

Chat Application

Advanced Software Development Practices

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PROJECT DESCRIPTION

CHAT APPLICATION

Main Components

1. Create a React App.
2. Profile => Component depicts the randomly generated main user avatar, name.
3. Contact => Component depicts the randomly generated contact list (almost 15) and their recent messages.
4. MessageBox => Component shows the structure of the whole message box and messages (almost 50 per contact) are sorted according to date and time.
5. Message => Components show the structure of each message.
6. Input => Component for sending an input message, Things to note here is until we don't type, the microphone icon is shown on right, as soon we start typing it changes to the send button. Also, we can send messages by the stroke of entering Key, but we can't send an empty message.

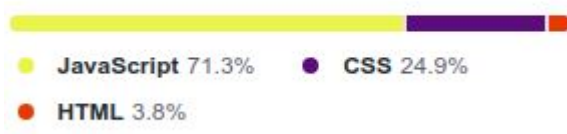
Main Features

1. We can send and receive messages.
2. We can send messages with the stroke of Enter Key.
3. We can't send an empty message.
4. Messages are sorted on the basis of date and time.
5. Always the most recent message will appear in the contact list, with at most 30 characters.
6. Until we don't start typing, the microphone icon is shown on the right, and as soon as we start typing it changes to the send button.
7. Messages are also sorted on the basis of date and time in the contact list as well.

Languages Used

1. HTML
2. CSS
3. Javascript

Languages



VERSION CONTROL SYSTEM: GIT

The term Version control refers to a system that records changes to a file or set of files over time called the 'versions'. In other words, these versions help us in tracking the changes in your codes/project and if necessary, undo those changes as well. This feature of being able to compare, differentiate and revert changes between two versions of a particular project becomes really helpful when working on a larger project. Larger projects mean more people working on the same code which increases the chances of conflicts. Using version control we can easily prevent these conflicts.

Git is a version control system which tracks the changes when working with computer codes while GitHub is a Web-based Git version control repository hosting service. It provides all of the distributed version control and source code management (SCM) functionalities of Git while topping it with a few of its own features.

Github Repository link:

[Click here](#)

The screenshot shows the GitHub interface for a repository named 'Chat_Application' by user 'agarwalneha24'. The repository is public and has 2 branches and 0 tags. The main branch is 'master'. The repository has 13 commits, with the latest commit '9a75c69' made 26 minutes ago. The file list shows the following files and their commit history:

File	Commit Message	Time Ago
public	public	2 days ago
src	js files	2 hours ago
.replit	replit	26 minutes ago
LICENSE	Added license file	2 days ago
README.md	some minnor fix	31 minutes ago
package.json	file added	2 days ago
yarn.lock	Create React App Step 1	2 days ago

The README.md file is currently selected, showing its content and a link to edit it.

FEATURES OF VERSION CONTROL SYSTEM USED:

Issues are a great way to keep track of tasks, enhancements, and bugs for your projects. They're kind of like email—except they can be shared and discussed with the rest of your team. Most software projects have a bug tracker of some kind. **GitHub's** tracker is called **Issues** and has its own section in every repository.

<input type="checkbox"/>	0 Open 7 Closed	Author ▾	Label ▾	Projects ▾	Milestones ▾	Assignee ▾	Sort ▾
<input type="checkbox"/>	Mute chat enhancement #9 by anjalikumar2425 was closed 2 minutes ago						1
<input type="checkbox"/>	Explanation needed question #8 by tushitgarg was closed 9 minutes ago						
<input type="checkbox"/>	Change Message Colour #7 by ShauryaAgarwal19 was closed 8 minutes ago						
<input type="checkbox"/>	Seen messages colour tick should be different help wanted #6 by agarwalneha24 was closed 9 minutes ago						1
<input type="checkbox"/>	Delete message feature enhancement #5 by tushitgarg was closed 14 minutes ago						1
<input type="checkbox"/>	Messages should be sorted on the basis of date and time bug #4 by agarwalneha24 was closed 36 minutes ago						1
<input type="checkbox"/>	Feature should be wrritten in documentation properly documentation #3 by agarwalneha24 was closed 37 minutes ago						1

Pull requests are **important** because they help ensure that quality reviewed code is merged into **GitHub** repositories. Without PRs, messy and confusing code can easily run rampant in a codebase.

