COSC 205

Project Management

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Okanagan College

Winter, 2023

Course Outline

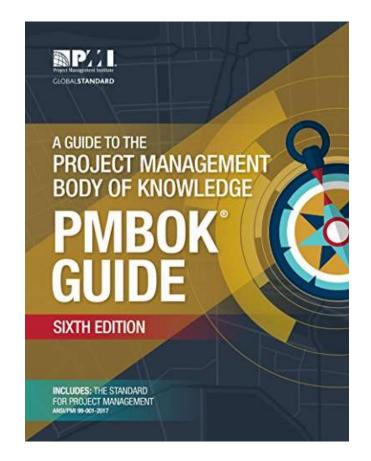
- Introduction to Project Management
 - PM, SDLC, JIRA
 - Agile / Scrum
- Software/Tool Evaluation
 - Tool evaluation and review
- Integration & Scope
- Time Management
 - Gantt Chart
 - Critical Path
- Cost Management

- Quality
- Human Resource
- Communication
- Risk
- Procurement

Lab Sessions

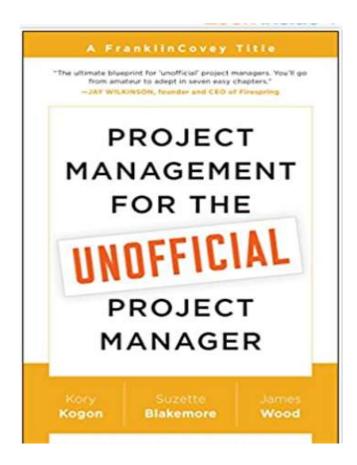
- JIRA setup
- Tools review
- Costing with MS Excel
- Gantt Chart
- Presentations

Suggested Texts



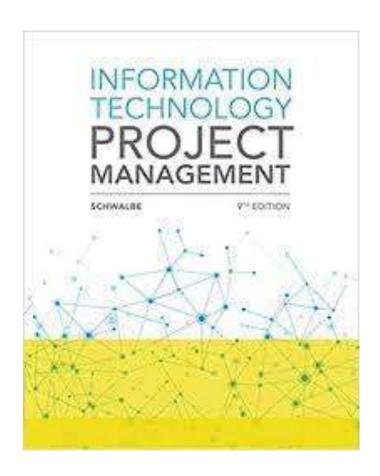
A Guide to the Project Management Body of Knowledge by Project Management Institute

by PMI



Project Management for the Unofficial Project Manager

by Kory Kogon, Suzette Blakemore, James Wood



Information Technology Project Management
By Schwalbe, K.

Lecture IB

PM Tools

Learning Objectives:

- Introduction to JIRA
- Introduction to MS Projects

What is JIRA?

- JIRA is a Project Management software for planning, tracking, releasing and reporting on projects.
- Allows collaboration across Team members.
- It is platform/OS independent, runs in the Cloud

• Jira in a Nutshell Demo Video - https://www.youtube.com/watch?v=PQa3NFB LRg&t=3s

JIRA on the Cloud

Agile Project Management

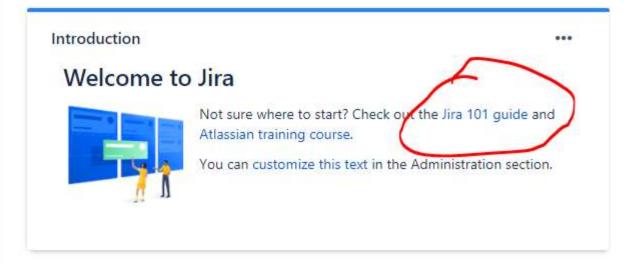
JIRA 101

- This week, with your one week free trial of Jira active,
- Teach yourself everything you need to know about JIRA SCRUM projects – JIRA 101
- Explore menus and options

Explore reports



System dashboard



Deliverables: JIRA Agile Project management

- Create Jira account
- Choose Scrum project style
- Create new project
- Invite Users to join your team / assign them a role (i.e. Developer)
- Brainstorm all activities on backlog
 - Understand story points / tasks / sub tasks / etc.
- During the week: Start Sprint, set a day before the next lab date + time as the End of the sprint
- During week: Move cards from "To Do" to "In Progress" to "Done"

Deliverables: JIRA Agile Project management

- While "In Progress" Log a specific number of hours on different days before moving to "Done" ...
 - Find "Log Work" on a menu, enter hours, this is called tracking,
 - if there was a timer function that you turned on at the start of work, then turned off at the end of work then this would be called real-time tracking
- On Thurs. formally "Complete Sprint"
- Generate Reports: Burndown charts, Velocity chart, Cumulative Flow Diagram
 - Use Snipping tool to capture screenshots
 - Your free trial ends today
- Understand the pattern, then explain why your chart looks the way it does:
 - Show Ola your personal on Thursday Jan 12 / Tuesday Jan 17
- Lab marks = 4 will be assigned in COSC 205 ... though you will did work on both COSC 205 & 224 labs

Jira Agile ... the overall process

- Create SCRUM board with "story points"
- Create "epic"
- Create issue items in "backlog"
- Plan your "sprint"
- Add issues to sprint of type: tasks, bug, meetings
- Start Sprint: 5 days, 8 hours a day, not on weekends
- Track your work
- End sprint
- Sprint Report: Burndown chart
- Retrospective: team discusses how it went

Start the JIRA 101 guide.

