GSDP Scrum Week Preparation

Project Specification & Critique

Context

The Saviour Trust is a local, medium-scale charity that focuses on aiding people who are homeless or at risk of becoming homeless. They operate in two areas: Leeds and Pontefract, each department sized at about 100 properties and 200 people being supported.

On a regular basis (at least once a week), a member(s) of staff from the charity will visit each property and fill out a paper form which is used to complete a check on the peoples' wellbeing and the state of the property. This recorded information is then reacted to accordingly by maintenance managers and support managers.

The Specification

While no formal specification has been provided by the client, based on the information about the project given and a recent short video conference completed with the client, I have completed a rough draft of a brief below:

Please note most of the information used to construct this specification has been stated by the client, any notable inferences will be highlighted in turquoise and assumptions in yellow.

Overview

The Saviour Trust ("the Trust") wants an application to be produced that would aim to entirely replace the Trust's current paper-based system.

No extra information should be collected by the app compared to the current paper forms; it should only aim to make the recording, transfer, and review of the information faster and more convenient.

Functional Requirements

Features (Not necessarily exhaustive)

- A digital replica of the Trust's current paper visit form that can be filled out by Trust staff when visiting a property.
- The ability to instantly access saved (filled out) forms by anyone in that area of the Trust.
- The ability to access historic forms, usually up to 3 months in age.
- The ability to edit saved forms.
- The ability to remove saved forms.
- The ability to remove all forms relating to a certain property or person.

Scope and Users

Each of the two current operations within the charity manage on the order of 100 properties and 200 people (people being supported, not staff members).

It is a real possibility for the charity to begin operating in new area(s) but it is likely these operations would be roughly the same size as the current two.

This scale of operations should be considered when designing the system.

The users of the system will be the Trust staff, who, depending on the individual, should be at least familiar with Android smartphones given their present use within the Trust, but have varying and

unknown levels of technical expertise, therefore the design of the app should be kept easy to understand and intuitive.

Platform

All members of staff at the Trust have Android smartphones, which are used for communication within the Trust. As a result of this, Android is obviously the preferred mobile platform if any.

All members of staff at the Trust have a laptop and there are multiple desktop computers at each of the Trust's offices. As a result of this, some form of access to the system via a computer would be convenient.

Wishes

- When a Trust staff member arrives at a property, the app should automatically open the form pertaining to that property.
- The system should be accessible from any platform (i.e., not just Android or Windows) to maximise convenience.

Critique

The first obvious critique of the project specification is that there is not a project specification. However, this is a realistic scenario – many companies requesting software solutions cannot formulate an exact set of requirements as they do not have developers onboard.

This issue aside, the information provided on the university presentation, the Trust's website, and during the short video conference we had with a member of the Trust seem detailed enough to build a sufficient specification for this stage of the process. It can be further refined in talks with the Trust.

Realistically, there is little that can be critiqued about the client's specification other than the lack of detail which at this stage may not be an explicit requirement anyway – it would have been helpful to have a list of functional requirements from the start, with some loose examples as to the kind of data being collected in the forms.

The client has stated that they are not very aware of the technical side of things and therefore would like recommendations for platform, language, technology etc that is used in the project. This can be expected from most companies that do not specialise in IT or Computing, but obviously does add a little more complexity to the development team's job.

Software Development Processes and Tools

Agile

My team will be using agile software development when working on the project.

Agile is an ideology within software development that outlines a process in which rapid prototypes are created, tested, and released to the user in quick succession, in small/incremental updates rather than occasional major versions.

The basic idea of an agile development process is as follows:

1. The product owner (us) and stakeholders (the charity) construct a list of desired features (the product backlog) based on the user's requirements.
2. The software development team pick items from this list to implement into the product and get to programming.

   a. There will be regular (usually daily), short meetings (usually 15 minutes or less) amongst the development team to ensure there are no issues within the process and address any part of the process that could be improved easily (more major issues will be addressed in less frequent, longer meetings).
3. The updated software, including the new implementations, is tested to ensure product stability and functionality as desired. (This will be a continuous process throughout the 2 weeks)
4. The updated and tested software is released to the user. (This will be at the end of our 2 scrum weeks in February)

Communication

All of the members of our group are in contact via a Discord server which we can use leading up to and throughout both scrum weeks to talk, send images and videos, send code snippets, and voice and video call (including screen sharing). This will comfortably facilitate practical real-time collaboration allowing us to operate effectively using agile methodologies.

Planning & Testing

In the run-up to the scrum week, we will create a shared Trello board which will be used to apply agile task queues/job lists, which will cover the planning, development and testing stages of implementing parts of the specification.

Version Control

A shared private GitHub repository will be the primary tool used for version control, with each of the team members able to push and pull from it in real-time. We have all completed the agile team member driving license and I have previous experience with GitHub, so we are prepared on this front.

Resource Management

Hardware / Software

Since the project just requires a lightweight mobile application, hardware should not be an issue for us students already completing work on a Computer Science course – I certainly have a computer and setup capable of developing a small application and others have been completing programming work for the course.

Software could cause a slight time setback, if we decide it would be beneficial to use a software tool that we do not already have, but this should not be a significant issue. As for costs, there are plenty of free tools out there that can create business-level professional apps without charging you a dime.

Software such as Trello and GitHub are already available online, and it is likely that the app will be developed in a popular IDE such as Visual Studio or IntelliJ IDEA (both of which we already have for university work).

Expertise / Skillsets / Team Roles

As far as experience in finishing and polishing an app goes, I do not have any experience so the project early next year would be an absolute stab in the dark for me. Over the Christmas break I plan on practising making a few Android mobile apps and getting used to the process, so I can develop a semblance of a workflow for the scrum week in January.