

School of Computer Science Engineering and Technology

Course- B.Tech.
Course Code- CSET205
Year- 2023-24
DAY: MONDAY

Type- Core
Course Name: Software Engineering
Semester- Even
Batch- All

Lab Assignment 05 –

CO-Mapping

Exp. No.	Name	CO1	CO2	CO3
05	Agile scrum project management	--	✓	✓

Objective: The main objective of this assignment is to demonstrate the setup and management of software development in Agile working environment.

Agile Software development: Agile software development is more than a software framework. It is an umbrella, consists of agile development practices and frameworks based on agile manifesto and principles.

JIRA: JIRA is an online software suite to setup and manage agile software development. Jira Software is an agile project management tool that **supports any agile methodology, be it scrum, kanban, or your own unique flavour**. From agile boards, backlogs, roadmaps, reports, to integrations and add-ons you can plan, track, and manage all your agile software development projects from a single tool.

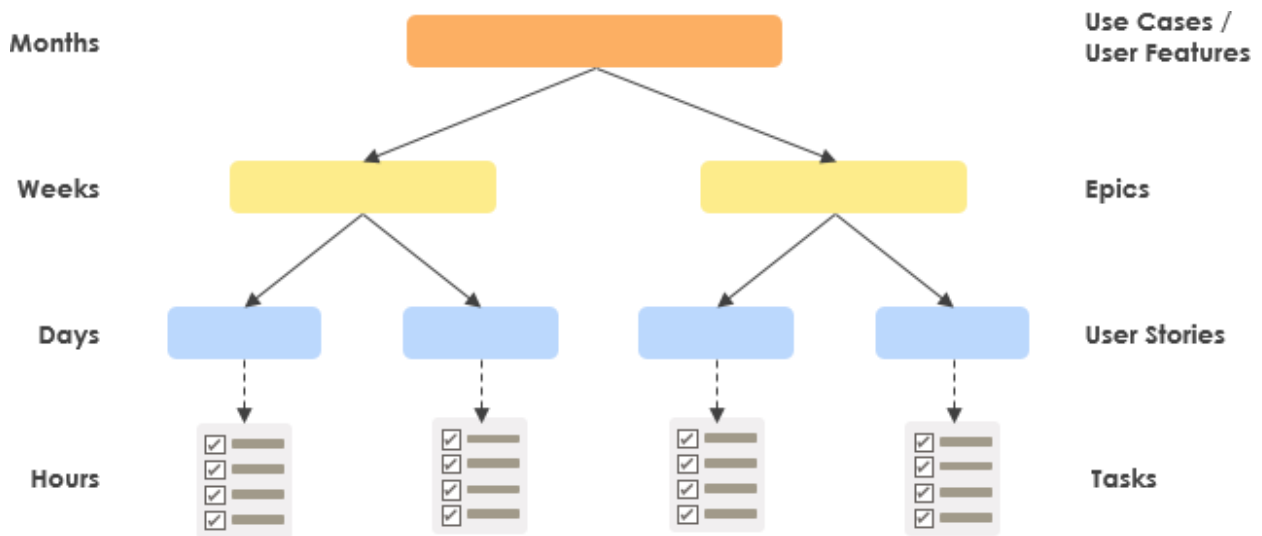
For more information, please visit the following link.

<https://www.atlassian.com/software/jira/agile>

Product Backlog: A product backlog is a prioritized list of work for the development team that is derived from the roadmap and its requirements. The most important items are shown at the top of the product backlog so the team knows what to deliver first.

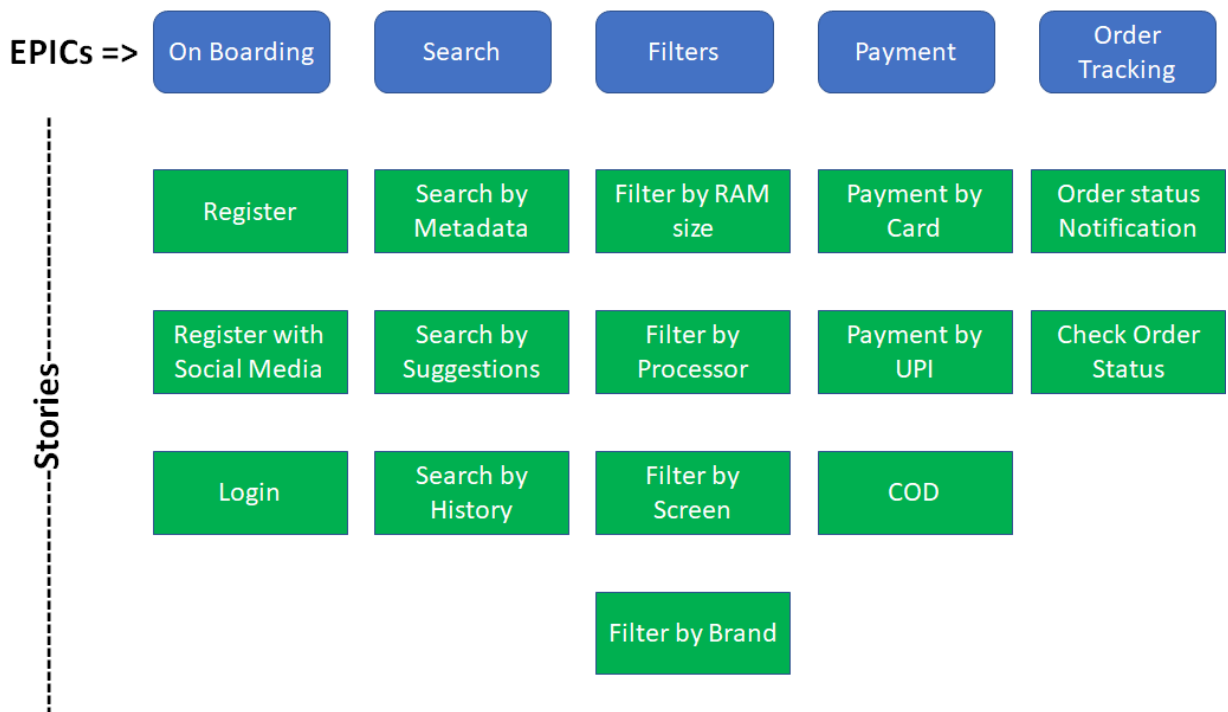
[<https://www.atlassian.com/agile/scrum/backlogs>]

1. Product backlog is a list which contains all the requirements or features of the product/ Software to be developed.
2. Product backlog is divided into N number of Epics.
3. Each Epics can be divided into Y number of Stories (User Stories).
4. Each story will be further divided into X number of sub-tasks.

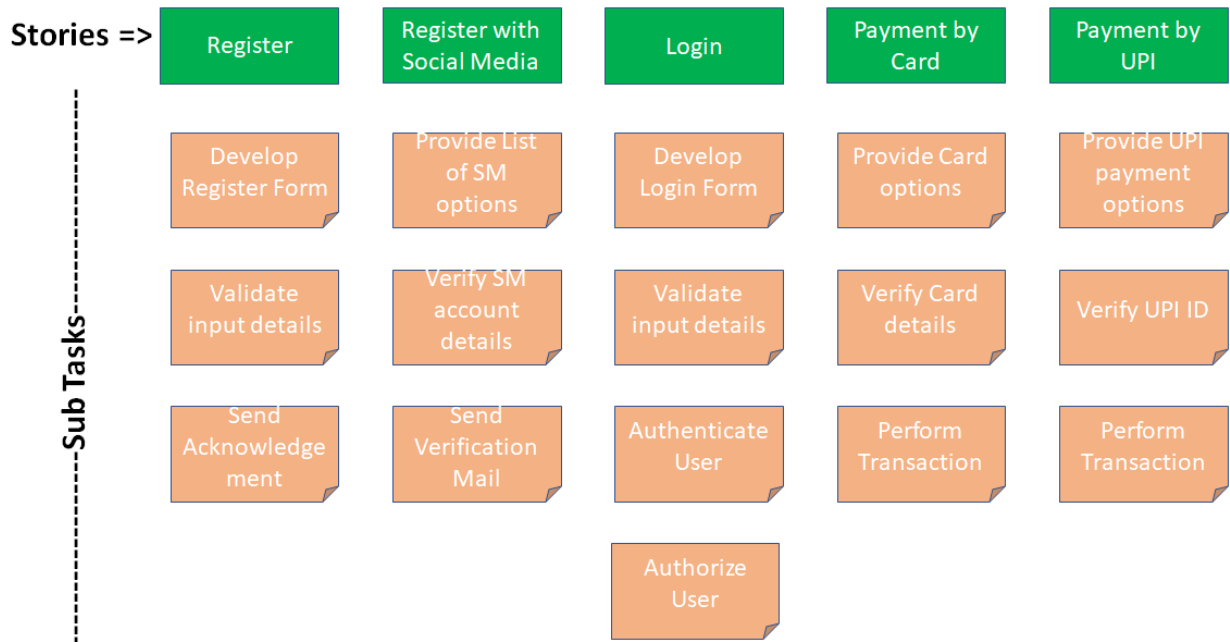


[<https://www.visual-paradigm.com/scrum/theme-epic-user-story-task/>]

Example: Epics and Stories (User Stories) for an Online Mobile Store.



