Mobile Application Development

Higher Diploma in Science in Computer Science



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http://www.wit.ie

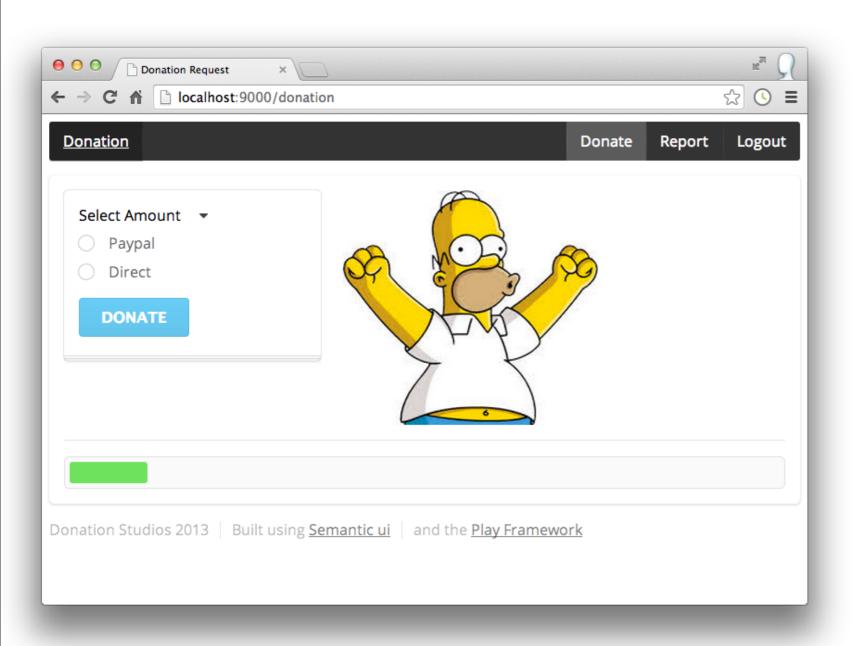
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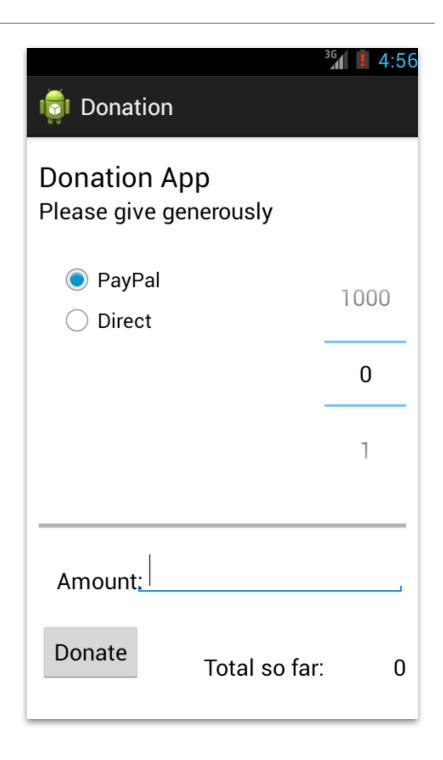




