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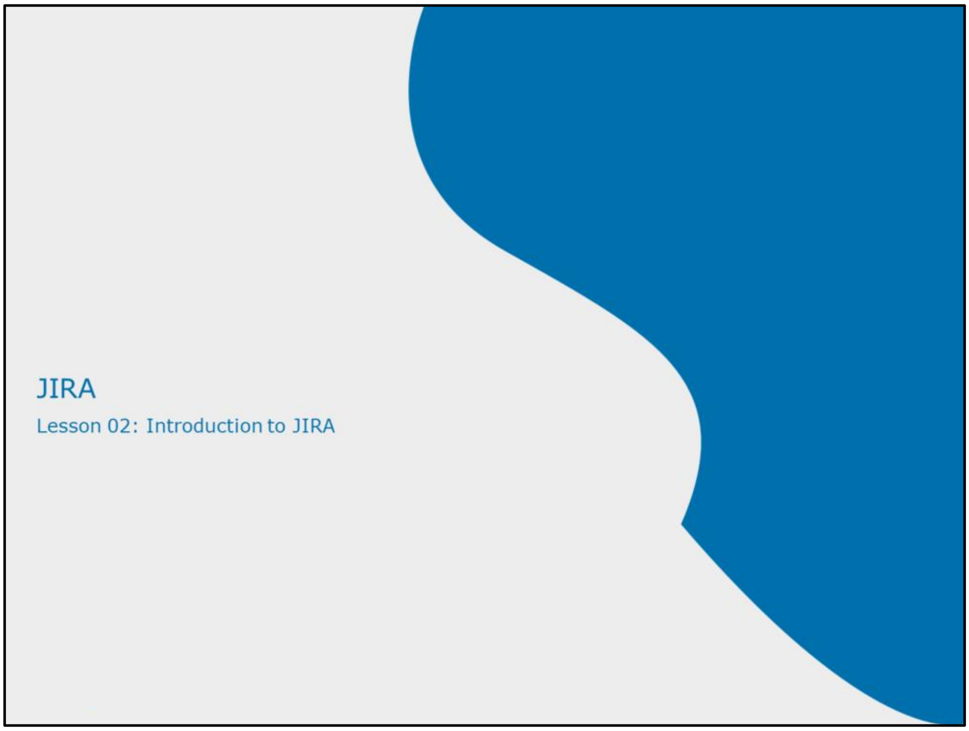

JIRA

Lesson 02: Introduction to JIRA

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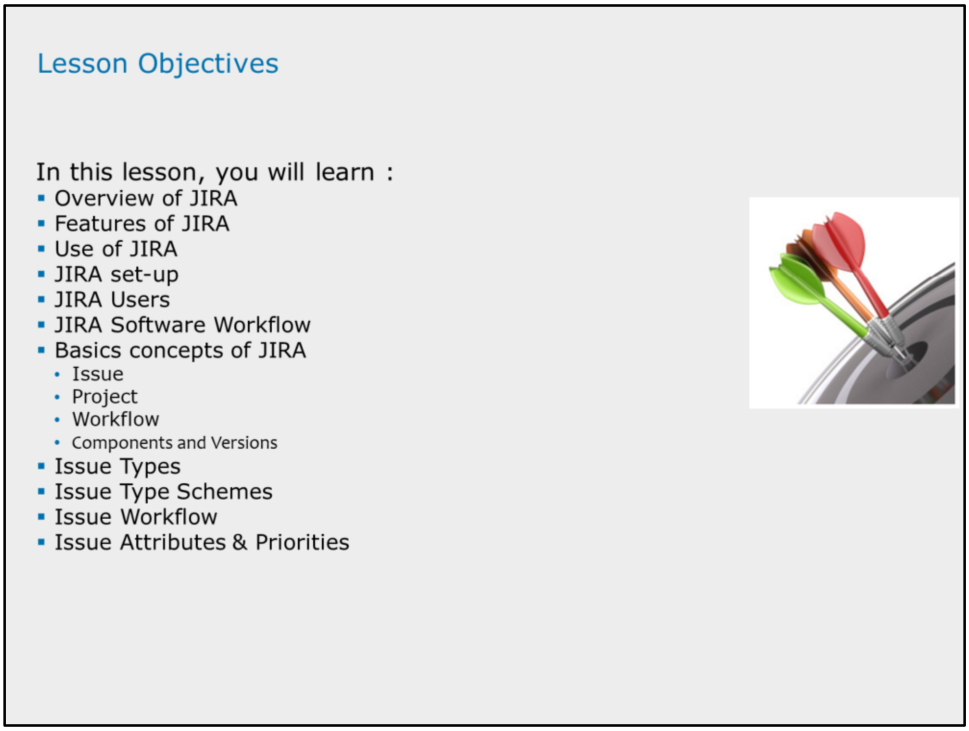

Lesson Objectives

In this lesson, you will learn :

- Overview of JIRA
- Features of JIRA
- Use of JIRA
- JIRA set-up
- JIRA Users
- JIRA Software Workflow
- Basics concepts of JIRA
  - Issue
  - Project
  - Workflow
  - Components and Versions
- Issue Types
- Issue Type Schemes
- Issue Workflow
- Issue Attributes & Priorities

Instructor Notes:

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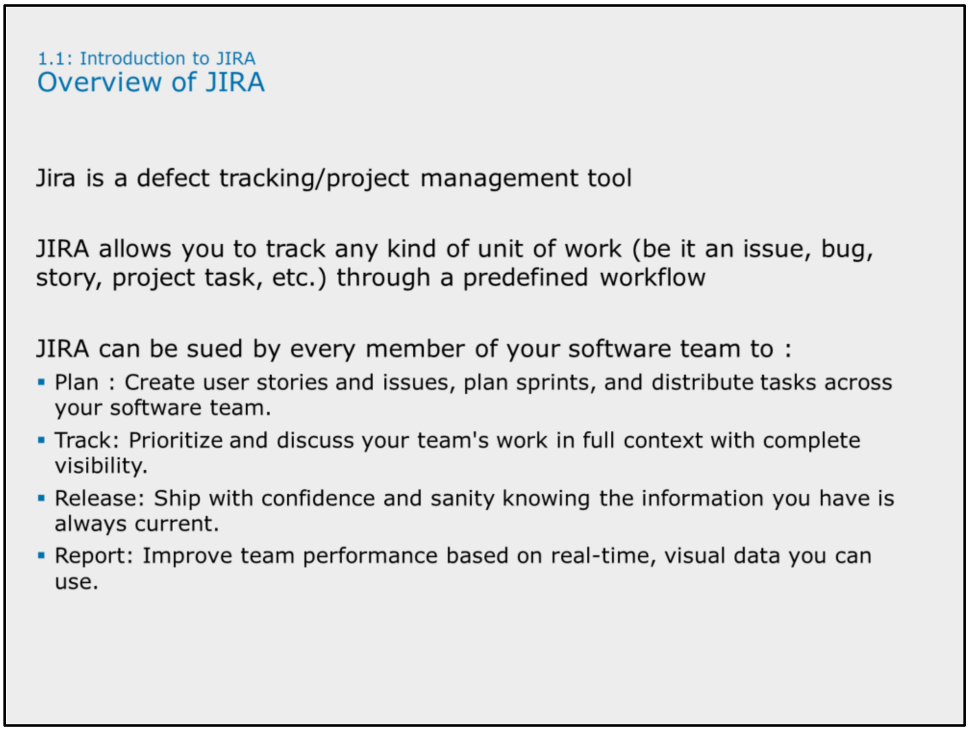

1.1: Introduction to JIRA

Overview of JIRA

Jira is a defect tracking/project management tool

JIRA allows you to track any kind of unit of work (be it an issue, bug, story, project task, etc.) through a predefined workflow

JIRA can be sued by every member of your software team to :

- Plan : Create user stories and issues, plan sprints, and distribute tasks across your software team.
- Track: Prioritize and discuss your team's work in full context with complete visibility.
- Release: Ship with confidence and sanity knowing the information you have is always current.
- Report: Improve team performance based on real-time, visual data you can use.

