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1. Overview of Agile Principles and Values

What is Agile?

Agile is a way of managing and delivering work (especially software) in **small, frequent, flexible increments**, instead of building everything at once.

Real-time example:
A food delivery app doesn't wait 1 year to launch everything.
Instead, it:

- First releases login + order placement
- Next adds live tracking
- Later adds offers, wallets, and reviews

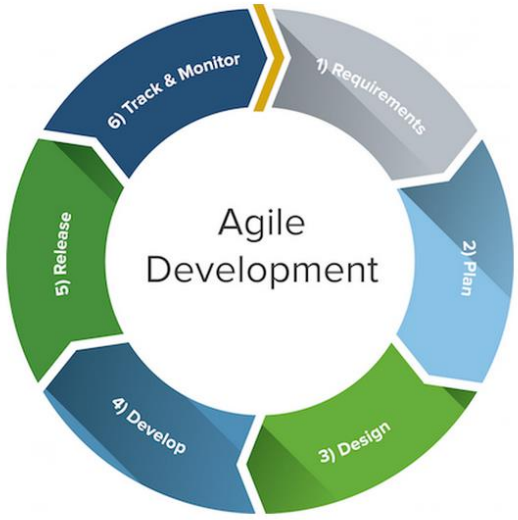
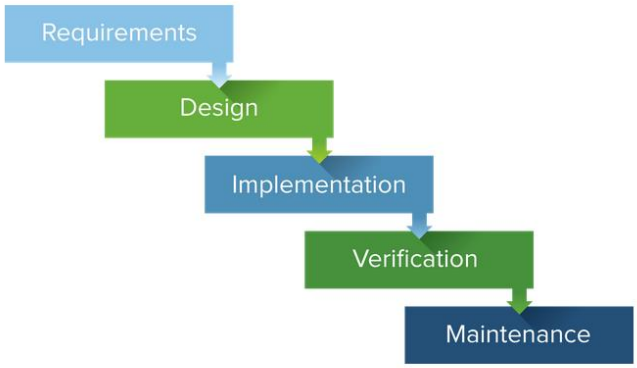
Each release brings value fast and learns from users.

Agile vs. Waterfall (Traditional Methodology)

Aspect	Agile	Waterfall
Approach	Iterative & incremental	Linear & sequential
Customer feedback	Continuous	At the end
Changes	Welcomed anytime	Difficult & costly
Delivery	Small releases	One big release
Risk	Lower (early testing)	High (late surprises)

Real-time comparison example:

- **Waterfall:** Build entire e-commerce site → test → launch → users complain → expensive fixes
- **Agile:** Launch basic site → users give feedback → improve checkout → add wishlist later

Agile	Waterfall
	
• Continuous cycles • Small, high-functioning, collaborative teams • Multiple methodologies • Flexible/continuous evolution • Customer involvement	• Sequential/linear stages • Upfront planning and in-depth documentation • Contract negotiation • Best for simple, unchanging projects • Close project manager involvement

2. Four Agile Values & Twelve Principles

The Four Agile Values

1. **Individuals and interactions over processes and tools**
   → Team communication matters more than fancy tools.

   Example:
   A quick Slack discussion solves a blocker faster than filling a long Jira form.

2. **Working software over comprehensive documentation**
   → A usable product is better than perfect documents.

   Example:
   A working payment feature is more valuable than a 50-page design doc.

3. **Customer collaboration over contract negotiation**
   → Continuous customer involvement.

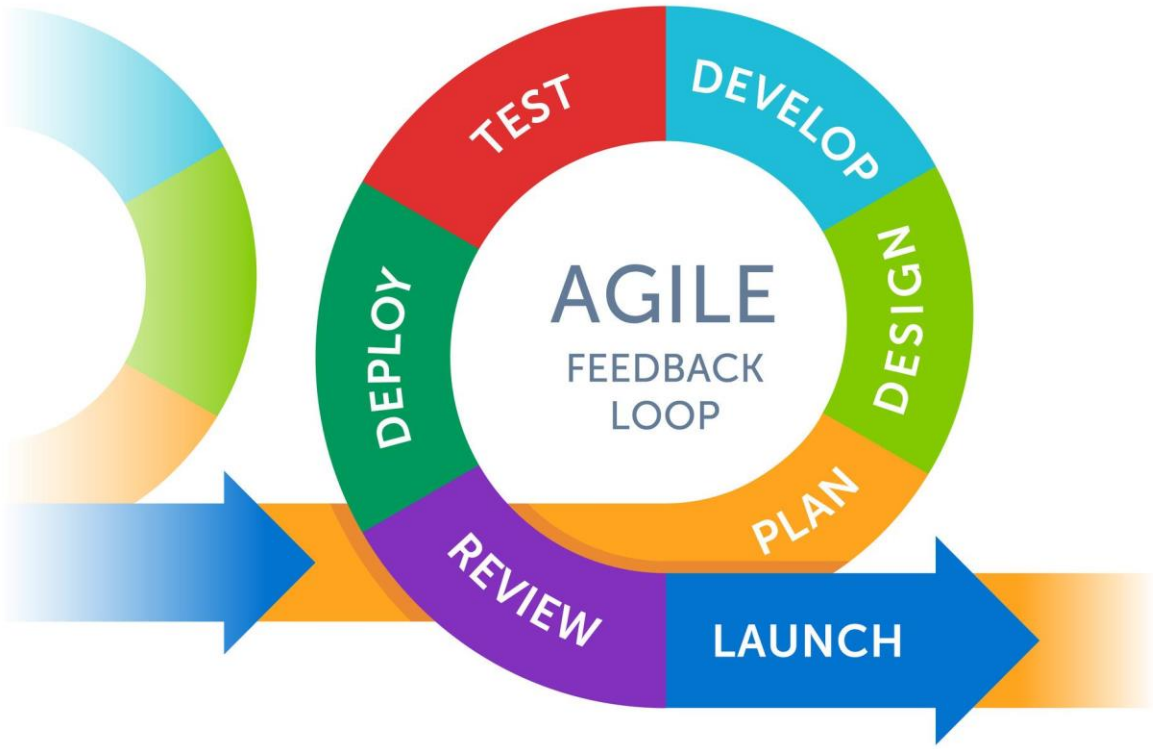
   Example:
   Product owner reviews features weekly with stakeholders instead of sticking blindly to an old contract.

4. **Responding to change over following a plan**
   → Adapt when needed.

   Example:
   COVID causes surge in online orders → team prioritizes delivery tracking immediately.

Twelve Agile Principles (Grouped Simply)

1. **Customer satisfaction through early & continuous delivery**
2. **Welcome changing requirements**
3. **Deliver working software frequently**
4. **Business & developers collaborate daily**
5. **Build projects around motivated individuals**
6. **Face-to-face communication is best**
7. **Working software is the main progress measure**
8. **Sustainable pace**
9. **Technical excellence matters**
10. **Simplicity**
11. **Self-organizing teams**
12. **Regular reflection and improvement**



Real-time example:
After every sprint, a team reviews:

- What went well?
- What slowed us down?
- What can we improve next sprint?

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3. Scrum Framework

Scrum Roles

1. Product Owner

- Owns **product vision**
- Manages **Product Backlog**
- Prioritizes work

Example:
Decides whether “Add UPI payments” is more important than “Dark mode”.

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2. Scrum Master

- Facilitates Scrum
- Removes blockers
- Coaches team on Agile

Example:
If the team is blocked waiting for API access, Scrum Master escalates and resolves it.

---

3. Development Team

- Builds the product
- Cross-functional (dev, tester, designer)

Example:
A team of 6 builds, tests, and deploys features without external dependencies.

Scrum Ceremonies

Sprint Planning

- Decide **what to build** in the sprint

Example:
Sprint goal: “Enable users to reset passwords”

Daily Stand-up (15 mins)

Three questions:

1. What did I do yesterday?
2. What will I do today?
3. Any blockers?

Example:
"Yesterday I finished API integration, today I'll test it, blocker: waiting for credentials."

Sprint Review

- Demo completed work to stakeholders

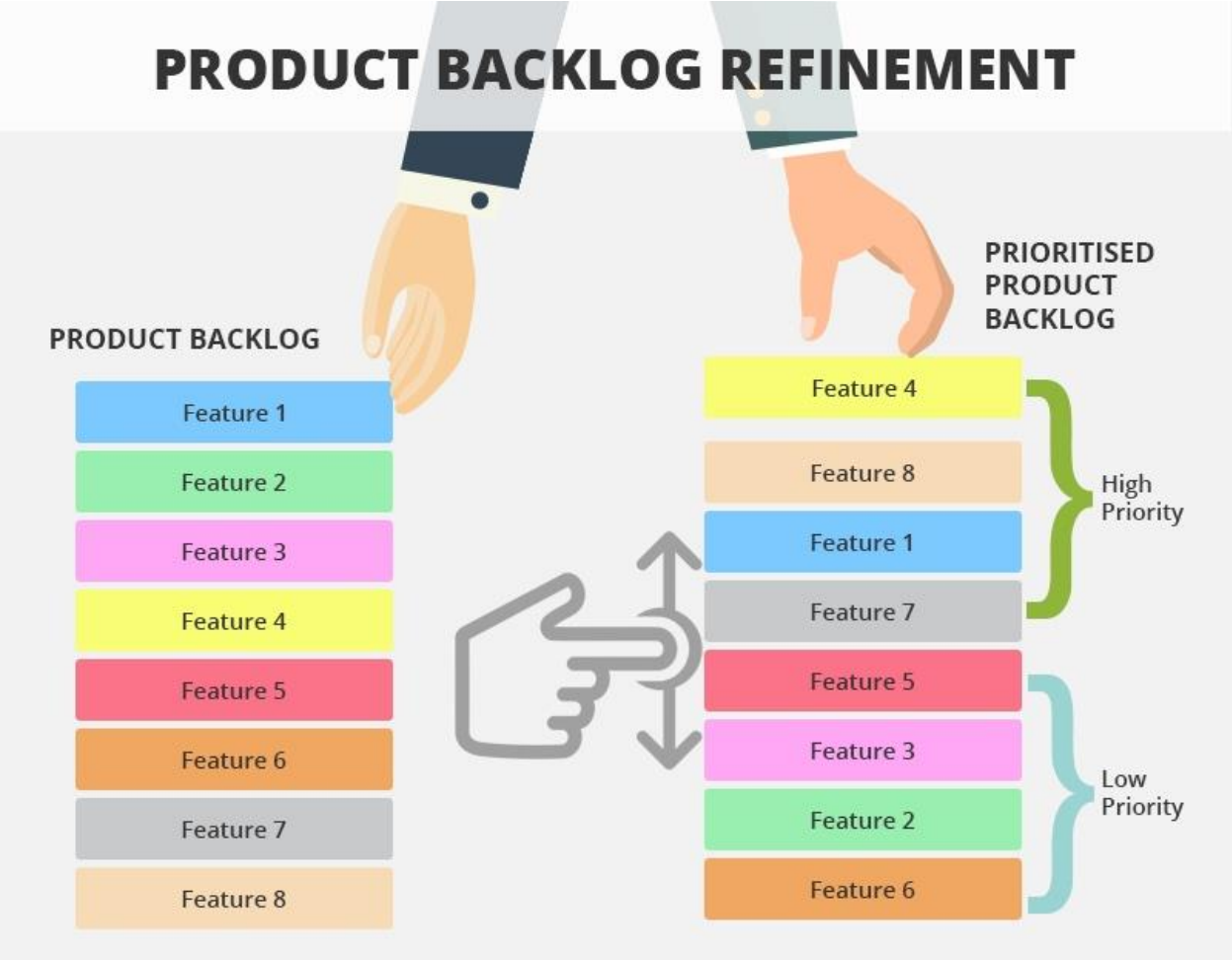
Example:
Showing the new checkout flow to business teams.

Sprint Retrospective

- Improve process

Example:
"We had too many bugs → next sprint we'll add more code reviews."