Example: Stories (User Stories) and Sub-Tasks.



Problem Statement:

Identify Epics, Stories, and sub-tasks for the Following Software Problem and feed them into ZIRA:

Online Examination Portal

Assignment details: Assignment is divided into three parts:

Part 01: Project Setup on ZIRA.

Part 02: Feed software requirements into the project.

- A. Backlog creation (Stories)**
- B. Epics creation**
- C. Sub-Task creation**
- D. Sprint creation**

Demo video link: <https://youtu.be/XdP4yeStEyU>

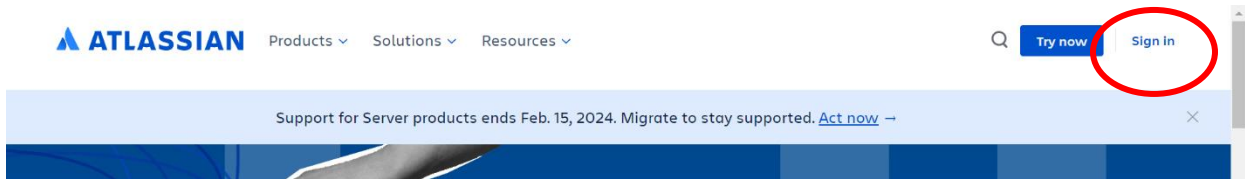
Part 03: Creating Bit-Bucket/ GitHub repository and connect a separate branch with each story.

Demo video link: https://youtu.be/OtXri_oDcQ

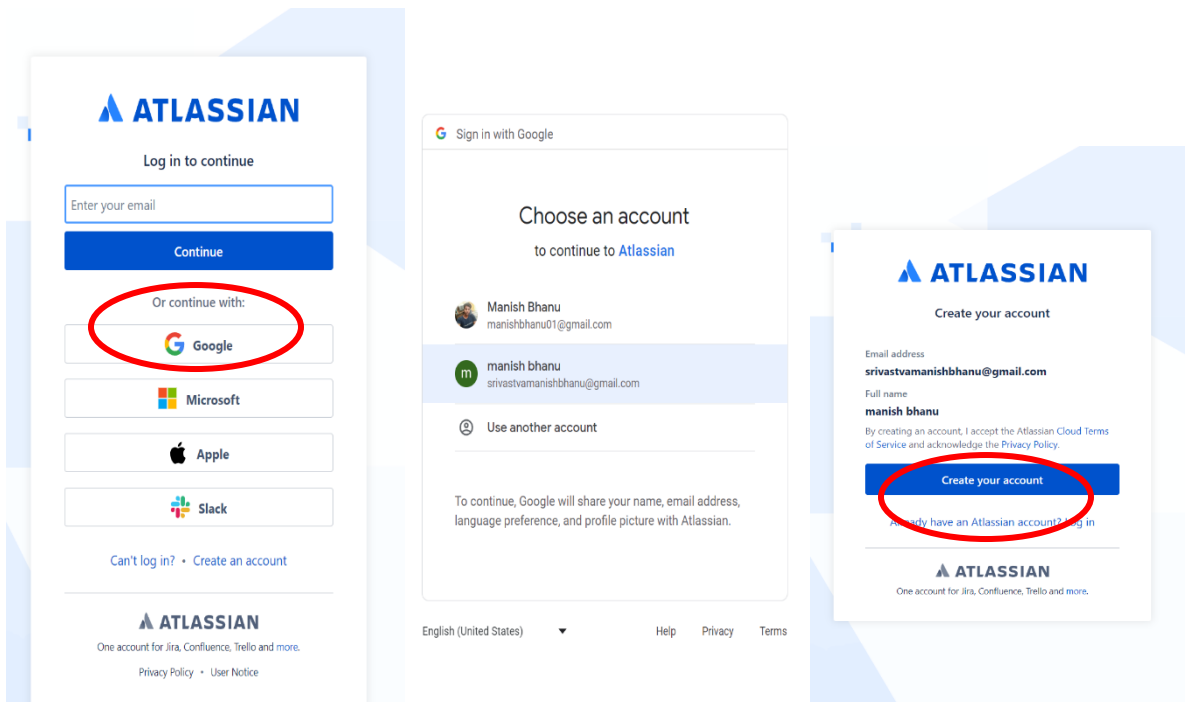
[Follow the execution flow to complete your assignment as given ahead]

Part 01: Setup you project on JIRA.

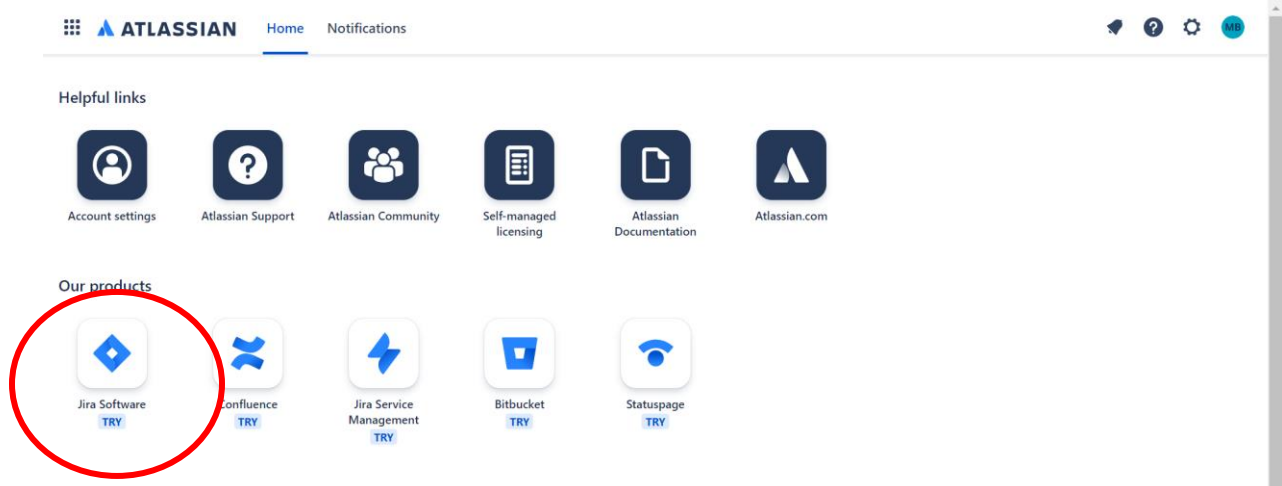
1. Visit <https://www.atlassian.com/> and click on Sign In.