JIRA is a tool developed by Australian Company Atlassian. It is used for **bug tracking, issue tracking,** and **project management**. The name "JIRA" is actually inherited from the Japanese word "Gojira" which means "Godzilla". The basic use of this tool is to track issues, and bugs related to your software and mobile apps. It is also used for project management. The JIRA dashboard consists of many useful functions and features which make handling of issues easy.

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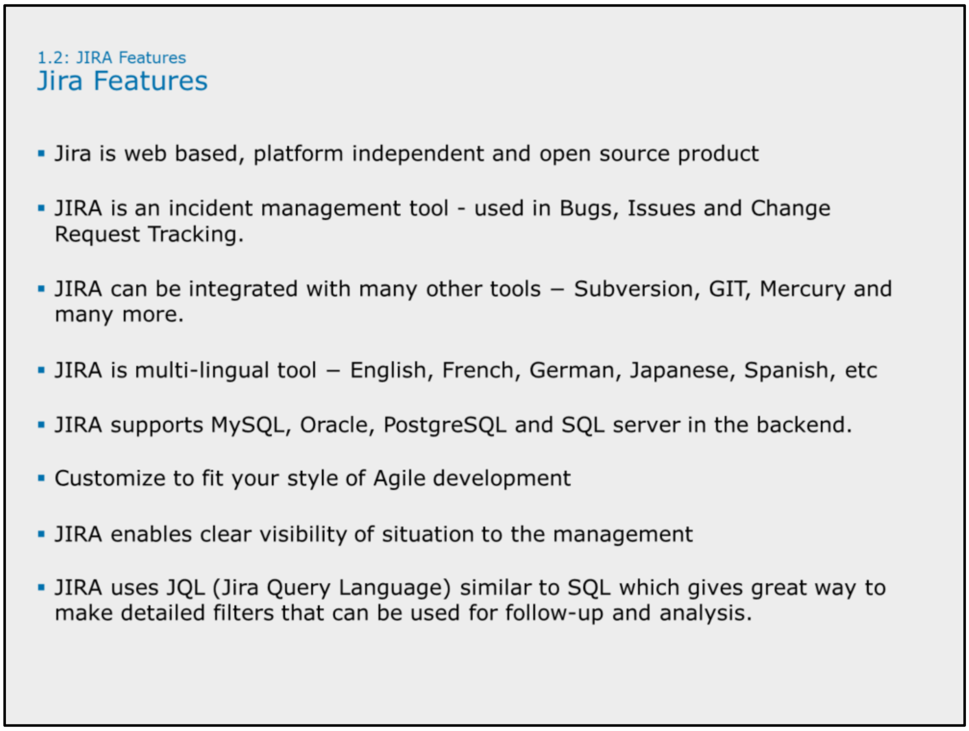

1.2: JIRA Features

Jira Features

- Jira is web based, platform independent and open source product
- JIRA is an incident management tool - used in Bugs, Issues and Change Request Tracking.
- JIRA can be integrated with many other tools – Subversion, GIT, Mercury and many more.
- JIRA is multi-lingual tool – English, French, German, Japanese, Spanish, etc
- JIRA supports MySQL, Oracle, PostgreSQL and SQL server in the backend.
- Customize to fit your style of Agile development
- JIRA enables clear visibility of situation to the management
- JIRA uses JQL (Jira Query Language) similar to SQL which gives great way to make detailed filters that can be used for follow-up and analysis.

Who uses JIRA?

Software project development teams, help desk systems, leave request systems, Marketing projects, Employee performance systems, etc. Coming to its applicability to QA teams, it is widely used for bug tracking, tracking project level issues- like documentation completion and for tracking environmental issues. A working knowledge of this tool is highly desirable across the industry.

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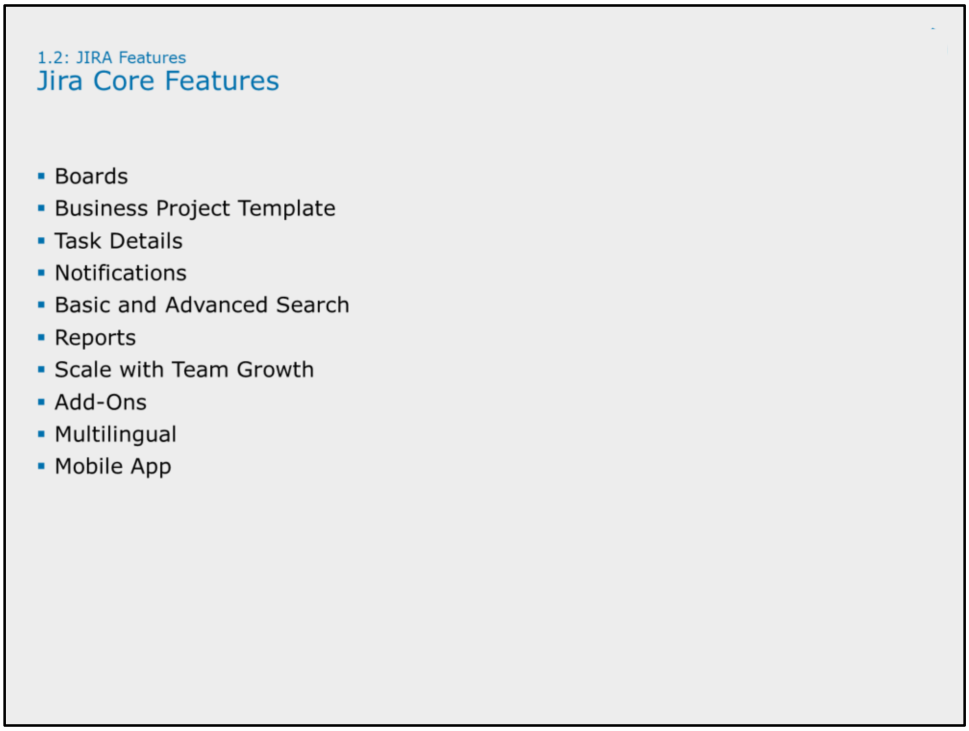

1.2: JIRA Features

Jira Core Features

- Boards
- Business Project Template
- Task Details
- Notifications
- Basic and Advanced Search
- Reports
- Scale with Team Growth
- Add-Ons
- Multilingual
- Mobile App

JIRA Core Features

- Boards – JIRA supports Scrum and Kanban boards which provide an immediate snapshot of the project to the team.
- Business Project Template – JIRA supports variety of business templates to manage simple and complex tasks. These templates can also be customized based on the team and their approach. Ex: Workflow can be customized based on each team's approach.
- Task Details – Status of every task, comment, attachment and due dates are stored in one place to track the progress.
- Notifications – An email with Voting features can be sent to keep an eye on the progress for the stakeholders. Use @**mention** to get the attention of a specific team member at some Comments due to which user will immediately notice if some task is assigned or if any feedback is required.
- Basic and Advanced Search – we can use the JIRA search tool to find due date, when a task was last updated, what items a team member still needs to finish.
- Reports – JIRA supports variety of reports to track progress over a specific timeframe, deadlines, individual’s contribution, etc. It generates easy to understand reports those help to analyze how the team is going on.
- Scale with Team Growth –Jira supports the project irrespective of project size and complexity.
- Add-Ons – Jira supports more than 100 add-ons so as to connect with different software to make the work easy.
- Multilingual – Jira supports more than 10 languages such as English (US, UK, India), French, German, Portuguese, Spanish, Korean, Japanese and Russian.
- Mobile App – Jira is available on Google Play Store of Apple which makes it easy to stay connected with the team through notifications, comments and project activity even while moving anywhere.

