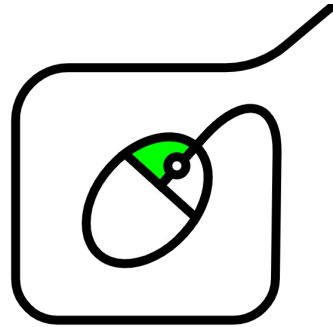# GeekSurvey

UGRADS

SuperGeeks

Tim Giroux, Kyle Austria, Pengfei Liu, Gustavo Valencia

1. Introduction

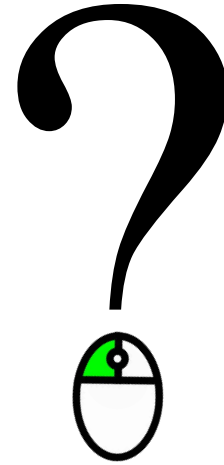- Mentor: Felicity Escarzaga
- Clients:

Dr. Marco Gerosa

Dr. Igor Steinmacher

2.1 What's the Problem?

- Large and complex business

- Research is essential to success

- Insights are valuable to modern industries

- Gathering data requires participants

2.2 Problem Statement

- Difficulty with recruitment
- Current methods do not work

Figure 1: Client's current business process

2.3 Problem Statement

- Do not satisfy recruitment requirements

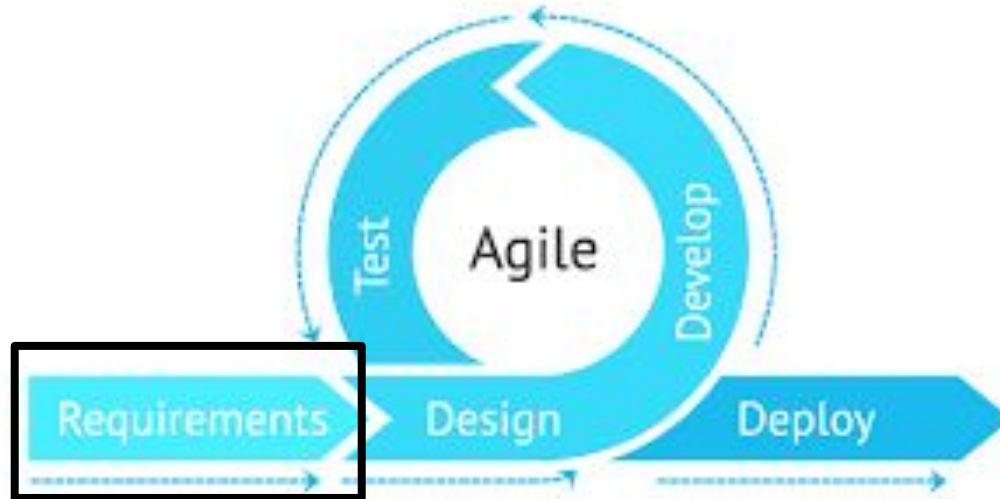- Amazon Mechanical Turk and Prolific.co are limited

3. Solution Overview

Figure 2: Improved business process

4.1 Requirements Acquisition

- Project Proposal Document
- Regular E-Mail Communication
- Virtual Meetings at least Bi-Weekly

4.2 Requirements

Key Features:

- Researcher View
- Participant View
- Linking to external survey platforms and tracking
- GitHub Profile integration
- Admin Panel
- Researcher/Participant Payments