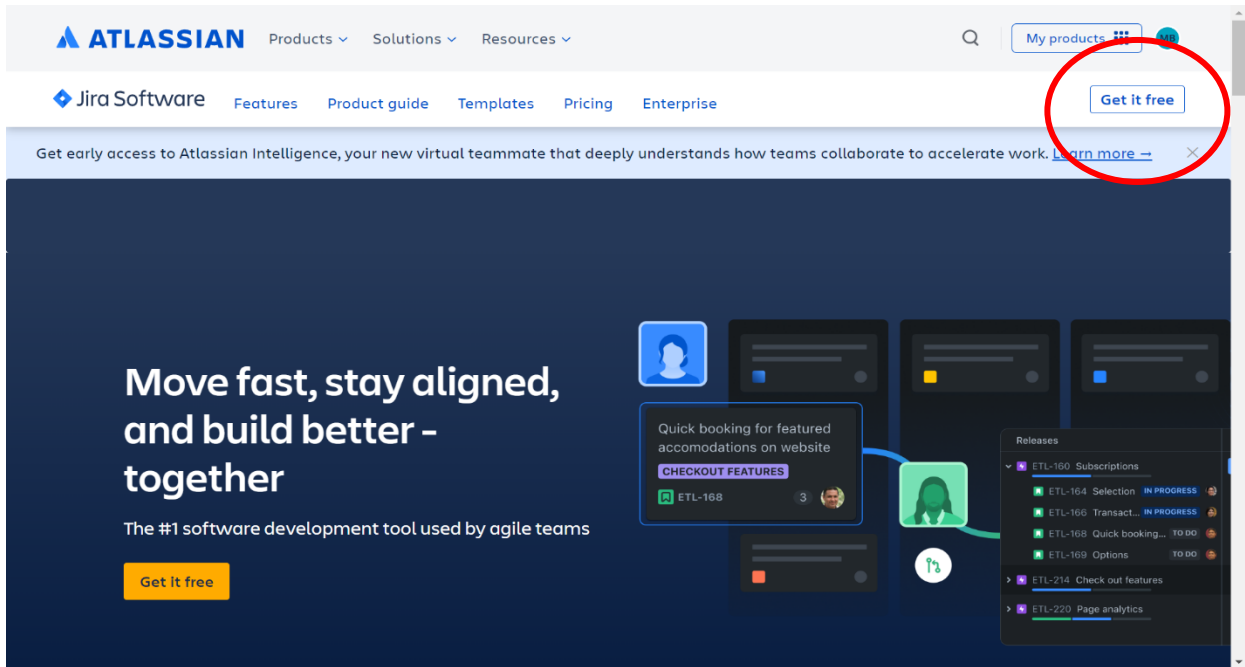
2. Click on **continue** with the Google account. **(Do not use Bennett Account)**



3. Select **Jira Software** Option.



4. Click on “Get it Free”.



5. Enter your site name. [Your Enrolment Id]

Two screenshots of the Atlassian account setup page. The left screenshot shows the 'Your site' field empty. The right screenshot shows the 'Your site' field filled with 'manish007' and a green checkmark, with a red circle highlighting the field.

Both screenshots show the following elements:

- Header: Welcome back, manish
- Work email: srivastvamanishbhanu@gmail.com
- Link: Sign in with a different Atlassian account
- Your site: .atlassian.net
- Agree button
- NO CREDIT CARD REQUIRED
- ATLASSIAN logo

6. Skip these options.

Tell us a bit about yourself
This helps us personalise your experience.

What type of team do you work in?

Sales Operations Human Resources
Marketing Legal IT Support
Customer Service Finance
Software Development
Other

Skip question

We keep your info safe in accordance with our [privacy policy](#).

Tell us a bit about yourself
This helps us personalise your experience.

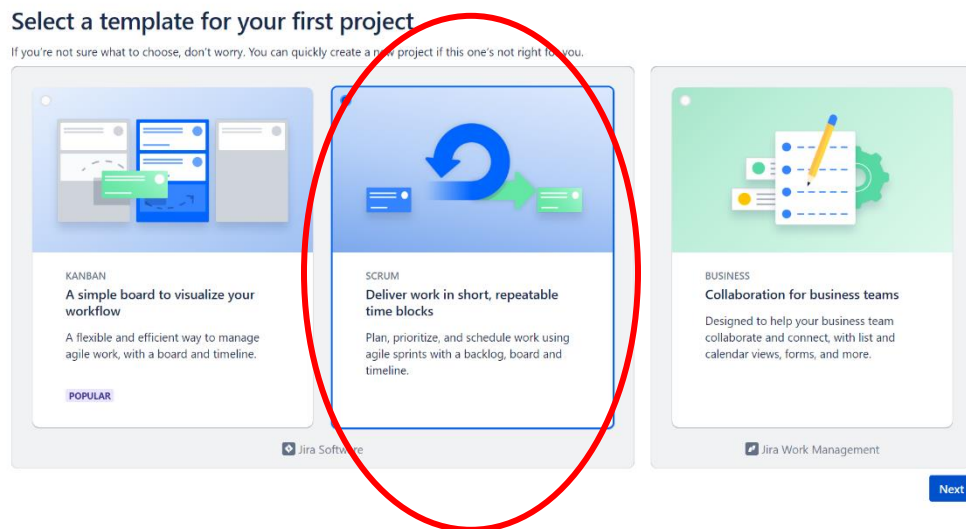
What are your main tasks? (Multiple choice)

☐ Security and data management
☐ Design and/or diagramming
☐ Providing support and help desk
☐ Testing and quality assurance (QA)
☐ Productivity tracking and reporting
☐ Improving workflows and processes
☐ Documentation and file management
☐ Code writing and reviews
☐ Project planning and coordination

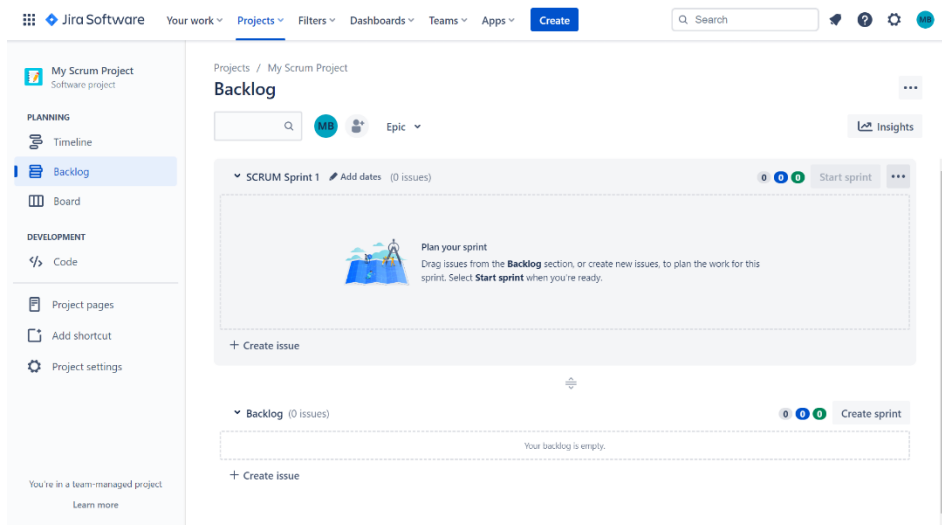
Skip question Next

We keep your info safe in accordance with our [privacy policy](#).

7. Select **Scrum** template. [do not select Kanban]



8. Project setup completed. You will be on the Home page of your Scrum project.



[Part 01 Completed.]

Part 02: Feed Requirements [Backlog, Epic, Story, Sub-task]

1. Click on **create Issue** => Write the story text.
Feed all your stories and create the Backlog.

The image displays two screenshots of the Jira Software interface, specifically the 'My Scrum Project' Backlog view.

Top Screenshot: The interface shows the 'Backlog' section with 0 issues. A red circle highlights the '+ Create issue' button. The 'SCRUM Sprint 1' section is also visible, showing 0 issues and a 'Start sprint' button.

Bottom Screenshot: The interface shows the 'Backlog' section with 4 issues. The issues are listed as follows:

Issue Key	Issue Description	Status	Assignee
SCRUM-1	Seller can showcase his/her products on online store	TO DO	[Avatar]
SCRUM-2	Seller can update product details	TO DO	[Avatar]
SCRUM-3	Buyer can search Products	TO DO	[Avatar]
SCRUM-4	Buyer can place purchase order	TO DO	[Avatar]

[Your backlog section after feeding all the stories.]

2. Epic Creation: Click on **Epic** Tab => activate Epic panel. => Click on **create Epic**. Create N number of Epics.

The image displays two screenshots of the Jira Software interface, illustrating the steps to create an epic.