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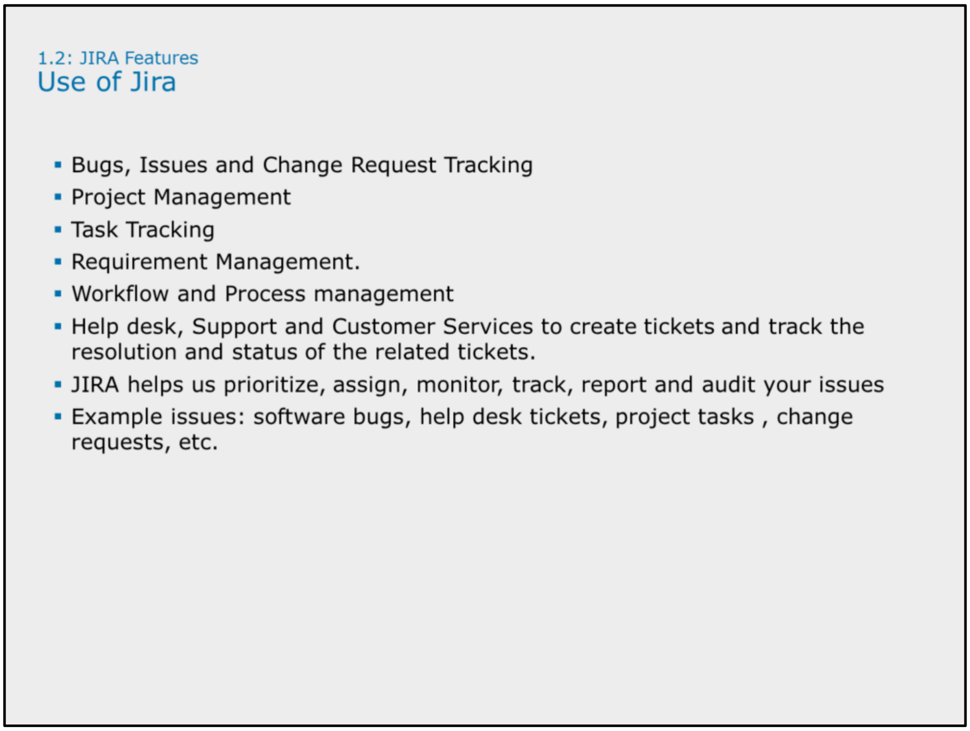

1.2: JIRA Features

Use of Jira

- Bugs, Issues and Change Request Tracking
- Project Management
- Task Tracking
- Requirement Management.
- Workflow and Process management
- Help desk, Support and Customer Services to create tickets and track the resolution and status of the related tickets.
- JIRA helps us prioritize, assign, monitor, track, report and audit your issues
- Example issues: software bugs, help desk tickets, project tasks , change requests, etc.

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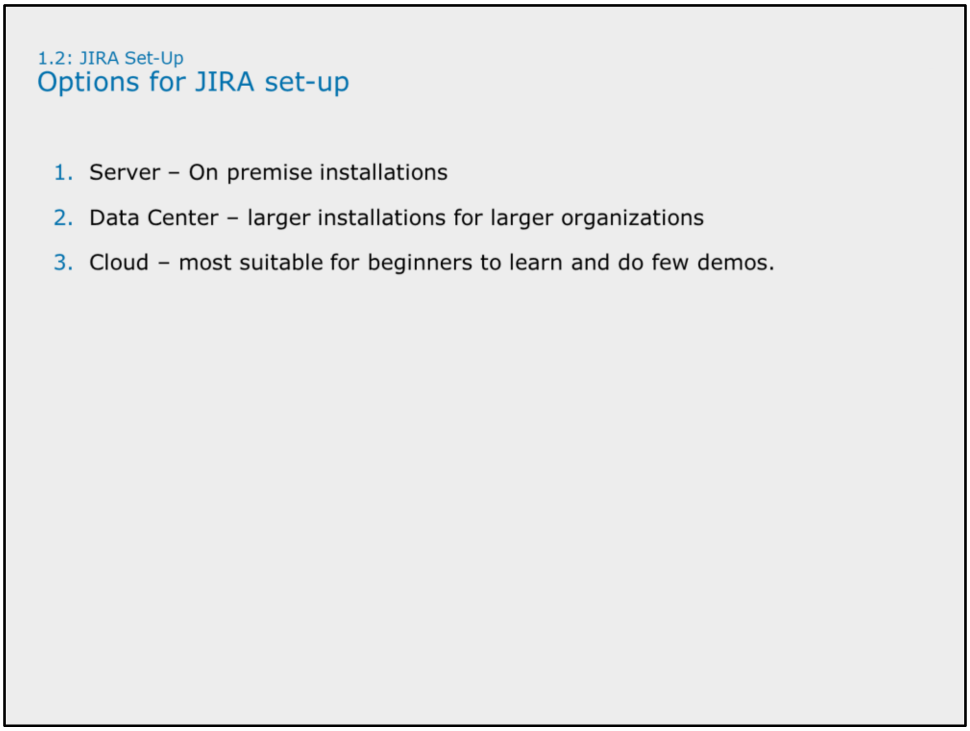

1.2: JIRA Set-Up

Options for JIRA set-up

1. Server – On premise installations
2. Data Center – larger installations for larger organizations
3. Cloud – most suitable for beginners to learn and do few demos.

<u>Options for JIRA set-up</u>

1. Server – on-premise installations
   - Planning & tracking
   - Scrum & Kanban project templates
   - Supports dynamic Workflow
   - Reporting
   - Supports Tool integrations & add-ons
   - Access to API
   - You get support for one application server and multiple cold servers.
2. Data center – larger installations for large organizations
   - To get proper support for multiple servers, opt the datacenter. A server setup is good to support for a multi-server setup of 500-1000 users. Beyond that i.e. from 1000-50000+ users, most organizations go for the datacenter in order to get the performance and stability that a business-critical system like JIRA require.
   - Active-active clustering : uninterrupted access to JIRA server
   - Distributed Load – high, overall good performance
   - Redundancy at all levels minimizes the risk of single point failure. Therefore, it is reliable too.
3. Cloud – most suitable for beginners to learn

   Hosted by Atlassian
   - Easy to get started
   - Upgrades to the software is out of your control. Without any pre-warning, Users will experience that their user interface suddenly has changed, and they need to do tasks differently than what they did the day before.
   - Supported add-ons
   - Imposes Limitations which change from time to time. For example, supports only 2000 users on cloud at a time; or the size of attachments allowed.

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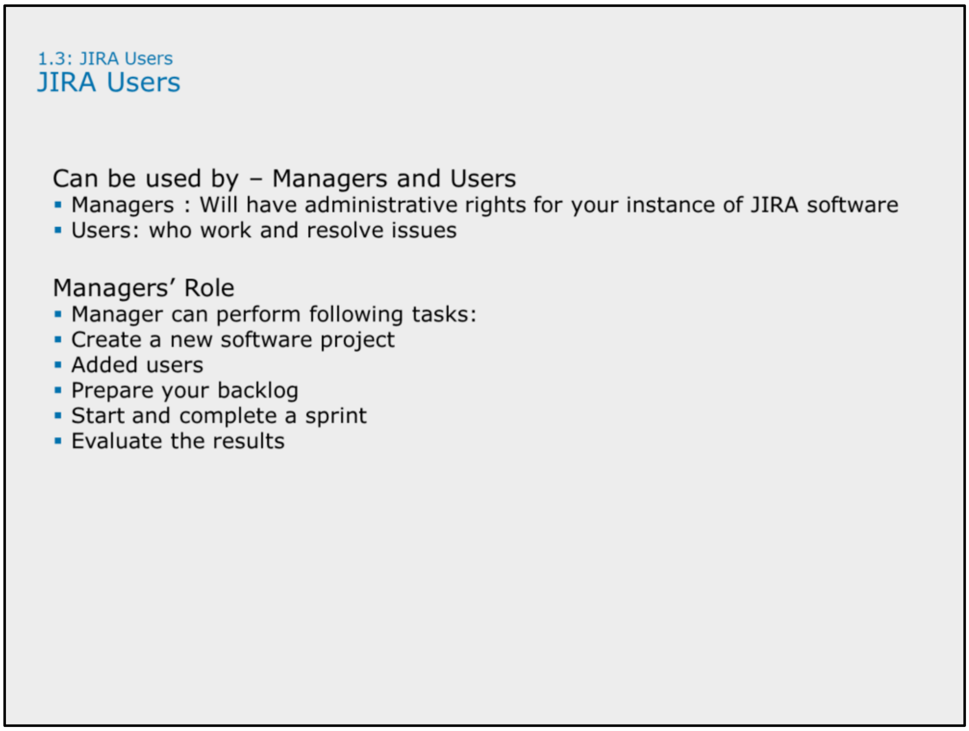

