## San Francisco State University

## SW Engineering CSC648

**Hopeful Sight**

**Milestone 1 Submission Form**

**Section 4 Team 3**

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**Executive Summary**

Hopeful Sight is a non-profit organization that provides eyeglasses to the less fortunate individuals of not only the United States, but also many other countries across the world. According to the International Agency for the Prevention of Blindness, about 1 billion people in the world who need vision correcting glasses do not have or lack the resources to acquire them. That is about 1 billion people our charity can not only affect but change their lives for the better. This is due to several reasons, but the biggest one is that many people cannot afford the necessary resources to correct their vision. Our charity is looking to help the less fortunate one pair at a time.

Our charity centers around our web application, which not only allows users to read more about our charity and donate funds to our cause, but also allows people to see where their money is going via a live counter. For each region of the world, Hopeful Sight has a set donation goal that is determined using various factors including but not limited to population, rate of nearsightedness and rate of homelessness. Once a user has signed up and created an account, they can either choose to donate directly to our charity or donate specifically to a region of the world. As donations increase, a live counter or bar will also increase until it reaches its donation goal. There are also various tiers that a user can achieve once they have donated a certain amount of money.

Hopeful Sight was created by a team of seven Computer Science students at San Francisco State University. With most of the team needing vision correcting glasses and wearing them daily, this topic resonated a lot to us. We imagined how our lives would be if we didn’t have access to the glasses we wore on our faces everyday and realized that millions of people were living life like this. With this realization, we wanted to create an application that not only was related to this topic, but also could help people in need in the foreseeable future.

**Personas**

Persona 1:

|  |  |
| --- | --- |
| Techie Joe  A person raising his fist in front of a computer  Description automatically generated | **Age:** 31  **Location:** New York  **Job:** Software Engineer  **Marriage status:** With partner  **Bio:**  Lives in luxury apartments with partner, currently works as a Senior Software Engineer. He likes to play video games after a long day at work.  **Wants and needs:**   * To use his money to give back to people * To have an easy to understand interface when using technology   **Frustrations**   * Hates frequently changing GUI * Hates being asked for IT support by everyone |

Persona 2:

|  |  |
| --- | --- |
| Highschool James  A young person smiling with a backpack  Description automatically generated | **Age:** 16  **Location:** Oregon  **Job:** Student with Part-time  **Marriage status:** single  **Bio:**  Lives together with family. Currently is trying many things including taking a job, taking college classes, community service, and sports.  **Wants and needs:**   * Likes to be competitive, especially in video games * Likes flashy design   **Frustrations**   * Does like being hand-held when given instructions |

Persona 3:

|  |  |
| --- | --- |
| Grandma Esther  An old person sitting on a couch using a tablet  Description automatically generated | **Age:** 70  **Location:** Florida  **Job:** Retired  **Marriage status:** Married  **Bio:**  Lives in a house, living in retirement with husband. Was a business woman before retiring with her investments as income in retirement.  **Wants and needs:**   * To live the last years of her life with no regrets * To use her money wisely * Simple and usable design   **Frustrations**   * Struggles with complicated menu hierarchy that relies on text boxes * Cannot keep up with frequently changing GUI elements for software |

Persona 4:

|  |  |
| --- | --- |
| College Jane  A group of people posing for a photo  Description automatically generated | **Age:** 22  **Location:** San Francisco  **Job:** Student with Part-time  **Marriage status:** single  **Bio:**  Lives with housemates, and has savings from parents with income from part-time job. Likes to socialize after working, and eating brunch with friends.  **Wants and needs:**   * Likes to see bright or eye catching design * Likes to have feedback to her actions in UI   **Frustrations**   * Struggles with complicated menu hierarchy that relies on text boxes * Cannot keep up with frequently changing GUI elements for software |

Persona 5:

|  |  |
| --- | --- |
| Daniel | **Age:** 25  **Location:** San Francisco  **Job:** Student / Veteran  **Marriage status:** Married  **Bio:**  Went through the military, and decided to pursue an education for his family. Lives in a small compartment with several roommates as he jumps between work and education  **Wants and needs:**   * Wants a zoom in feature * Wants a quick add button to add into the database   **Frustrations**   * Doesn’t know his eye prescription * Website loads extremely slow * Screen too bright from the recent flashbangs |

