CPS 731 - Term Project: Proposal

Changes made:
Removed mentions of form design according to feedback.

Task 1

Team Information
Team number: 2

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Task 2

Problem Statement and Informal Requirements Description

Every employee at AAIER corporation is provided one or more work devices (e.g. laptops, cell phones) to complete their work tasks on. Employees often require assistance with their work devices for setup, maintenance, or device return. Our team is tasked with creating an IT help desk for AAIER corporation. AAIER's IT help desk will automate this process and ensure that employees can receive the type of assistance they need with any of their work devices.

Informal Requirements

When a new employee joins AAIER corporation, one of the first things they will do is send a request to the help desk to request their new equipment. To receive their equipment, the user must send in a request through the IT help desk.

Once the user has filled out the intake form, they will be asked to fill in their availability so that members of the IT department can contact users when they are not busy. Once this is complete, the user will be able to view their upcoming ticket appointments on a calendar as well as have the option to add their appointments to their personal Google calendar. They should also be able to view and edit details of individual tickets if there have been new developments.

After the ticket has been successfully submitted, it will be automatically assigned to a member of the IT team. Tickets will be automatically assigned based on the category of ticket submitted by the user as well as the member's availability. The backend interface for the IT team members will be similar to the employee user interface. There will be a few more features that the members will need to be able to service tickets, including a field to change the status of the request, add comments, and communicate with the user through email. Users should receive emails when details are updated for their ticket.

Constraints

To ensure that a successful IT help desk software is developed, it must follow several employee, accessibility, and security constraints. The help desk software will accurately assign employees to solve various ticket requests from the users. When tickets are received that fall into a given service category, an appropriate employee will be assigned to work the ticket. This employee constraint will ensure that the workload from the IT help desk can be spread evenly across the IT personnel team, resulting in an appropriate amount of ticket completion without employees being worked unfairly. Additionally, the most specialized team members will be assigned tickets that correspond to their speciality over team members who have more general skill sets. This will allow the most generally skilled team members to stay available as more requests are received.

The IT help desk software must ensure that only valid users can use the help desk. General employees and members of the IT team must log in before accessing the software. This provides security and makes sure that only authorized individuals are able to access and view the issues that employees have filed. This constraint will ensure that only IT personnel who log in successfully can complete administrative tasks on users' devices.

Task 3

Process Information

When applying the waterfall model to the development of an IT help desk, it is important to consider triage capabilities and to offer a systematic and structured approach that progresses through the multiple phases of the waterfall model. The model

is designed to progress forward without incremental testing and is best suited for fixed requirements that remain consistent.

The stakeholders were heavily engaged during the requirements gathering phase so it is extremely likely that the requirements are not going to change. Because of this, a plan-driven process will likely be more efficient than an agile process for this project. Project planning has concluded with a finalized plan to fulfill all requirements and therefore will not need any feedback cycles after each phase.

As the process is currently done manually within the business, this software will provide automation and boost efficiency. This project is entirely for internal stakeholders and is not business critical or public-facing. The waterfall model is perfect for this because there are no external stakeholders, undefined deadlines, and no reliance on user testing at each step.