SeroMatch
Promoting a Safe Dating Culture

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Abstract
SeroMatch is a service that aims to provide affordable access to authoritative STD testing. Its target demographic is young adults who are sexually active and who would benefit from a convenient means of STD testing. Users would have access to flexible testing, convenient booking with health care professionals and health counselors. Additionally, matchmaking technology allows SeroMatch to filter potential couples by STD status as well as by other parameters set to user preference. Since existing dating sites do not partner with doctors or otherwise partner closely with STD testing centers, SeroMatch would serve to reduce the spread of STDs among its users.

Architecture
The system design for the SeroMatch application will employ a three-tier architecture tactic. The three-tier design will separate the structure of the application into three logical and physical partitions: presentation, application and data. The use of this design assists with the scalability, performance, and security of the application.

By using the AWS platform, compatibility is not concern as AWS is compatible with most programming languages and database administration tools. AWS offers a wide variety of ready to use services such as Cognito, Elastic Search and Lambda that support the implementation of the application, therefore avoiding having to spend additional resources for programming, testing and implementing these solutions.

Results
We started this project from scratch. In 8 weeks, we have fully implemented a database using Amazon Web Services and PostgreSQL. We also have a semi-functional skeleton for both the Android and iOS platforms. Lastly we have a guest version of the website almost finished and working at https://d2rw534272xixi.cloudfront.net.

We used user stories to measure our performance and keep on task. The main user stories we sought to complete were the ones centered around user interaction. For instance, “As a User, I want to be able to create an account.” To date we have achieved 13 out of 27 of the user stories. Given the short time to work on this and the fact that this is the first semester this project has been worked on we are pretty happy with our progress.

Impact
The goal of SeroMatch’s app is to improve awareness and monitoring of sexual health and partners amongst its users. The app will use elements and features found in popular social media applications to streamline STD testing and matching with other partners. Users will also have readily accessible counseling and advice in the case of a positive test result. These features paired with web interfacing will allow the growth of a healthy sexually active community.

Testing
- Choice between different panels of tests
- Ease of booking with testing labs partnered with SeroMatch Matching
- User set parameters for matching
- Verified test results used in matching potential partners Treatment
- Readily available contacts for counseling and advice and further referral

Summary
Our project was to develop a social media platform that can help reduce the spread of STIs. We worked on developing a comprehensive system to test, track, and match users on this platform to prevent the spread of STIs. Mobile apps for both iOS and Android were developed to allow users access to this service on the go as well as a web portal for computer access. A content management system was also designed and created to help support the backend support for managing all of this information.

This project continues to be a work in progress as future updates to the apps and web portal will be made to address what we hope to be initial beta user feedback. Gathering a sizeable beta test user population remains the most challenging hurdle to proving that this concept can work.

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