**User Stories**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | User Story ID | Title | Priority | | 00 | As a user I would like to donate glasses or money to the poor | ❗TOP❗ | | 01 | As a user I would like to see more information about the history of the charity | High | | 02 | As a user I would like to see the faculty members of the charity | Medium | | 03 | As a user I would like to see how much money has been donated to a certain region of the world | High | | 04 | As a user I would like to see the catalog of glasses that are going to be sent to the poor | High | | 05 | As a user I would like to see a list of all partnerships the charity has made | Medium | | 06 | As a user I would like to see previous events the charity has hosted | Medium | | 07 | As a user I would like to create an account | ❗TOP❗ | | 08 | As a user I would like to view all of my previous donations | Medium | | 09 | As a user I would like to be able to reset and change my password if I forgot | ❗TOP❗ | | 10 | As a user I would like to sign up to a newsletter to see current information about the charity | Low | | 11 | As a user I would like to view all the social media pages from the charity | Low | | 12 | As a user I would like to change my associated email | Medium | | 13 | As a user I would like to change my payment type | Medium | | 14 | As a user I would like to search for specific glasses pairs on the website | ❗TOP❗ | | 15 | As a user, I would like to apply for a free pair of glasses because i'm poor | High | | Priorities:   * Low * Medium * High * ❗TOP❗ |

**Data Definitions**

* User
  + User ID - used to identify/refer to that specific user (PK - double)
  + Account id - FK (account)
  + Name (varchar)
  + Email (varchar)
  + Phone Number (smallint - set)
  + Address (varchar)
  + City (varchar)
  + state(varchar)
  + zip(SMALLINT)
  + location(Truncated)
  + Has\_applied (bool)
  + Has\_claimed (bool)
  + Is\_donatee (bool -> if has\_claimed and has\_applied is true)
  + Is\_donor (bool)
* Donation
  + donation\_id
  + User ID (PK - DOUBLE)
  + Donation Amount  (float)
  + Region (varchar)
  + Donation Date (datetime)
* Region
  + Region\_id (big int)
  + Region\_name (varchar)
  + region\_total(double)
* Glasses
  + Name (varchar)
  + Size in mm (int)
  + Color (varchar)
  + Prescription range (float)
  + Image (BLOB)
  + Inventory(int)
  + description(text)
* Account
  + Account\_id(big int)
  + Monthly\_income(double)
  + Average\_household\_income(double)
  + Current\_bank\_balance(double)
  + Is\_dependent(bool)
  + prescription(BLOG)

**Initial list of functional requirements**

Requirement ID: 1

Title: Donate

Description: This requirement enables the user to donate to the charity, which allocates glasses to people in need.

User Story Reference: 00

Priority: ❗TOP❗

Requirement ID: 2

Title: Get Charity Information

Description: This requirement provides the user with information about the charity, including its history.

User Story Reference: 01

Priority: High

Requirement ID: 3

Title: Get Staff Information

Description: This requirement allows the user to view the staff working for the charity and see a brief introduction of each staff member.

User Story Reference: 02

Priority: Medium

Requirement ID: 4

Title: Get Regional Donations

Description: This requirement provides information about donations in specific regions, displayed on a map that serves as a progress bar.

User Story Reference: 03

Priority: High

Requirement ID: 5

Title: Review Catalog

Description: Allows the user to view all the different types of glasses, particularly those designated for donation to people in need.

User Story Reference: 04

Priority: High

Requirement ID: 6

Title: Get Partners

Description: This requirement allows the user to view all the partners associated with the charity.

User Story Reference: 05

Priority: Medium

Requirement ID: 7

Title: Previous Events

Description: This requirement allows the user to view the history of events hosted by the charity. No account creation is required to access this information.

User Story Reference: 06

Priority: Medium

Requirement ID: 8

Title: Signup

Description: This requirement allows a user to create an account. Once a user becomes an account they will be able to donate.

User Story Reference: 07

Priority: ❗TOP❗

Requirement ID: 9

Title: Previous Donations

Description: This requirement allows the user to view their donation history. The history is only accessible to the account holder who made the donations.

User Story Reference: 08

Priority: Medium

Requirement ID: 10

Title: Change Authentication

Description: This requirement allows users to change their password or reset it if forgotten. Once a password is changed, all devices logged in with the previous password will be logged out.

User Story Reference: 09

Priority: ❗TOP❗

Requirement ID: 11

Title: Register for Newsletter

Description: This requirement allows users to sign up for the charity's newsletter to receive updates on current activities.

User Story Reference: 10

Priority: Low

Requirement ID: 12

Title: Provide Social Media

Description: The application will have links to the charity's social media on the "About Us" and home pages.

User Story Reference: 11

Priority: Low

Requirement ID: 13

Title: Change Email

Description: This requirement allows users to change their account email. All services associated with the old email, such as the newsletter and account details, will be updated to the new one.

User Story Reference: 12

Priority: Medium

Requirement ID: 14

Title: Change Payment

Description: This requirement allows users to change their payment method. The old payment method will not be saved.