Top Screenshot: The interface shows the "My Scrum Project" backlog. The "Epic" dropdown menu is open, and the "Epic panel" toggle is currently turned off. The message "Your project has no Epic" is displayed. The backlog contains four issues: "SCRUM-1 Seller can showcase his/her products on online store", "SCRUM-2 Seller can update product details", "SCRUM-3 Buyer can search Products", and "SCRUM-4 Buyer can place purchase order".

Bottom Screenshot: The interface shows the "My Scrum Project" backlog. The "Epic" dropdown menu is open, and the "Epic panel" toggle is now turned on. The message "Your project has no Epic" is still displayed. The "+ Create epic" button is highlighted with a red circle. The backlog contains the same four issues as the top screenshot.

3. Assign Stories to Epics: Drag stories towards the required Epic.

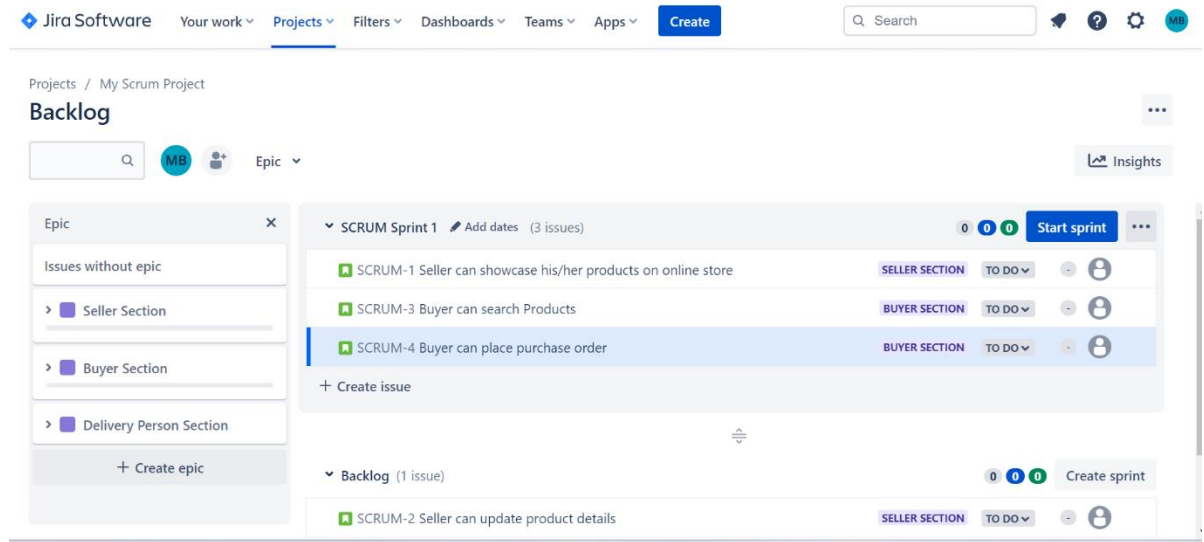
The image consists of two screenshots of the Jira Software interface, illustrating the process of assigning stories to epics.

Top Screenshot: The 'Backlog' view for 'My Scrum Project' is shown. On the left, a sidebar lists 'PLANNING' (Timeline, Backlog, Board) and 'DEVELOPMENT' (Code, Project pages, Add shortcut, Project settings). The main area shows the 'Backlog' with a search bar, filters, and a list of issues. A modal window titled 'Epic' is open, showing a list of sections: 'Issues without epic', 'Seller Section', 'Buyer Section', and 'Delivery Person Section'. A text input field below the sections asks 'What will the Epic be called?'. An arrow points from the 'Seller Section' in the modal to the first issue in the backlog, 'SCRUM-1 Seller can showcase his/her products on online store'.

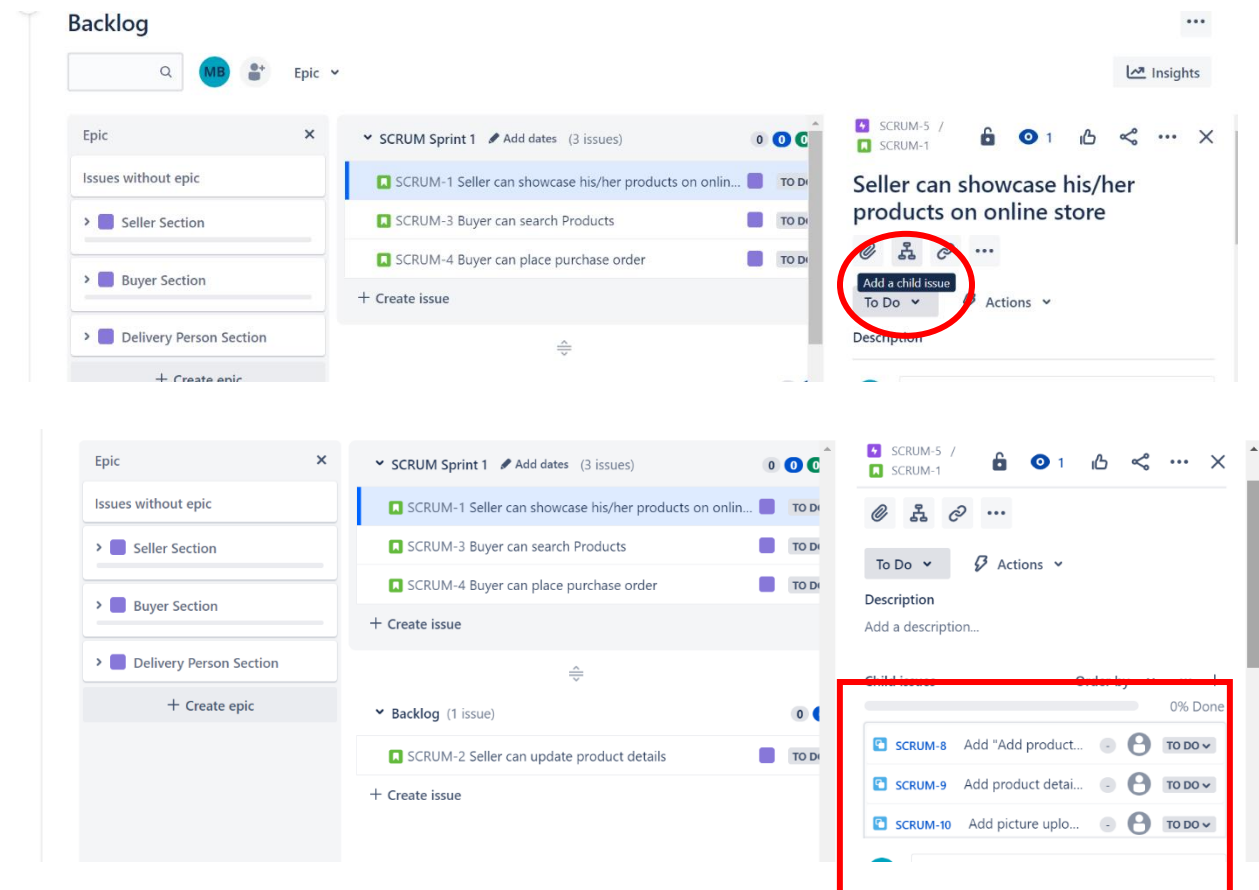
Bottom Screenshot: The same 'Backlog' view is shown, but the 'Epic' modal is now closed. The backlog list shows four issues, each with a tag indicating its assigned epic: 'SCRUM-1 Seller can showcase his/her products on online store' is tagged 'SELLER SECTION', 'SCRUM-2 Seller can update product details' is tagged 'SELLER SECTION', 'SCRUM-3 Buyer can search Products' is tagged 'BUYER SECTION', and 'SCRUM-4 Buyer can place purchase order' is tagged 'BUYER SECTION'. A red circle highlights the tags for the first two issues, 'SELLER SECTION'.