A ATLASSIAN

Our cloud products work even better together

Get another one for free

EACH PRODUCT ON A FREE PLAN:

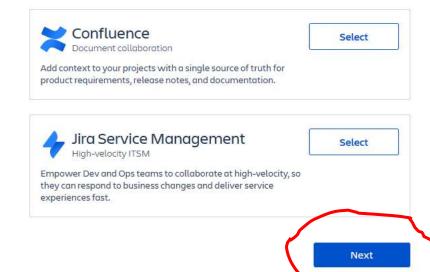
- ✓ Supports up to 10 users or 3 agents
- ✓ Includes 2 GB of storage
- ✓ Offers Community support
- ✓ Is always free, no credit card needed



YOU SELECTED



SELECT A SECOND PRODUCT



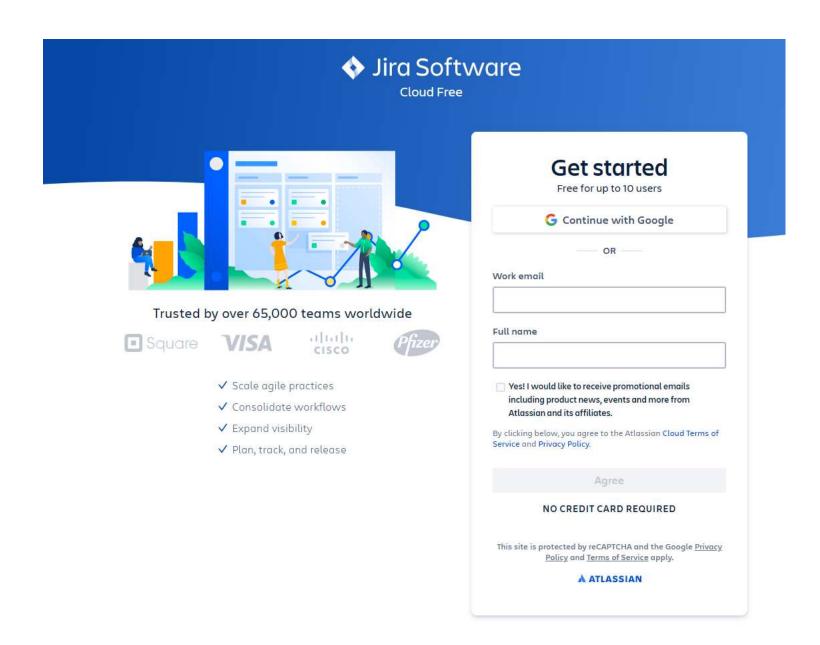
NO CREDIT CARD REQUIRED

Create Account

Sign up with email

Verify account (might be in SPAM)

Choose website name



Choose Scrum Style



Create new project

Enter a project name

Template

Scrum Change

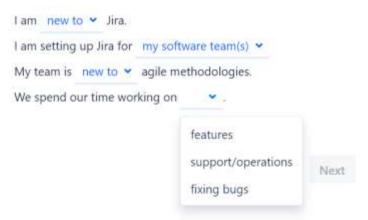
Create Cancel



Recommend a project

Answer a few questions and we will suggest a project type that works best for you and your team.