1.3: JIRA Users

JIRA Users

Can be used by – Managers and Users

- Managers : Will have administrative rights for your instance of JIRA software
- Users: who work and resolve issues

Managers’ Role

- Manager can perform following tasks:
- Create a new software project
- Added users
- Prepare your backlog
- Start and complete a sprint
- Evaluate the results

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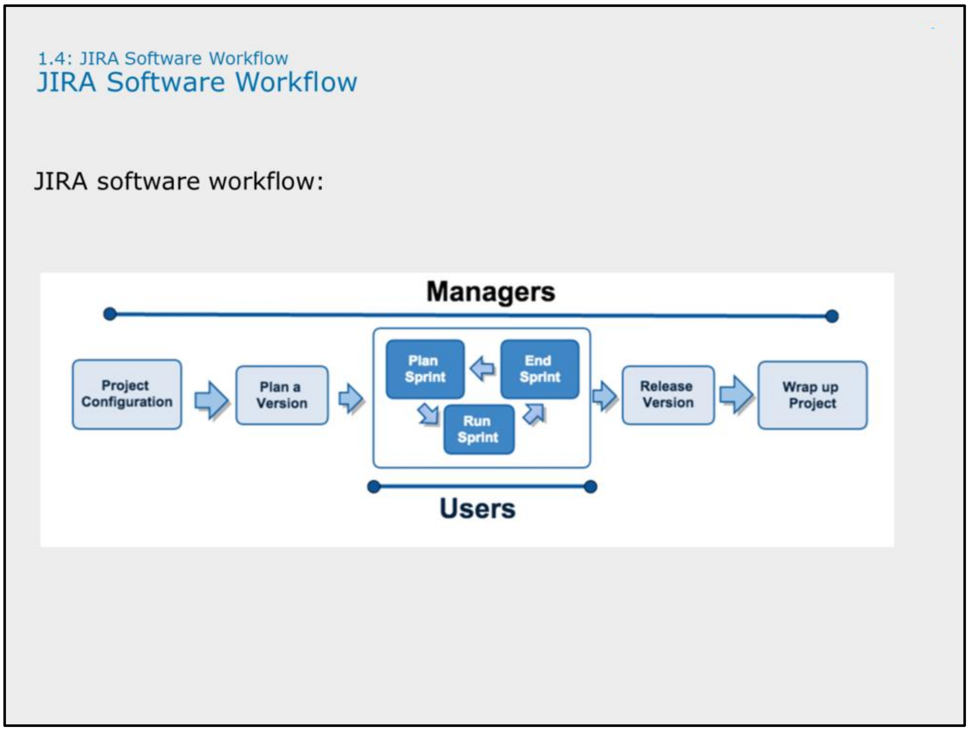

1.4: JIRA Software Workflow

JIRA Software Workflow

JIRA software workflow:

Note: Project creation and management in JIRA is an admin task. So we are not going cover project creation and will continue the discussion using an already created project.

Instructor Notes:

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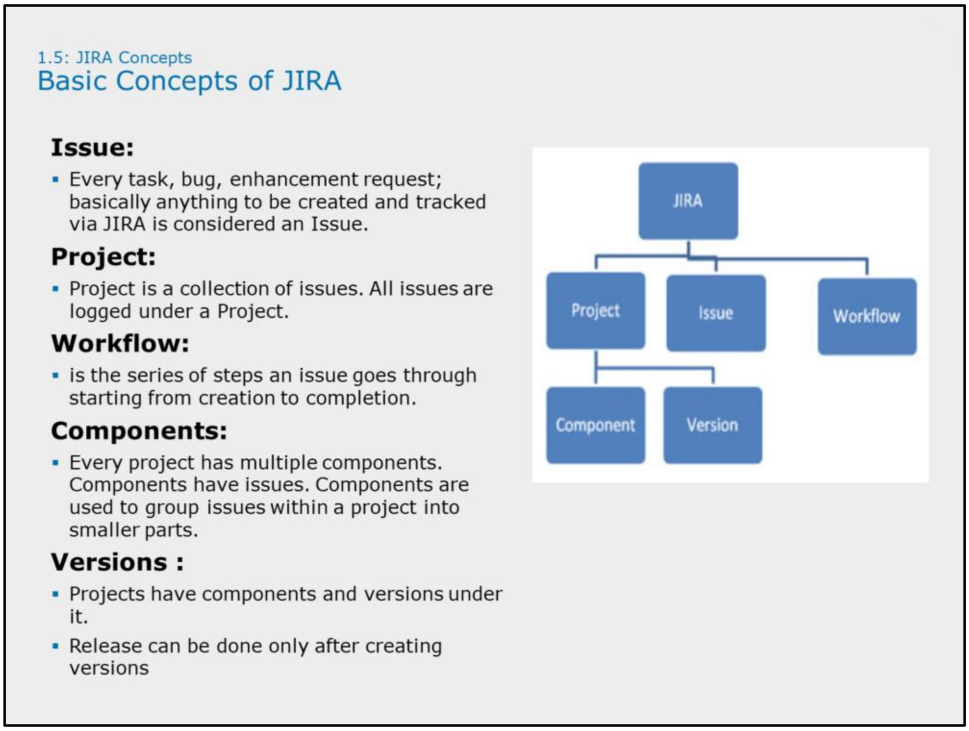

1.5: JIRA Concepts

Basic Concepts of JIRA

Issue:

- Every task, bug, enhancement request; basically anything to be created and tracked via JIRA is considered an Issue.

Project:

- Project is a collection of issues. All issues are logged under a Project.

Workflow:

- is the series of steps an issue goes through starting from creation to completion.

Components:

- Every project has multiple components. Components have issues. Components are used to group issues within a project into smaller parts.

Versions :

- Projects have components and versions under it.
- Release can be done only after creating versions

Versions Example :

For instance, consider a web-based application; there are 10 requirements that need to be developed. There will be 5 more features added to it later on. You can choose to create the project as “Test for STH” version 1 and Version 2. Version1 with 10 requirements, version 2 with 5 new ones.

For version 1 if 5 of the requirements belong to Module 1 and the rest of them belong to module 2. The module 1 and module 2 can be created as separate units.