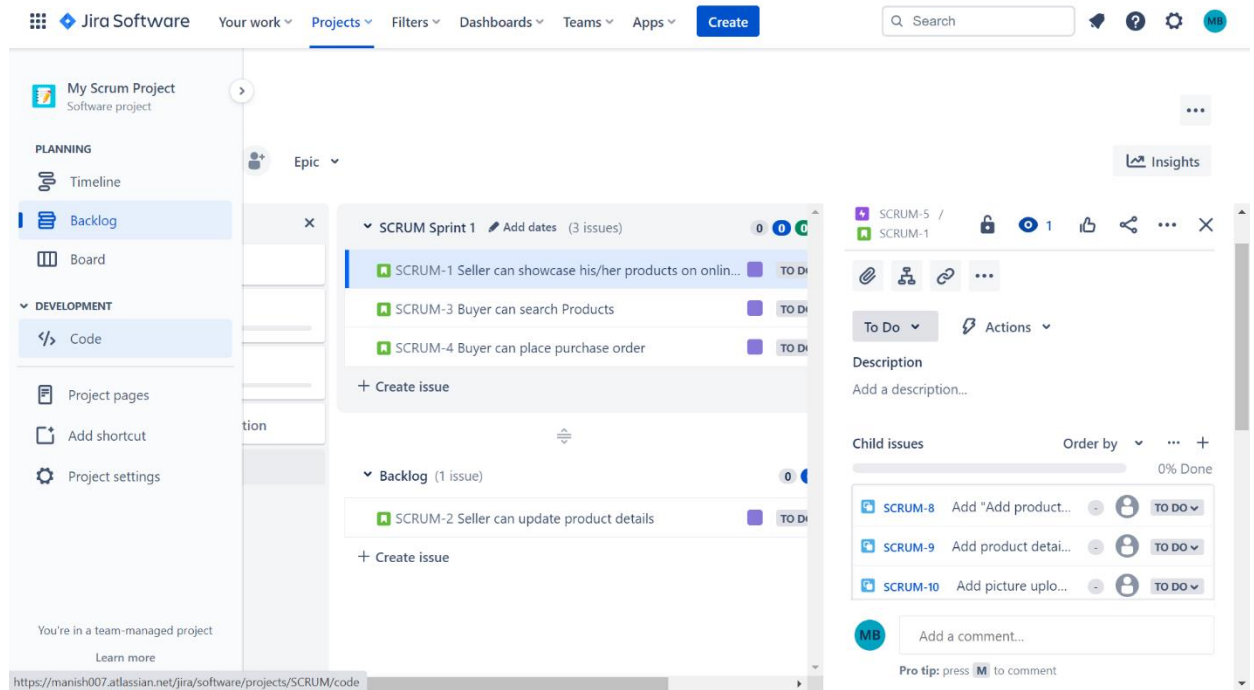
[All your stories will be tagged with the name of the assigned Epic]

4. Distribute stories into different Sprints.



5. Add Sub tasks: Click on a particular story => A new panel will open=> Click on **add a child issue** => enter sub-task text. Add at least 3 sub task under each story.





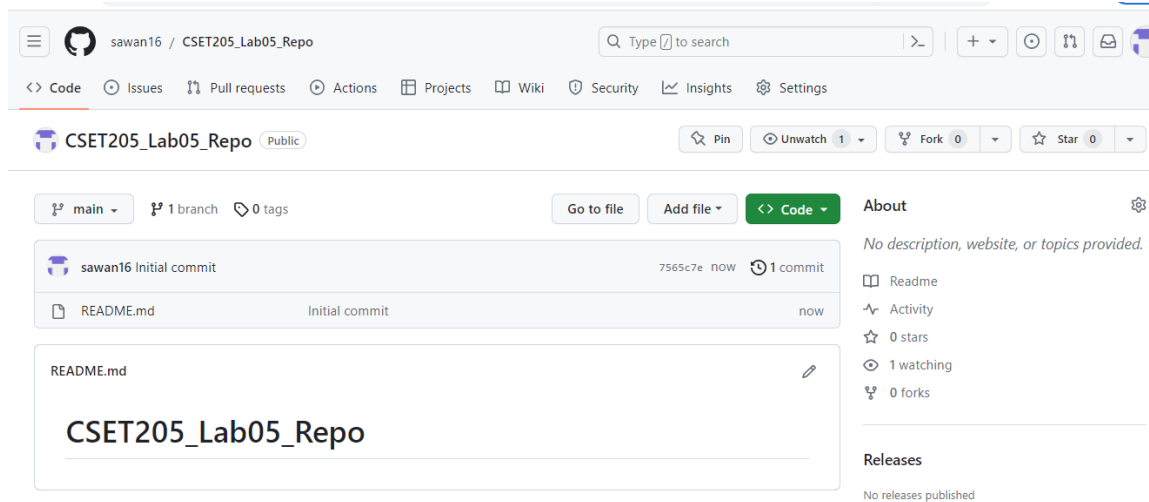
[After adding sub-tasks]

Add at least 2 Epics in your project.
Add at least 2 stories in each epic.
Add at least 3 sub-tasks in each story.

[PART 02 Completed]

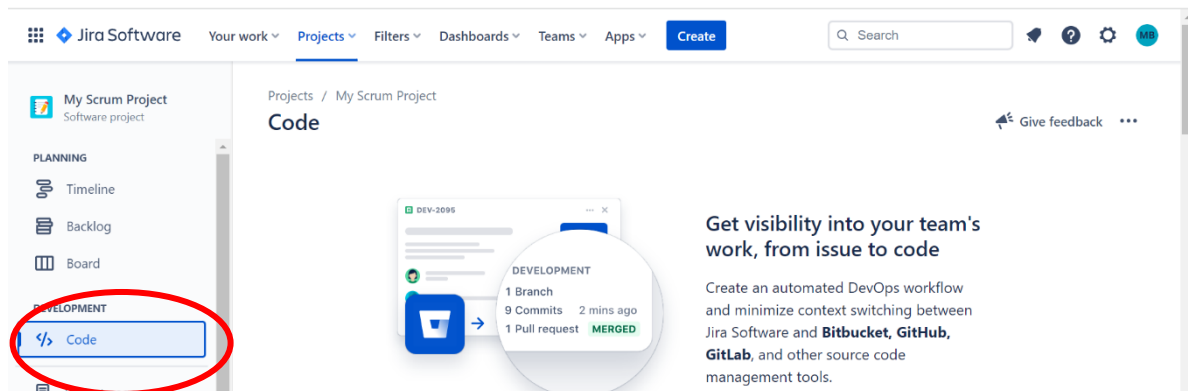
Part 03: Creating GitHub/ BitBucket repository and connect a separate branch with each story.

Before starting this part: Create a fresh GitHub repository:
Repository name: <Enrolment_ID>_Lab_05

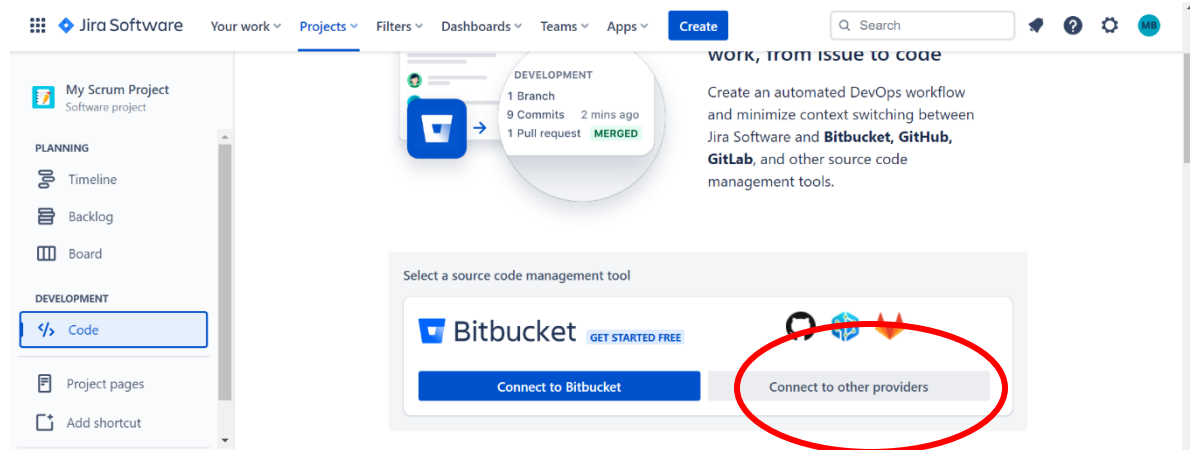


[My repository for the Part 03 demo]