Help us set up your Jira



Invite Users

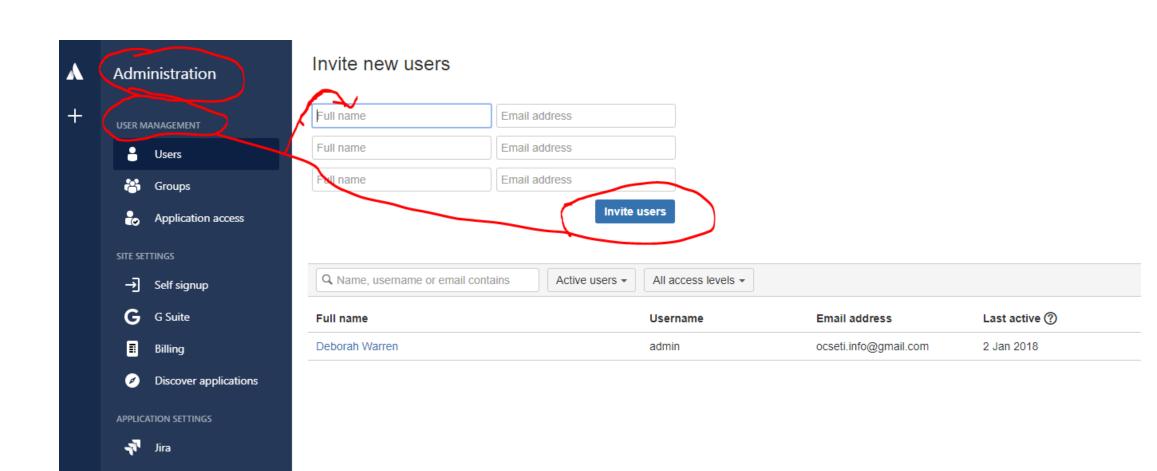
ORGANIZATIONS & SECURITY

Organization

NEW ADMIN EXPERIENCE

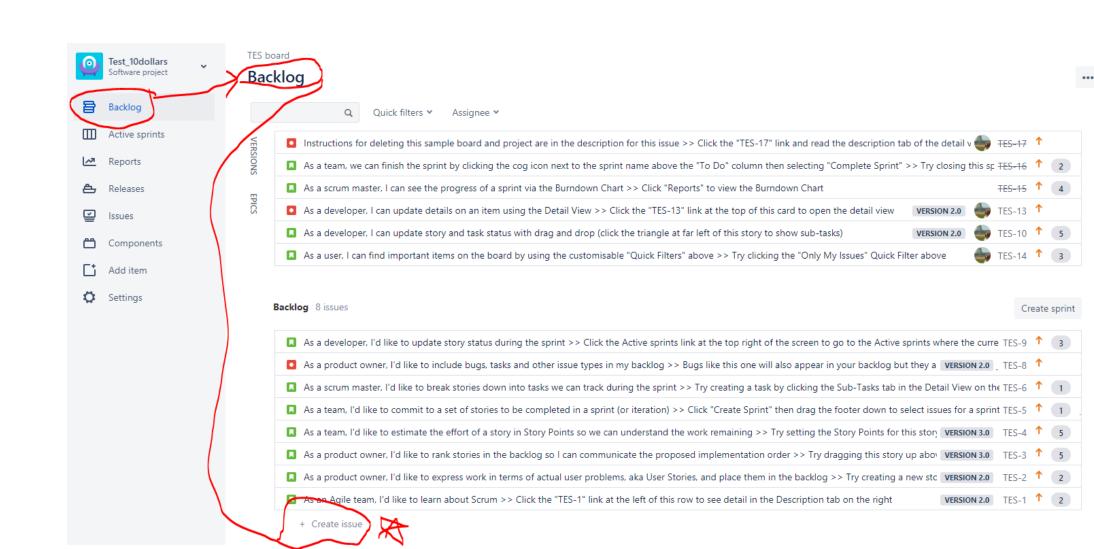
Give feedback

0



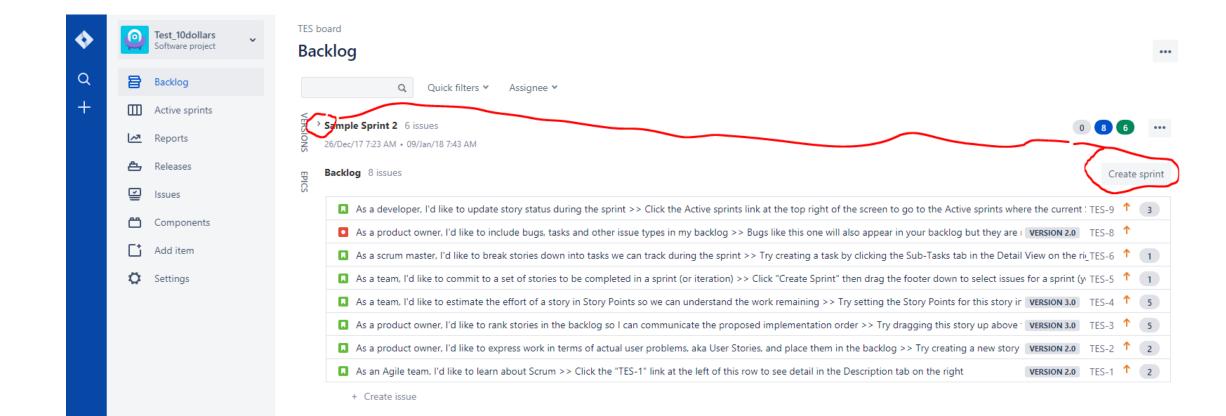
Brainstorm activities in backlog

Understand story points / tasks / sub tasks / etc.