Donation Projects

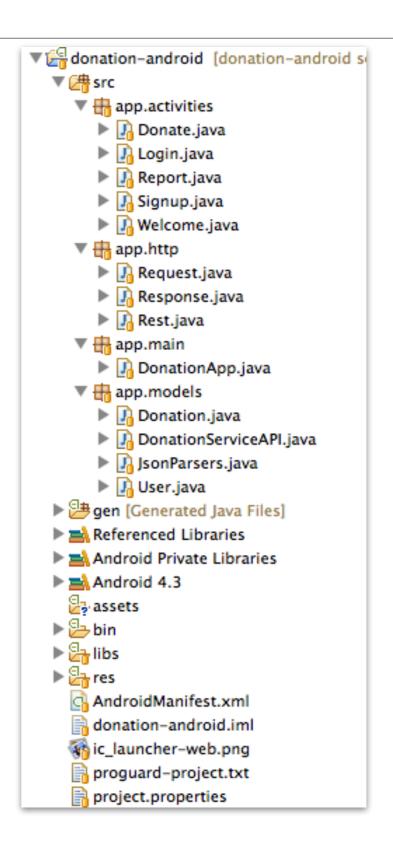
donation-service





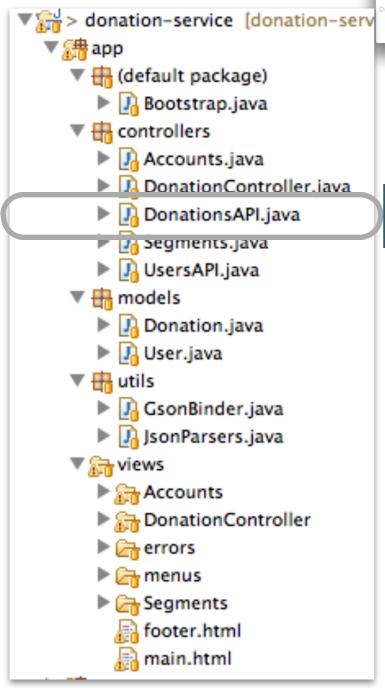
donation-service

▼ # 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 Accounts ▶ क DonationController errors ▶ Emmenus Segments 🛺 footer.html 膈 main.html