User Story Reference: 13

Priority: Medium

Requirement ID: 15

Title: Glasses Search

Description: This requirement allows the user to search through the catalog. Glasses will be displayed as cards for easier browsing.

User Story Reference: 14

Priority: ❗TOP❗

Requirement ID: 16

Title: Apply for Glasses

Description: This requirement allows individuals in need to sign up to receive donated glasses.

User Story Reference: 15

Priority: High

**List of non-functional requirements**

1) Compatibility:

1. Application shall be compatible with the latest versions of operating systems, including iOS and Android
2. Application shall be tested across a variety of devices and browsers to ensure compatibility and optimal performance
3. Application shall support major desktop operating systems, including Windows, macOS, and Linux, ensuring functionality across different environments
4. Application shall be easily viewed from mobile browsers that include, safari, firefox, Opera, and google chrome.

2) Development Requirement ( Temporary )

1. Application shall perform regular database backups
2. Application  shall log consumer’s activity
3. Application shall provide data recovery procedures in case of data loss or corruption
4. Application shall automatically delete data once a consumer leaves the webpage

3) Usability ( Temporary )

1. A user shall have their information encrypted when saved to database
2. A user shall have a confirmation number ( randomized ) when proceeding with the transaction
3. A user shall change any personal information if they choose to
4. A user shall have a fast and convenient login process

4) (Development requirement) The code in the master branch of team’s github repo should be well maintained and test, and guarantee working at any time leveraged by CI (continuous integration).

1. Application shall be developed using clean code principles and best practices to maintain the webpage organized
2. Application shall have comprehensive documentation for developers when it comes to implementing their code
3. Application shall have the libraries and software up to date to align with the rest of the programmers

**Competitive Analysis**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Site | Ours | Warby Parker | New Eye | Respectacle |
| Feature 1 | Sending Custom Glasses to dontatees | Does not Say No page for donatees | Does not say whether donatees get | Sends used glasses |
| Feature 2 | View of Amount of glasses donated (associating a dollar amount to a | 1 to 1 ratio for glasses bought for to glasses company donates. | Does not provide a dollar to eyeglasses reference so unknown to donator how many glasses they could have donated. | Does not provide a dollar to eyeglasses reference so unknown to donator how many glasses they could have donated but allows for donating used physical eyeglasses |
| Feature 3 | Regions Glasses donated count | No regions implemented | No regions implemented | No regions implemented |
| Feature 4 | Donatee application page (application for free glasses) | No Donatee application. | Donatee application page (application for free glasses) | Donatee is trusted to order their own (no application or check) |
| Feature 5 | Donate money page | Donate one pair for each bought | Donate money Page | Donate Money Or Used Eyeglasses |

The first competitor that I would like to compare to is Warby Parker and while I have been a longtime fan of Warby Parker and their styles of glasses I find that they could do more in giving glasses out they only give out one extra pair of glasses to charity for each one bought.Warby Parker does not allow underprivileged to apply for charity glasses directly on the website.

The next that I’d like to compare to is the site New Eye and they have a similar setup to what we were thinking where you can register as a donator or apply for eyeglasses but they do not have a direct comparison to how many glasses are being donated vs the amount given, at our site we would have a figure (most likely an average of how many glasses you donated) and we will update the figure of which region on our map is in the lead for the most given based on population.

Respectacle is the last I would like to compare our site with here on this site instead of donating money that compares to a set of glasses the donator is donating a pair of glasses and the glasses that they distribute are used so it would be harder to for a donater to find a set that fits them perfectly vs a custom made set for the person.

**High-level system requirements**

* Javascript (react), MySQL
* Ubuntu Virtual Machine on AWS
* Vercel for deployment
* Django
* VS Code for code editing

**Team List**

|  |  |
| --- | --- |
| **Team Member** | **Role** |
| **Koby Kern** | **Team Lead** |
| **Ali Almusawi** | **Front End** |
| **Jacob Vazquez** | **Backend Lead** |
| **Nathan Gabriel David** | **Scrum Master** |
| **Ethan Zheng** | **Github Master** |
| **Miguel Maurer** | **Frontend Lead** |
| **Miguel Melo** | **Front/Back End** |

**Checklist**

**Done On Track Issue**

* Team found a time slot to meet outside of the class.
* Scrum Master shares meeting minutes with everyone after each meeting.
* Github master chosen.
* Everyone sets up their local development environment from the team’s git repo.
* Team decided and agreed together on using the listed SW tools and deployment server.
* Team ready and able to use the chosen back/front-end frameworks.
* Team lead ensured that all team members read the final M1 and agree/understand it before submission.