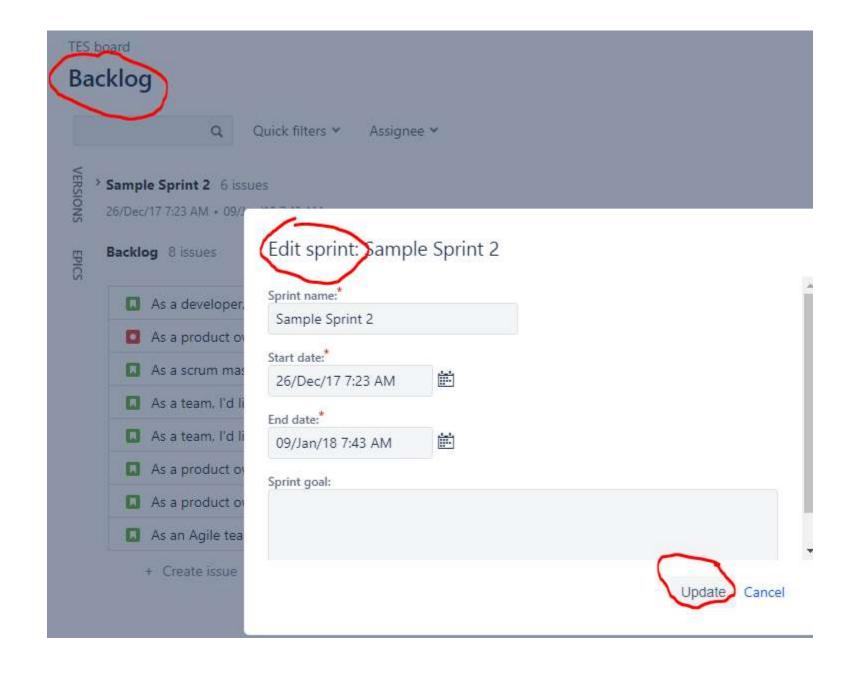


Sprint set up: start and end? Then start the Sprint

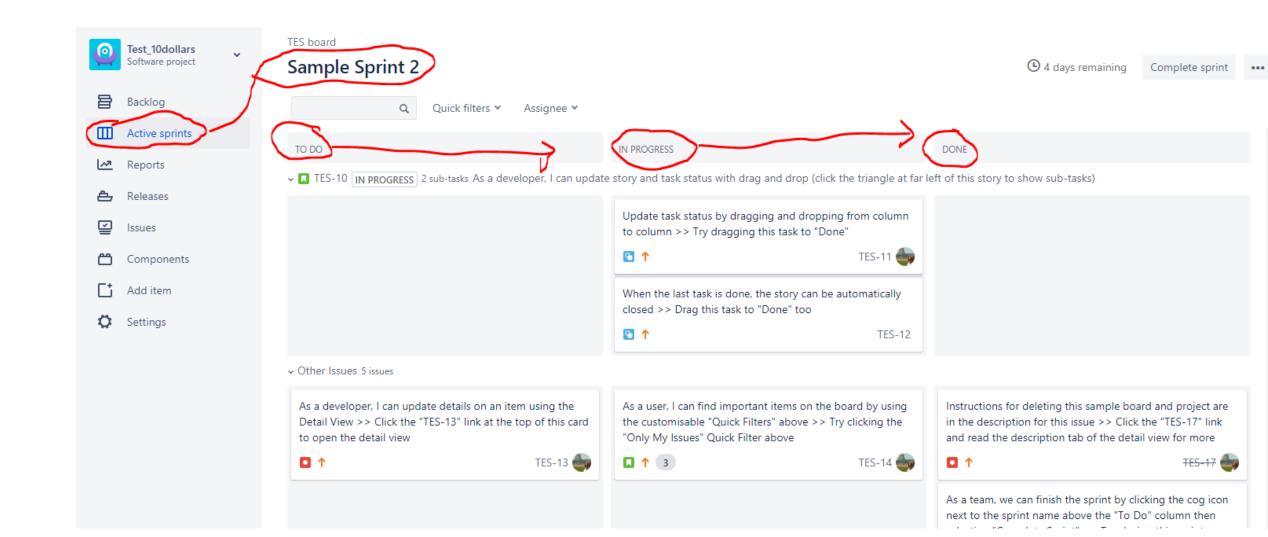
... be sure to contribute to the other teams you belong to ... Tuesday to Monday ... repeat each day in class.



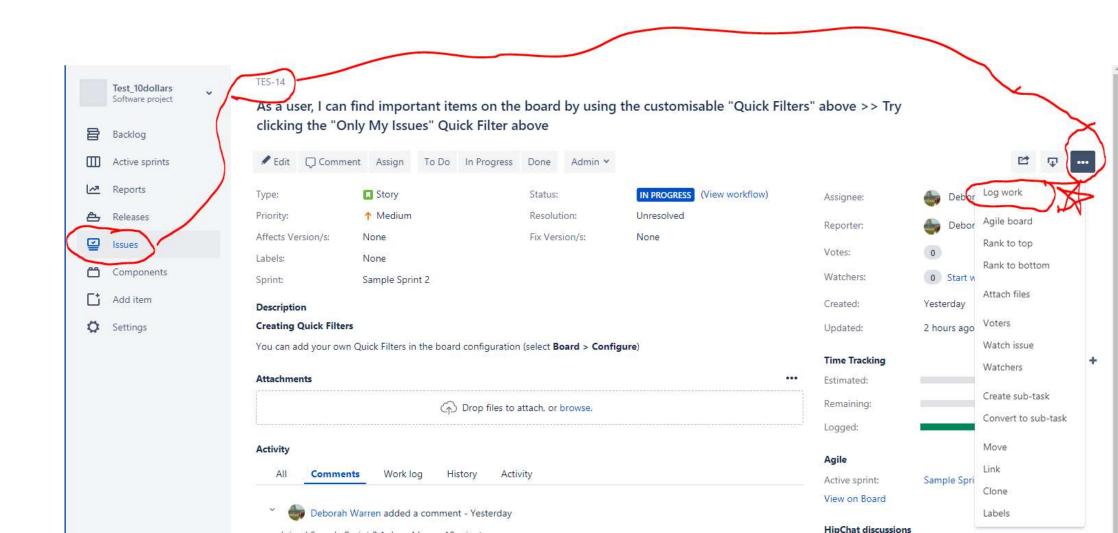
Edit Sprint



Sprint "In Progress"