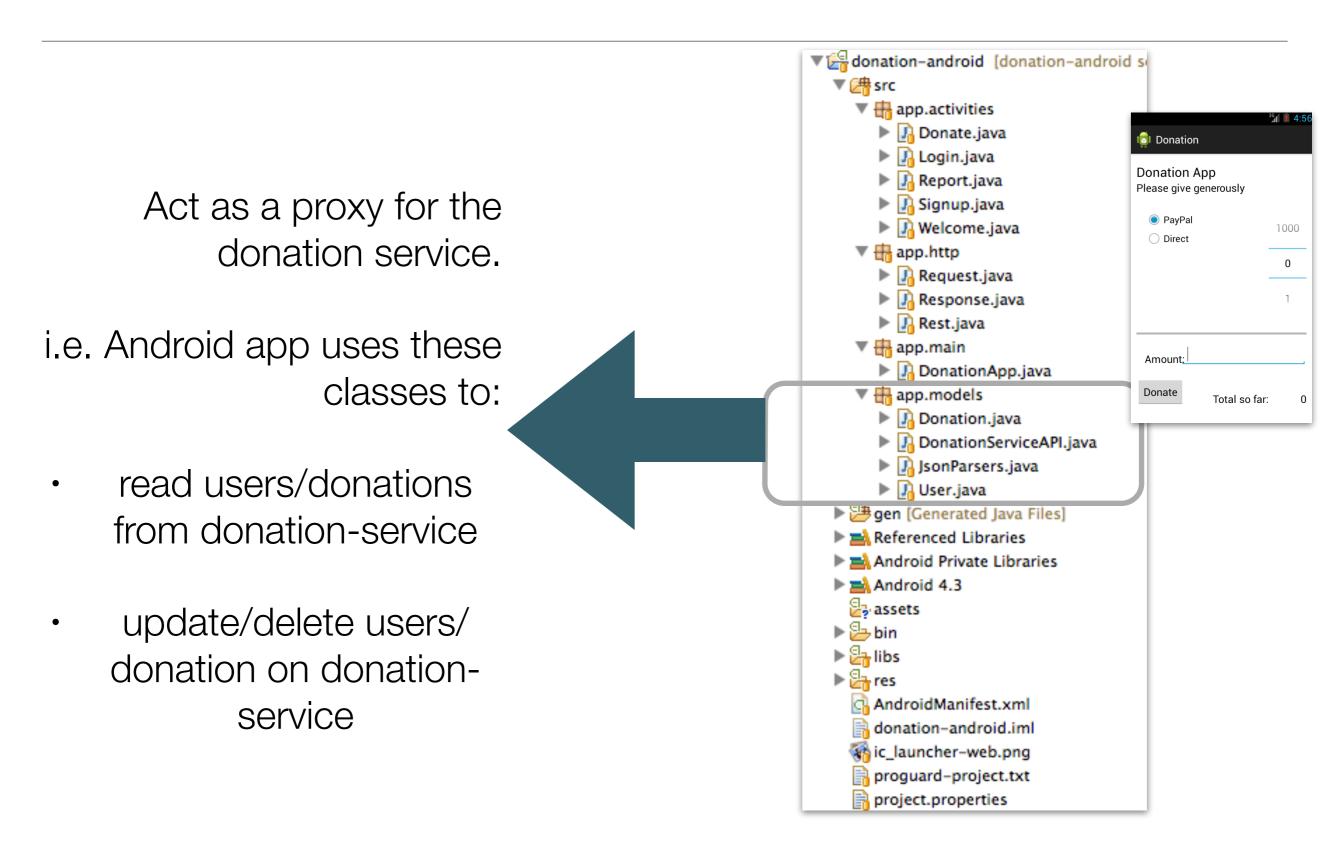
donation-service





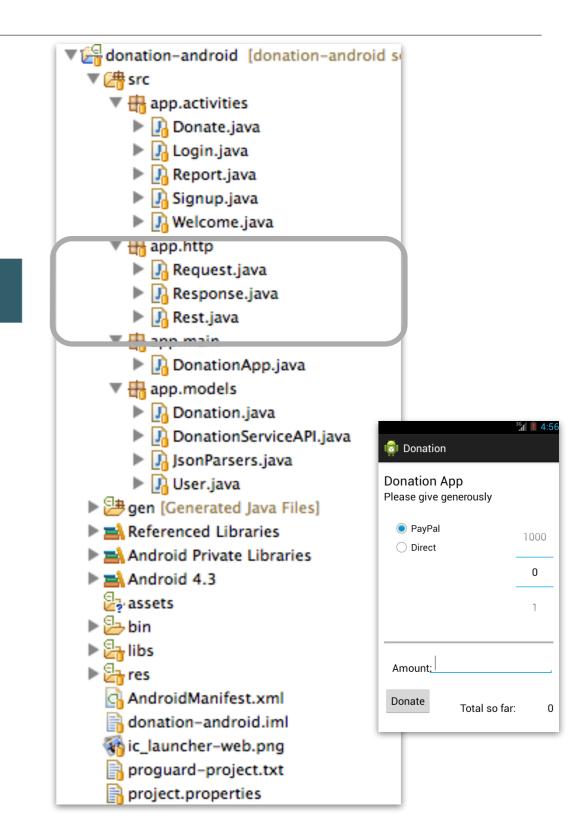
Expose the model as a REST api for consumption by any interested clients (android or other)