Code	Issues	Pull requests	Actions	Projects	Wiki	Security	Insights	Settings
Filters ▾		Q is:pr is:closed		Labels 9	Milestones 0	New pull request		
Clear current search query, filters, and sorts								
<input type="checkbox"/>	0 Open 5 Closed	Author ▾	Label ▾	Projects ▾	Milestones ▾	Reviews ▾	Assignee ▾	Sort ▾
<input type="checkbox"/>	updated readme added screenshot ✕ #11 by almique was closed 5 minutes ago							
<input type="checkbox"/>	Update readme ✕ #4 by almique was merged 25 minutes ago							
<input type="checkbox"/>	debugged ✕ #3 by 123pranjal was merged 24 minutes ago							
<input type="checkbox"/>	Update index.js ✕ #2 by 123pranjal was merged 1 hour ago							
<input type="checkbox"/>	Update README.md ✕ #1 by 123pranjal was merged 1 hour ago							

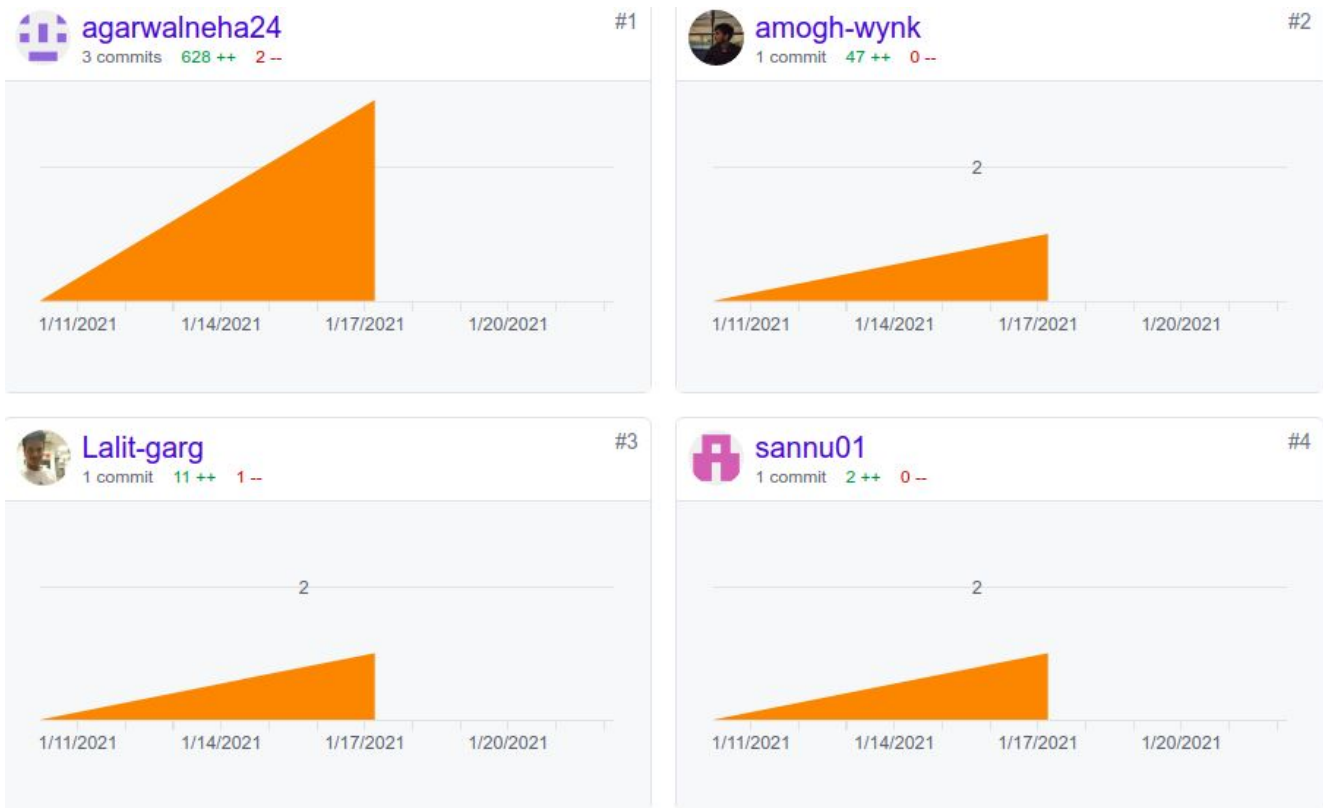
COMMIT HISTORY

Title file added anjalikumari2425 committed 19 seconds ago	Verified	15d6017	<>
replit sannu01 committed 42 minutes ago	Verified	9a75c69	<>
some minnor fix abhayagarwaltestbook committed 1 hour ago		01a9038	<>
Update README.md agarwalneha24 committed 2 hours ago	Verified	3ebaf9e	<>
js files agarwalneha24 committed 2 hours ago		c0bec0f	<>

Commits on Jan 20, 2021

Assets Added Pulkit-100 committed 2 days ago		c89fb21	<>
Merge pull request #1 from amoghmisra27/master agarwalneha24 committed 2 days ago	Verified	0b08786	<>
public amogh-wynk committed 2 days ago		7cf678e	<>
Update README.md Lalit-garg committed 2 days ago	Verified	0db7c0a	<>
Merge branch 'master' of https://github.com/agarwalneha24/Chat_Applic... tushitgarg committed 2 days ago		cdc0b70	<>