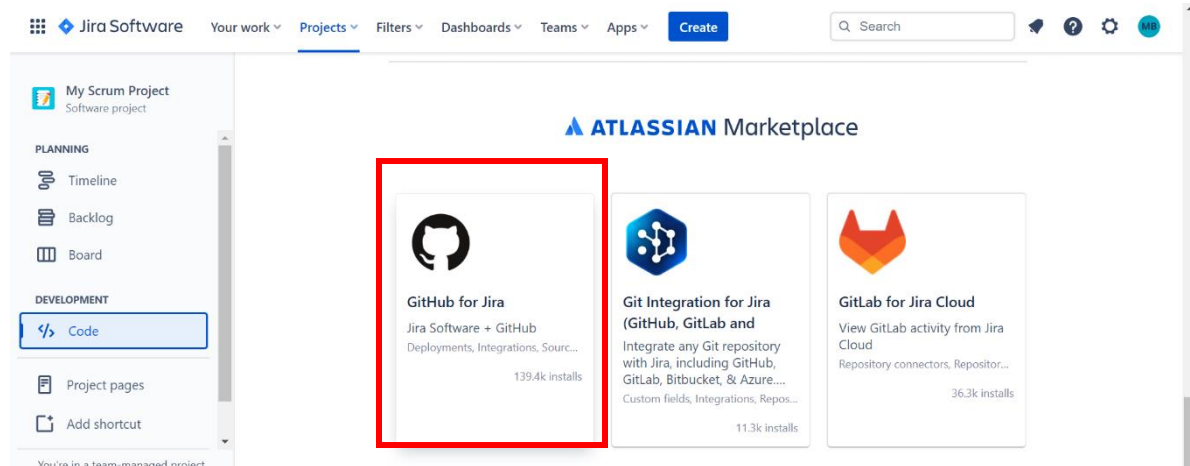
3.1: Click on **</> code** => You will be on the Code Connection Setup Page.



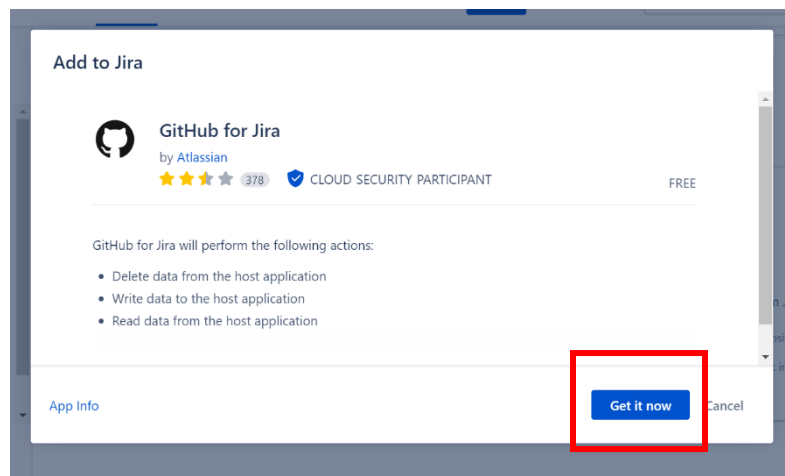
3.2 GitHub connection is demonstrated here. Choose **Connect to other providers**

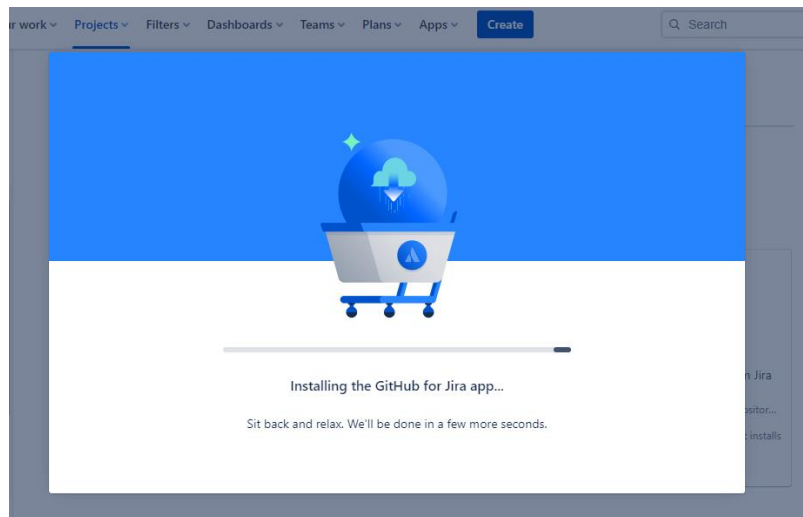


3.3 Select GitHub for Jira option.

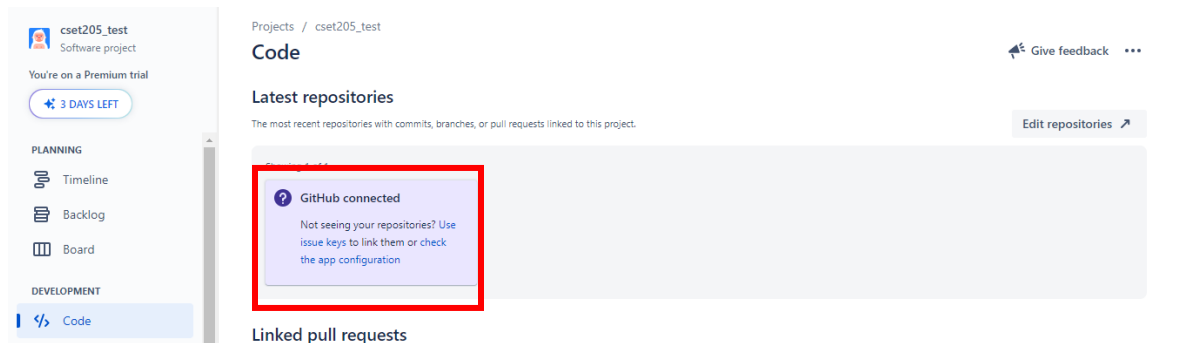


3.4 Click on **Get it now**.



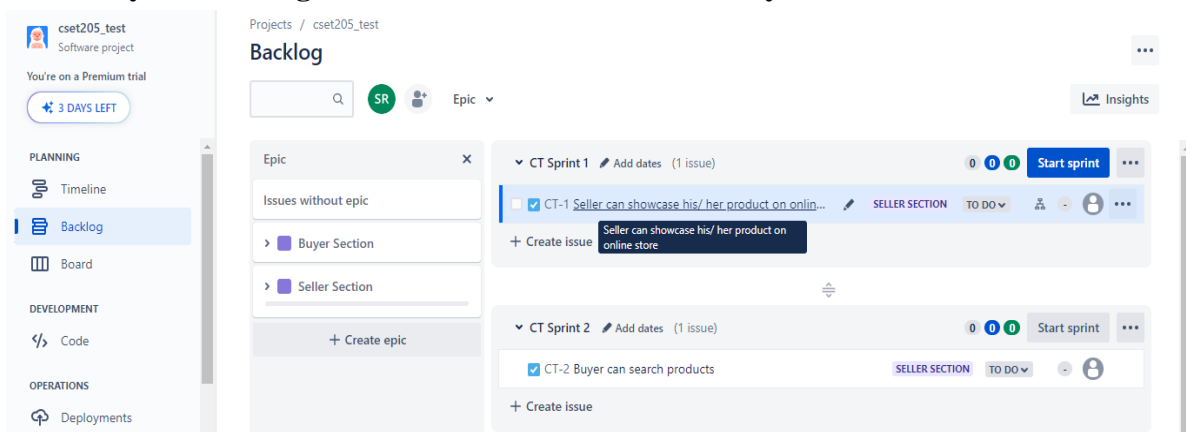


[Now your Github App is connected to your Jira Project. But Its not Configured]