Scrum Artifacts

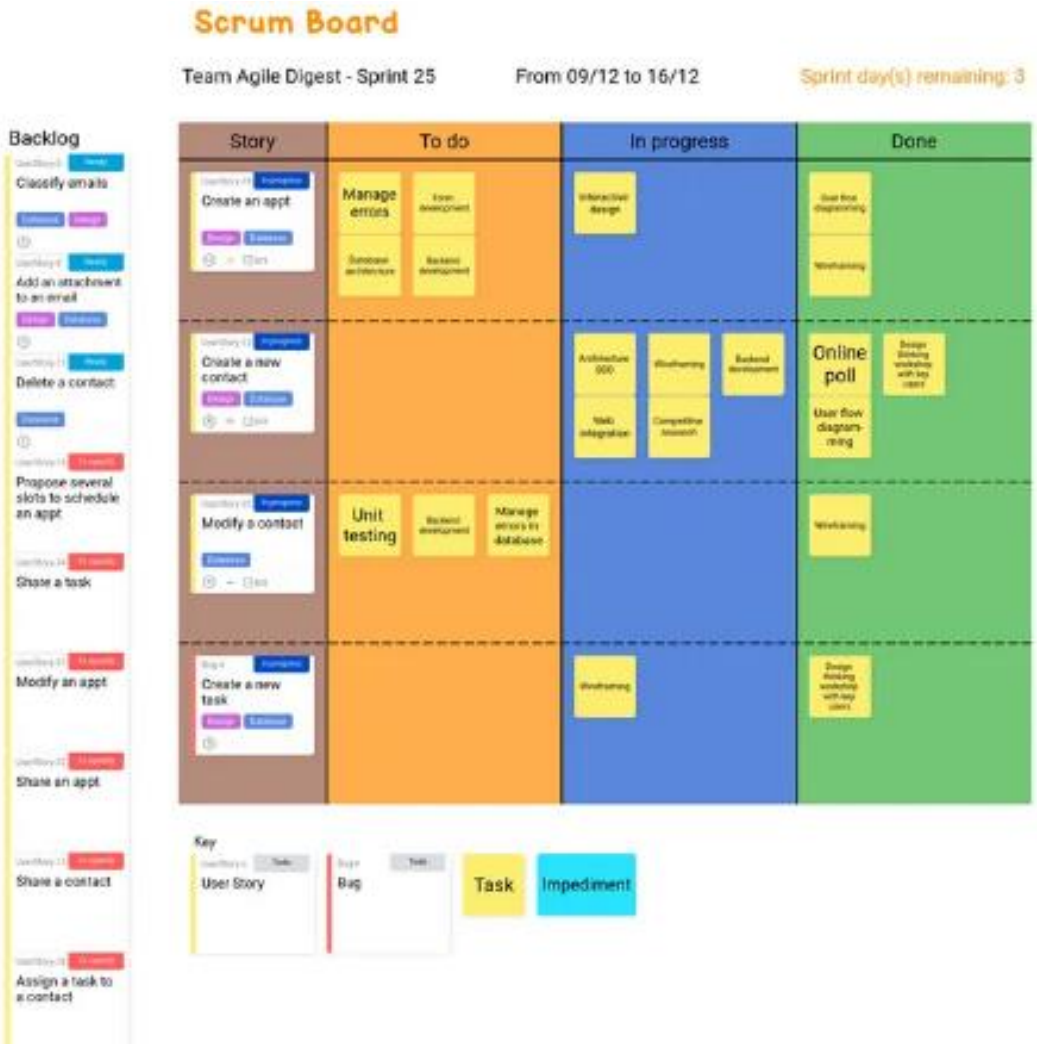


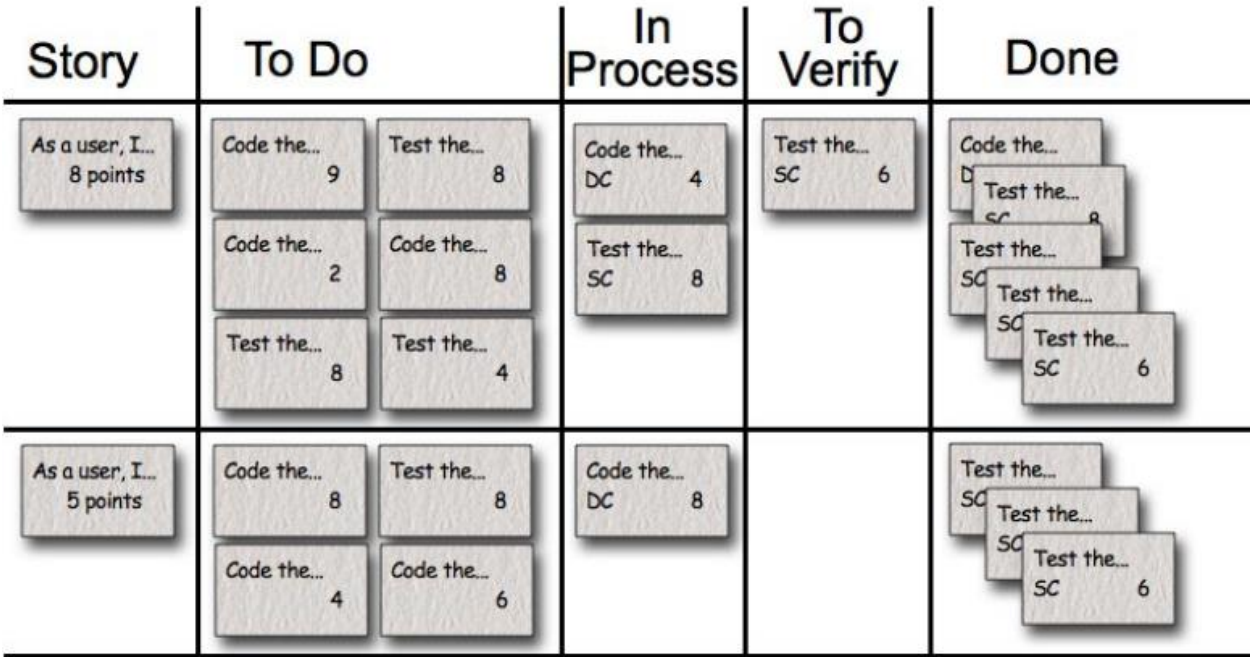
Product Backlog

- List of all features

Example:
Login, Search, Cart, Payment, Notifications

Sprint Backlog





- Items selected for current sprint

Example:
Sprint 5: Password reset + email notification

Increment

- Working product at sprint end

Example:
A fully functional password reset feature deployed to production.

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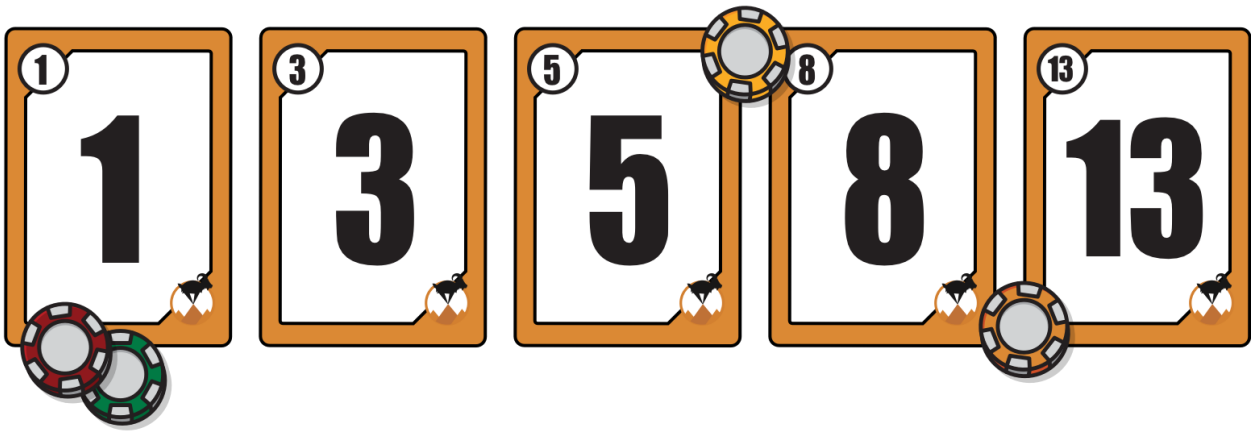
4. Agile Estimation & Planning

Story Points



- Relative effort, not time
- Uses Fibonacci (1, 2, 3, 5, 8…)

Example:

- Change button color → 1 point
- Add payment gateway → 8 points

Planning Poker

- Team estimates together
- Discuss differences

Example:
One dev says 3 points, another says 8 → discussion reveals hidden complexity.

Agile Planning Techniques

Release Planning

- Plan features across multiple sprints

Example:
Release 1: Login + Orders
Release 2: Payments + Tracking

Iteration (Sprint) Planning

- Detailed plan for next 2 weeks

Example*:*
Sprint includes 20 story points based on team capacity.

---

5. Writing Effective User Stories

User Story Format

As a user
I want to reset my password
So that I can regain access if I forget it

Good User Story Example

"As a customer, I want to track my order in real time so that I know when it will arrive."

Acceptance Criteria

Clear conditions to mark story as “Done”.

Example:

- User receives reset email
- Link expires after 15 minutes
- Password rules enforced
- Success message displayed

---

6. Key Agile Metrics & Reporting

Velocity

- Story points completed per sprint

Example:
Sprint 1: 20 points
Sprint 2: 22 points
Average velocity ≈ 21 points

Used for future planning.

Burndown Chart

- Shows remaining work vs time

Example:
If work isn’t burning down → sprint risk is visible early.

Reporting Progress in Agile

- Sprint Reviews

- Dashboards (Jira, Azure DevOps)
- Burndown charts
- Working product demos

Real-time example:

Stakeholders don't read reports — they **see working features every sprint**.

Final Takeaway

Agile is about:

- Delivering value early
- Adapting to change
- Collaborating continuously
- Improving every sprint

End-to-End Agile Project Example

Project: Online Food Delivery App – *Order Tracking Feature*

Business Problem

Customers place orders but:

- Don't know where the delivery person is
- Keep calling support
- Give low ratings

Business Goal

Build **real-time order tracking** to improve customer experience and reduce support calls.

---

1. Agile Values in Action (Right at the Start)

- **Customer collaboration:** Product team interviews users
- **Working software:** First version only shows basic tracking
- **Responding to change:** Advanced tracking added later
- **Individuals & interactions:** Daily syncs between devs, QA, PO

---

2. Scrum Team Setup

Roles

Product Owner

- Collects requirements from business & customers
- Prioritizes features

Scrum Master

- Facilitates Scrum ceremonies
- Removes blockers

Development Team

- 5 members (frontend, backend, QA)

---

3. Product Backlog Creation

The Product Owner creates the **Product Backlog**:

Priority	User Story
High	Track order status
High	Show delivery agent location
Medium	Estimated delivery time
Medium	Push notifications
Low	Map theme customization

---

4. Writing User Stories (With Acceptance Criteria)

User Story Example

As a customer
I want to see my order status
So that I know the progress of my food delivery

Acceptance Criteria

- Order shows status: Preparing, Picked Up, Delivered
- Status updates automatically
- Works on Android & iOS

---

5. Estimation Using Story Points & Planning Poker

Planning Poker Session

Team estimates effort:

User Story	Story Points
Order status display	3
Live delivery tracking	8
ETA calculation	5
Push notifications	5

Sprint Capacity: 20 points

---

6. Release Planning

Release 1 (MVP – 2 Sprints)

- Order status
- Basic tracking
- ETA

Release 2

- Push notifications
- UI enhancements

---

7. Sprint 1 – Execution (2 Weeks)

Sprint Planning

Sprint Goal:

"Enable customers to see order status and basic tracking."

Sprint Backlog:

- Order status display (3)
- Map integration (8)
- Backend APIs (5)

Total: **16 points**

Daily Stand-ups (Every Day)

Each member answers:

- What I did yesterday
- What I'll do today
- Any blockers

Example Blocker:
"Map API limit reached."

Scrum Master Action:
Coordinates with vendor → resolves within a day.

Development & Testing

- Code written
- Unit tests added
- QA tests stories continuously

---

8. Sprint Review (End of Sprint)

Demo to Stakeholders

- User places an order
- Status updates live
- Delivery agent visible on map

Feedback:

- "Can we show ETA in minutes?"
  → Added to Product Backlog

---

9. Sprint Retrospective

What Went Well

- Good collaboration
- Clear requirements

What Didn't

- Map API issues

Improvement Action

- Add API monitoring alerts

---

10. Sprint 2 – Enhancements

Sprint Goal:

"Improve tracking experience with ETA and notifications."

Sprint Backlog:

- ETA calculation (5)
- Push notifications (5)
- UI polish (3)

---

11. Increment Delivered

At the end of Sprint 2:
Fully working order tracking feature
Deployed to production
Customers start using it immediately

This is the **Increment**.

---

12. Agile Metrics Used

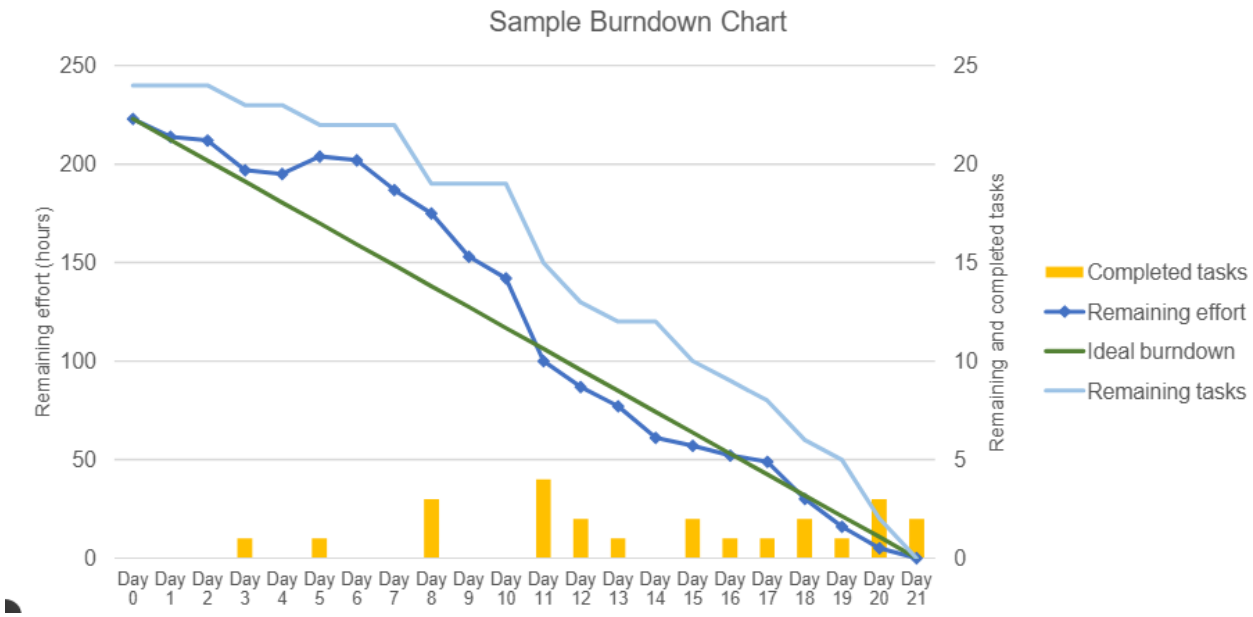
Velocity

Sprint	Points Completed
Sprint 1	16
Sprint 2	13

Average velocity ≈ **14–15 points**

Burndown Chart

- Shows daily remaining work
- Sprint risks identified early



13. Reporting Progress (Agile Style)

Instead of long reports:

- **Live demos every sprint**
- **Jira dashboards**
- **Burndown charts**
- **Customer feedback**

14. Responding to Change (Real Agile Moment)

Customer feedback:

“We want voice alerts when delivery is nearby.”