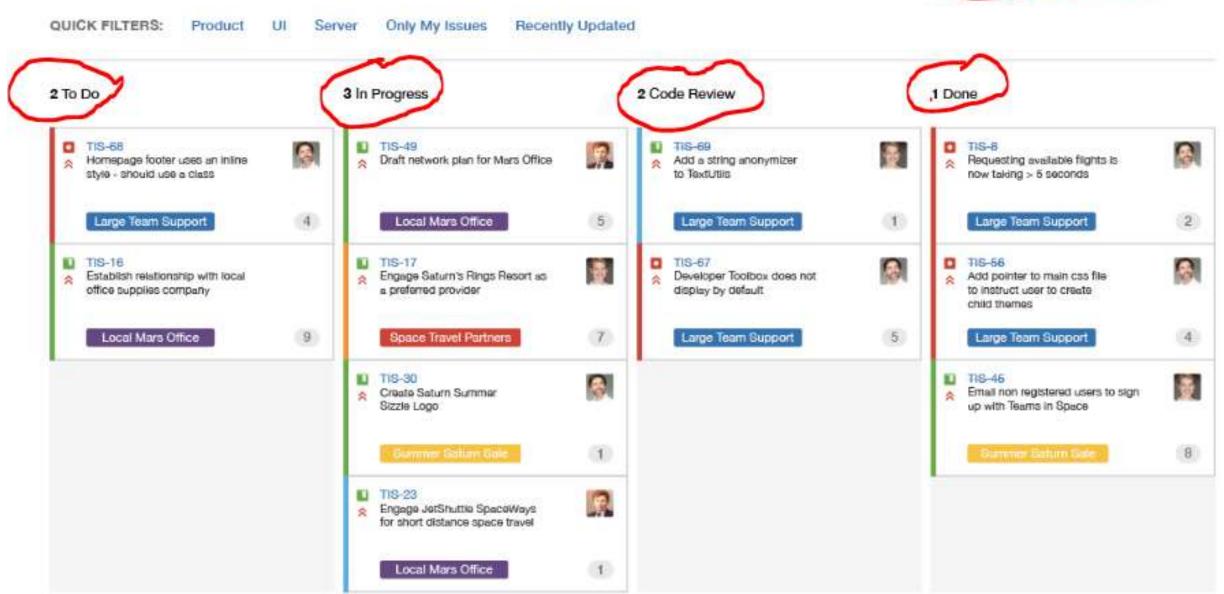


Sprint "Log work" ... find the "log work menu item



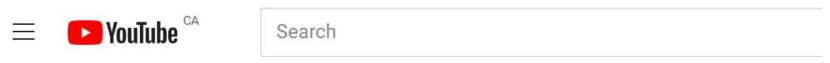


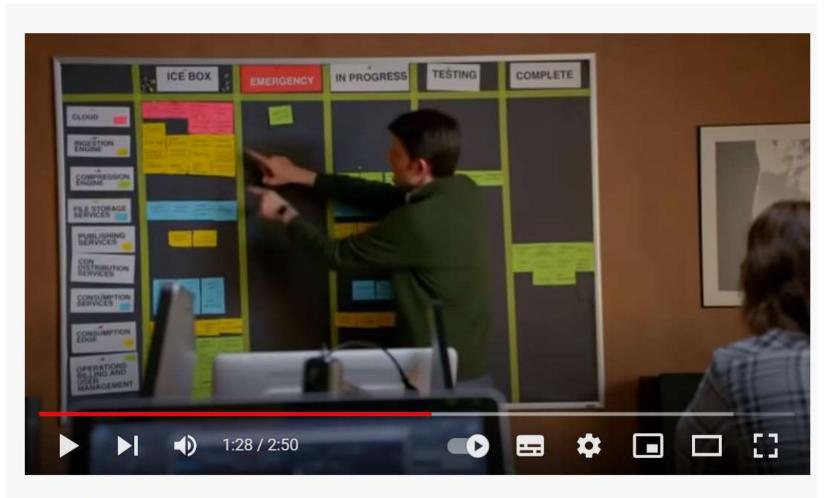




Scrum Board

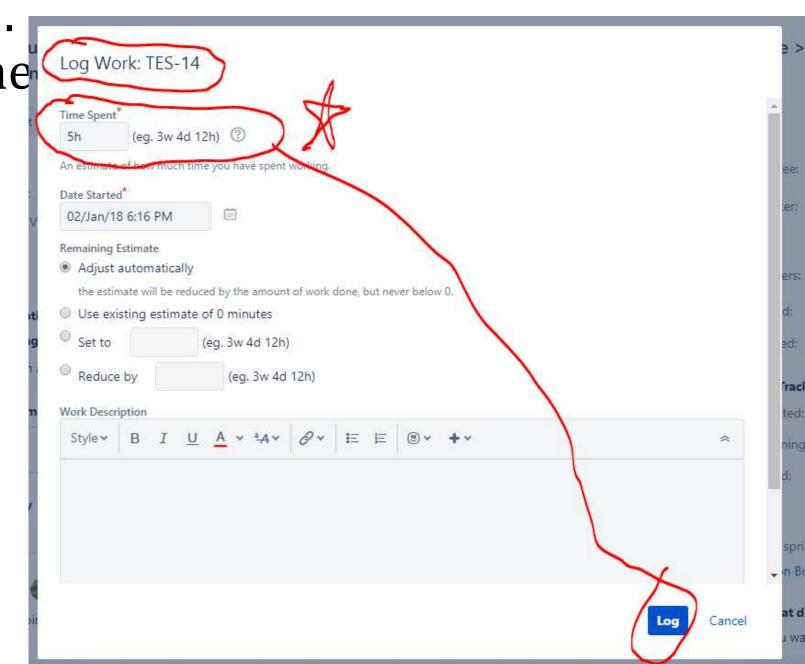
https://www.youtube.com/watch?v=oyVksFviJVE