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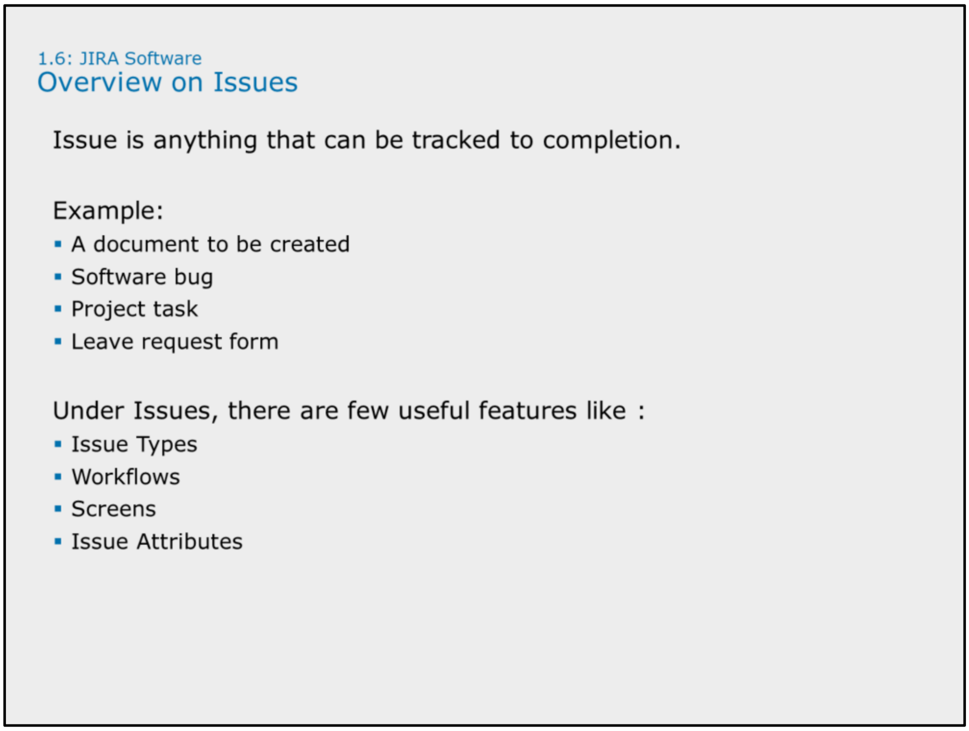


1.6: JIRA Software

Overview on Issues

Issue is anything that can be tracked to completion.

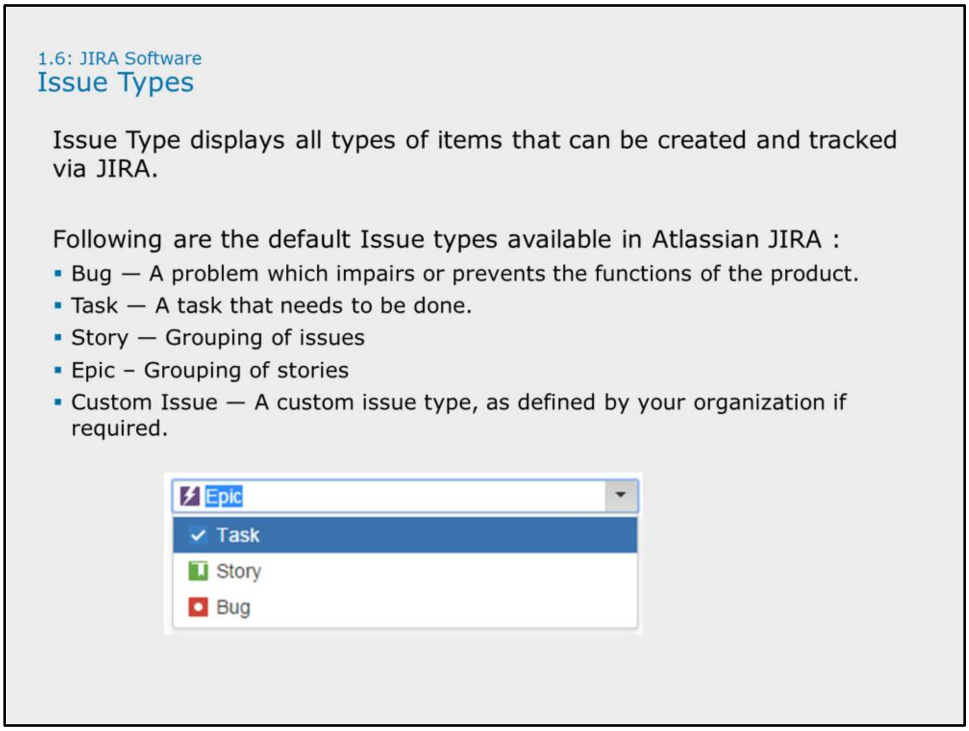
Example:

- A document to be created
- Software bug
- Project task
- Leave request form

Under Issues, there are few useful features like :

- Issue Types
- Workflows
- Screens
- Issue Attributes

Instructor Notes:



1.6: JIRA Software

Issue Types

Issue Type displays all types of items that can be created and tracked via JIRA.

Following are the default Issue types available in Atlassian JIRA :

- Bug — A problem which impairs or prevents the functions of the product.
- Task — A task that needs to be done.
- Story — Grouping of issues
- Epic – Grouping of stories
- Custom Issue — A custom issue type, as defined by your organization if required.

Issue type: This field displays all the types of issues that can be created and tracked via JIRA.
The items Bug, new feature, task, improvement are exactly what their names imply. Epic and story are more relevant to agile projects. Story is a requirement in Agile that needs to be tracked from start to finish. Epic is a group of stories.
Choose the issue type as needed

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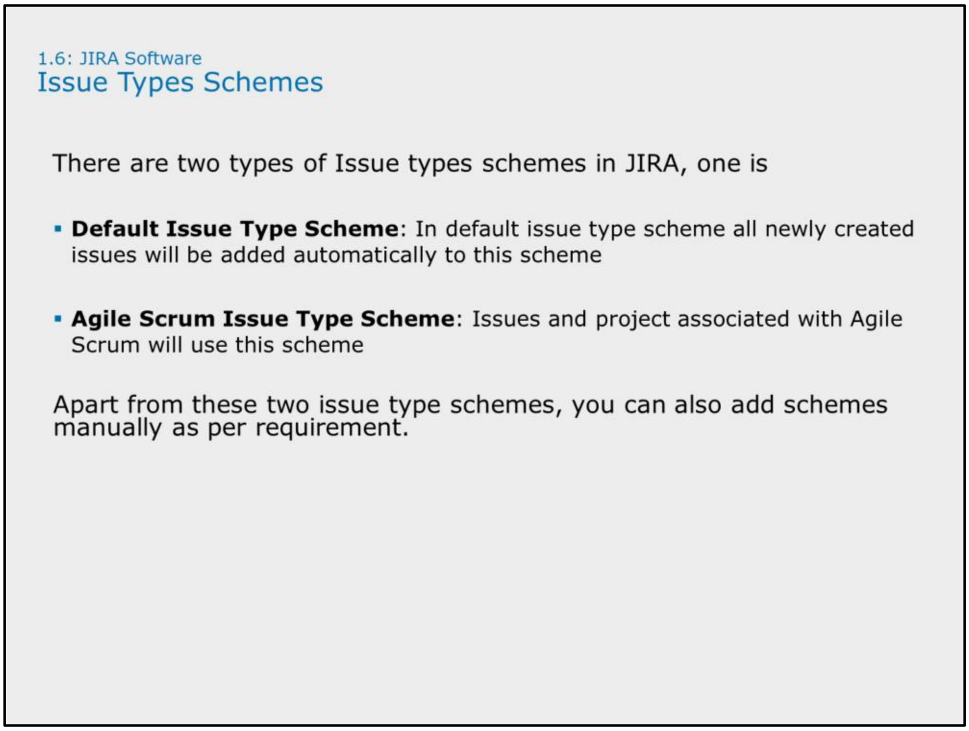

1.6: JIRA Software

Issue Types Schemes

There are two types of Issue types schemes in JIRA, one is

- **Default Issue Type Scheme**: In default issue type scheme all newly created issues will be added automatically to this scheme
- **Agile Scrum Issue Type Scheme**: Issues and project associated with Agile Scrum will use this scheme

Apart from these two issue type schemes, you can also add schemes manually as per requirement.