Product Owner:

- Re-prioritizes backlog
- Adds feature to next sprint

No contract fights. No rework panic. Agile adapts.

Final Outcome

Business Results

- 30% fewer support calls
- Higher app ratings
- Faster delivery feedback

Agile Success

- Value delivered early
- Continuous improvement
- Stakeholders happy

One-Line Agile Summary

Agile delivers **small value fast**, improves continuously, and adapts based on real feedback.

Below is a **screen-by-screen explanation of Jira**, mapped to the **same Food Delivery – Order Tracking Agile project**, exactly how teams use it day to day.
(Think of this as a **virtual Jira walkthrough**.)

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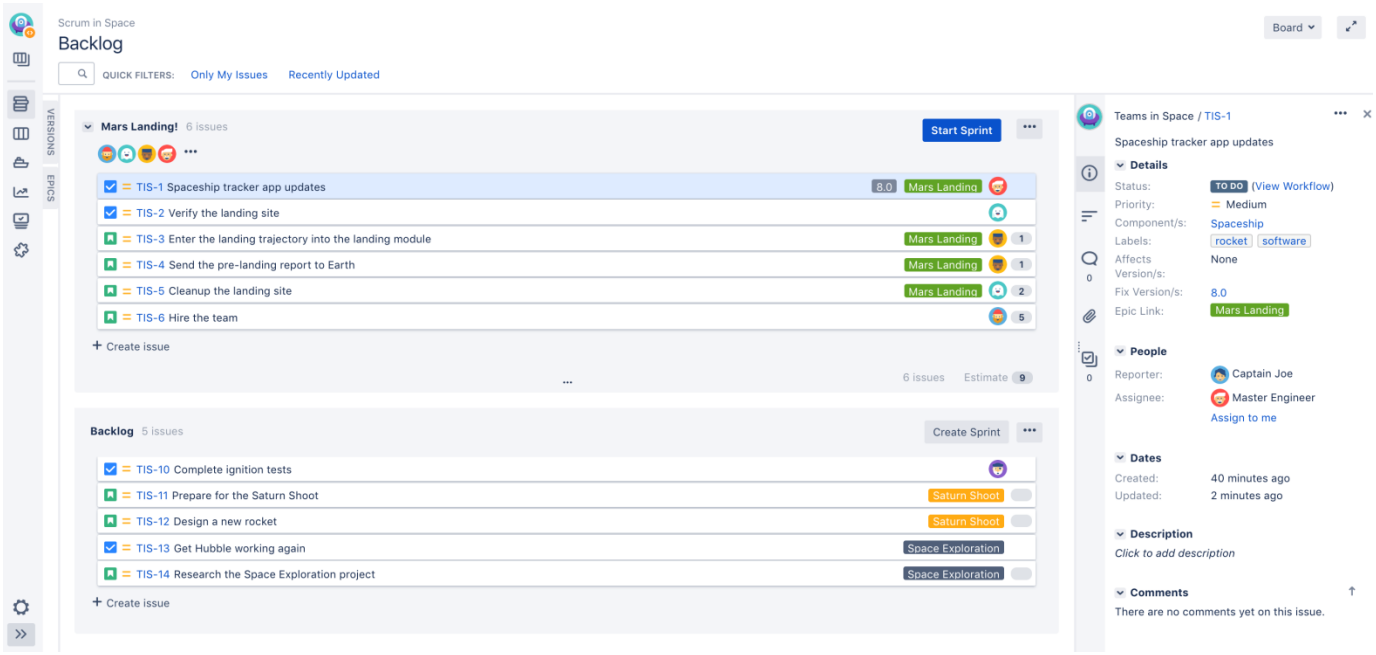
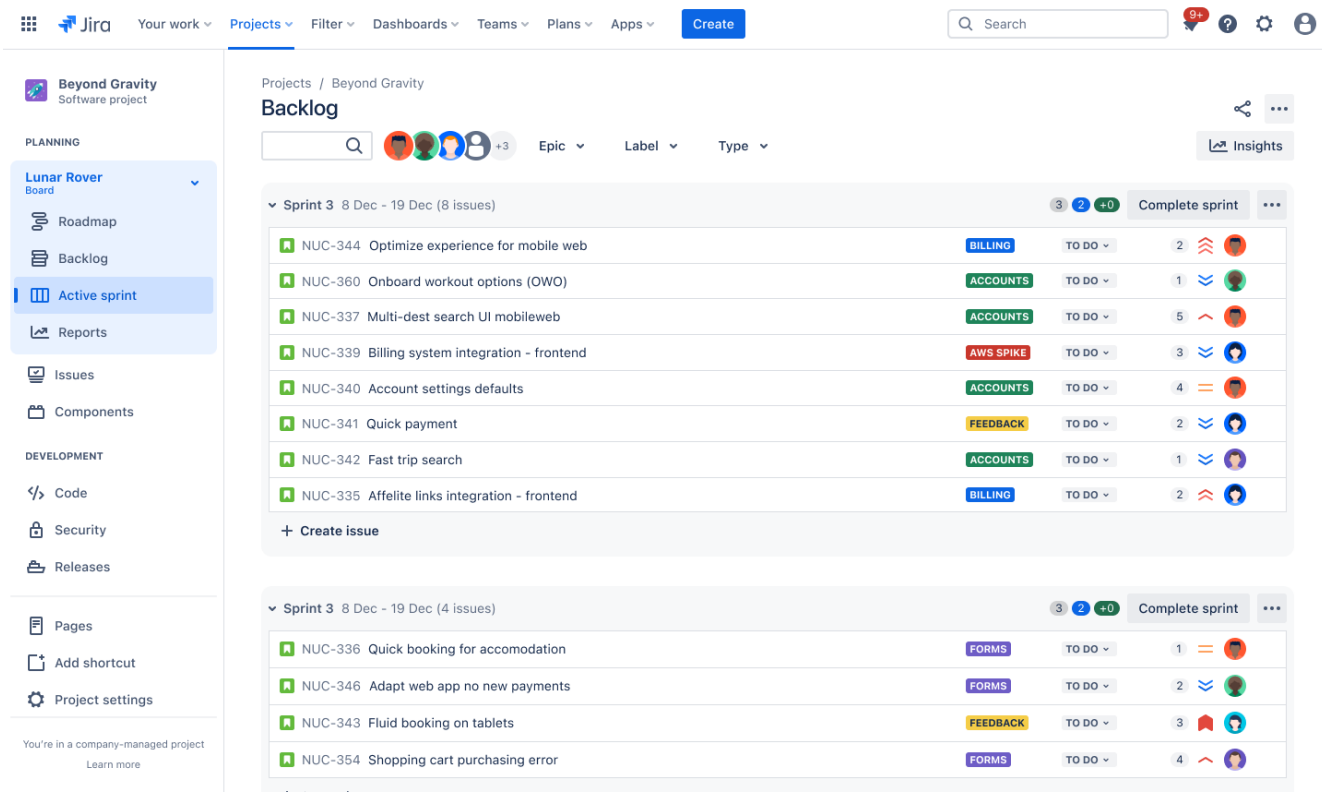
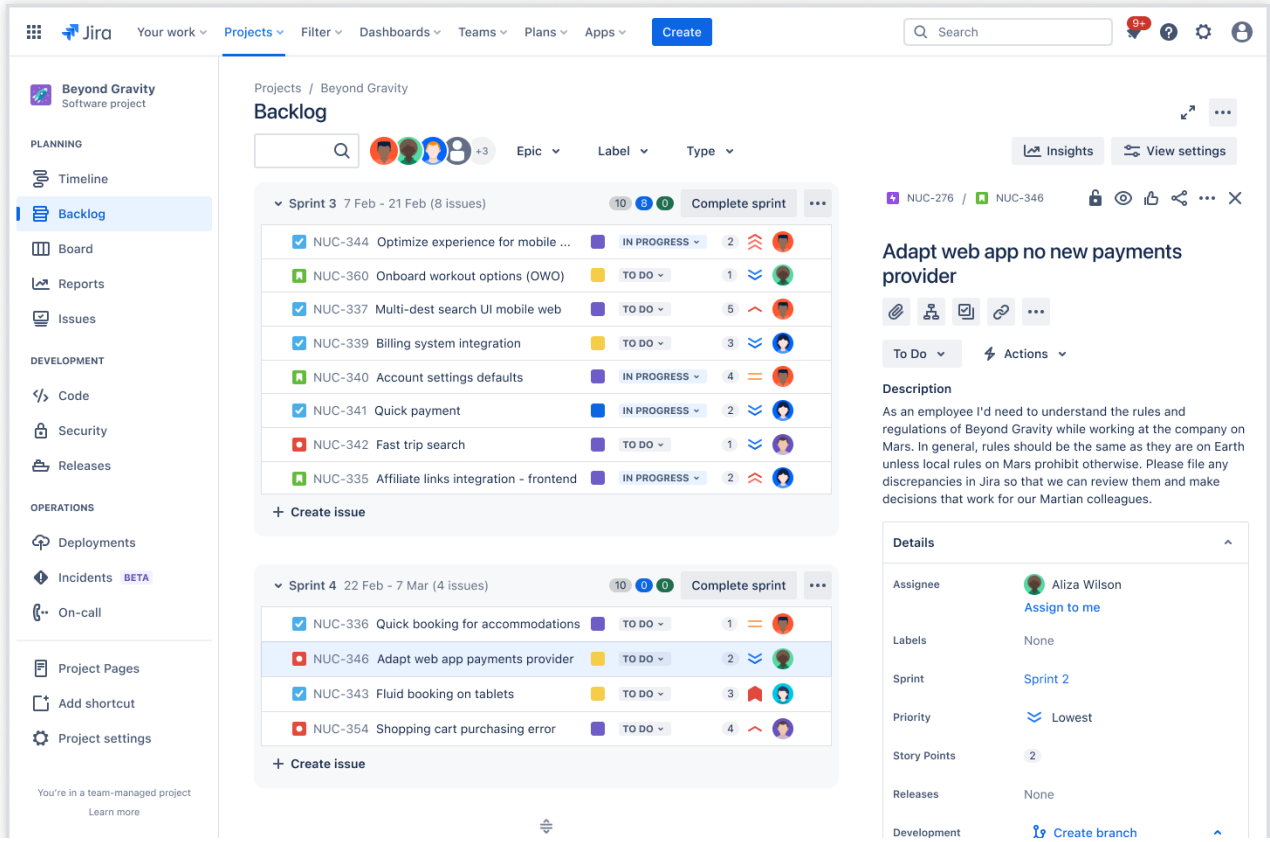
1. Jira Backlog Screen




Jira
Your work
Projects
Filter
Dashboards
Teams
Plans
Apps
Create
Search
Beyond Gravity
Software project
PLANNING
Lunar Rover
Board
Roadmap
Backlog
Active sprint
Reports
Issues
Components
DEVELOPMENT
Code
Security
Releases
Pages
Add shortcut
Project settings
You're in a company-managed project
Learn more
Projects / Beyond Gravity
Backlog
Epic
Label
Type
Insights
Sprint 3 8 Dec - 19 Dec (8 issues)
Complete sprint
NUC-344 Optimize experience for mobile web BILLING TO DO
NUC-360 Onboard workout options (OWO) ACCOUNTS TO DO
NUC-337 Multi-dest search UI mobileweb ACCOUNTS TO DO
NUC-339 Billing system integration - frontend AWS SPIKE TO DO
NUC-340 Account settings defaults ACCOUNTS TO DO
NUC-341 Quick payment FEEDBACK TO DO
NUC-342 Fast trip search ACCOUNTS TO DO
NUC-335 Affelite links integration - frontend BILLING TO DO
Create issue
Sprint 3 8 Dec - 19 Dec (4 issues)
Complete sprint
NUC-336 Quick booking for accomodation FORMS TO DO
NUC-346 Adapt web app no new payments FORMS TO DO
NUC-343 Fluid booking on tablets FEEDBACK TO DO
NUC-354 Shopping cart purchasing error FORMS TO DO


Jira
Your work
Projects
Filter
Dashboards
Teams
Plans
Apps
Create
Search
Beyond Gravity
Software project
PLANNING
Timeline
Backlog
Board
Reports
Issues
DEVELOPMENT
Code
Security
Releases
OPERATIONS
Deployments
Incidents BETA
On-call
Project Pages
Add shortcut
Project settings
You're in a team-managed project
Learn more
Projects / Beyond Gravity
Backlog
Epic
Label
Type
Insights
View settings
Sprint 3 7 Feb - 21 Feb (8 issues)
Complete sprint
NUC-344 Optimize experience for mobile ... IN PROGRESS
NUC-360 Onboard workout options (OWO) TO DO
NUC-337 Multi-dest search UI mobile web TO DO
NUC-339 Billing system integration TO DO
NUC-340 Account settings defaults IN PROGRESS
NUC-341 Quick payment IN PROGRESS
NUC-342 Fast trip search TO DO
NUC-335 Affiliate links integration - frontend IN PROGRESS
Create issue
Sprint 4 22 Feb - 7 Mar (4 issues)
Complete sprint
NUC-336 Quick booking for accommodations TO DO
NUC-346 Adapt web app payments provider TO DO
NUC-343 Fluid booking on tablets TO DO
NUC-354 Shopping cart purchasing error TO DO
Create issue
NUC-276 / NUC-346
Adapt web app no new payments provider
To Do
Actions
Description
As an employee I'd need to understand the rules and regulations of Beyond Gravity while working at the company on Mars. In general, rules should be the same as they are on Earth unless local rules on Mars prohibit otherwise. Please file any discrepancies in Jira so that we can review them and make decisions that work for our Martian colleagues.
Details
Assignee
Aliza Wilson
Assign to me
Labels
None
Sprint
Sprint 2
Priority
Lowest
Story Points
2
Releases
None
Development
Create branch