5.1 Architecture and Implementation Review

5.2 Architecture and Implementation Review
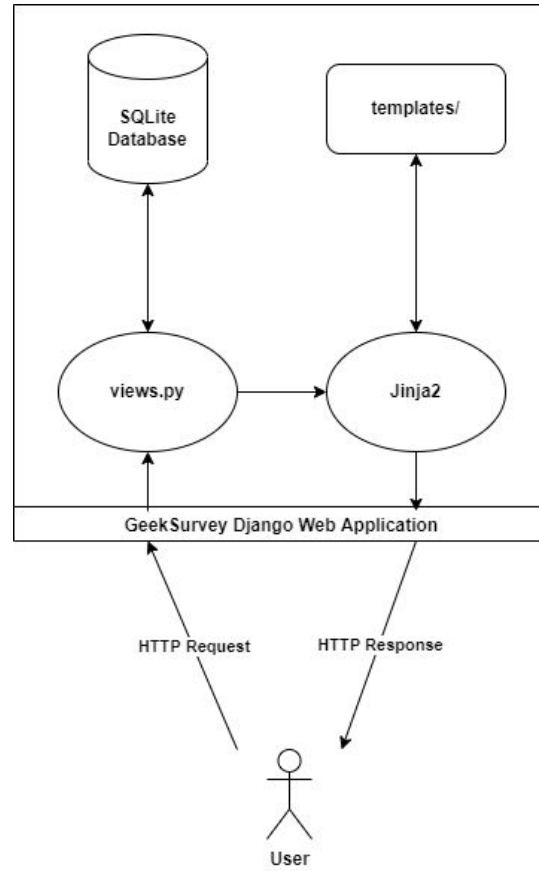
5.3 Architecture and Implementation Review

Study Form:

Compensation (USD)*
$ 10.00

Maximum Participants
50

Survey URL*
https://forms.gle/S9oE5Ygg6UTPCUuL8

Enrollment Criteria ∧

Minimum Age
0 years

Maximum Age
150 years

Required Occupation
Front-end Developer

Minimum Experience
0 years

Maximum Experience
150 years

Required Education
Bachelor's Degree (B.A., B.S., B.Eng., etc.)

Required Race / Ethnicity

Required Gender

Require Experience With Open Source Development?*
Yes

Profile Form:

Years of experience*
4

Level of education*
Bachelor's Degree (B.A., B.S., B.Eng., etc.)

Occupation*
Student

Country of origin*
United States of America

Current location*
United States of America

Race and ethnicity*
Hispanic or Latino/a/x

Experienced With Open Source Development?*
Yes

6.1 Prototype Review

6.2 Prototype Review

6.3 Prototype Review

6.4 Prototype Review

6.5 Prototype Review

6.6 Prototype Review
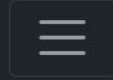
Fund Profile

Pay $125 to add $100 to your account

Buy Now

VISA

6.7 Prototype Review

6.8 Prototype Review

6.9 Prototype Review

6.10 Prototype Review

Study Form

Title*

Fruit Study

Expiry date*

04/25/2022

Description*

What is your favorite fruit?

Completion code*

bananaphone

Compensation (USD)*

$ 2.50

Maximum Participants

51

Survey URL*

https://forms.gle/8W7kfuCrbBAcGz8WA

6.11 Prototype Review

6.12 Prototype Review

GeekSurvey   Home @timgiroux Research Participate

Manage Study Funds

timgiroux $100.00

Fruit Study $0.00

Transfer from your account to your study

Amount (USD)*

50.00

Submit

TIP: Negative amounts will move from your study to your account.

6.13 Prototype Review

Your Studies

Fruit Study

What is your favorite fruit?

Balance: $50.00

Enrolled: 0/51

Completed: 0/0

View   Edit

Funds   Participants

Delete

6.14 Prototype Review

Manage Study Participants

$50.00 **Fruit Study**

C (completed) $ (compensated)	Username	Actions	
C	@timgiroux	Remove	Approve $2.50

TOTAL: 1/51

6.15 Prototype Review

Manage Study Participants

$47.5 **Fruit Study**

C (completed) $ (compensated)	Username	Actions
C $	@timgiroux	Remove

TOTAL: 1/51

6.16 Prototype Review

6.17 Prototype Review

6.18 Prototype Review

6.19 Prototype Review

Study Discovery

Fruit Study

What is your favorite fruit?