Silicon Valley S01E05 scrum scene

Sprint "Log work" ... find the "log work me Log Work: TES-14



"Done"

• Ensure all backlog items have been worked on, completed and moved to the "Done" section, then complete sprint

21st NOV

Scrum Effort Estimation and Story Points

Posted by admin under <u>Scrum Basics</u>

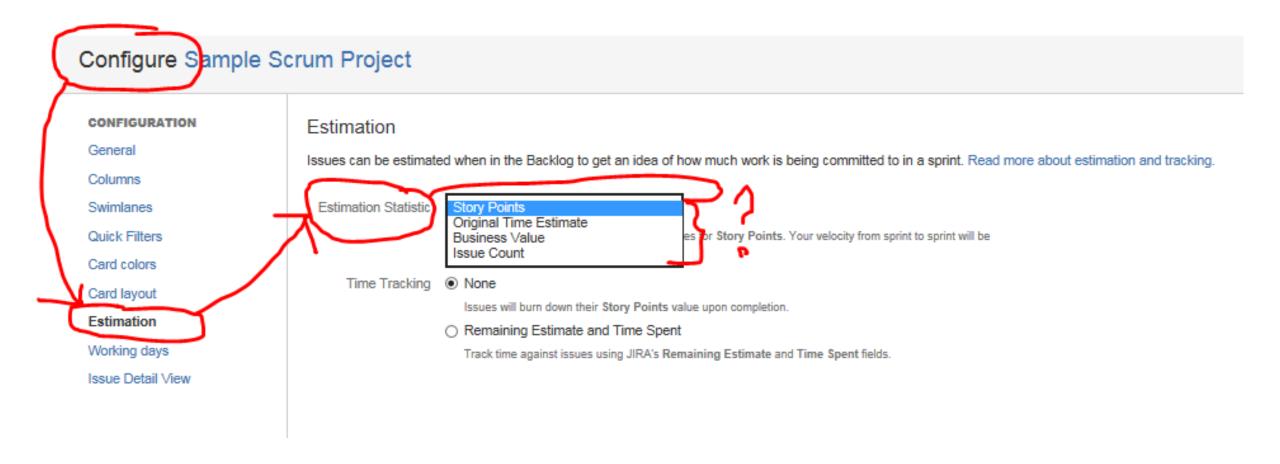
Anxiety about estimation usually means the organization is not strong in the other Agile practices such as Test Driven Development (TDD). Scrum requires that the product be kept in a *potentially shippable* (e.g. properly tested/integrated) state every Sprint, that the Product Owner declares which work is top priority, and that work be split into thin vertical slices, typically customer-centric user stories no bigger than a few days each. If we're doing the other Agile stuff right, we cannot miss release dates because the product is shippable every week or two. The only downside of getting estimates wrong is that we'll ship on time while omitting the less important features — a less stressful way to live than what waterfall or pseudo-Agile teams are experiencing today.

- http://scrummethodology.com/
- http://scrummethodology.com/scrum-effort-estimation-and-storypoints/

- After each sprint, the product should be *potentially* shippable (*with proper testing and integration*).
- A sprint should only be a few days long.

What does the process of estimation look like? Scrum does not prescribe a single way for teams to estimate their work. The only estimate that's defined by Scrum is whether a team will attempt a PBI this Sprint or not, as decided in the <u>Sprint Planning Meeting</u>. Common estimating methods include t-shirt sizes (S, M, L, and too big), powers of 2 (1, 2, 4, 8), the Fibonacci sequence (1, 2, 3, 5, 8, etc.), or simply small vs. needs-to-be-split (see #NoEstimates below).

