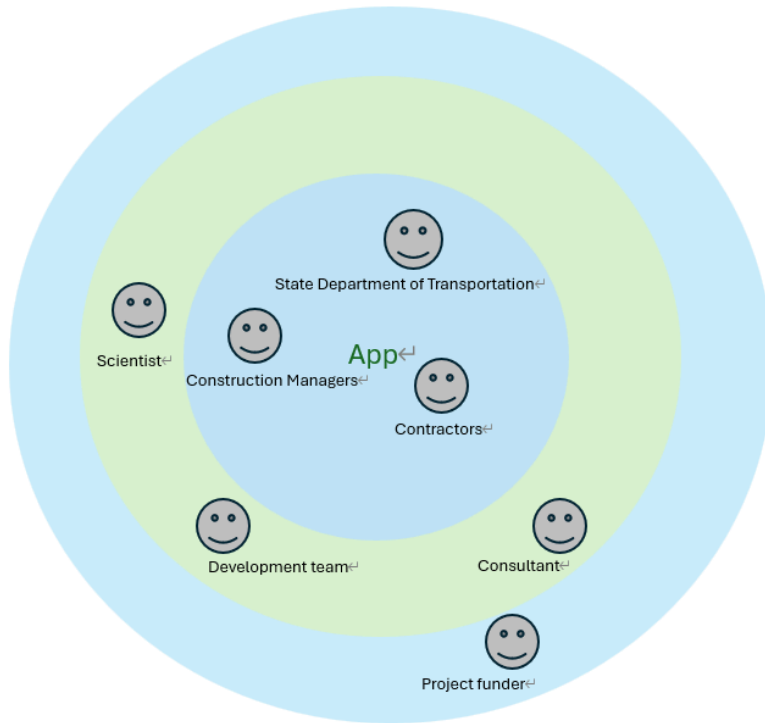


Stakeholders and Users

Stakeholder Onion diagram



Green = Primary stakeholders

Blue = Secondary stakeholders

Some important user characteristics are knowledge in construction and the risks pertaining to construction projects.

Personas

Usability expert Carol Barnum (Usability Testing Essentials: Ready, Set...Test! Morgan Kaufman, 2010) defines personas as “fictional representations of people that are created from real data about your users” (94). Remember that although personas require creativity, the information presented should be relevant to the product or document that you are creating and should help designers “understand user motivation, fears, concerns, and goals as they relate to your product” (97).

Your UX consultant will write personas for your project. Review their personas and link them to your design documents.

Persona 1: Alex Norman

Age: 42

Residence: Austin, Texas

Alex works for a contracting company. He is easy-going but a little careless. In the company, he is a mid-level manager and has a great relationship with his co-workers. Recently, the company has taken on many projects, making his workload very heavy. Therefore, he is extremely busy. He is single and enjoys a lively social life. In his daily life, he often meets up with friends for meals and gatherings.

Persona 2: Jenny Miller

Age: 38

Residence: Ann Arbor, Michigan

Jenny is a detail-oriented and forward-thinking person. She grew up in Michigan and moved to Florida after starting a new job. She currently works at the State Department of Transportation. She is a highly skilled infrastructure project manager, specializing in urban development and underground transportation systems. Her work focuses on cost efficiency and environmental impact.

Persona 3: Peter Smith

Age: 31

Residence: Syracuse, New York

Peter is a construction manager who recently got engaged to his girlfriend. He has nearly ten years of experience overseeing large construction projects and has a deep understanding of site management and safety regulations. He has strong problem-solving skills and is dedicated to his work. In their daily life, Peter and his fiancée often take their dog on outings and enjoy spending time together.

Persona 4: Christine Jones

Age: 50

Residence: San Diego, California

Christine is a cautious person. She works at a contracting company and is passionate about her job. She frequently learns new information related to construction. She grew up in Los Angeles and moved to California with her husband after having children. In her daily life, she enjoys hiking.

Nominal Use Scenario

The nominal use scenario is a verbal description of a nominal (error free) sequence of events using the system. It should describe how the major stakeholders (primary and secondary stakeholders) interact with the system or the application. The description should be several paragraphs, one paragraph for each stakeholder interacting with the system. It should read like a story.