by @timgiroux

View

6.20 Prototype Review

6.21 Prototype Review

6.22 Prototype Review

GeekSurvey   Home   @participant   Research   Participate

Fruit Study
Completion Page

Please complete the external survey and then enter the completion code here

Completion code*

Submit

6.23 Prototype Review

GeekSurvey Favorite Fruits

timgiroux99@gmail.com (not shared) Switch account

* Required

What is your favorite fruit? *

○ Apples

○ Bananas

○ Oranges

○ Other:

Submit   Clear form

6.24 Prototype Review

GeekSurvey Favorite Fruits

Please complete the study on GeekSurvey with the following code: bananaphone

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Google Forms

6.25 Prototype Review

GeekSurvey — Home @participant Research Participate

Fruit Study

Completion Page

Please complete the external survey and then enter the completion code here

Completion code*

bananaphone

Submit

6.26 Prototype Review

6.27 Prototype Review

6.28 Prototype Review
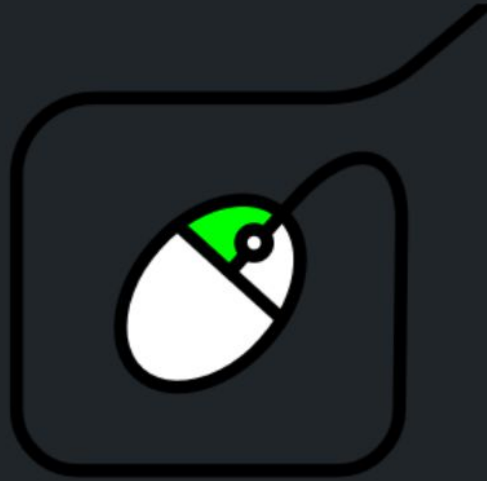
7.1 Challenges and Resolutions

- Enrollment Criteria
  - Needs to match fields in the profile
  - Needs to be customizable

Custom Fields

| Occupation |
| Ethnicity |
| Gender |

Profile	Study
(Required)	(Optional)
Occupation	Occupation
Ethnicity	Ethnicity
Gender	Gender
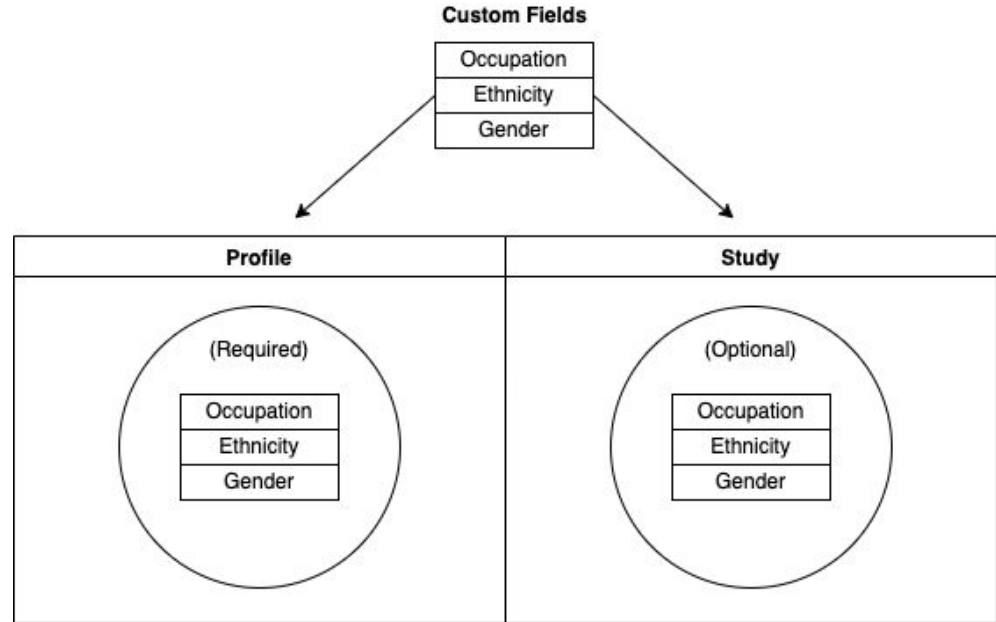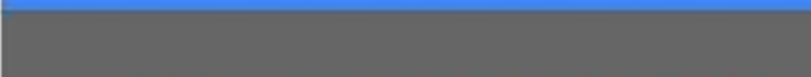
7.2 Challenges and Resolutions