What this screen is for

- Where **all work lives before development**
- Owned mainly by the **Product Owner**

What you see

- Epics on the left
- User stories listed by priority
- Story points, priority, assignee
- "Create Sprint" button

Our project example

Epic: Order Tracking Feature

Backlog Stories (Top → Bottom):

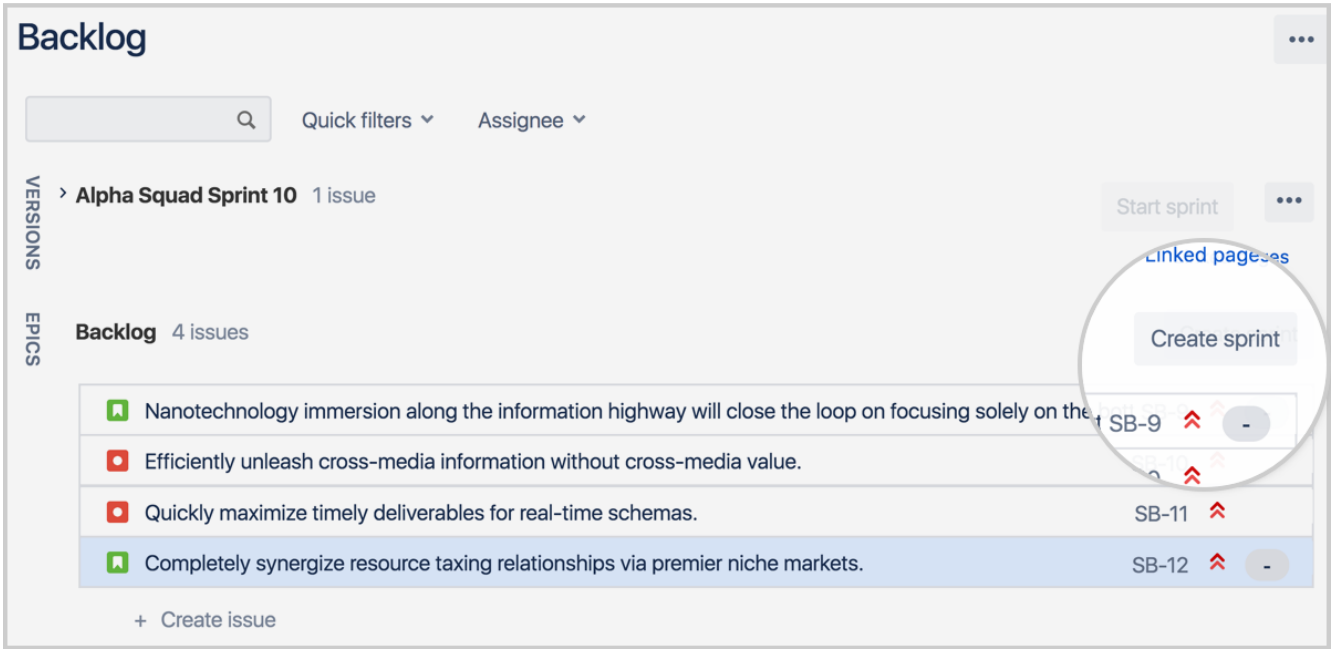
1. Display order status (3)
2. Live delivery tracking (8)
3. Show ETA (5)
4. Push notifications (5)

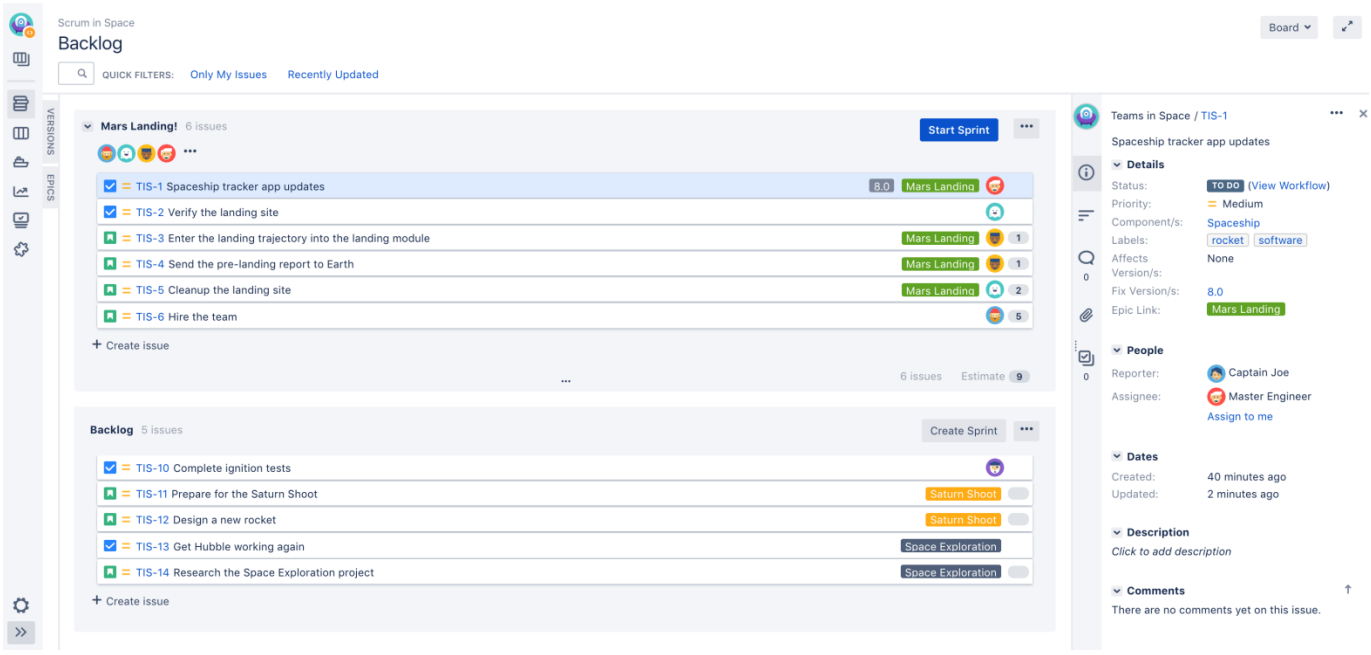
Real usage

- PO reorders stories based on business value
- Team discusses upcoming work during refinement
- Nothing is "started" yet

---

2 Sprint Planning Screen





What this screen is for

- Selecting **what goes into the next sprint**

What you see

- Backlog on top
- Sprint area below
- Story points total per sprint

Our project example

Sprint 1 Goal:

Enable customers to see order status and location

Sprint 1 Stories Added:

- Display order status (3)
- Live tracking (8)
- Backend APIs (5)

Total: 16 story points

Real usage

- Team pulls stories until capacity is full
- Sprint is started → backlog is locked

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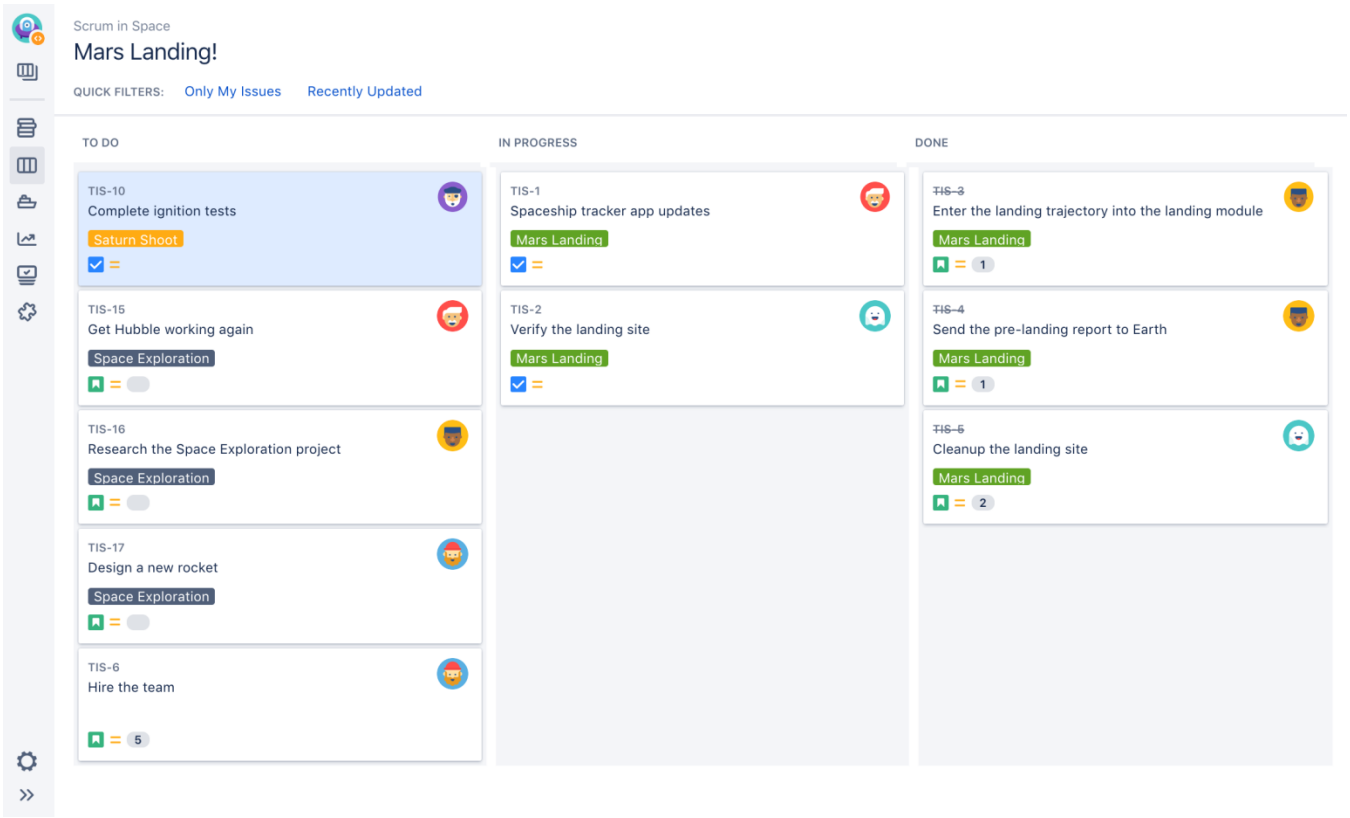
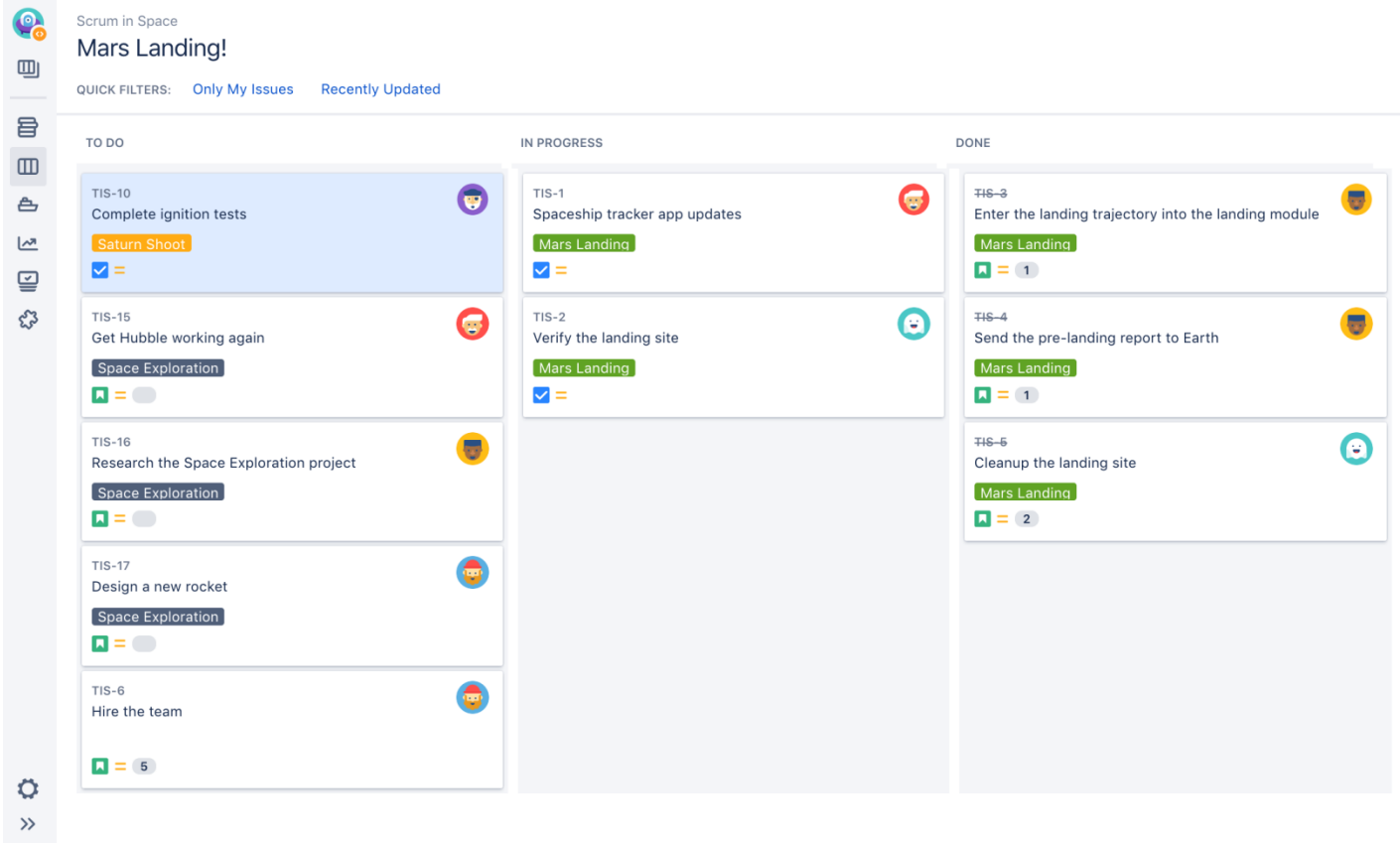
3 Active Sprint (Scrum Board)