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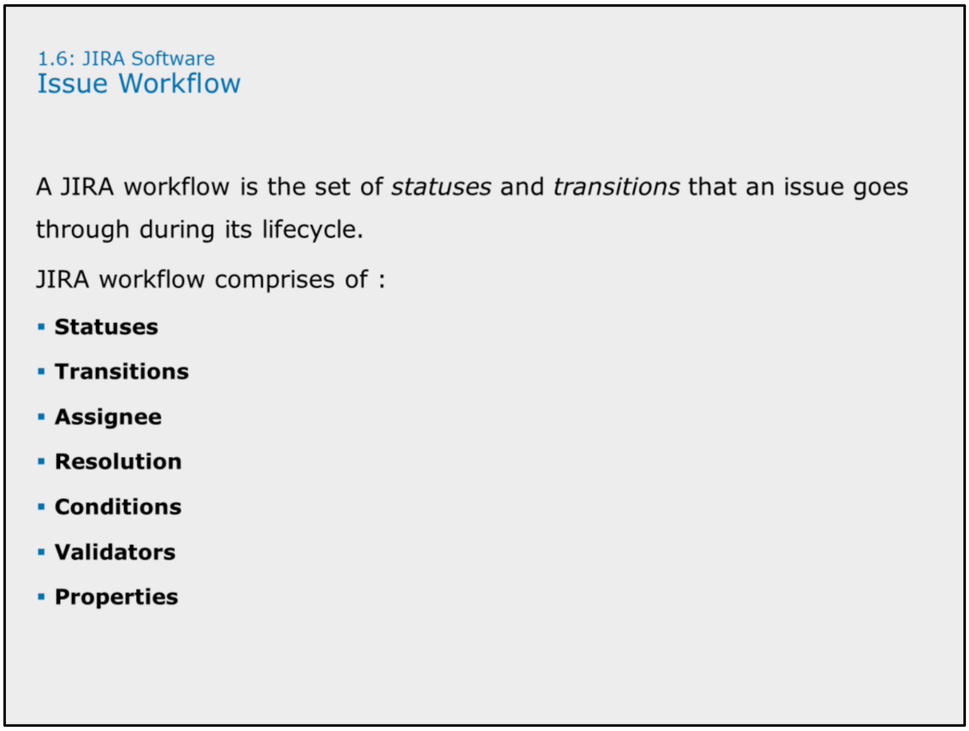

1.6: JIRA Software

Issue Workflow

A JIRA workflow is the set of *statuses* and *transitions* that an issue goes through during its lifecycle.

JIRA workflow comprises of :

- **Statuses**
- **Transitions**
- **Assignee**
- **Resolution**
- **Conditions**
- **Validators**
- **Properties**

Issue Workflow

1. Statuses: Different statuses are used to indicate the progress of a project like **To do, InProgress, Open, Closed, ReOpened, and Resolved.**
2. Transitions: Different transitions are used to indicate the flow of the progress in between two statuses. It includes transitions like **ReOpen Issue, Resolve Issue, Close Issue.**
3. Assignee**:** The assignee dictates the responsible party for any given issue and determines how the task would be executed
4. Resolution: It explains why an issue transitions from an open status to a closed one
5. Conditions: Conditions control who can perform a transition
6. Validators: It can ensure that the transition can happen given the state of the issue
7. Properties: JIRA recognizes some properties on transitions

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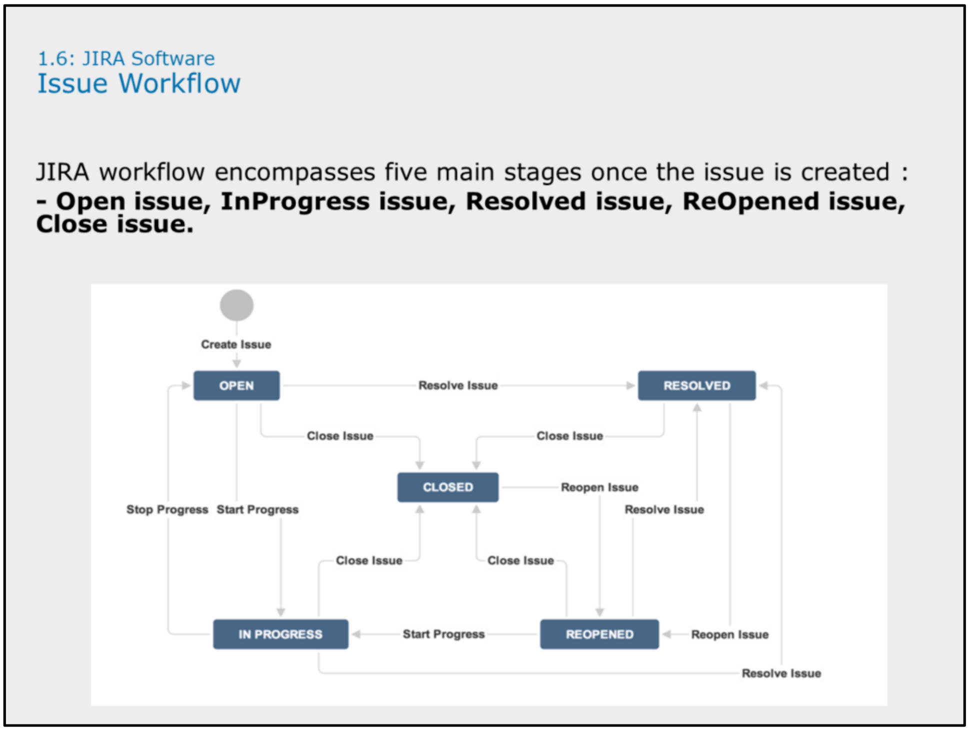

1.6: JIRA Software

Issue Workflow

JIRA workflow encompasses five main stages once the issue is created :

- Open issue, InProgress issue, Resolved issue, ReOpened issue, Close issue.

Issue Workflow

OPEN : The issue is open and ready for the assignee to start on it
IN PROGRESS :This issue is being actively worked on at the moment by the assignee
REOPENED : This issue was once resolved but deemed to be incorrect.
RESOLVED : The issue is fixed and awaiting for the verification by reporter.
CLOSED : The issue is considered finished and correct.

A transition is a one-way link, if an issue moves back and forth between two statuses; two transitions should be created.
Example − There are two-way transitions between closed and re-opened statuses. A closed issue can be reopened if any modifications are required at any time until the project completes, while a re-opened issue can be closed directly if additional work is taken care in another issue and no specific work has been done on the re-opened issue.

Instructor Notes:

1.6: JIRA Software

Issue Attributes

Issue Attributes comprises of :

- Statuses
- Resolutions
- Priorities

Issue Attributes

1. Statuses: Different statuses are used to indicate the progress of a project like **To do, InProgress, Open, Closed, ReOpened, and Resolved**
2. Resolutions tells about the progress of issue like **Fixed, Won't fix, Duplicate, Incomplete, Cannot reproduce, Done**
3. Priorities tell whether an issue is **critical, major, minor, blocker and Trivial.**