- Payments
  - Legal and business
    issues with deployment

8.1 Schedule

Legend	
Done	
TODO	
Due	
Winter Break	
Spring Break	
Now Line (NL)	
Class Deliverables	*Red Text and Italicized and Bolded*

8.2 Schedule

Sprint/Class Tasks:	12/13/21	12/20/21	12/27/21	1/3/22	1/10/22	1/17/22	1/24/22	1/31/22	2/7/22	2/14/22	2/21/22	2/28/22	3/7/22	3/14/22	3/21/22	3/28/22	4/4/22
1. Home Page	■	■															
2. User Account Creation				■	■												
Communication Memo						■											
Software Design Document Draft						■	■										
3. Study Creation							■	■									
Software Design Document Final								■									
Peer Evaluation #1									■								
4. Study Discovery									■								
5. Study Completion						■	■										
UGRADS Registration										■	■						
6. Admin Menu									■	■							
Design Review II Presentation Step 1												■					
7. External Payments												■	■				
8. CRUNCH													■				
Design Review II Presentation Step 2													■				
Alpha Prototype Demo													■				
Peer Evaluation #2														■			
Design Review II Presentation Step 3															■		
Software Testing Plan															■	■	
Design Review III Presentation																■	
Peer Evaluation #3																	■

8.3 Schedule - Stretch Goals

9. Stretch Goals

9.1 Change profile age to a birthdate as a proper date field.

9.2 Customizable expiration date to studies (MOVED TO SPRINT 8: CRUNCH)

9.3 Bootstrap for better UX

    9.3.1 Custom elements and color schemes

9.4 More enrollment criteria per client request

    9.4.1 Criteria for countries (origin and current location)

9.5 Improve initial log-in flow for github auth + email verification

9.6 Disable social account auth if API info not defined in .env

9.7 Reorganize code into apps? Researcher code in researchers/ etc.

    9.7.1 Study app

    9.7.2 Payments app

    9.7.3 Research app

    9.7.4 Participate app

    9.7.5 Profile app

9.8 Check if user is authenticated through GitHub

9.9 Display GitHub avatar if user is authenticated through GitHub

9.10 Add GitHub enrollment criteria

    9.10.1 Add GitHub account age

9.11 Move study_email_helper to a custom signal that fires upon study creation

9.12 I can't see other email recipients in the group email for study notifications

        NOTE: Currently all email recipients are in the "to" field. Consider sending individual emails instead of a batch email