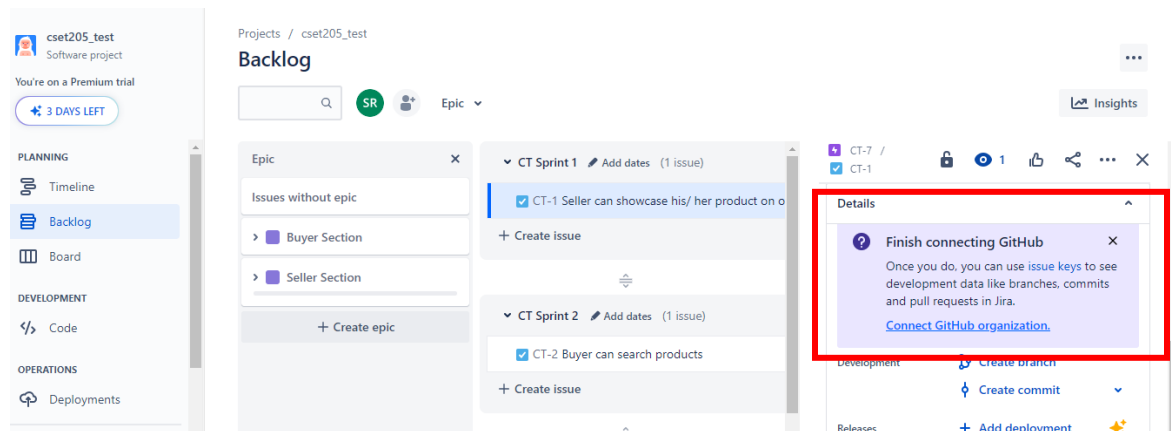
3.5 Now Go back to the Project. [Click on Projects option given in the top menu bar. => Select your project].

3.6 Go to your Backlog section. => Click on the first story.

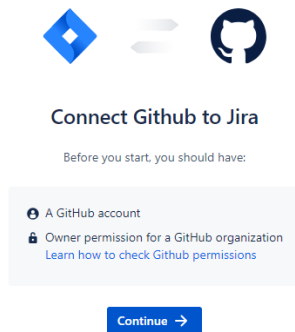


3.7 A new side panel will open => slide down =>

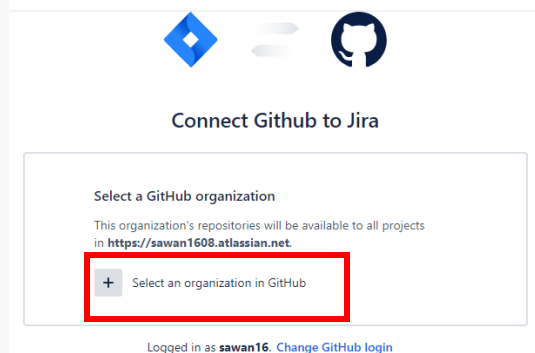
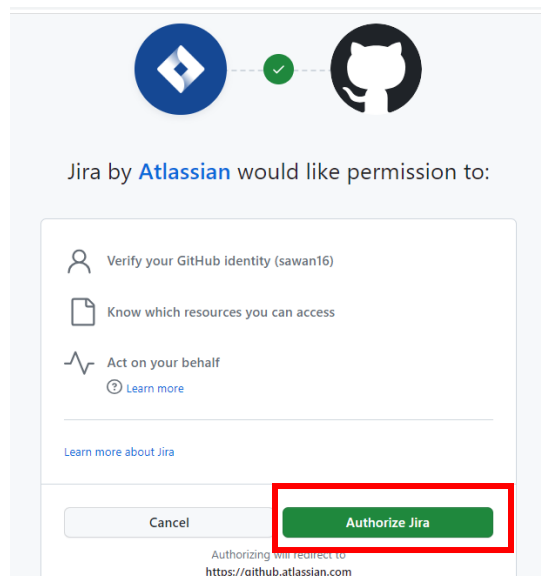
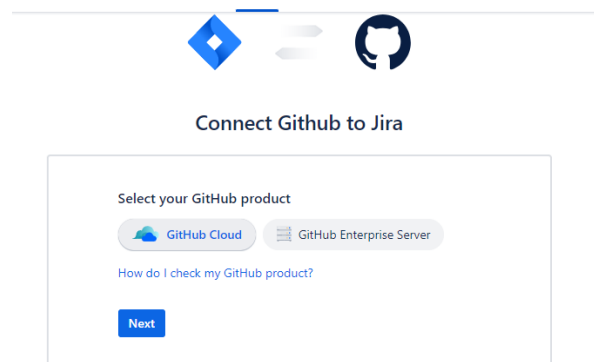
Click on **Connect Github Organization**



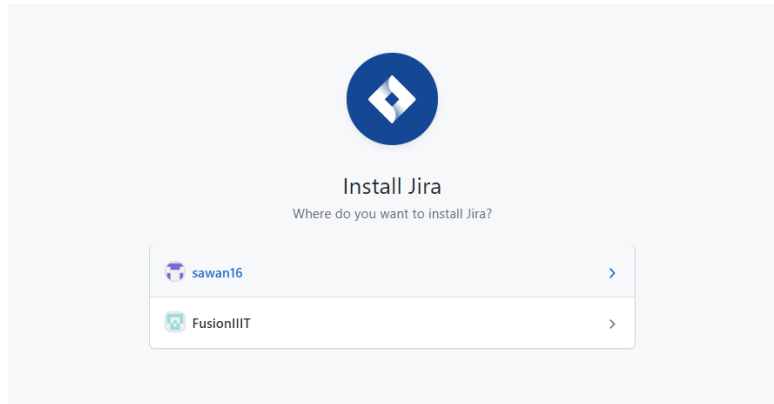
3.8 Click on **continue**.



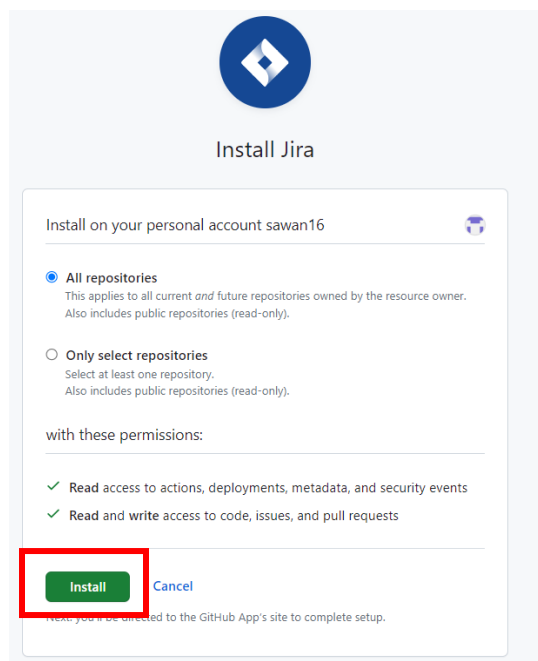
3.9 Click **Next**.



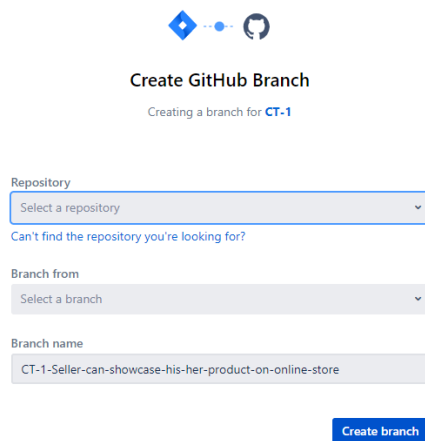
3.10 Select your GitHub username.



3.11: click on **Install**.



3.12 Select Repository to connect with the Jira Project. [Select which you have just created] => Click on **Create branch**



Create GitHub Branch
Creating a branch for **CT-1**

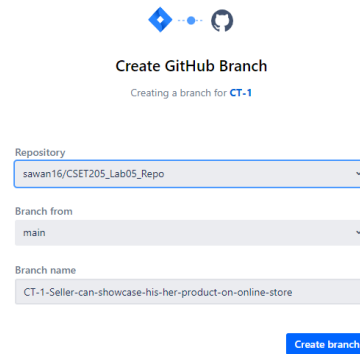
Repository
Select a repository

Can't find the repository you're looking for?