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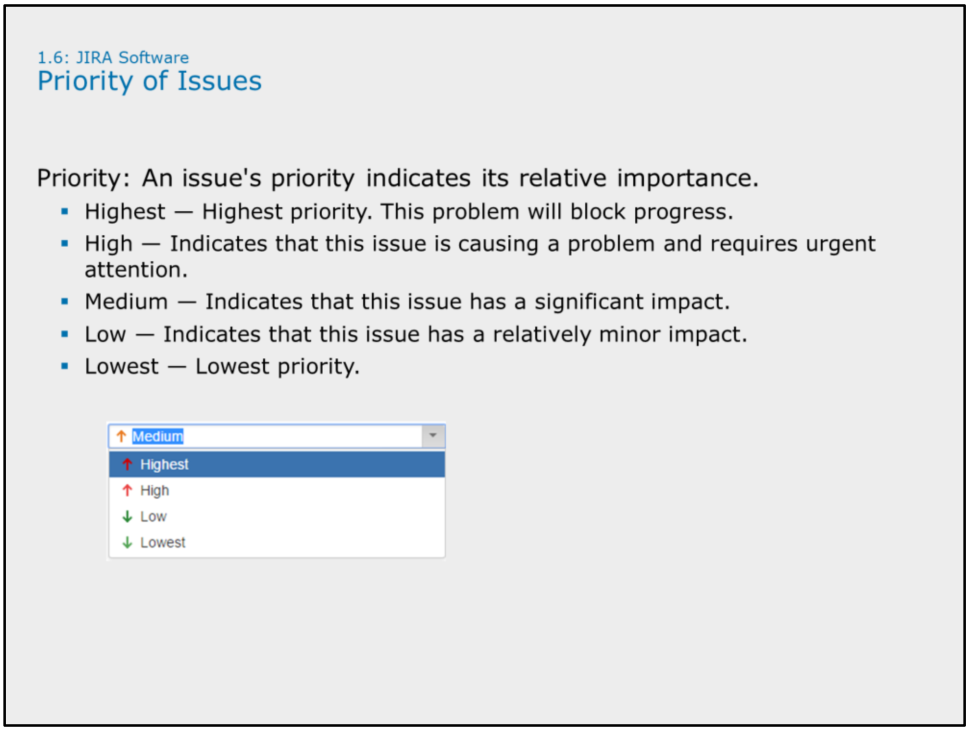

1.6: JIRA Software

Priority of Issues

Priority: An issue's priority indicates its relative importance.

- Highest — Highest priority. This problem will block progress.
- High — Indicates that this issue is causing a problem and requires urgent attention.
- Medium — Indicates that this issue has a significant impact.
- Low — Indicates that this issue has a relatively minor impact.
- Lowest — Lowest priority.

↑ Medium

↑ Highest
↑ High
↓ Low
↓ Lowest

Add the notes here.

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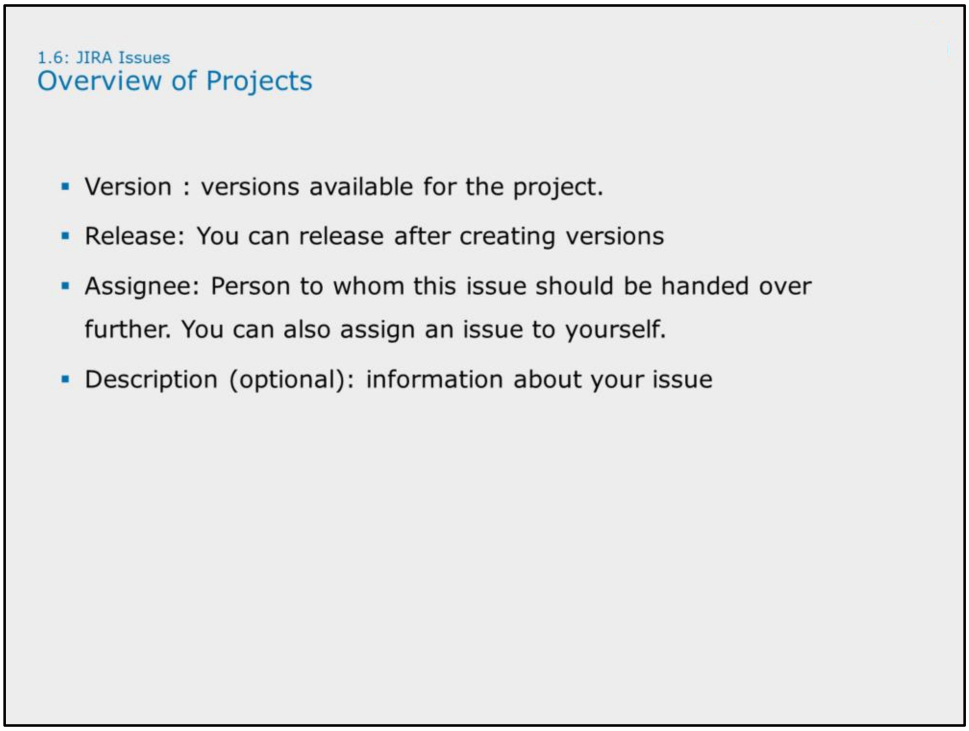

1.6: JIRA Issues

Overview of Projects

- Version : versions available for the project.
- Release: You can release after creating versions
- Assignee: Person to whom this issue should be handed over further. You can also assign an issue to yourself.
- Description (optional): information about your issue

Component: This list will display the components of the Project.
Affected Version and Fix version: These two fields will display the versions available for the project. It is not necessary that a certain issue that you encountered in a certain version gets fixed in the same one. In cases like that, you can choose the affected version as the current version and fix version as the next one.
Also, these fields can take multiple values. You can choose to set that a certain issue affects both version 1 and version 2 as below:
Assignee: You can type the name of the person to whom this issue should be handed over further. You can also assign an issue to yourself.

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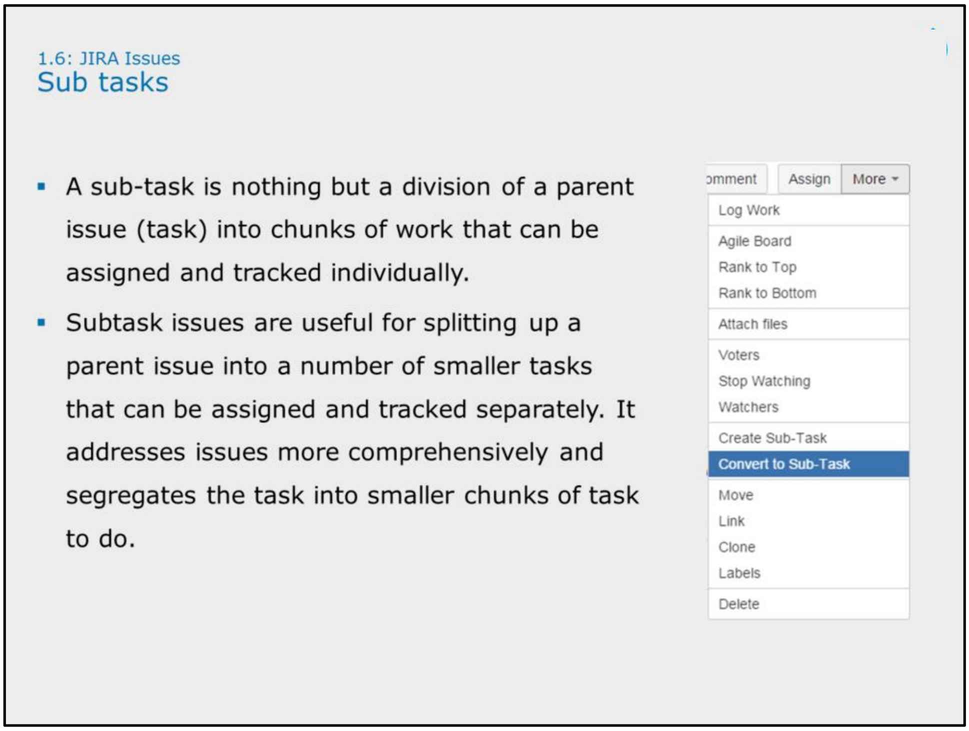

1.6: JIRA Issues

Sub tasks

- A sub-task is nothing but a division of a parent issue (task) into chunks of work that can be assigned and tracked individually.
- Subtask issues are useful for splitting up a parent issue into a number of smaller tasks that can be assigned and tracked separately. It addresses issues more comprehensively and segregates the task into smaller chunks of task to do.