Scrum in Space
Mars Landing!
QUICK FILTERS: Only My Issues Recently Updated
TO DO
TIS-10
Complete ignition tests
Saturn Shoot
TIS-15
Get Hubble working again
Space Exploration
TIS-16
Research the Space Exploration project
Space Exploration
TIS-17
Design a new rocket
Space Exploration
TIS-6
Hire the team
5
IN PROGRESS
TIS-1
Spaceship tracker app updates
Mars Landing
TIS-2
Verify the landing site
Mars Landing
DONE
~~TIS-3~~
Enter the landing trajectory into the landing module
Mars Landing
1
~~TIS-4~~
Send the pre-landing report to Earth
Mars Landing
1
~~TIS-5~~
Cleanup the landing site
Mars Landing
2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5
IN PROGRESS
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Send the pre-landing report to Earth
Mars Landing
1
~~TIS-5~~
Cleanup the landing site
Mars Landing
2

What this screen is for

- **Daily execution view**
- Used heavily in stand-ups

Typical Columns

- To Do
- In Progress
- Code Review
- QA Testing
- Done

Our project example

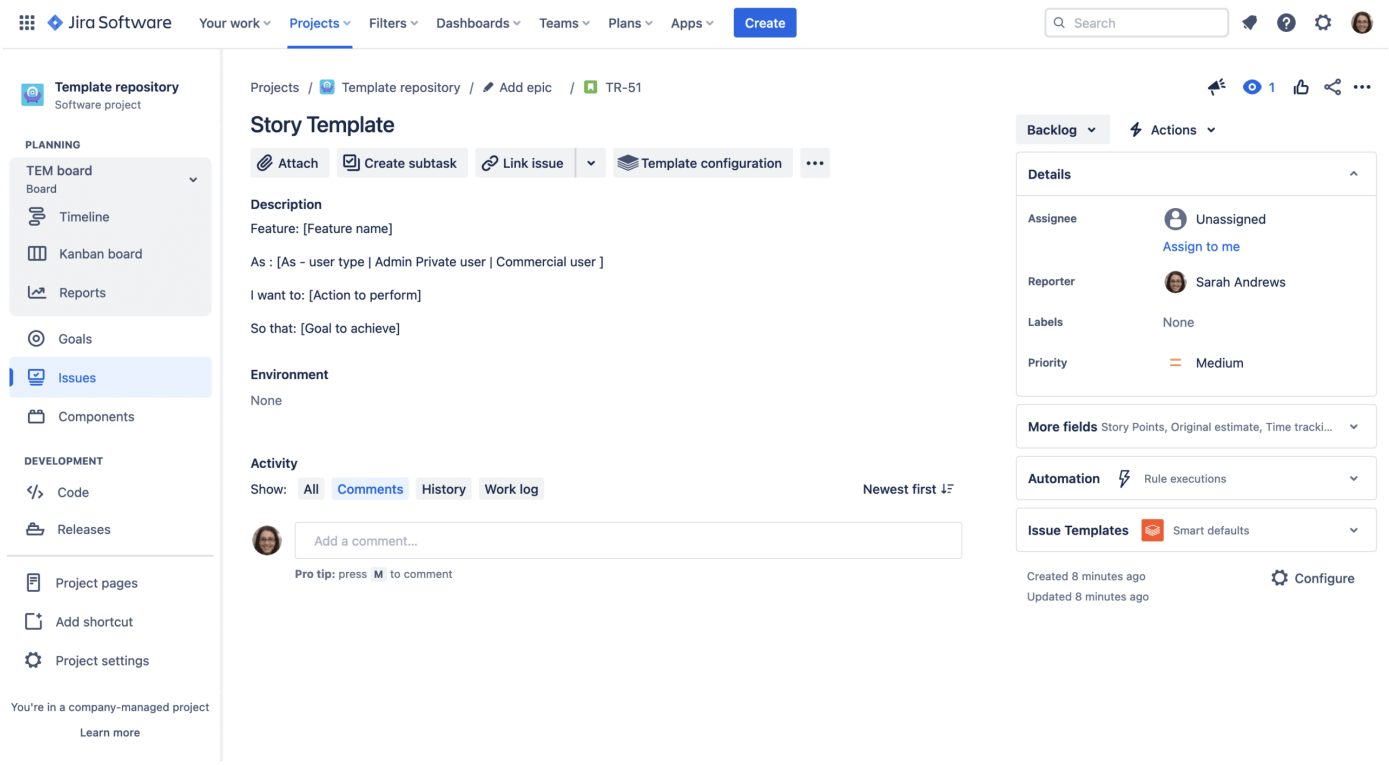
Story: Display Order Status

- Day 1 → To Do
- Day 2 → In Progress
- Day 3 → Code Review
- Day 4 → QA
- Day 5 → Done

Real usage

- Cards moved daily
- Blockers visible instantly
- Scrum Master tracks bottlenecks

Jira Issue (Story) Detail Screen



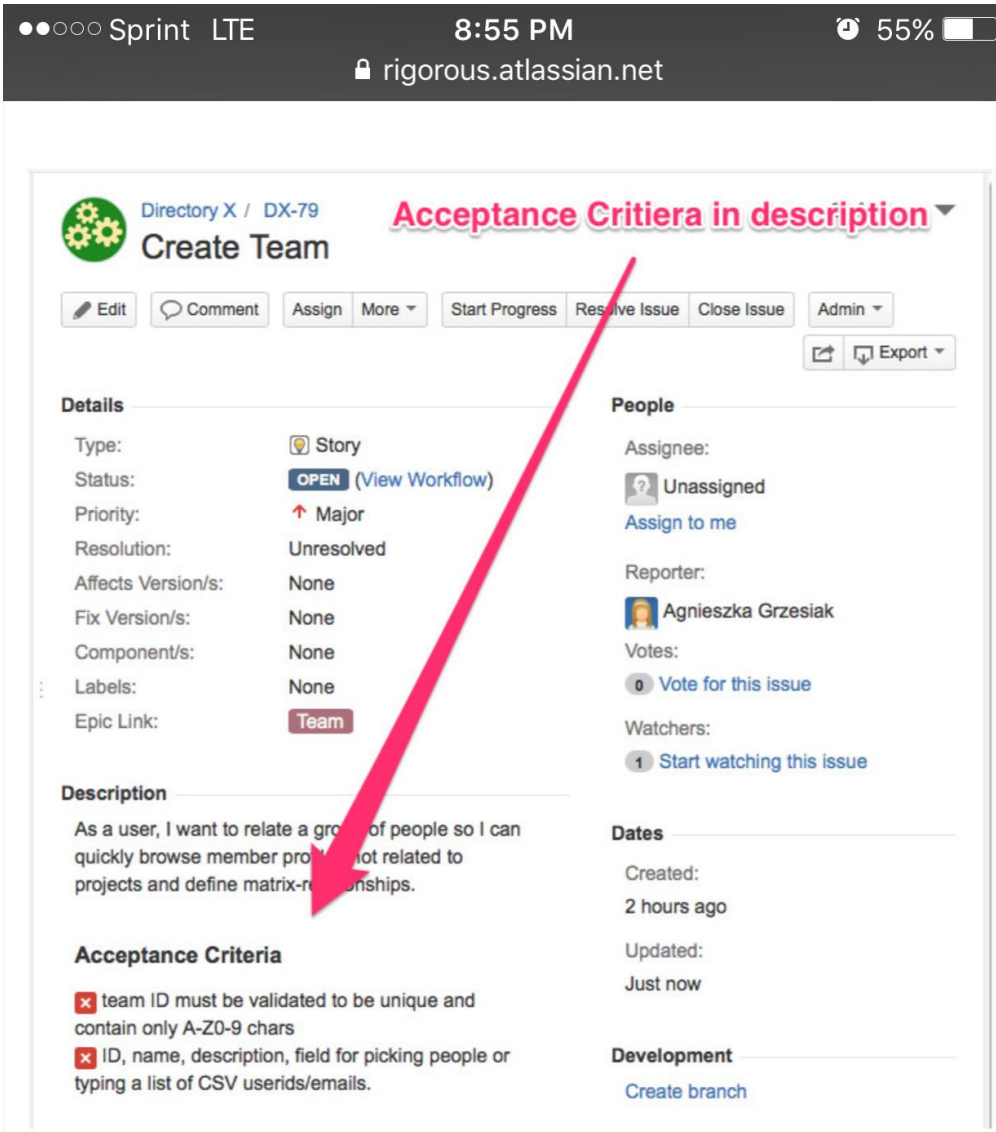


Figure 5. Acceptance Criteria as text (with markup) in the description.

Like 1 person likes this

Tom Cooper

+1

Apr 17, 2014

Reply · Like

What this screen is for

- Full details of **one story**

What you see

- User story description
- Acceptance criteria
- Story points
- Assignee
- Comments
- Linked bugs / tasks

Our project example

Story: Display order status

Acceptance Criteria:

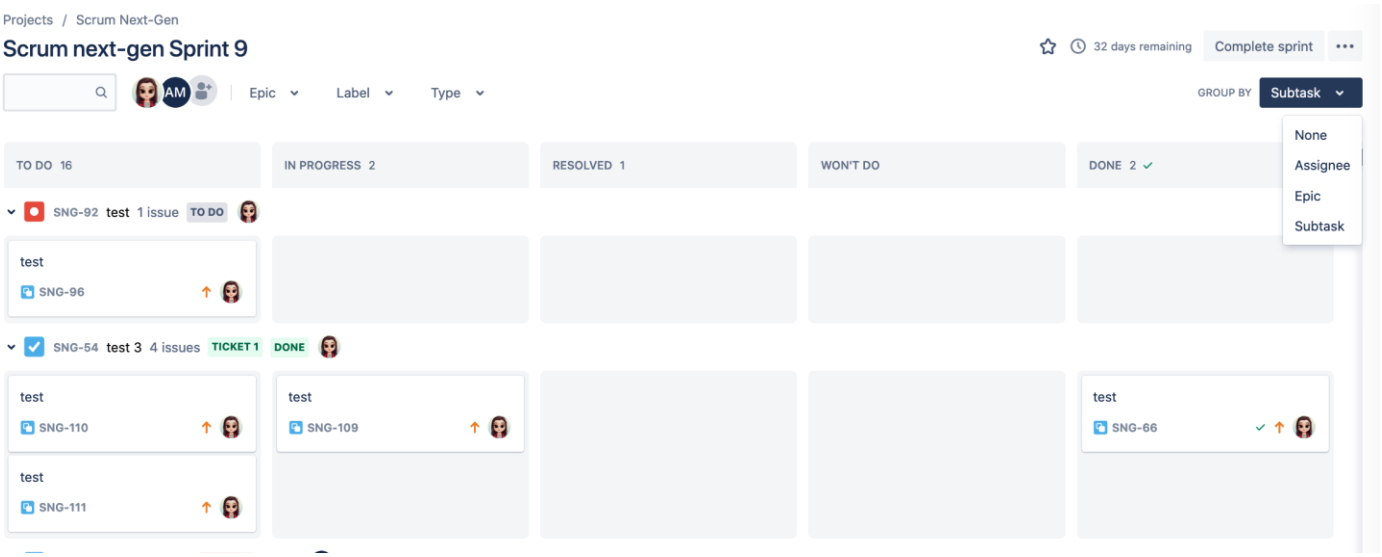
- Status shows Preparing / Picked Up / Delivered
- Updates without refresh
- Works on mobile & web