Branch from
Select a branch

Branch name
CT-1-Seller-can-showcase-his-her-product-on-online-store

Create branch



Create GitHub Branch
Creating a branch for **CT-1**

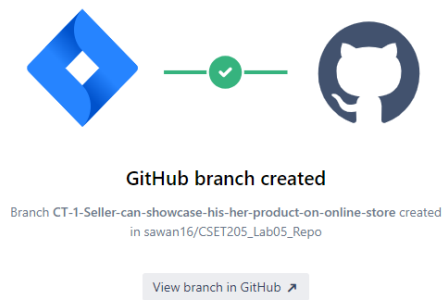
Repository
sawan16/CSET205_Lab05_Repo

Branch from
main

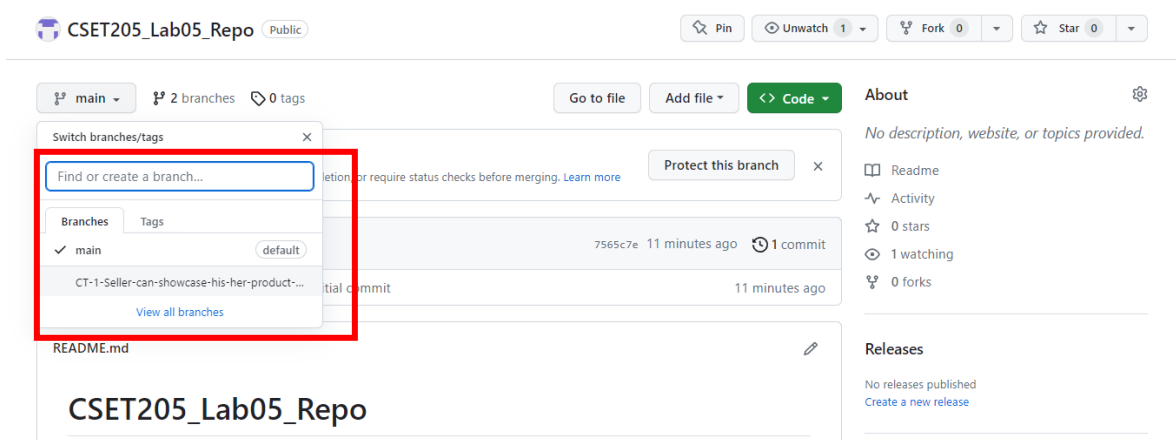
Branch name
CT-1-Seller-can-showcase-his-her-product-on-online-store

Create branch

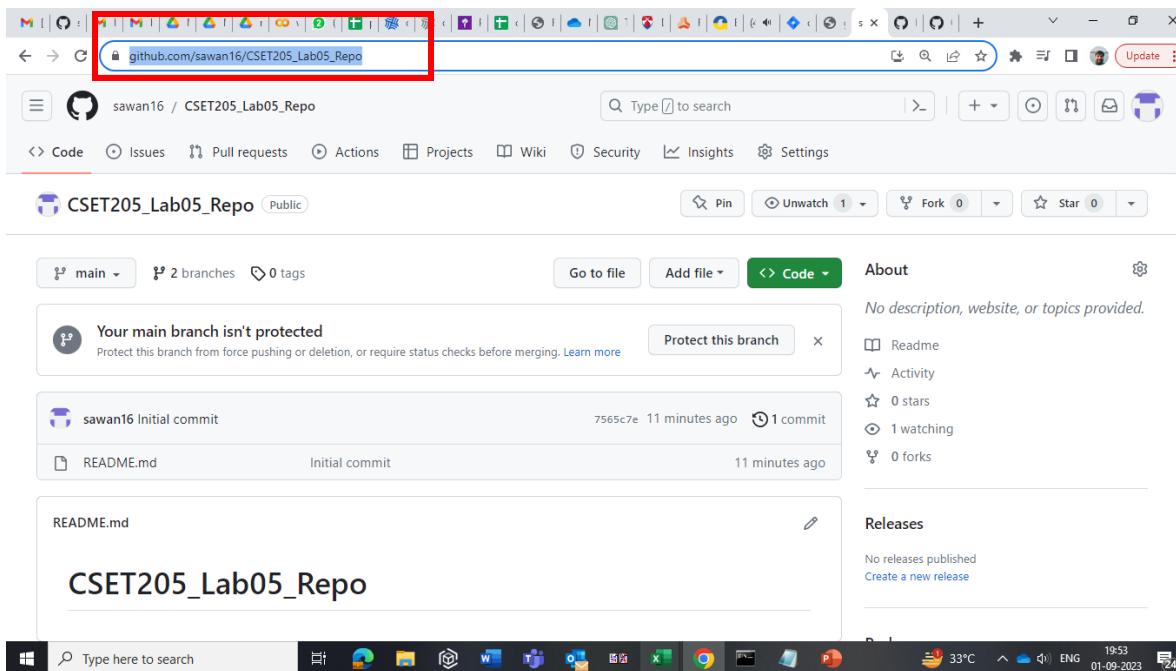
A new Branch created for the story on Github Repository



Verify the branch creation on GitHub.



3.13 Copy the Github Repositoy link for the submission purpose.

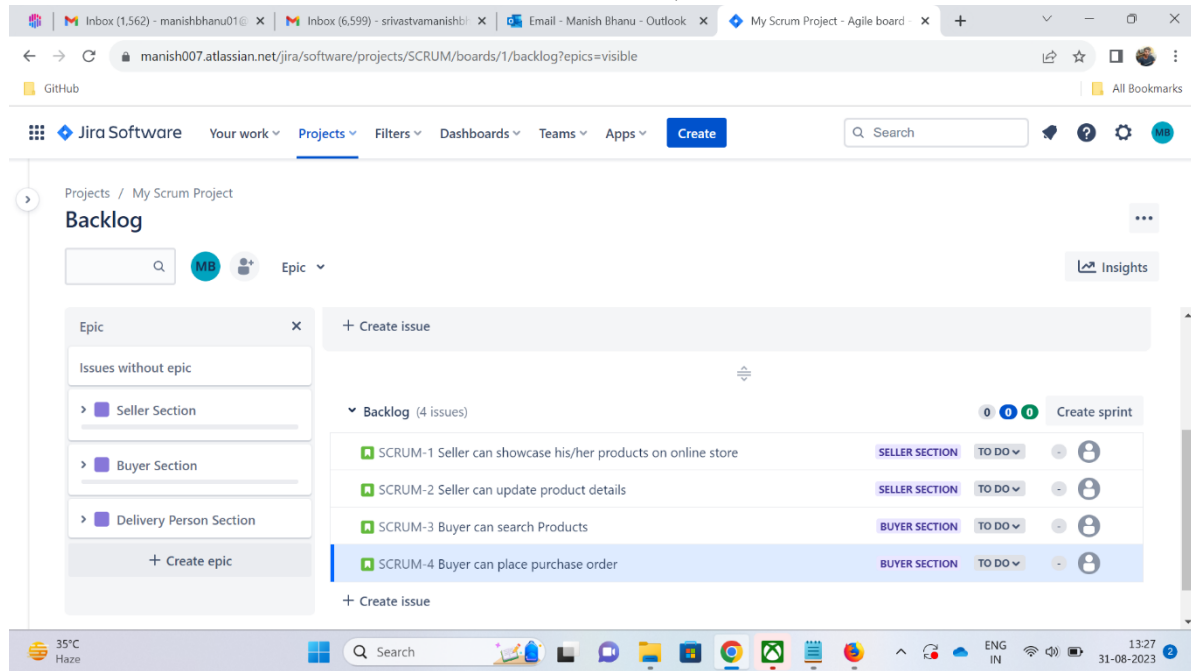


Submission:

1. GitHub repository Link in a TXT file only.

2. Screenshot of the Backlog Page as shown below:

[All 4 stories connected with GitHub, must be visible in Screenshot]



3. Word Files for each of the four stories connected with GitHub.

Follow these steps to download word files of the stories from Jira:

