## GeekSurvey

Design Review \#3


## SuperGeeks

Tim Giroux, Kyle Austria, Pengfei Liu, Gustavo Valencia

## 1. Introduction

- Mentor: Felicity Escarzaga
- Clients:

Dr. Marco Gerosa


Dr. Igor Steinmacher


### 2.1 Problem Statement

- 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. Requirements Review

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

Revolutionizing Software Engineering Research

### 5.2 Architecture and Implementation Review



### 5.3 Architecture and Implementation Review

## Study Form:

```
Survey URL*
https://forms.gle/8W7kfi
Minimum Age for Participants
O
Maximum Age for Participants
150
Minimum Years of Experience
O
Maximum Years of Experience
150
Required Education
Associate's Degree (A.A., A.S., etc.)
Required Occupation
Front-end Developer
\vee
Required Race / Ethnicity

\section*{Profile Form:}

Age
22


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

United States of America \(\vee\)
Current location*
United States of America \(\checkmark\)
Race and ethnicity*
White or of European Descent \(\vee\)
Open source experience*
Yes \({ }^{\sim}\)
Gender*
Man

\subsection*{6.1 Prototype Review}

\section*{Revolutionizing Software Engineering Research}

Conduct and participate in software engineering research studies with GeekSurvey, a platform that solves the researcher-participant coordination problem!

\subsection*{6.2 Prototype Review}

\section*{Sign In}

Please sign in with one of your existing third party accounts. Or, sign up for a example.com account and sign in below:
GitHub
or
Username: Username
Password: Password

Remember Me: \(\square\)
Forgot Password? Sign In

\subsection*{6.3 Prototype Review}

\section*{Customize your profile}

Provide information about you and your skills! The more you customize your profile, the more studies you will be eligible for.

Edit your profile

\section*{Create research studies}

Find quality participants by filling out our research study form with desired traits and inserting your external survey platform link

Create a study now

\section*{Participate in studies}

Make a difference by enrolling in studies that interest you! Receive compensation for your valuable time and responses.

Start participating

\subsection*{6.4 Prototype Review}

\section*{Profile}
timgiroux
timgiroux99@gmail.com
D. Don't forget to complete your profile!
```