Scientist(Dr. Erfani):

The scientist has a need or want. They come up with the idea for the app, and work with the other stakeholders to make it a reality. They'll talk to the funder to get the project started, and later meet with the development team to make sure everything matches with their vision.

Project Funder (Dr. Pastel):

The scientist reached out to the project funder in hopes of creating a working application for users to view the data that the scientist has organized and found. The project funder assigned the creation of the application to the development team and guided their work to fulfill the scientist's requirements. The project funder may also play a part in distribution, advertising the application to potential users.

Development team(Us):

The development team received the initial project description from the project funder, and interviewed the scientist to obtain specific information about how the desired application would work. They then get started designing and developing the application. The design of the app is focused on making it easy for users like construction managers to use. The development team will make the application a website to allow any device with access to the internet to be able to use it.

Consultant(Grad Students):

To check the development progress, the Consultants(Grad Students) will be working closely with the development team. They will evaluate the usability of the application by heuristic evaluation, cognitive walkthrough, or questionnaire.

Users (Construction Managers, State department of transportation, contractors):

The users interact with the application to see a list of possible risks and use that information to make decisions. They will fill out a questionnaire based on their situations, and see the risks that similar projects have run into in the past presented on the website and in a downloadable format. They also have the option to see more results or change their query.,

Example Scenarios:

Bond Nond wants to make another bridge between Houghton and Hancock. Before he gets started, he wants to know what kind of construction risks could be involved in making the bridge. Since the other bridge is a very similar structure, he uses our website to look up all of the risks that were an issue during the construction of that bridge. He fills out the questionnaire properly on our app and is shown the risks that were recorded to the construction of the bridge and compares them to the current conditions of the site he wants to build the new bridge. Allowing him to be more prepared while building the new bridge.

Jenny Miller is planning to create a multi-million dollar underground tunnel in Florida and wants to find out when the best time to create it would be. She is planning on getting on a plane and wants to download the files of previous construction jobs in Florida so she finishes the questionnaire and then clicks the download button on the website so she can read them while flying.

Alex Norman wants to find out about a possible construction project in California but forgets to fill out the questionnaire fully and does not input the delivery method. When he submits the forum it gives an error message that is at the top of the page warning him that he did not fill out all of the fields in the questionnaire. He then finishes filling out the forum and it gives him proper results.

Simplified Hierarchical Task Analysis

- View risks pertaining to previous construction projects
 - Compare them with other construction projects
 - Download the project information
 - Email the result to another person
- Login for keeping history
 - Registering an account
 - View history of searches
 - Restore sessions from history
 - Add “save to archive” button
 - Allow user to sign in as guest and skip logging in
 - If signed in as a guest, save to archive button will prompt a genuine login

Database/Data Stores

- Due to the nature of the project, we are not creating nor storing information in a database besides the database of risks that Dr. Erfani provided initially. The inputs to the program are going to be in a drop down format.
- We talked to our scientist and he has requested us to record emails and make accounts for the users if they want to keep track of previous searches. The accounts will be optional and you can sign in as a guest for those who are simply using the website a few times or have no need to save the information.

List of Domain Classes:

- Project name
- Location
- Project type
- Delivery method
- Project Budget
- Number of results
- Sort by
- History element
- User Account

Domain Class: Dropdown menu

- Project name - string, Name of project

Domain Class: Dropdown menu

- Project Location - string, State abbreviation

Domain Class: Dropdown menu

- Project Type - string, Type of project

Domain Class: Dropdown menu

- Delivery Method - string, method of delivery

Domain Class: Dropdown menu

- Project budget - string, range of budget the project falls into

Domain Class: Dropdown menu

- Number of results - int, number of results to show

Domain Class: Dropdown menu

- Sort by - string, which value the table will sort by

Domain Class: History element

- String: name (optional)
- String: location (optional)
- String: type
- String: method
- String: budget

Domain Class: User account

- String: Email
- String: Password
- Int: user ID(Admin View only)