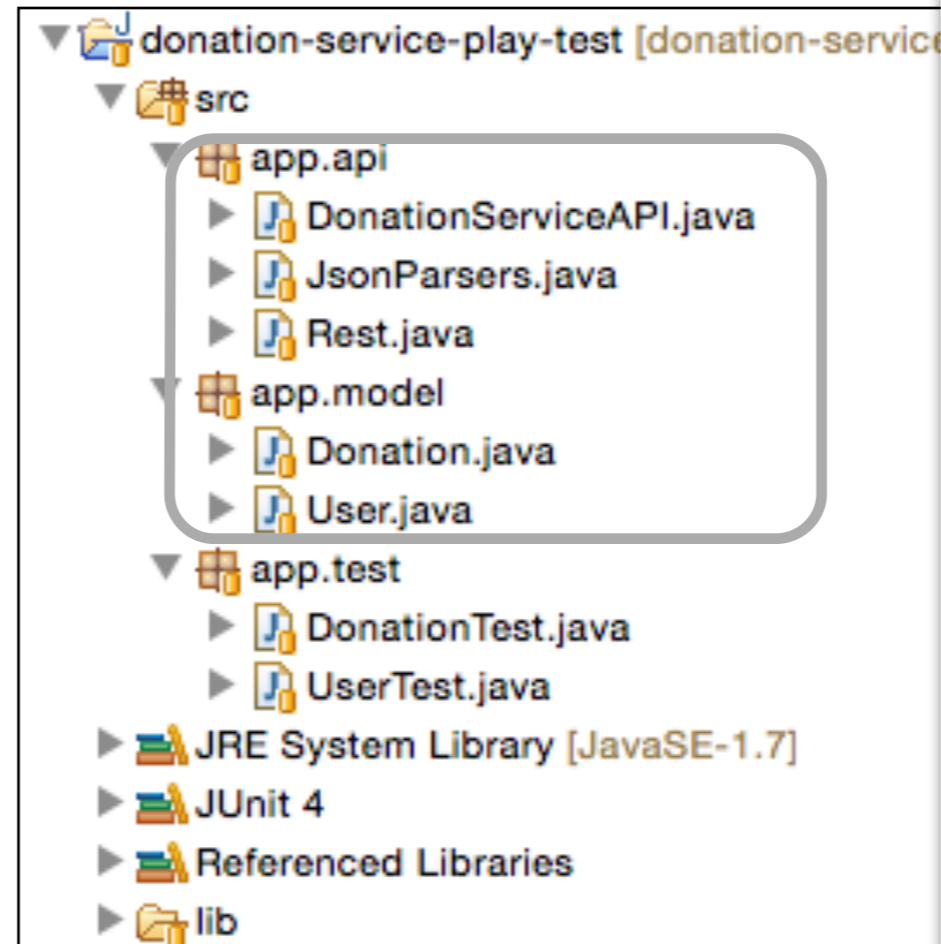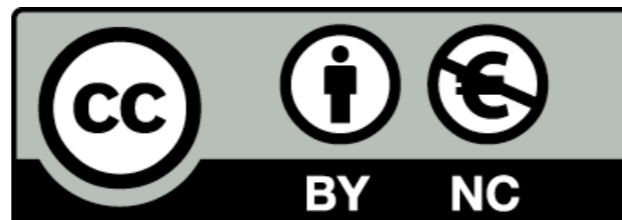
donation-service-test

- A standard java application - not Play, not Android

- Use eclipse Junit test runner to run tests

- Run tests against local and deployed version of donation-service

donation-android & donation-service-play-test

- Reuse classes:

  - Rest

  - Donation

  - User

  - JsonParsers

- from donation-android

- Adapapt & simplify:

  - DonationServiceAPI

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