Post-Mortem Report

Project Service Booking System

Description: This project is a Java based application for an appointment booking system

Client: Customers who want to book a service online or business owners who want to register their own business

Scrum Master: Aleksander Stefanovic

Solutions Architect: Drew Nutall-Smith

Programmers: Aleksander Stefanovic, Drew Nutall-Smith, Shawn Taylor

Testers: Nishara Waidyasekara, Aleksander Stefanovic

Documenters: Shawn Taylor, Nishara Waidyasekara

Start Date: 6th of March 2017

Completion Date: 23rd of May 2017

Project Overview

The service booking system or the appointment booking system is a simple system that can be used by any business, allowing a customer to book a certain service. This is a Java based application that overcomes the issue of managing and booking appointments according to user's choice and demands. This project offers an effective solution where users can view various employees and their availability and select the preferred time, date and service. The already booked appointments will be added into the system database as a JSON file.

Business owners can register their businesses and manage employee details, business hours and shifts efficiently. Business owners are also able to book appointments on behalf of customers who prefer to make appointments over the counter or over the phone.

Success criterion

Initially we were targeting to build a command line application using Java. But as the project specification grew broader, we had to switch into a GUI based application. This meant changing plain Java into JavaFX, a platform none of us were familiar with or used before. We successfully converted all our command line code into JavaFX code, meeting both owner and customer functions such as; log in, registration, make bookings, view bookings, view availability, add/change availability, add/change shifts, add business hours, add services etc.

Shawn's suggestion to use JSON files instead of another type of database made it more efficient and easy to manage the system back-end.

Performance

Key Accomplishments

- Application of knowledge:
  All group members are familiar / somewhat proficient in Java. This made it easier to decide the base of the project.

- Adaptation:
  Started off a command line application. But as the criteria changed, we decided to use JavaFX for the GUI of the application. None of the group members had any knowledge or experience with JavaFX. Drew, Alex and Shawn self-learned JavaFX in a short period of time and were able to successfully adapt and turn the application into a GUI base.

- Successful application of Scrum
  For many of us in the group except Drew, had knowledge about Scrum from courses undertaken in previous semesters, but didn't have any hands-on experience about how Scrum works. Only Drew had experience working in a project at work as part of a Scrum team. We had to learn how to hold successful and effective Scrum meetings, document meeting minutes and manage Trello and GitHub. We had good communication all through the project and held regular Scrum meetings successfully.

- Testing
  Testing was not easy in this project. Once again, none of us had previous experience with any testing at all. It was decided Nishara will do most of the testing using Junit. She had basic knowledge but was not proficient in the area. The group had to research and self-learn Junit in order to achieve the testing criteria for the project. In addition, once the decision to use JavaFX was made, we effectively changed all the unit tests to match the JavaFX code.

- Logging

Even though we had issues and misunderstandings regarding logging, towards the end of the project Shawn could make it a success.

- Project Highlights

  - ✓ Overcame the challenge of testing before it was too late
  - ✓ Productive and frequent Scrum meetings were held at least twice a week
  - ✓ Managed to deliver a full working and user-friendly application by the due date
  - ✓ Overcame the challenge of logging and testing
  - ✓ Managed to manage the time effectively

Key Problem Areas

- Testing: Initially we were struggling with unit tests since none of the group members had experience. It took us some time to complete all the unit tests and acceptance tests.

- Scope changes: The specification of the project was changing time to time making it time consuming and a little difficult to keep up and adapt to.

- Project processes: We didn't have a lot of processes that did not work. We had minor issues regarding the date/time regex and adding business hours function.

- The effects of key problems: Time management was challenging with the changing requirements and the time it took to self-learn certain tools. There were times where we could not deliver the full functionality of a certain part due to this.

- Technical challenges: Learning Junit, JavaFX, Maven and logging was the most challenging parts of the project.

Risk Management

- Project risks that have been mitigated:

  - ✓ Arranging Scrum meetings was a challenge due to different available times
  - ✓ Keeping up with the changing requirements of the project
  - ✓ Inaccurate estimates of the project requirements

- ✓ Under communication between team and the client
- ✓ Lack of experience and training
- ✓ Inexperienced resources

- Outstanding project risks that need to be managed:
  - ➢ Activities missing from scope: Add business hours function was missing from the project which is now being met

Overall Project Assessment

Performance against project goals/ objectives	8
Performance against planned schedule	7
Performance against quality goals	7
Performance against planned budget	10
Adherence to scope	8
Project planning	7
Resource management	9
Project management	10
Development	8
Communication	8

Team cooperation	10
Project deliverables	8

Lessons Learned

- ✓ Product matched the business objectives
- ✓ Project plan and schedule were well documented with minutes
- ✓ Tasks were well defined
- ✓ Requirements were gathered with sufficient details
- ✓ Requirements documented clearly
- ✓ Specifications were understood
- ✓ Project stuck to its original goals
- ✓ Project changes were well managed
- ✓ Design changes were controlled effectively
- ✓ Team was properly organized
- ✓ Team skills were evenly distributed and used
- ✓ Product was delivered on schedule
- ✓ Team worked effectively
- ✓ Good communication within the team

Summary

This project was challenging but successful. It was a great experience working in a team environment. Keeping up with the changing requirements of the client was definitely difficult but a valuable lesson to take to the industry. New tools, processes and skills were learned during this project that would benefit in the future.

There are no specific ongoing development and maintenance considerations or actions that are yet to be completed.

In conclusion, requirements were met and the application was successfully delivered to the client.