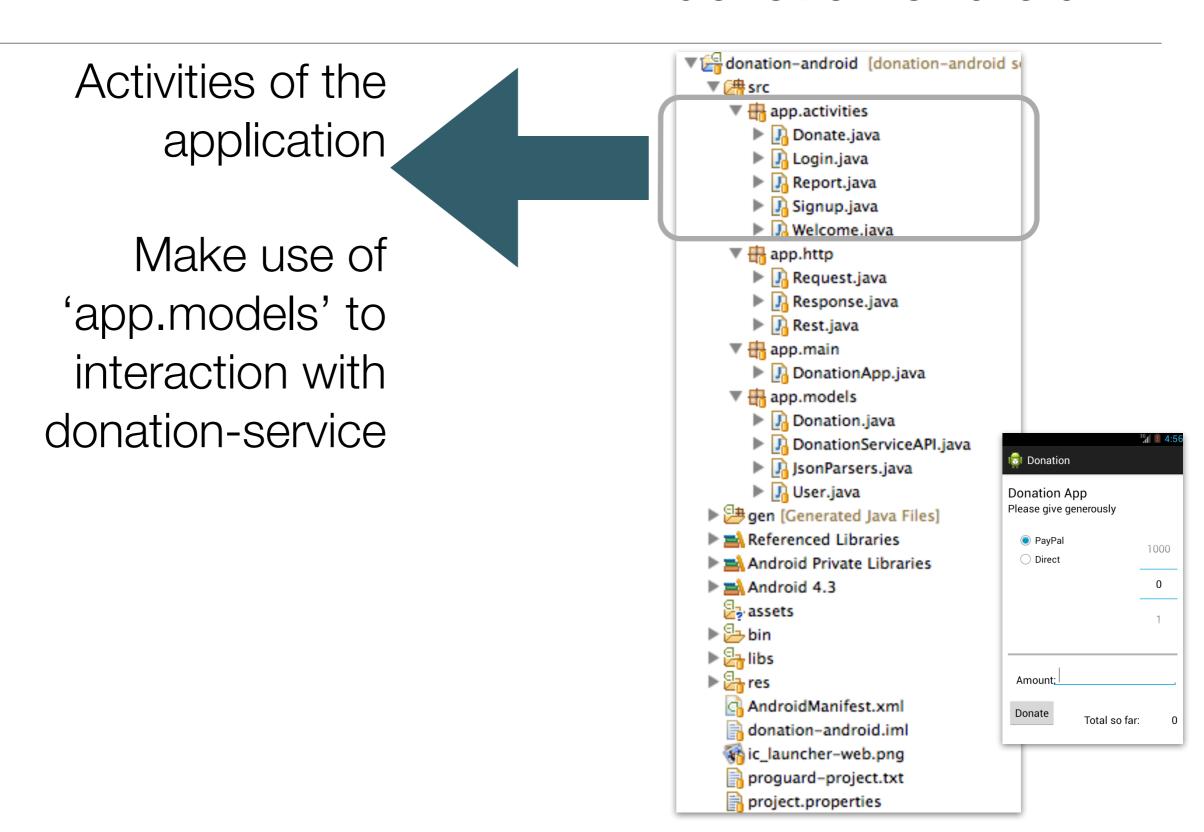
```
GET
        /api/users
GET
        /api/users/{id}
POST
        /api/users
        /api/users/{id}
DELETE
GET
        /api/users/{userId}/donations
GET
        /api/users/{userId}/donations/{id}
        /api/users/{userId}/donations
POST
        /api/users/{userId}/donations/{id}
DELETE
```



donation-android

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



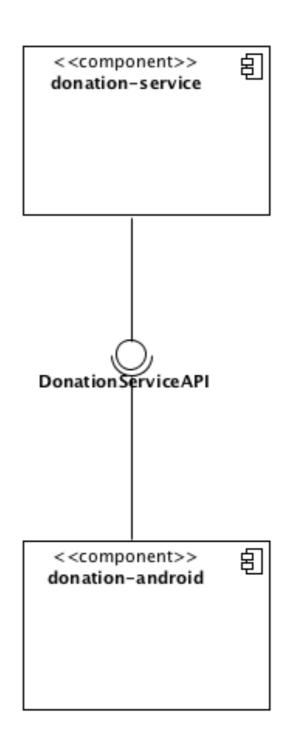


One More Project...

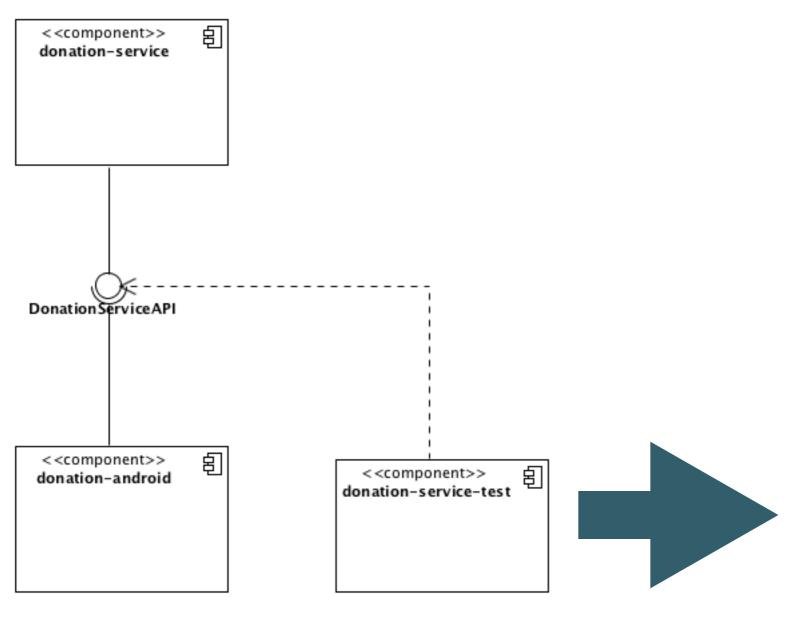
- Designing, building and testing android application is a substantial challenge in its own right
- If the app is depending on an external API exposed by some other application, then this is a significant additional layer of complexity
- To reduce risk, consider building a project whose sole purpose 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.