9.13 Email notifications are parallelized

        NOTE: Currently this blocks an http response upon study creation

9.14 Claims are parallelized

        NOTE: Currently this blocks on two different API calls to PayPal

9.15 Fix the warning about naive datetime upon study creation
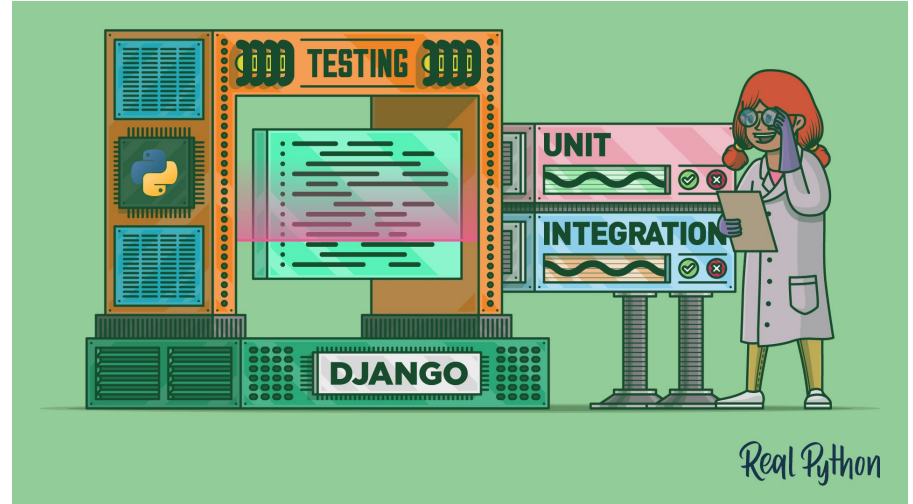
9. Testing Plan and Results

Unit Tests

- The unittest standard Python library and the django.test.TestCase subclasses
- can_enroll()

Integration Tests

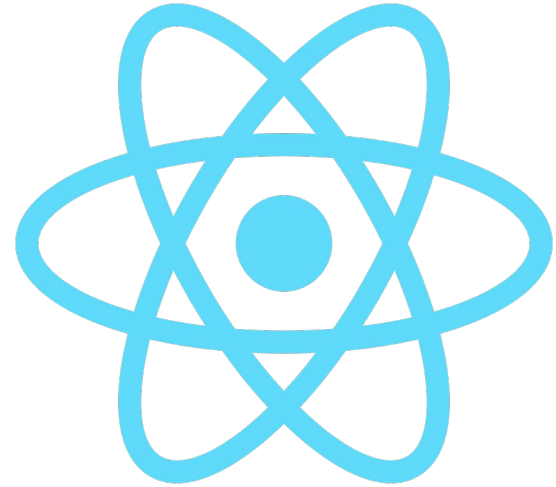- Manually verify Google Forms and PayPal integration

Usability Tests

- Provide feedback on UI and workflows
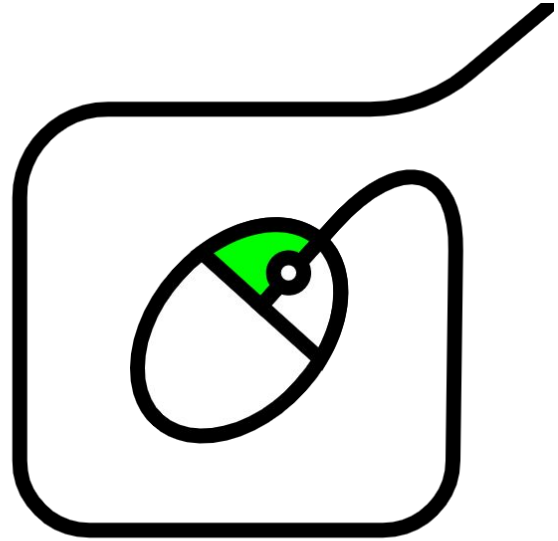- Overall positive feedback and suggestions made so far

10. Future Work

- Real payments

- Decoupling backend and frontend using ReactJS and a REST API
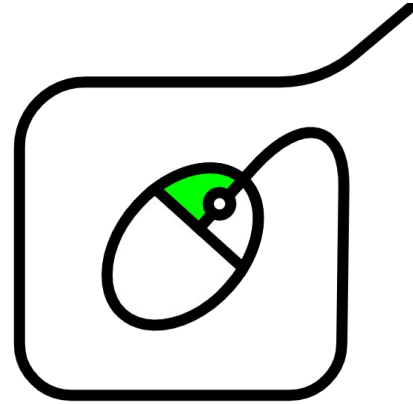
- Support more research types

11. Conclusion

- **Solving** Research Coordination

- Competitors **prove** demand

- GeekSurvey is **open source**

Thank You!

For more information, follow the QR code to our team website