Instructor Notes:

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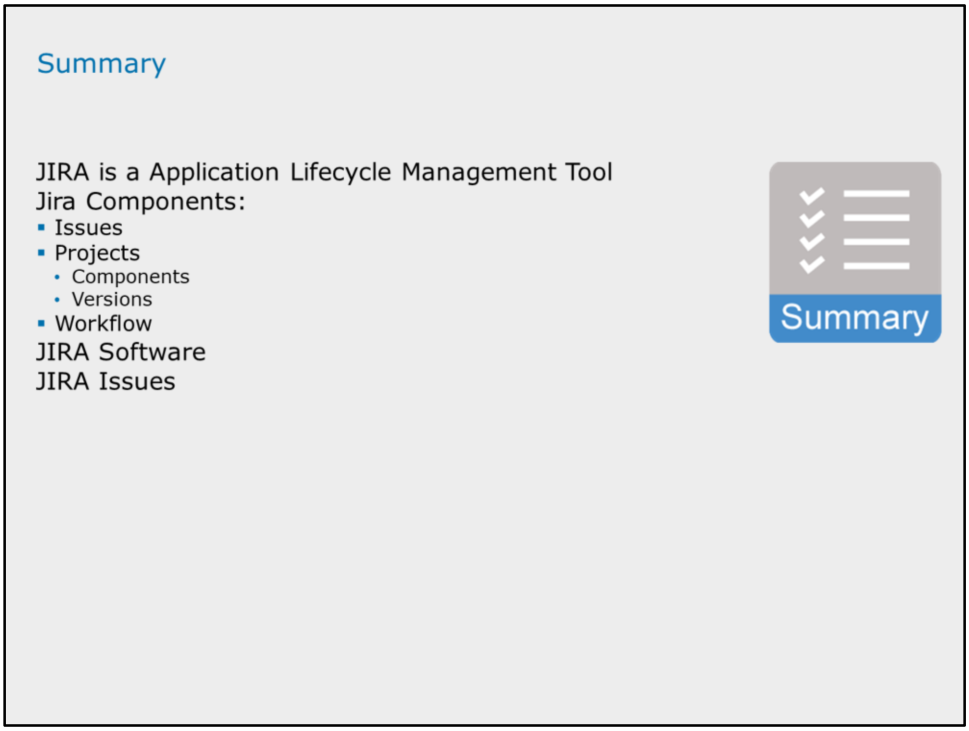


Summary

JIRA is a Application Lifecycle Management Tool

Jira Components:

- Issues
- Projects
  - Components
  - Versions
- Workflow

JIRA Software

JIRA Issues

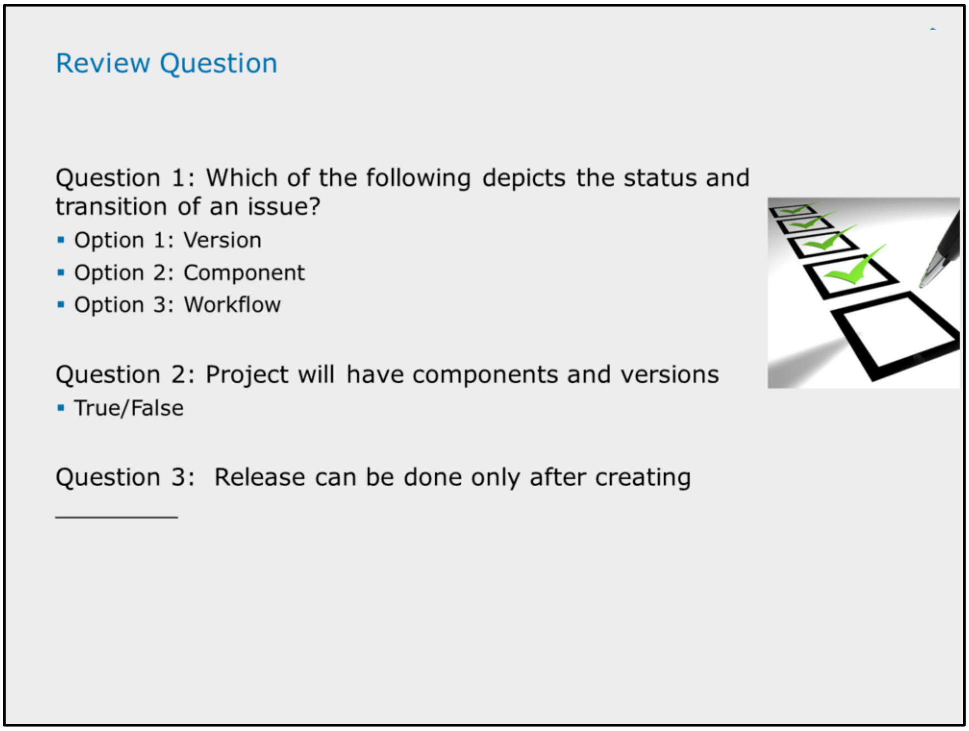
Add the notes here.

Instructor Notes:

Answers:

Question1. All of the above

Question 2: main()



Review Question

Question 1: Which of the following depicts the status and transition of an issue?

- Option 1: Version
- Option 2: Component
- Option 3: Workflow

Question 2: Project will have components and versions

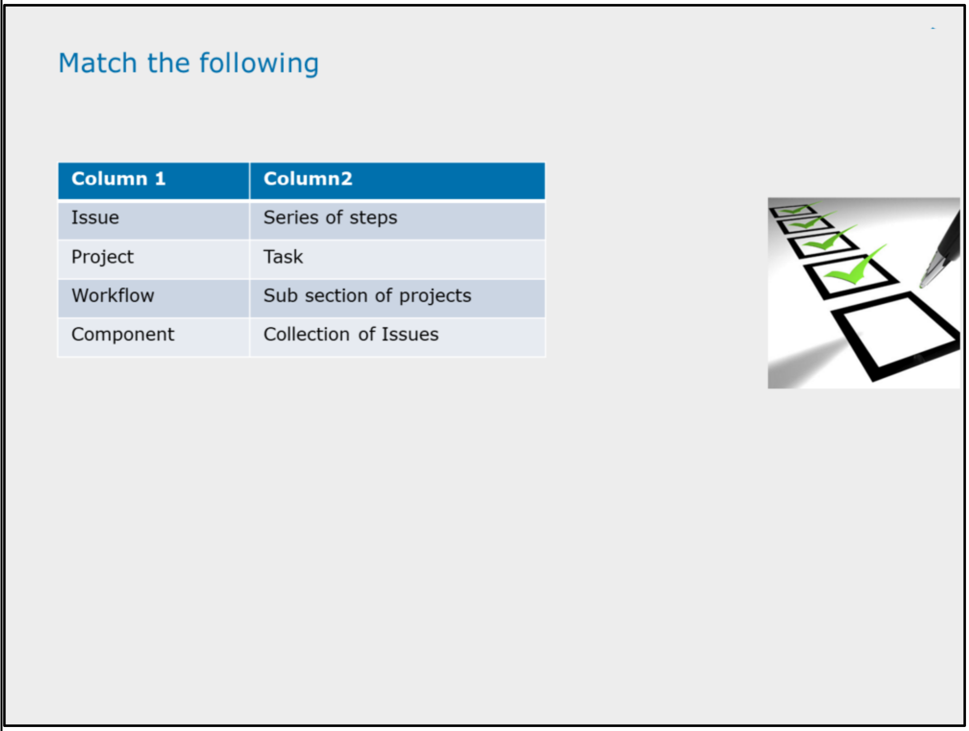
- True/False

Question 3: Release can be done only after creating

____

Add the notes here.

Instructor Notes:



Match the following

Column 1	Column2
Issue	Series of steps
Project	Task
Workflow	Sub section of projects
Component	Collection of Issues