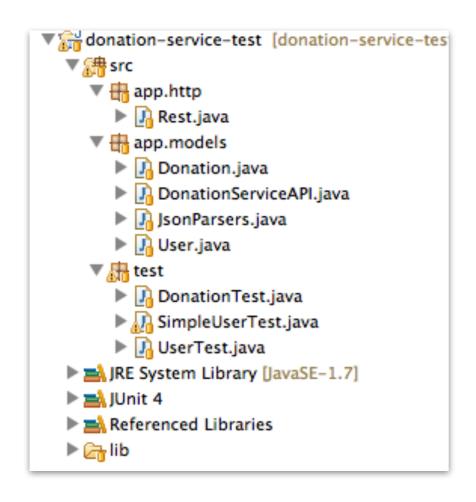
donation-service-test



- Independently test the donationservice
- 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



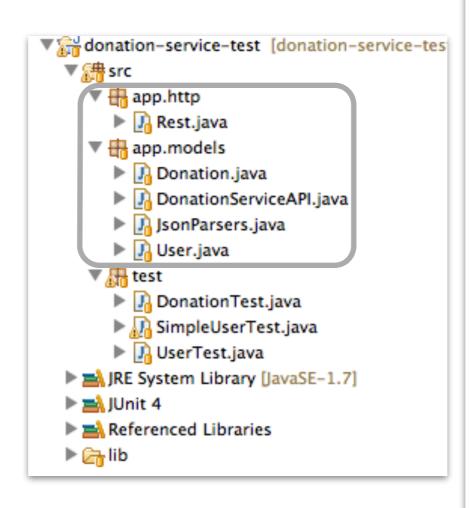
```
📱 Package Explorer 🚽 JUnit 🛭
                                         x 🔠 🕓 🤼 🔳 🗒 🔻
Finished after 11.458 seconds

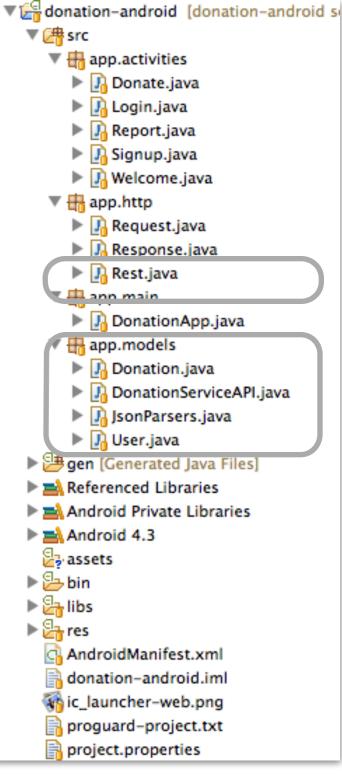
■ Failures: 0

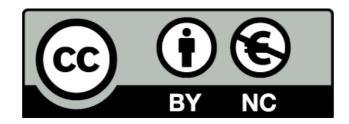
 ▼ test.UserTest [Runner: JUnit 4] (6.123 s)
     testList (2.117 s)
     testCreate (1.878 s)
      testDelete (2.128 s)
 ▼ test.DonationTest [Runner: JUnit 4] (3.361 s)
     testListDonations (1.557 s)
     testCreateDonations (1.216 s)
     testCreateDonation (0.587 s)
 ▼ test.SimpleUserTest [Runner: JUnit 4] (1.929 s)
     testGet (0.432 s)
     testList (1.125 s)
     testCreate (0.372 s)
```

donation-android & donation-service-test

- Reuse classes:
 - Rest
 - Donation
 - User
 - JsonParsers
- from donation-android
- Adapapt & simplify:
 - DonationServiceAPI







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