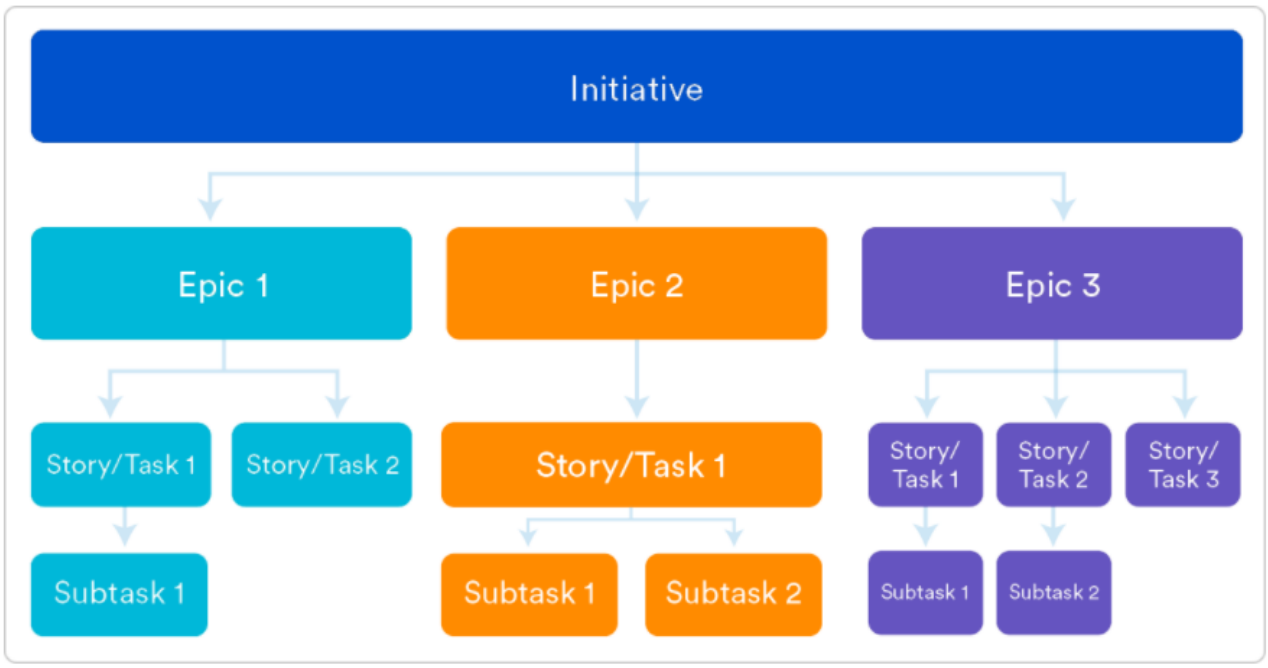
Real usage

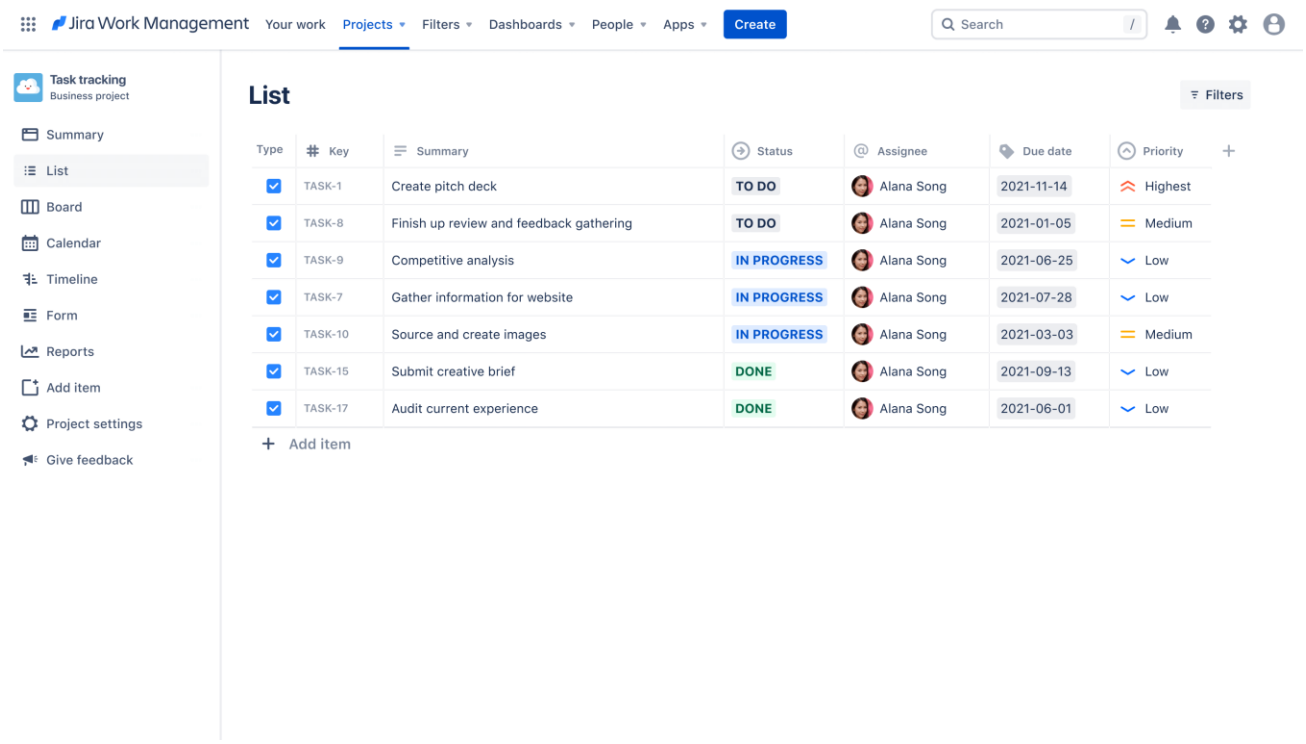
- Devs understand exactly what to build
- QA validates against acceptance criteria
- PO approves before Done

---

5 Sub-task Screen


Projects / Scrum Next-Gen
Scrum next-gen Sprint 9
32 days remaining
Complete sprint
Epic
Label
Type
GROUP BY
Subtask
None
Assignee
Epic
Subtask
TO DO 16
IN PROGRESS 2
RESOLVED 1
WON'T DO
DONE 2
SNG-92 test 1 issue TO DO
test
SNG-96
SNG-54 test 3 4 issues TICKET 1 DONE
test
SNG-110
test
SNG-111
test
SNG-109
test
SNG-66


Initiative
Epic 1
Epic 2
Epic 3
Story/Task 1
Story/Task 2
Subtask 1
Story/Task 1
Subtask 1
Subtask 2
Story/ Task 1
Story/ Task 2
Story/ Task 3
Subtask 1
Subtask 2



What this screen is for

- Breaking a story into **technical work**

Our project example

Story: Live Delivery Tracking (8)

Sub-tasks:

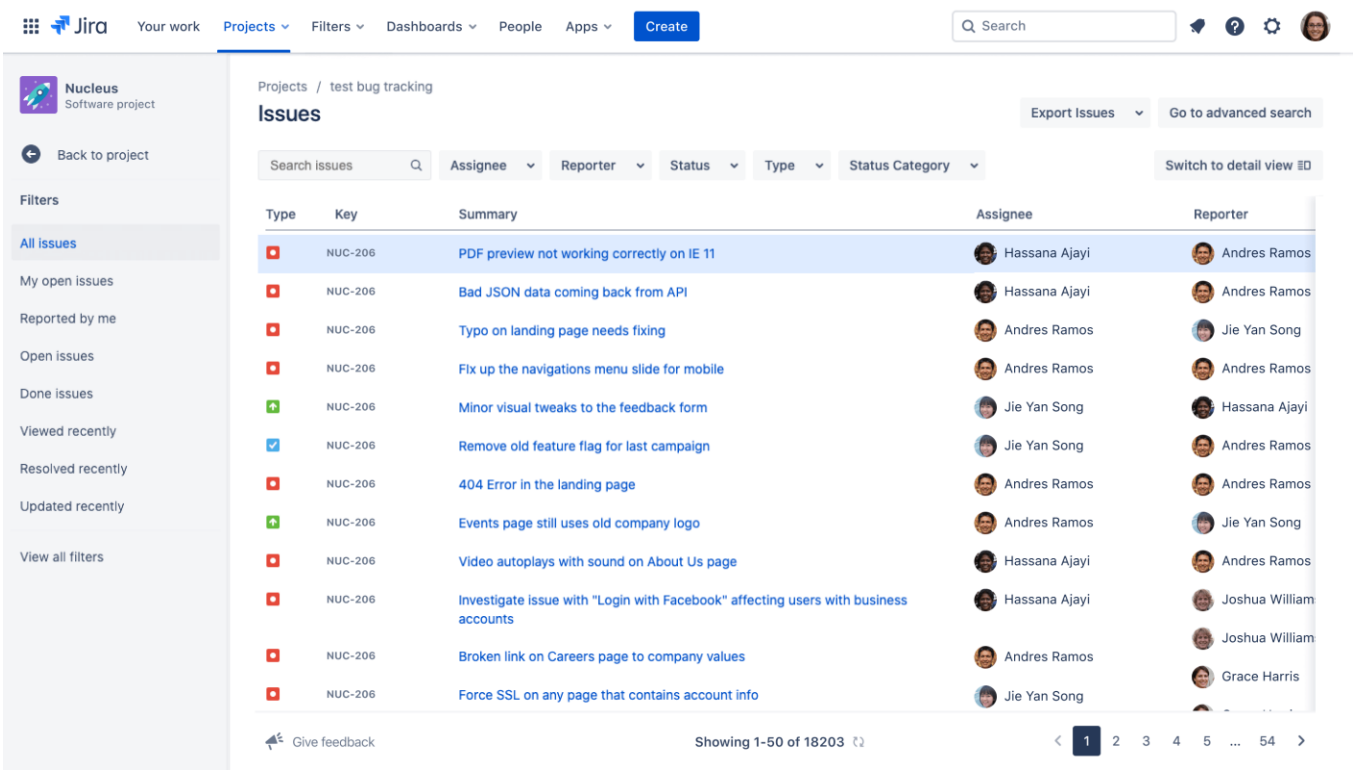
- Backend API development
- Map integration
- UI changes
- Unit testing