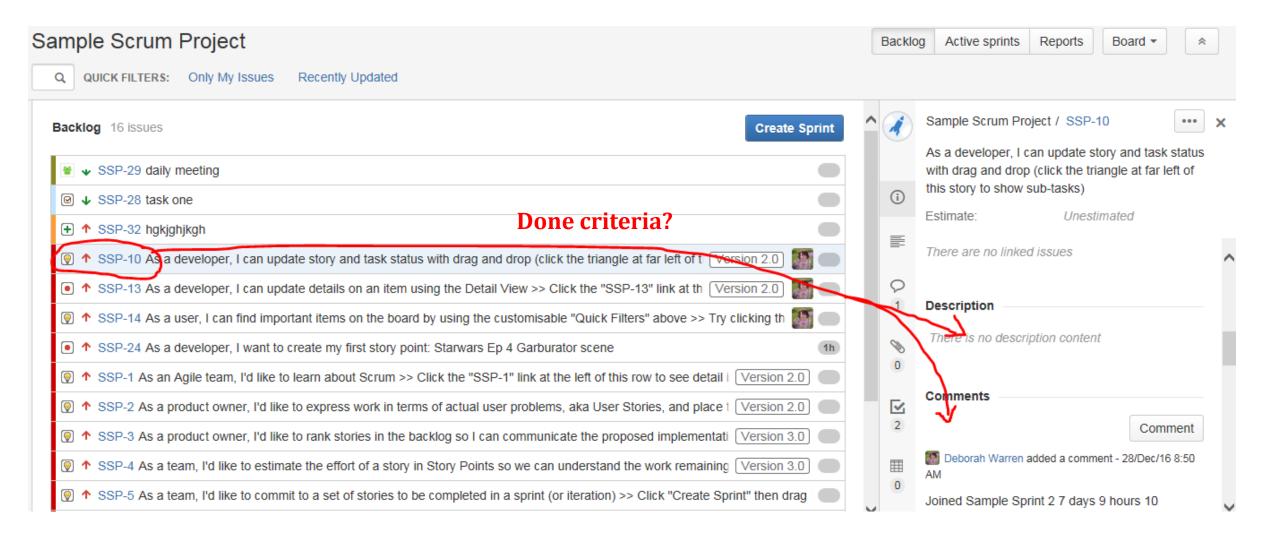
Scrum Board configure set up?



 Configuring Estimation & Tracking: (click to expand)

Many Scrum teams estimate stories in Story Points, then track tasks using hours. JIRA Agile therefore gives you the flexibility to set your estimation and tracking statistics differently, depending on what best suits your team. By default, your Scrum board will use Story Points for estimation, and will also use Story Points for tracking.

Done criteria?



ISSUE STATUSES

Each issue has a status, which indicates the stage of the issue. In the default workflow, issues start as being Open, progressing to In Progress, Resolved and then Closed. Other workflows may have other status transitions.

OPEN The issue is open and ready for the assignee to start work on it.

IN PROGRESS

This issue is being actively worked on at the moment by the assignee.

This issue was once resolved, but the resolution was deemed incorrect. From here issues are either marked assigned or resolved.

RESOLVED A resolution has been taken, and it is awaiting verification by reporter. From here issues are either reopened, or are closed.

CLOSED The issue is considered finished, the resolution is correct. Issues which are closed can be reopened.

TO DO

TEST This status is managed internally by JIRA Agile

READY FOR QA Ticket ready for QA

IN QA

DONE

QA SIGN-OFF

This status is managed internally by JIRA Agile

VALIDATE

This status is managed internally by JIRA Agile

Resolutions

An issue can be resolved in many ways, only one of them being "Fixed". The defined resolutions are listed below. You can add more in the administration section.

Fixed A fix for this issue is checked into the tree and tested.

Won't Fix The problem described is an issue which will never be fixed.

Duplicate The problem is a duplicate of an existing issue.

Incomplete The problem is not completely described.

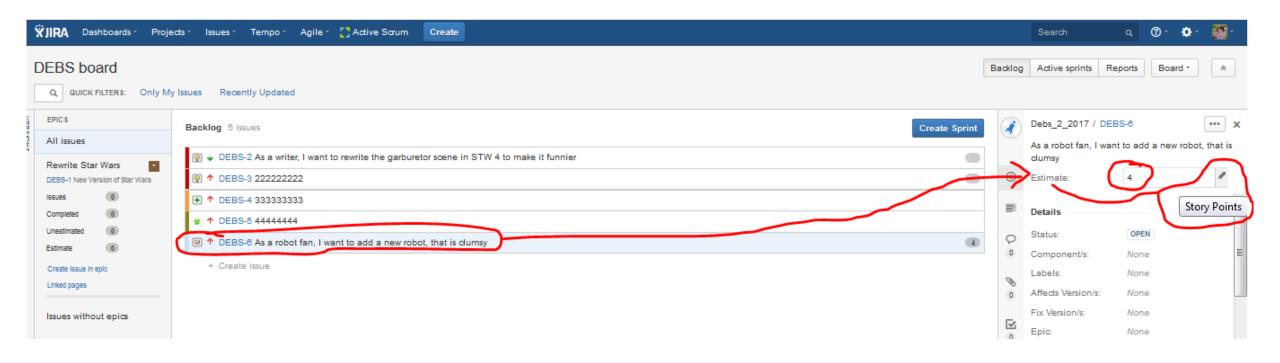
Cannot Reproduce All attempts at reproducing this issue failed, or not enough information was available to reproduce the issue. Reading the code produces no clues as to why this behavior wou

occur. If more information appears later, please reopen the issue.