CONTRIBUTORS

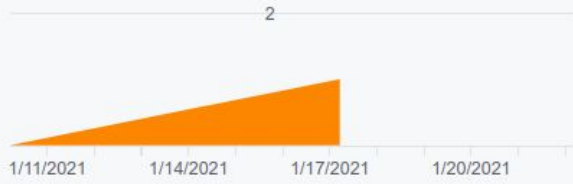




Pulkrit-100

1 commit 5 ++ 0 --

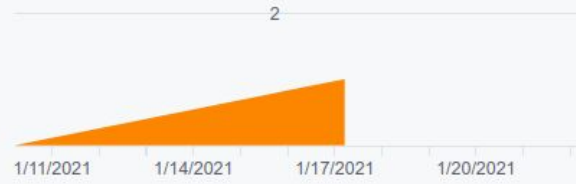
#5



vrinda22

1 commit 35 ++ 0 --

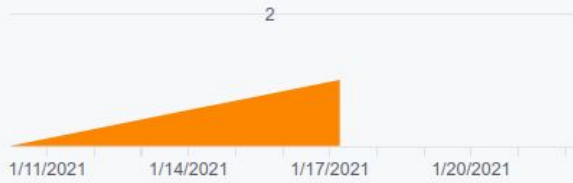
#6



ShauryaAgarwal19

1 commit 1 ++ 1 --

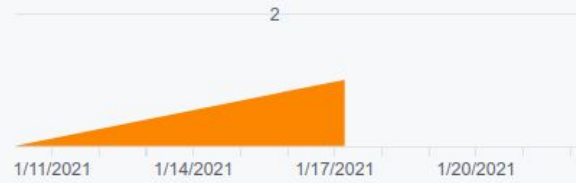
#7



abhayagarwaltestbook

1 commit 3 ++ 3 --

#8



tushitgarg

1 commit 201 ++ 0 --

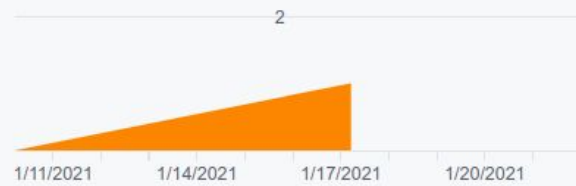
#9



anjalikumari2425

1 commit 1 ++ 0 --

#10

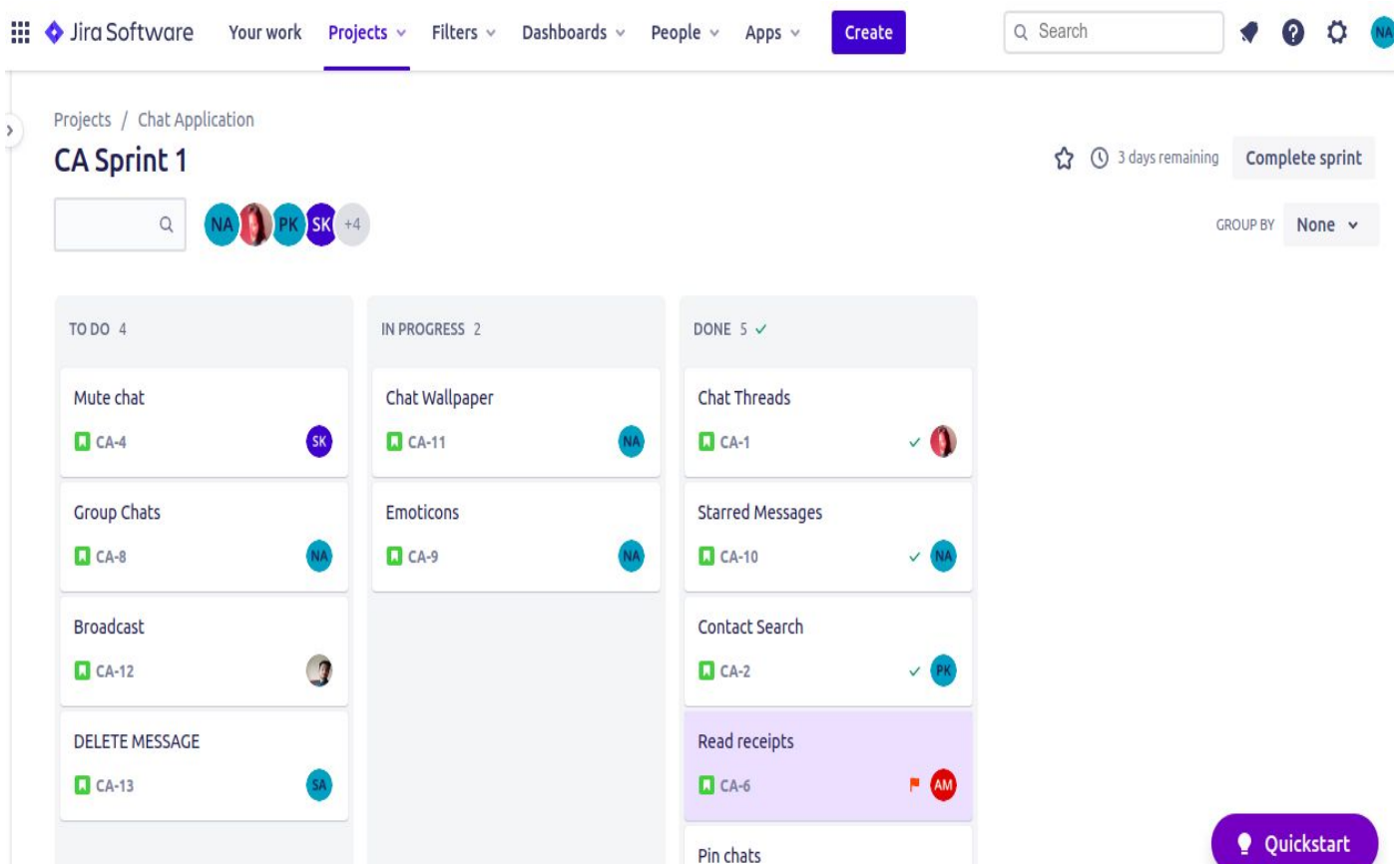


AGILE ESTIMATION TOOLS

JIRA

JIRA is a tool developed by Australian Company Atlassian. This software is used for bug tracking, issue tracking, and project management. It is also used for project management. The JIRA dashboard consists of many useful functions and features which make handling of issues easy. For teams who practice agile methodologies, Jira Software provides scrum and kanban boards out-of-the-box. Boards are task management hubs, where tasks are mapped to customizable workflows. Boards provide transparency across teamwork and visibility into the status of every work item. Time tracking capabilities and real-time performance reports (burn-up/down charts, sprint reports, velocity charts) enable teams to closely monitor their productivity over time.

We used the JIRA dashboard in the same manner as we assigned tasks to various team members and each member carried them out in a proper manner:



Chat Wallpaper

📎 Attach 👤 Add a child issue 🔗 Link issue ▼

Description

As a user, I should be able to change chat themes and wallpaper.

Activity

Show: **Comments** History



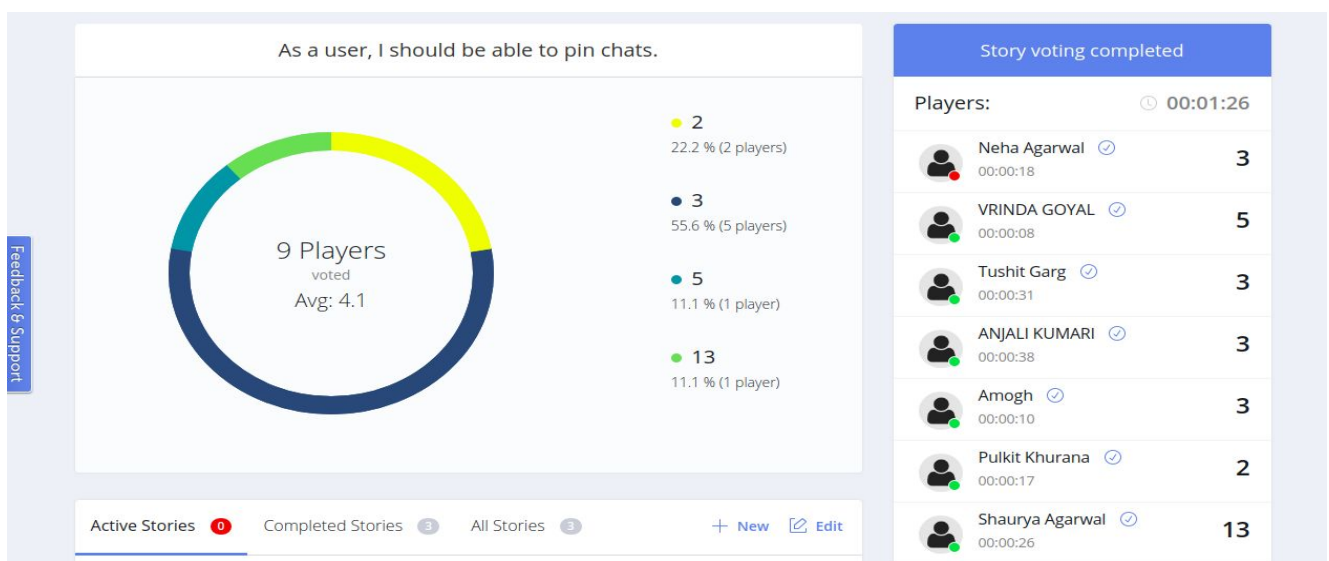
Pro tip: press **M** to comment

PlanITpoker

PlanITpoker is a fun, easy to use tool for project teams to estimate tasks.

Players vote on each task using cards without seeing what other players are voting. After all have voted the results are revealed and the estimates discussed until a consensus is reached. This technique of estimating is sometimes called planning poker or Scrum poker.

PlanITPoker is totally free to use and ideal for distributed software teams using Agile development methodologies.



Active Stories	0	Completed Stories	3	All Stories	3	+ New	Edit
TITLE:	EST.:	TIME.:					
As a user, I should be able to pin chats.	3	00:01:26					
As a user, I should be able to change chat themes and wallpaper.	2	00:19:58					
As a user, I want to see messages sorted on the basis of date and time.	8	00:01:47					

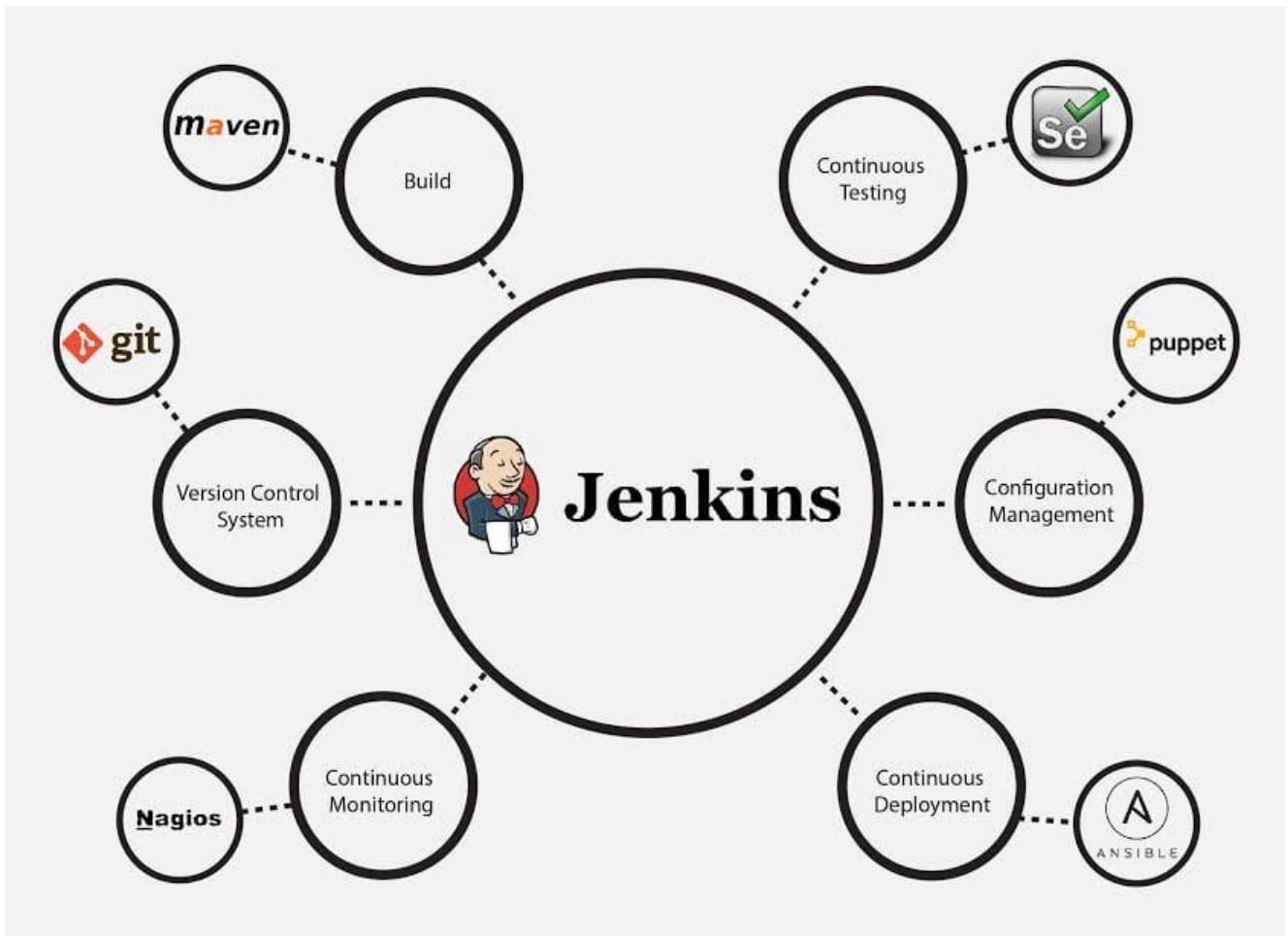
CI/CD PIPELINE- JENKINS

In software engineering, CI/CD or CICD generally refers to the combined practices of continuous integration and either continuous delivery or continuous deployment. CI/CD bridges the gaps between development and operation activities and teams by enforcing automation in building, testing and deployment of applications.

Jenkins is an open-source automation tool written in Java with plugins built for Continuous Integration purposes. Jenkins is used to build and test our software projects continuously making it easier for developers to integrate changes to the project, and making it easier for users to obtain a fresh build. It also allows us to continuously deliver our software by integrating with a large number of testing and deployment technologies.

With Jenkins, organizations can accelerate the software development process through automation. Jenkins integrates development life-cycle processes of all kinds, including build, document, test, package, stage, deploy, static analysis, and much more.

Jenkins achieves Continuous Integration with the help of plugins. Plugins allow the integration of Various DevOps stages. If you want to integrate a particular tool, you need to install the plugins for that tool. For example Git, Maven 2 project, Amazon EC2, HTML publisher etc.



CHAT APPLICATION JENKINS PIPELINE DESCRIPTION

Each time we will commit a change to our Github repository, automated deployment on Heroku will be done through the Jenkins CI/CD pipeline thus making it easier to integrate and tackle errors. On building the project, Jenkins will automatically clone the recent code, test, and deploy it on Heroku.

Clone the code → Test the project → Deploy on Heroku

JENKINS DASHBOARD

Jenkins

New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Lockable Resources

New View

Build Queue

No builds in the queue.

All

+

S	W	Name ↓	Last Success	Last Failure	Last Duration	
		Chat Application	2 hr 4 min - #4	N/A	2 min 1 sec	
		devops project123	20 hr - #1	N/A	4.5 sec	
		devops_project	N/A	N/A	N/A	
		project check	4 hr 15 min - #3	N/A	2.4 sec	
		project_2	N/A	1 day 19 hr - #3	0.1 sec	
		Web chat application	N/A	1 day 19 hr - #1	8 min 15 sec	
		web_project	1 day 20 hr - #1	N/A	10 sec	

Icon: S M L


Legend

Atom feed for all

Atom feed for failures

Atom feed for just latest builds


PROJECT CHAT APPLICATION BUILD HISTORY





Jenkins


Jenkins


Chat Application


 Back to Dashboard


 Status


 Changes


 Workspace

 Build Now


 Configure


 Delete Project

 GitHub Hook Log

 GitHub

Project Chat Application

 Workspace

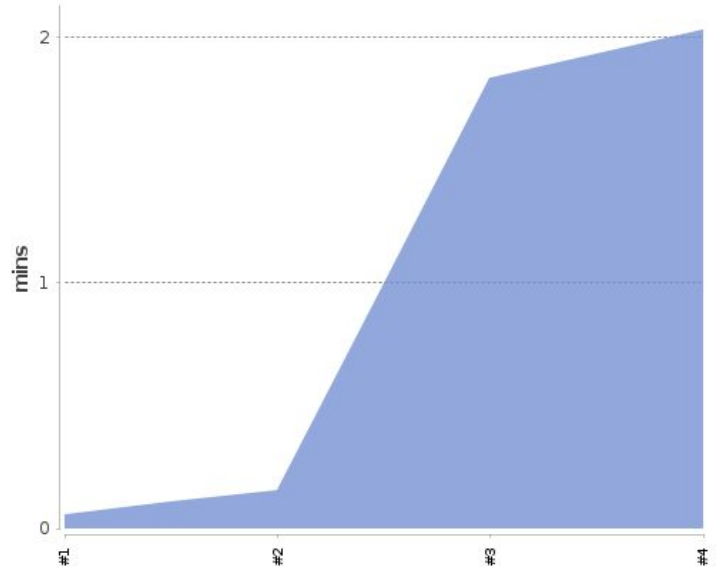
 Recent Changes

Permalinks

- Last build (#4), 2 hr 5 min ago
- Last stable build (#4), 2 hr 5 min ago
- Last successful build (#4), 2 hr 5 min ago
- Last completed build (#4), 2 hr 5 min ago