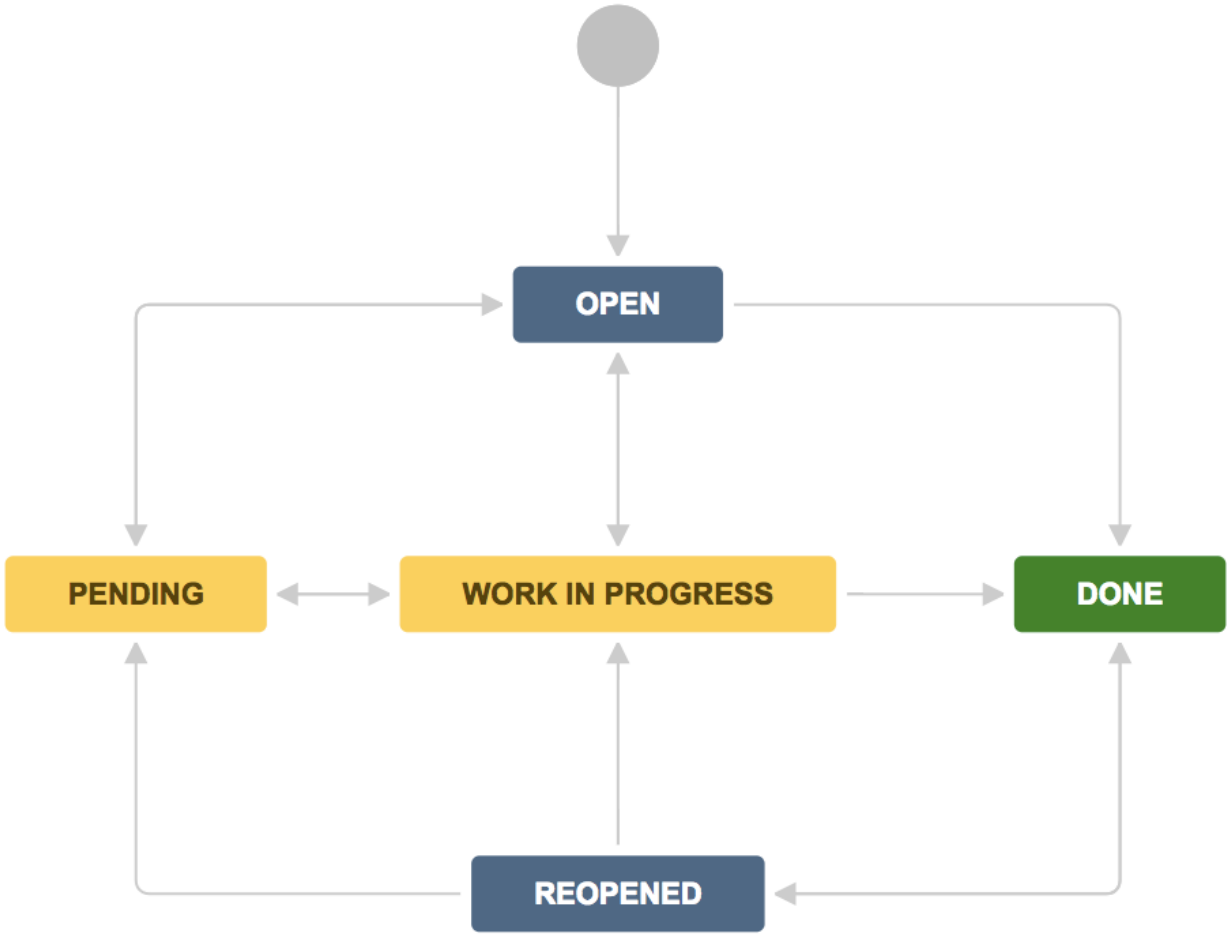
Real usage

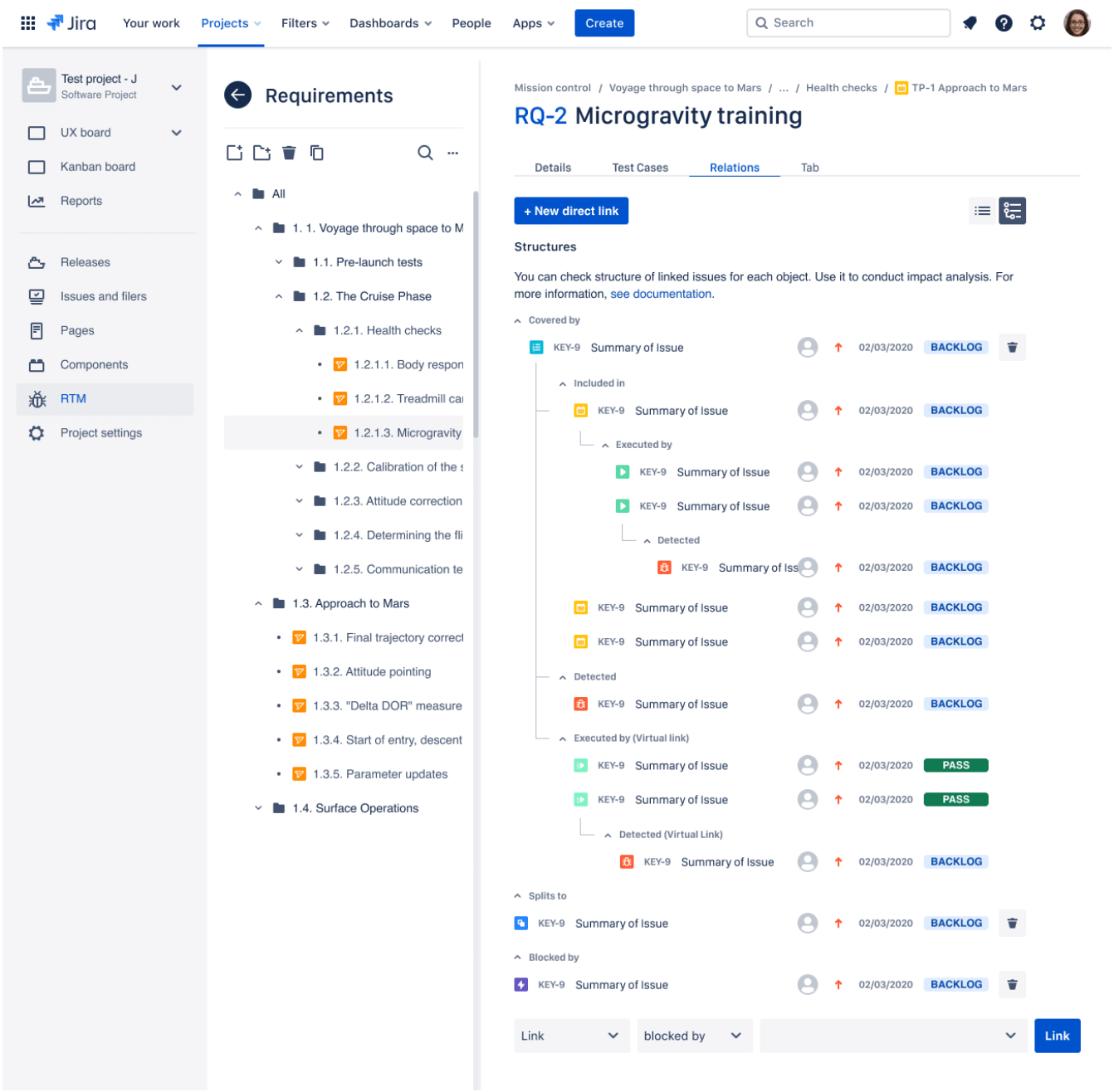
- Multiple team members work in parallel
- Story moves to Done only after all sub-tasks are Done

---

6 Bug Screen


Jira
Your work
Projects
Filters
Dashboards
People
Apps
Create
Search
Nucleus
Software project
Back to project
Filters
All issues
My open issues
Reported by me
Open issues
Done issues
Viewed recently
Resolved recently
Updated recently
View all filters
Projects / test bug tracking
Issues
Export Issues
Go to advanced search
Search issues
Assignee
Reporter
Status
Type
Status Category
Switch to detail view
Type Key Summary Assignee Reporter
NUC-206 PDF preview not working correctly on IE 11 Hassana Ajayi Andres Ramos
NUC-206 Bad JSON data coming back from API Hassana Ajayi Andres Ramos
NUC-206 Typo on landing page needs fixing Andres Ramos Jie Yan Song
NUC-206 Fix up the navigations menu slide for mobile Andres Ramos Andres Ramos
NUC-206 Minor visual tweaks to the feedback form Jie Yan Song Hassana Ajayi
NUC-206 Remove old feature flag for last campaign Jie Yan Song Andres Ramos
NUC-206 404 Error in the landing page Andres Ramos Andres Ramos
NUC-206 Events page still uses old company logo Andres Ramos Jie Yan Song
NUC-206 Video autoplays with sound on About Us page Hassana Ajayi Andres Ramos
NUC-206 Investigate issue with "Login with Facebook" affecting users with business accounts Hassana Ajayi Joshua William
NUC-206 Broken link on Careers page to company values Andres Ramos Joshua William
NUC-206 Force SSL on any page that contains account info Jie Yan Song Grace Harris
Give feedback
Showing 1-50 of 18203
1 2 3 4 5 ... 54


OPEN
PENDING
WORK IN PROGRESS
DONE
REOPENED



What this screen is for

- Tracking defects found during testing or production

Our project example

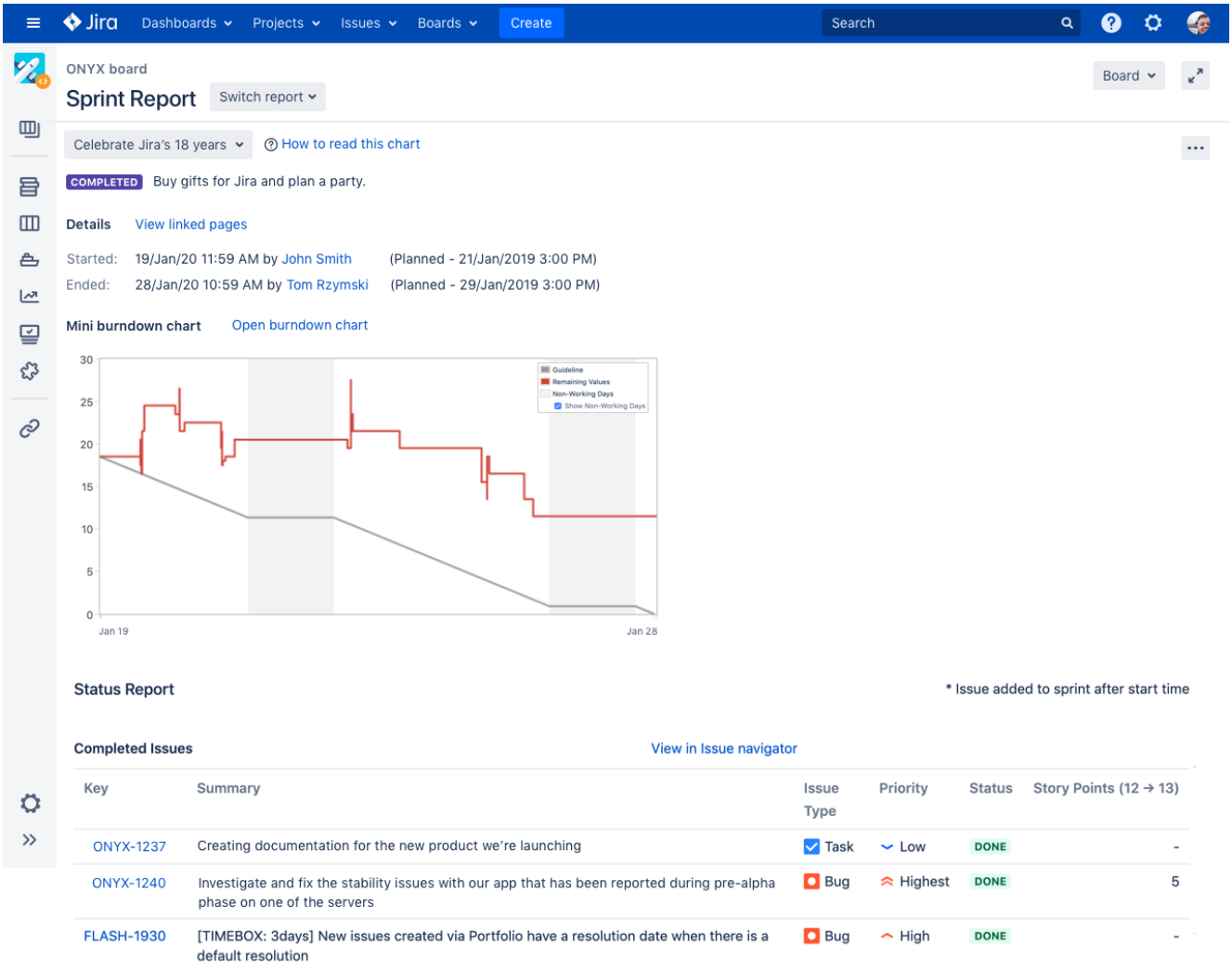
Bug: Map not loading on iOS
Priority: High
Linked Story: Live Tracking

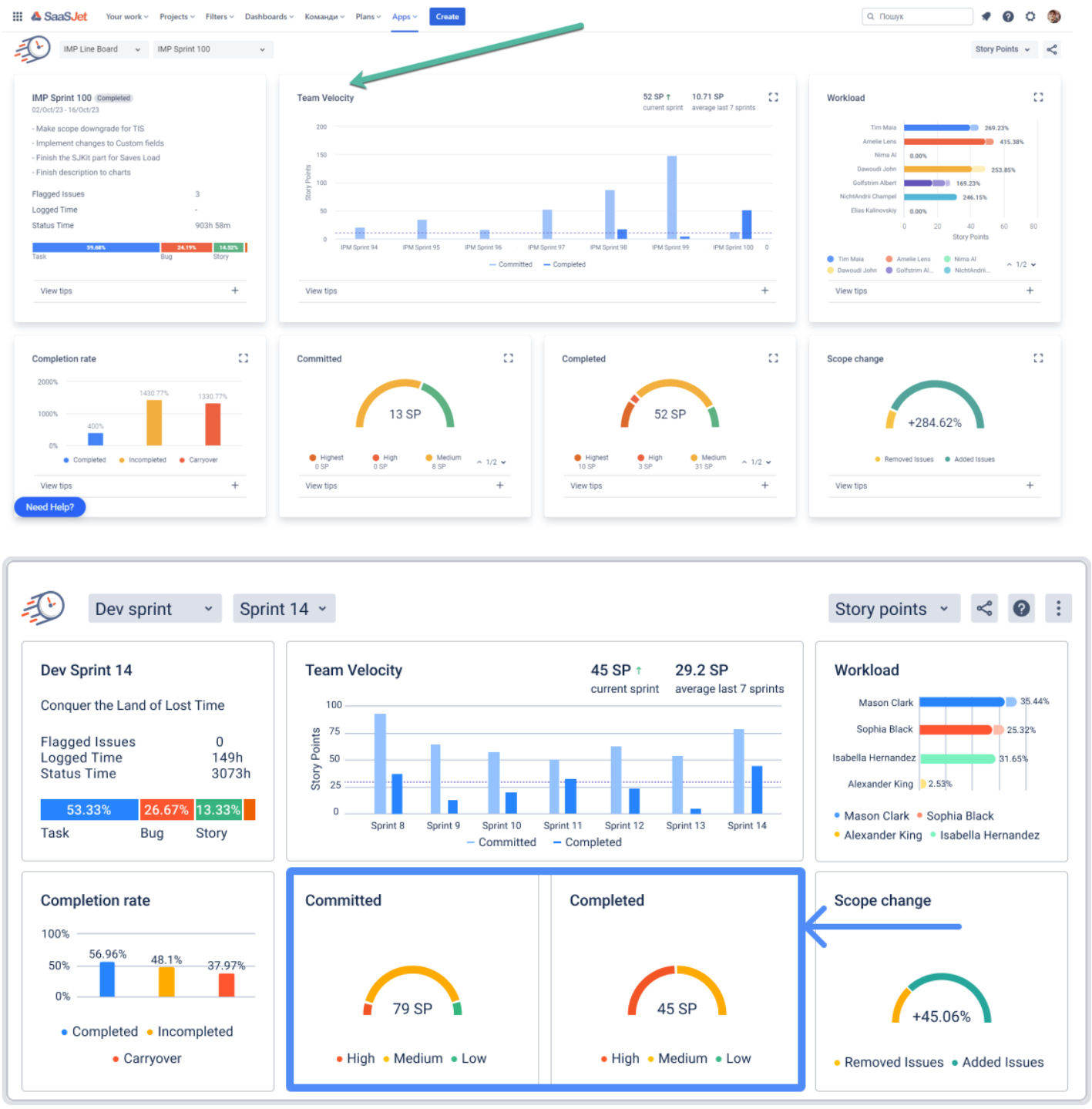
Real usage

- Bugs can be added mid-sprint
- Critical bugs may replace planned work
- Same workflow as stories

---

7 Sprint Report Screen





What this screen is for

- Sprint Review & Retrospective

What you see

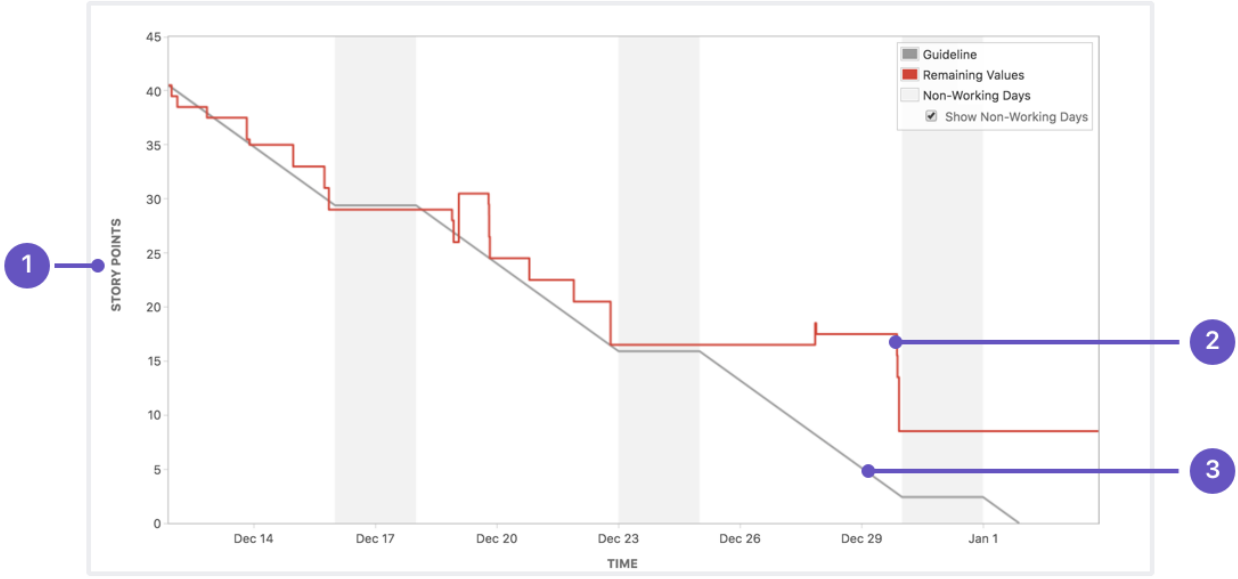
- Committed vs Completed stories
- Spillover work
- Completed issues list