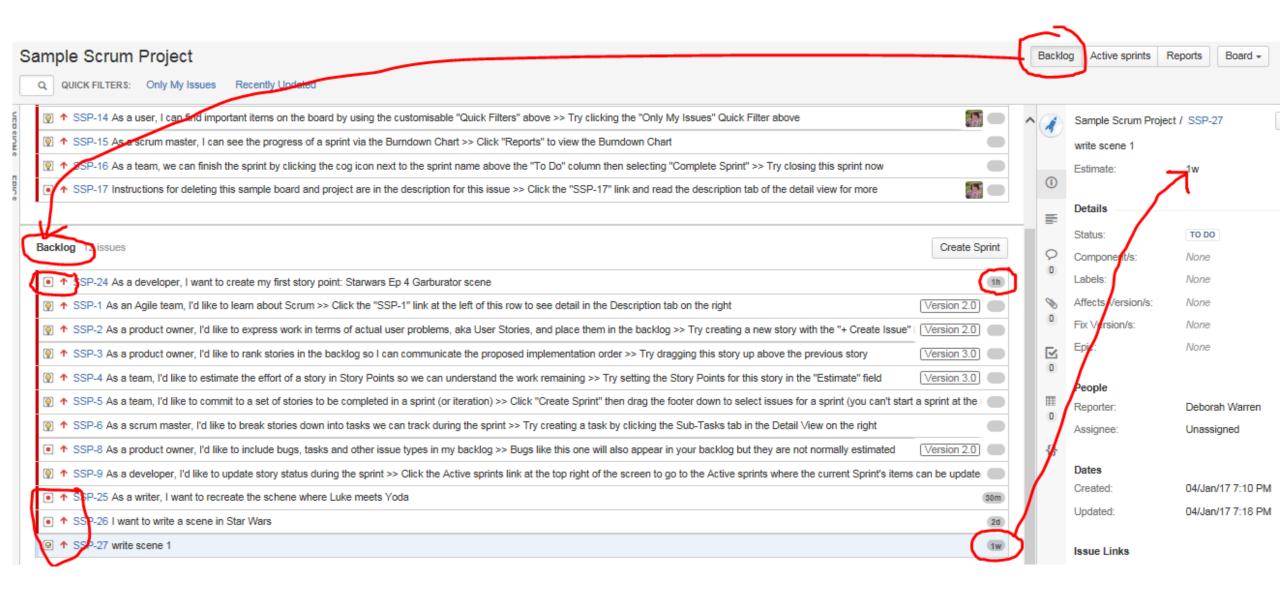
Done

GreenHopper Managed Resolution

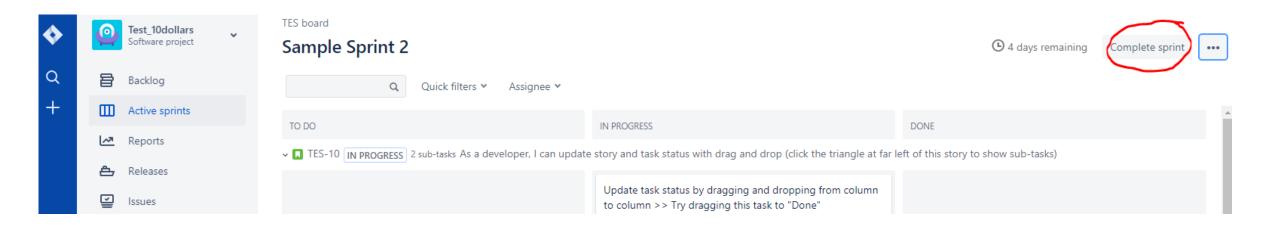
Estimate story points?



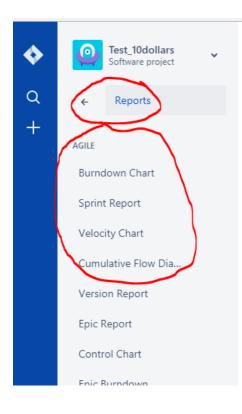
Estimating time 1m, .5h? 1h, 1d, 1w



Jan 17: Complete Sprint



Reports:



All reports

Agile



Burndown Chart

Track the total work remaining and project the likelihood of achieving the sprint goal. This helps your team manage its progress and respond accordingly.



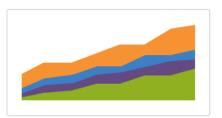
Sprint Report

Understand the work completed or pushed back to the backlog in each sprint. This helps you determine if your team is overcommitting or if there is excessive scope creep.



Velocity Chart

Track the amount of work completed from sprint to sprint. This helps you determine your team's velocity and estimate the work your team can realistically achieve in future sprints.



Cumulative Flow Diagram

Shows the statuses of issues over time. This helps you identify potential bottlenecks that need to be investigated.

Tue Jan 17: Each student?

- Show Ola your reports
- COSC 205 this lab carries a weight of 4 marks

JIRA terminology

- Planning == backlog
- Story points == track effort not time
- Tracking == active sprints
- Issues == cards ... during an active sprint you drag the cards
- Deploying to production == releasing
- Reporting == reporting on how well your team is estimating tasks, work, etc.
- Retrospective == how well your team is working together.

Useful Resource

JIRA 101 Guide:

https://confluence.atlassian.com/jira064/jira-101-720412861.html

JIRA Videos

What is JIRA by Simplilearn



JIRA Tutorial by Edureka!

JIRA Crash Course for Beginners