Build Time Trend

Build ↑	Duration
#4	2 min 1 sec
#3	1 min 49 sec
#2	9.3 sec
#1	3.2 sec



CONSOLE OUTPUT

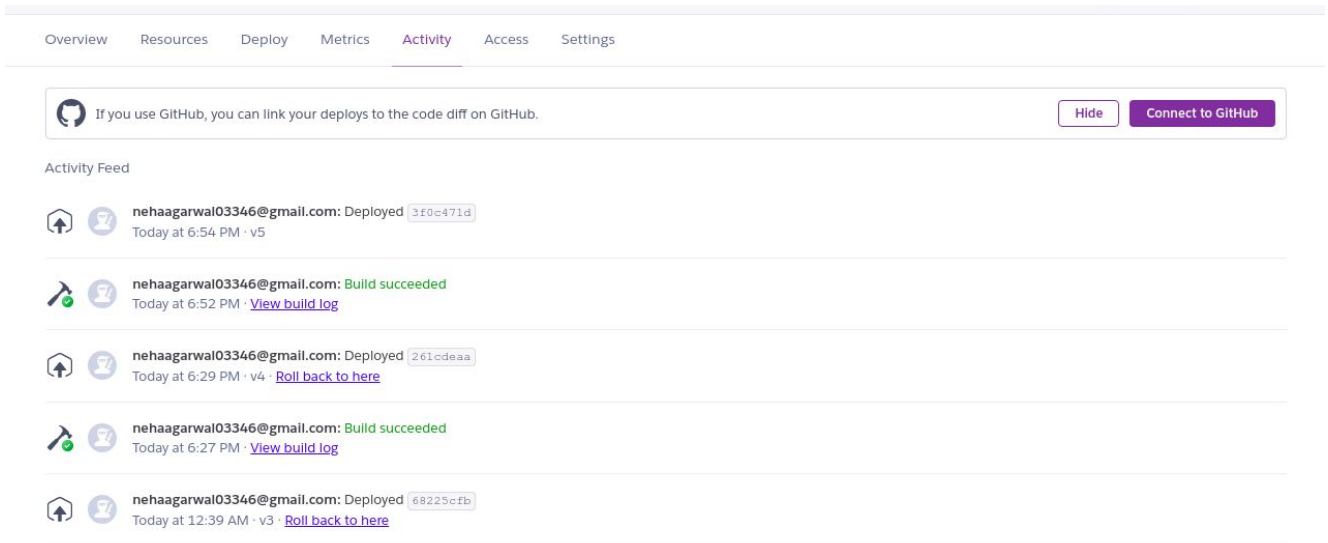
Console Output

```
Started by user Neha Agarwal
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/Chat Application
The recommended git tool is: NONE
No credentials specified
using credential 127bc898-9ef7-437c-a9e0-99407b11178e
Cloning the remote Git repository
Cloning repository git@heroku.com:devops-project123.git
> git init /var/lib/jenkins/workspace/Chat Application # timeout=10
Fetching upstream changes from git@heroku.com:devops-project123.git
> git --version # timeout=10
> git --version # 'git version 2.25.1'
using GIT_SSH to set credentials
> git fetch --tags --force --progress -- git@heroku.com:devops-project123.git +refs/heads/*:refs/remotes/abcd/* #
timeout=10
> git config remote.abcd.url git@heroku.com:devops-project123.git # timeout=10
> git config --add remote.abcd.fetch +refs/heads/*:refs/remotes/abcd/* # timeout=10
Avoid second fetch
> git config remote.origin.url https://github.com/agarwalneha24/Chat-Application # timeout=10
Fetching upstream changes from https://github.com/agarwalneha24/Chat-Application
> git fetch --tags --force --progress -- https://github.com/agarwalneha24/Chat-Application
+refs/heads/*:refs/remotes/origin/* # timeout=10
Seen branch in repository abcd/master
Seen branch in repository origin/main
Seen branch in repository origin/master
Seen 3 remote branches

> git config core.sparsecheckout # timeout=10
> git checkout -f 3f0c471dbe67b1efd62da292f1fbd4b4b25b978 # timeout=10
Commit message: "commit done"
> git rev-list --no-walk 261cdeaac12282a04af14f97d0f024a3c3067db4 # timeout=10
The recommended git tool is: NONE
No credentials specified
using credential 127bc898-9ef7-437c-a9e0-99407b11178e
Pushing HEAD to branch master at repo abcd
> git --version # timeout=10
> git --version # 'git version 2.25.1'
using GIT_SSH to set credentials
> git push git@heroku.com:devops-project123.git HEAD:master -f # timeout=10
Finished: SUCCESS
```

HEROKU-DEPLOYMENT

Heroku is a cloud platform as a service supporting several programming languages. One of the first cloud platforms, Heroku has been in development since June 2007, when it supported only the Ruby programming language, but now supports Java, Node.js, Scala, Clojure, Python, PHP, and Go.



CHAT APPLICATION VIEW

Link- [Click here](#)

