

Software Requirement Specification

Problem Statement: A few sentences to describe the problem you are trying to solve, i.e., justify why this software is needed.

For a lot of surveys that students conduct, there are a couple of problems associated with them. First, the participant selection is often subject to a bias of convenience with the survey only reaching people who are somewhat related to the individual who is conducting the survey. In addition, the survey itself may not get enough participants as its “advertisement” depends purely on the creator of the survey.

Potential Clients: Who are influenced by this problem and would benefit from the proposed solution? (i.e. the potential users)

Anyone who needs participants for their survey are potential users for our software. The software is geared towards students at Hopkins and/or other universities who need answers for their surveys from random people, whether they want people from within their university or those that match a specific set of interests that they can't get with traditional methods (handing out surveys in person, online forms, etc.). However, other potential users can also be people who need answers from their surveys.

Proposed Solution: Write a few sentences that describe how a software solution will solve the problem described above.

We will create a platform for people to submit their surveys for other people to fill out. In order for someone to submit their own survey, they need to answer 2-3 surveys themselves in order to gain a survey coin. In other words, you would gain survey coins from answering other people's surveys which is used to purchase the right to submit your own surveys. For answering surveys, you are given a random survey to answer to make the participants for each survey random to reduce user bias. Our software will provide an incentive to answer surveys while promoting an environment for your own surveys to be answered by random/select people, fixing the convenience bias and lack of participants problem described earlier in this document.

Functional Requirements: List the (functional) requirements that software needs to have in order to solve the problem stated above. List these in role-goal-benefit format. It is useful to try to group the requirements into those that are essential (must have), and those which are non-essential (but nice to have).

Must have

- As a user with a survey to share, I want to be able to create a form that includes different types of questions(MCQ, ranking, FRQ), so that I can get different types of answers.
- As a user who wants to participate in a survey, I want the survey to be easy to respond to, so I can finish the survey efficiently.
- As a user with a survey to share, I want to be able to Data Storage, so that I review the data even after the survey is closed.
- As a user with a survey to share/respond to a survey, I want the survey to be randomly assigned so you can make sure , so that you can make sure all surveys get enough response.

Nice to have

- As a user with a survey to share, I want good visualization graphics so that I get a good idea of my results
- As a user with a survey to share, I want survey Tagging/Categorization so that I can be more organized with my purpose and goals
- As a user with a survey to share, I want a survey Search for Interesting Surveys so that I can view other surveys to answer or use
- As a user with a survey to share, I want data analysis so that I can make an effective use of the results of my survey
- As a user with a survey to share, I want a Survey Recommendation Algorithm so that I can have my survey shared to people that best matches the kind of people I'd like

Non-functional Requirements:

- **As a user with a survey to share, I want a web app to be able to use this software on my browser**
- **As a user with a survey to share, I want support for over 1000 users so that a lot of people can view my survey without difficulty**

Software Architecture & Technology Stack: Will this be a Web/desktop/mobile (all, or some other kind of) application?

Would it conform to specific software architecture? What programming languages, frameworks, databases, ..., will be used to develop and deploy the software?

- Generic MERN stack (MongoDB, Express.js, React, Node) web application.
- Standard Client Server Architecture

Similar Apps: List a few similar applications to the one you are developing. Don't be eager to conclude no similar app exists! There is always something similar to what you are building! Finding those will help you to better specify your project. ***You must be prepared to explain how your app is different from the existing ones.***

- **Google Forms**
- **SurveyMonkey**
- **Typeform**
- **Qualtrics**
- **Microsoft Forms**

All the software/apps above are mostly geared towards designing and creating a survey, but they don't provide resources to get your survey to an audience. For instance, Google Forms will provide you a link for participants to answer your survey, but this does not mean Forms promotes your survey to others, meaning it's up to the creator to conduct this responsibility. We differ from these apps in that our entire platform advertises your surveys to other users through the survey coin currency on our platform, incentivizing people to answer surveys on our software if they want their surveys answered.