View Full Profile Complete Profile
Log Out

```

Balance: \(\$ 0.00\)

Add Funds
Remove Funds

\subsection*{6.5 Prototype Review}
Profile
Full Name:
Bio:
Age:
Gender:

\subsection*{6.6 Prototype Review}


\section*{Fund Profile}

Pay \(\$ 125\) to add \(\$ 100\) to your account
Buy Now


\subsection*{6.7 Prototype Review}

Pay with PayPal
With a PayPal account, you're eligible for free return shipping, Purchase Protection, and more
sb-1y5j013851137@personal.example.com



Having trouble logging in?

Pay with Debit or Credit Card

Cancel and return to Test Store
English | Français | Español 中文

\subsection*{6.8 Prototype Review}

\section*{Profile}
timgiroux
timgiroux99@gmail.com
Student at NAU


\subsection*{6.9 Prototype Review}

\section*{Research Dashboard}

\section*{Create a New Study}

\section*{Your Studies}

Look's like there's nothing here!

\subsection*{6.10 Prototype Review}

\section*{Study Form}


\subsection*{6.11 Prototype Review}

\section*{Research Dashboard}

Create a New Study

\section*{Your Studies}

Fruit Study
What is your favorite fruit?

Balance: \(\$ 0.00\)
Enrolled: 0/51
Completed: 0/0
\begin{tabular}{|c|c|}
\hline View & Edit \\
\hline Funds & Participants \\
\hline \multicolumn{2}{|c|}{ Delete } \\
\hline
\end{tabular}

\subsection*{6.12 Prototype Review}

GeekSurvey

\section*{Manage Study Funds}
\begin{tabular}{ll} 
timgiroux & \(\$ 100.00\) \\
Fruit Study & \(\$ 0.00\)
\end{tabular}

Transfer from your account to your study
Amount (USD)*
50.00

Submit

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

\subsection*{6.13 Prototype Review}

Your Studies
Fruit Study
What is your favorite fruit?

Balance: \(\$ 50.00\)
Enrolled: 0/51
Completed: 0/0


\subsection*{6.14 Prototype Review}

\section*{Manage Study Participants}

\section*{\(\$ 50.00\) Fruit Study}


\subsection*{6.15 Prototype Review}

\section*{Manage Study Participants}

\section*{\$47.5 Fruit Study}
\begin{tabular}{|l|l|l|}
\hline C & (completed) & Username \\
\hline \$ & (compensated) & \\
\hline C & \(\$\) & @timgiroux \\
\hline TOTAL: \(1 / 51\) & & Remove \\
\hline
\end{tabular}

\subsection*{6.16 Prototype Review}

\subsection*{7.1 Challenges and Resolutions}
- Enrollment Criteria
- Needs to match fields in the profile
- Needs to be customizable


\subsection*{7.2 Challenges and Resolutions}
- Payments
- Legal and business issues with deployment

DASHBOARD
My Apps \& Credentials

My Account
Sandbox accounts
SANDBOX

Accounts

Notifications
Log in to the Dashboard to create personal and business sandbox accounts to test your code end-to-end.

API Calls
IPN Simulator

Webhooks Events
(i) Non-U.S. developers: read our FAQ.

\subsection*{8.1 Schedule}
\begin{tabular}{|l|l|}
\hline Legend & \\
\hline Done & \\
\hline TODO & \\
\hline Due & \\
\hline Winter Break & \\
\hline Spring Break & \\
\hline Now Line (NL) & \\
\hline Class Deliverables & Red Text and Italicized and Bolded \\
\hline
\end{tabular}

\subsection*{8.2 Schedule}

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & 12/3121 & 12/20/21 & 12127121 & /2 & 10/22 & 172 & 24/22 & 1/31/22 & 1712 & 214/2 & 21/2 & 2128122 & , & ,14122 & , & \\
\hline Sprint/Class Tasks: & & & & & & & & & & & & & & & & \\
\hline 1. Home Page & & & & & & & & & & & & & & & & \\
\hline 2. User Account Creation & & & & & & & & & & & & & & & & \\
\hline Communication Memo & & & & & & & & & & & & & & & & \\
\hline Software Design Document Draft & & & & & & & & & & & & & & & & \\
\hline 3. Study Creation & & & & & & & & & & & & & & & & \\
\hline Software Design Document Final & & & & & & & & & & & & & & & & \\
\hline Peer Evaluation \#1 & & & & & & & & & & & & & & & & \\
\hline 4. Study Discovery & & & & & & & & & & & & & & & & \\
\hline 5. Study Completion & & & & & & & & & & & & & & & & \\
\hline UGRADS Registration & & & & & & & & & & & & & & & & \\
\hline 6. Admin Menu & & & & & & & & & & & & & & & & \\
\hline Design Review II Presentation & & & & & & & & & & & & & & & & \\
\hline 7. External Payments & & & & & & & & & & & & & & & & \\
\hline 8. CRUNCH & & & & & & & & & & & & & & & & \\
\hline Design Review II Presentation & & & & & & & & & & & & & & & & \\
\hline Alpha Prototype Demo & & & & & & & & & & & & & & & & \\
\hline Peer Evaluation \#2 & & & & & & & & & & & & & & & & \\
\hline Design Review II Presentation & p 3 & & & & & & & & & & & & & & & \\
\hline Software Testing Plan & & & & & & & & & & & & & & & & \\
\hline Design Review III Presentation & & & & & & & & & & & & & & & & \\
\hline
\end{tabular}

\subsection*{8.3 Schedule}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & Week of: & 12/13/21 & /20/21 & 127121 & 22 & 1/10/22 & 1/17/122 & 1/24/22 & 31/22 & 27122 & 2144/22 & 2/21/22 & 2128122 & 371122 & 2314/2 & 3/21/22 & NL 3/28/22 & 4/4/22 & 2/11/22 & 4/188/22 & 4/25/22 & 5/2122 \\
\hline Sofware Testing Plan & & & & & & & & & & & & & & & & & & & & & & \\
\hline Design Review III Presentation & & & & & & & & & & & & & & & & & & & & & & \\
\hline Peer Evaluation \#3 & & & & & & & & & & & & & & & & & & & & & & \\
\hline Project Mini-Video Final & & & & & & & & & & & & & & & & & & & & & & \\
\hline Completed Team Website & & & & & & & & & & & & & & & & & & & & & & \\
\hline Capstone Poster & & & & & & & & & & & & & & & & & & & & & & \\
\hline Capstone Presentation + Dry-run & & & & & & & & & & & & & & & & & & & & & & \\
\hline Peer Evaluation\#4 & & & & & & & & & & & & & & & & & & & & & & \\
\hline Final Product Acceptance Demo & & & & & & & & & & & & & & & & & & & & & & \\
\hline Project Completion Work & & & & & & & & & & & & & & & & & & & & & & \\
\hline Final (as-built) Report & & & & & & & & & & & & & & & & & & & & & & \\
\hline Team Reflection Document & & & & & & & & & & & & & & & & & & & & & & \\
\hline Final Project Delivery & & & & & & & & & & & & & & & & & & & & & & \\
\hline Peer Evaluation \#5 & & & & & & & & & & & & & & & & & & & & & & \\
\hline 9. Overflow (STRETCH GOALS) & 9.1 Change profile age to a bithdate as a proper date field. & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.2 Custorizable expiration date to studies (MOVED TO SPRINT 8: CRUNCH) & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.3 Bootstrap for better UX & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.3.1 custom elements and color schemes & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.4 More enrollment criteria per client request & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.4.1 criteria for countries (origin and current location) & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.5 improve intial log-in flow for github auth + email verification & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.6 Disable auth if api info not defined in .env & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.7 Reorganize code into apps? Researcher code in researchers/etc. & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.7 .1 study app & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.7.2 payments app & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.7.3 research app & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.7.4 participate app & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.7 .5 profie app & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.8 Check if user is authenticated through Github & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.9 Display Githlub avatar if user is authenticated through Github & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.10 Add Github enrollment criteria & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.10.1 Add Githlub account age & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.11 Move study_email_ helper to a custom signal that fires upon study creation & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9. 12 I cant see other email recipients in the group emai for study notificationsNOTE currenty all email recipients & are in the & e "to" field. & Maybe w & we shou & ould send & dindividu & Uual emails & s instead & of a ba & batch emai & & & & & & & & & & & \\
\hline & 9.13 Email notifications are parallelizedNOTE currenty this blocks an hitp response upon study creation & & & & & & & & & & & & & & & & & & & & & \\
\hline & "9.14 Claims are parallelizedNOTE. currenty this blocks on two different apic calls to PayPal & & & & & & & & & & & & & & & & & & & & & \\
\hline & 9.15 Fix the warning about naive datetime upon study creation & & & & & & & & & & & & & & & & & & & & & \\
\hline
\end{tabular}

\section*{9. Testing Plan}

Unit Tests
- The unittest standard Python library
- can_enroll()

Integration Tests
- Verify Google Forms and PayPal integration

- Provide feedback on UI and workflows

\section*{10. Conclusion}
- Solving Research Coordination
- Competitors prove demand
- GeekSurvey is open source

\[
\sqrt{\theta}
\]```

