

Software Project Plan

Business Action Tracking System for Lockheed Martin

Overview

BAT Team will work with our sponsor, Lockheed Martin, to deliver a Business Action Tracking System (detailed further in the project proposal and Project Synopsis document). We will follow the Scrum methodology (with some deviations, outlined in the Alterations section below) with sprints 2 weeks in length.

Software Process Methodology

Software development will follow the Scrum methodology, in which all work is done in isolated sprints. For our project, we have chosen 2 weeks as the sprint length.

Alterations

Due to the team size, project timeline, and scheduling constraints, we will make small alterations to allow scrum to fit our project. The following alterations will be made

1. Daily stand-ups will occur via Slack every day at 10:00 AM, since our schedules prohibit us from meeting in-person.
2. The product owner will also be responsible for some degree of software development.
3. The scrum master will also be responsible for some degree of software development.
4. Due to schedule and time constraints, sprint planning and retrospective meetings will be shorter than a typical scrum environment.

Sprints

Sprints will be 2 weeks in length. Sprints will begin Monday mornings and end Sunday evenings. At the end of each sprint, we will meet from 5-6:15 on the Tuesday following the end of the sprint for a sprint retrospective (30 minutes) and a sprint planning meeting (45 minutes). On off Tuesdays, we will hold grooming sessions from 5-6:15, in which we elaborate on user stories. On the first Thursday after each sprint, when applicable, we will hold a demo with the project sponsor starting at 5:00.

Roles

As mentioned above in the [Alterations](#) section, the standard scrum roles have been modified to fit the project, timeline, and team.

Product Owner

As in standard scrum, the product owner is responsible for maintaining the product backlog and sprint backlog. The product owner will communicate with the project sponsor in order to properly prioritize user stories for the backlog. Unlike in standard scrum, the product owner will also be responsible for developing software.

Scrum Master

As in standard scrum, the scrum master is responsible for ensuring the team has the resources it needs to function. This includes resolving blockers, making sure meetings stay on-topic, and making sure that daily standups occur each weekday. Unlike in standard scrum, the scrum master will also be responsible for developing software.

Schedule

Milestones

Start of Sprint 0: Sprint 0 will last 1 week and begin Week 5. The team will work on getting infrastructure set up, including development environments and virtual machines.

Start of Sprint 1: Each sprint will last 2 weeks. We plan to start normal software development on Monday of week 6, after the conclusion of Sprint 0.

Sprints begin on Mondays and end on Sunday evenings.

User stories have been broken down into Feature categories for the purposes of prioritization. The backlog has been initially prioritized by the team in an order that makes sense. The customer has had the opportunity to tweak and rearrange priorities. Because some stories necessitate the completion of stories from other features, Whole feature groups may not be complete at once, rather multiple will be worked on simultaneously if need be.

By the end of the Fall 2016 semester, the sponsor expects a desktop web app to be able to add and update actions so they may be tracked. The goal is to get a working beta up and ready so that it can be used by the customer prior to shifting focus to application and mobile integrations.

Deliverables

Deliverables will be determined at the sprint planning meeting of each sprint, and will be delivered on the first thursday after each sprint in a sponsor demo. For sprint 0, these deliverables will likely include some design artifacts, whereas for the remaining sprints, deliverables will include working software, documentation, and design artifacts when necessary.

Sponsor Specific

- Defined use cases from the interviews of a minimal number of sponsors
- System and documentation specifying high-level description of system architecture
- Fundamental user guides
- High level system installation documentation

Software Engineering Department Specific

- Project website holding all work products and project artifacts maintained in the project account on the se.rit.edu web server.
- Project plan, schedule, and process methodology definition prepared by the end of week 3 of the first term of the project.
- Tracking report for time/effort worked on the project, and at least two other product/process metrics appropriate to the project and development methodology. Tracking reports must be updated on the project website at least every two weeks.
- Interim status and final project presentations
- Project poster and presentation at "SE Senior Project Day"
- Project technical report

Collaboration and Communication

Meeting Times

Our team will meet weekly on Tuesdays from 5:00-6:15 and on Thursdays from 5:00-6:15. Thursday meetings will occur with our project sponsor. Meeting agendas will be established for every Thursday meeting. Tuesday meetings will not require an agenda, as the goals of Tuesday meetings are clearly defined in this document.

In addition to scheduled meetings on Tuesday and Thursday, all available team members will meet from 3:00-5:00 on Wednesdays. Wednesday meetings will be primarily for technical collaboration, reviews, and discussion. Typically, Wednesday meetings do not require agendas. However, if our team fails to meet our objectives for a Tuesday meeting, an agenda will be written to ensure the missed tasks are finished after the Wednesday meeting.

Communication Tools

We will communicate mainly using Slack. We have established several channels on our Slack team for discussion of various topics. We will use Slack integrations to help notify team members when important events occur.

Collaboration Tools

We will use Microsoft Visual Studio Team Services as a project management tool for this project. We will use VSTS to organize our work into user tasks, user stories, features, and sprints, and to track and assign work. We will use VSTS to track our metrics for Effort Variance and defects.