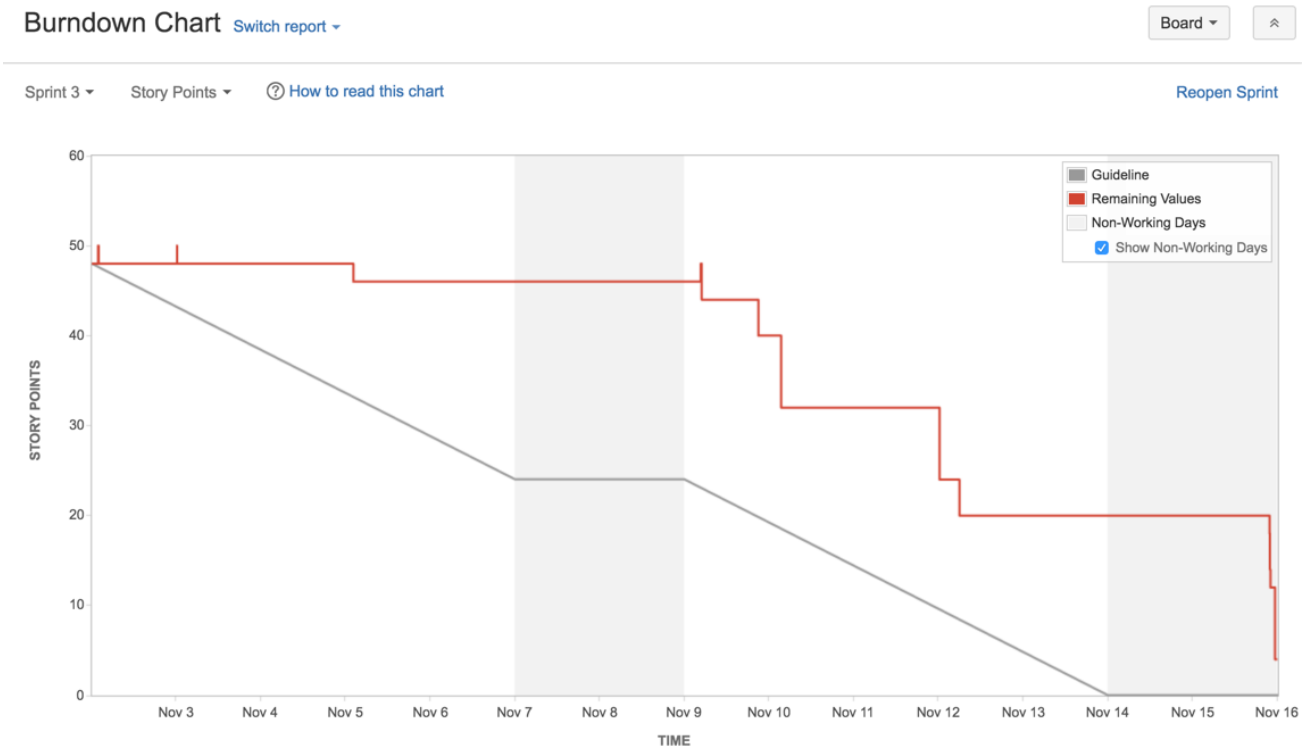
Our project example

- Committed: 16 points
- Completed: 16 points
  Sprint successful

---

8 Burndown Chart Screen





				Story Points		
Date	Issue	Event Type	Event Detail	Inc.	Dec.	Remaining
02/Nov/2015 12:14 AM	JRA-36493	Sprint start		4		
	JRA-37038			4		
	JRA-37489			2		
	JRA-40856			4		
	JRA-41228			4		
	JRA-43275			4		

What this screen is for

- Tracking sprint progress daily

What you see

- X-axis: Days in sprint
- Y-axis: Remaining story points

Our project example

- Flat line for 2 days → blocker
- Sharp drop after API issue fixed

Real usage

- Early warning if sprint is at risk
- Scrum Master acts immediately

---

9 Velocity Chart Screen

What this screen is for

- Long-term planning

Our project example

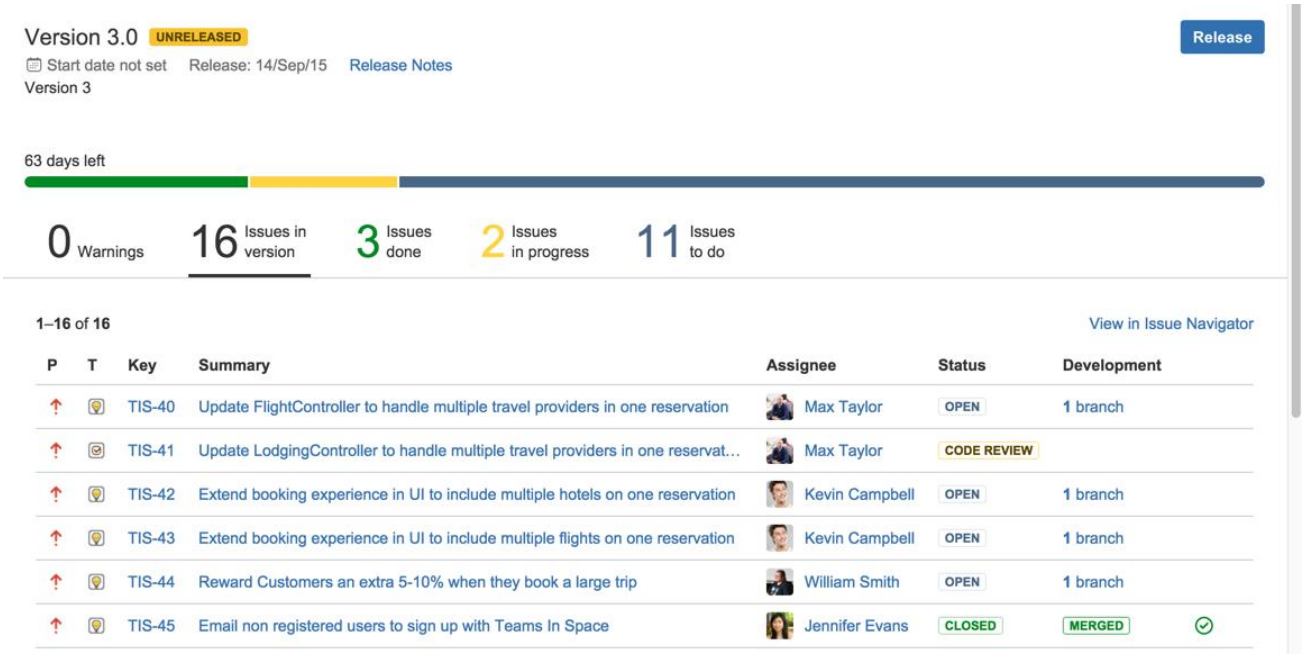
Sprint	Velocity
Sprint 1	16
Sprint 2	13

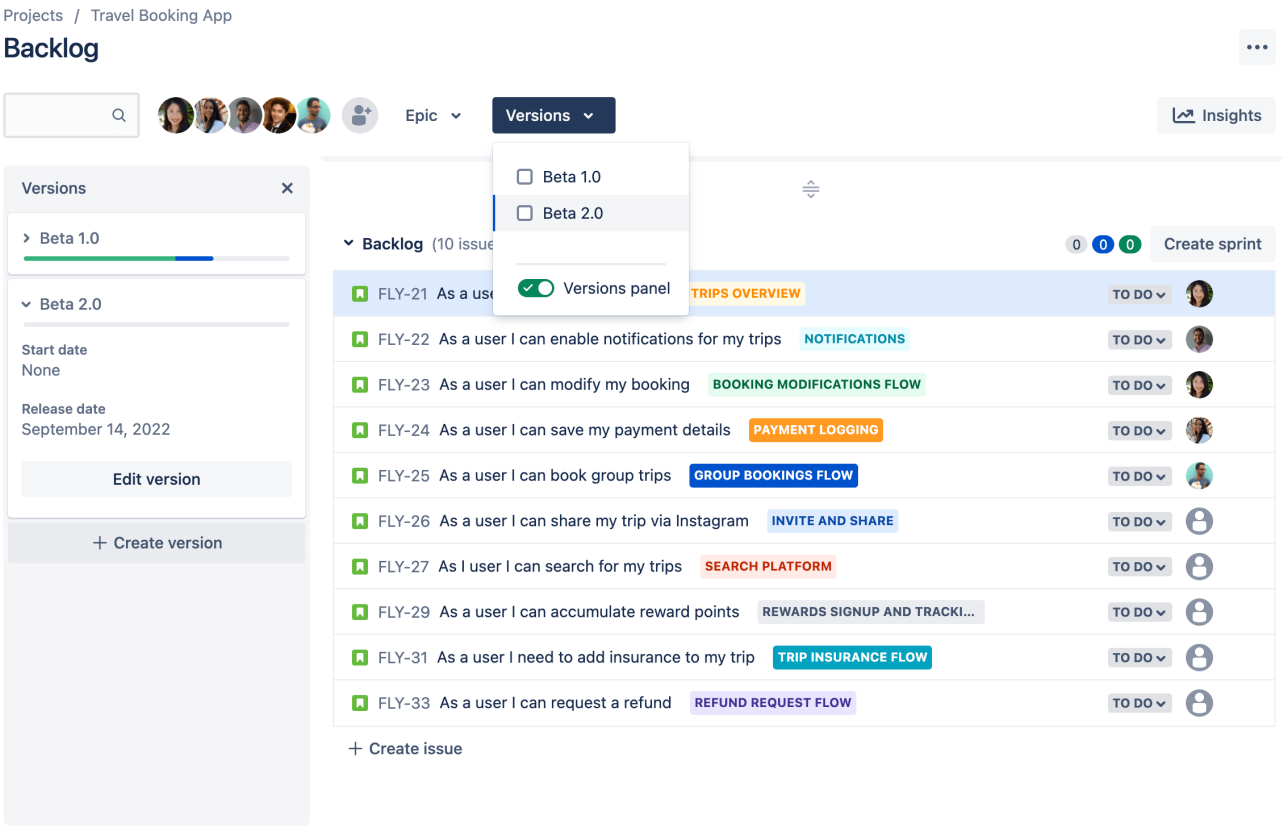
Average ≈ 14–15 points

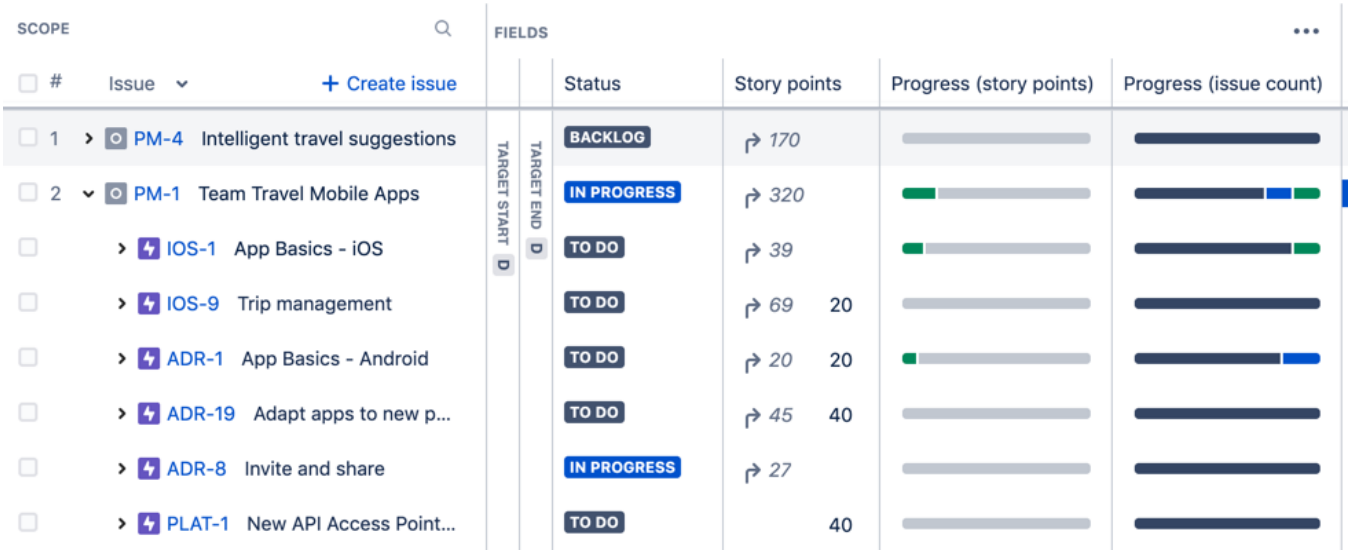
Real usage

- Helps decide how much work to pull
- Prevents over-commitment

Release / Versions Screen







What this screen is for

- Tracking feature releases

Our project example

Release: Order Tracking v1.0
Stories linked:

- Order status
- Live tracking
- ETA

Real usage

- Business sees release readiness %
- Teams know what's shipping

End-to-End Jira Screen Flow (Easy Memory Trick)

Backlog → Sprint Planning → Active Sprint Board → Issue Details → Reports → Release

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Interview-Perfect One-Liner

“In Jira, we managed our Agile project using the backlog for prioritization, sprint planning to commit work, active sprint boards for daily tracking, issue screens for user stories and acceptance criteria, and reports like burndown and velocity charts to track progress and plan releases.”