

## -The Problem

You work in a company That is developing an internal React UI library to be used in all the tools and solutions that this company provides to ease the process on the developers to pick ready-made components and use it in their tools. So the UI library developers have to develop the React components in the library, other tools developers has to sync always with the UI Library developers in order to get the latest version and know the updates, then they deploy it into their applications, sometimes they are missing some important updates and as well it takes much time to be able to communicate these changes.

Sometimes as well after doing all these things the library failed to be used in any tools because it might contains broken components missing dependency or many other problems.

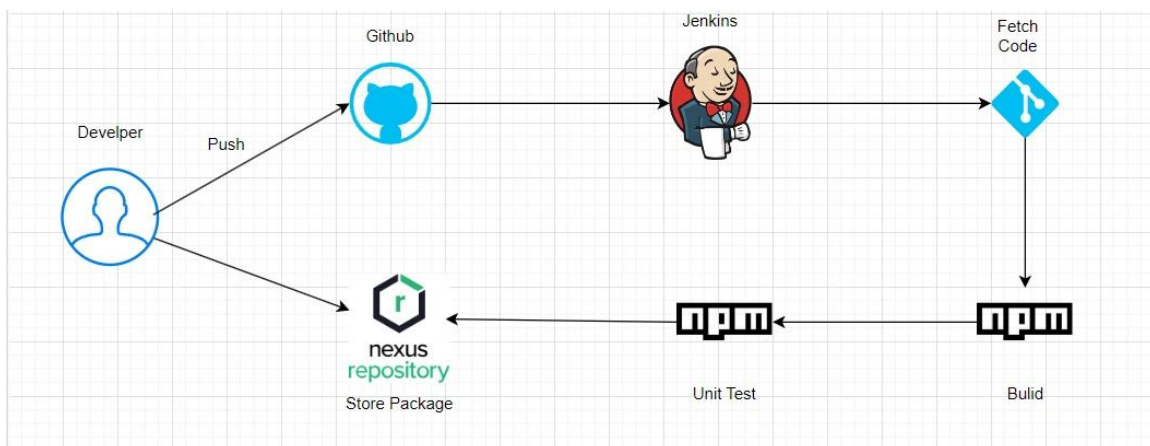
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## -Solution steps

Tools that I used to automate this system :

- Git
  - Jenkins
  - Ansible
  - Nexus
  - NPM
  - Github Actions
- 

## -Pipeline



## - Solution Description

After reading the problem i decided to clone a react library and publish it to NPM repo and I used github actions to make it

### tarek\_youns

Packages

Members

Teams

Billing

1 packages

+ Add Package

@tarek\_youns/package

## Table of Contents - Description - DevOps Tools - Pipeline - Installation - Usage - Contact

toka1892001 published 0.1.0-development • 20 hours ago

But unfortunately to make it private I have to pay for it so i decided to use Jenkins instead of github actions to show my skills and use nexus to publish the library privately as we needed

Sonatype Nexus Repository  
OSS 3.72.0-04

Search components

jenkins Sign out

Browse

Upload

npm-nexus-repo

Upload component HTML View

@tarek\_youns

package

package-0.0.0-development.tgz

package-0.1.0-development.tgz

package-0.1.1-development.tgz

Advanced search

/@tarek\_youns/package/-/package-0.0.0-development.t

Delete asset

Summary

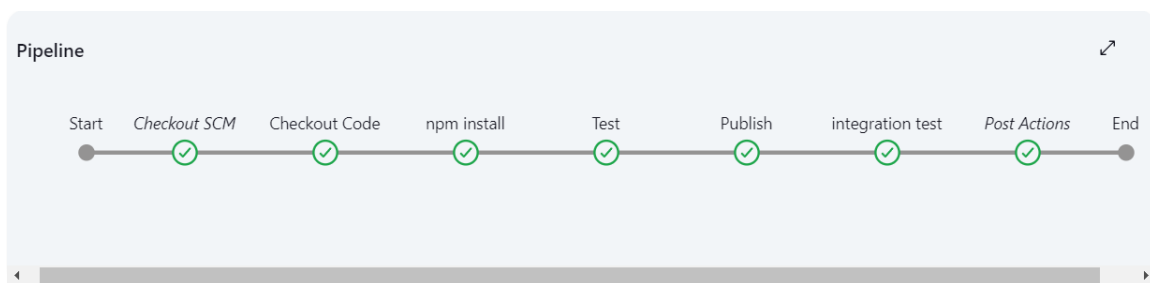
Repository	npm-nexus-repo
Format	npm
Component Group	tarek_youns
Component Name	package
Component Version	0.0.0-development
Path	@tarek_youns/package/-/package-0.0.0-development.tgz
Content type	application/octet-stream
File size	5.6 KB
Blob created	Sat Sep 28 2024 14:32:54 GMT+0300 (Eastern European Summer Time)
Blob updated	Sat Sep 28 2024 14:32:54 GMT+0300 (Eastern European Summer Time)
Last downloaded	has not been downloaded

Also I used ansible role that I made it before to install nexus in Jenkins agent and install node: 18.6.0

Ansible role link: [https://github.com/Tarek-Youns/Nexus ansible role](https://github.com/Tarek-Youns/Nexus_ansible_role)

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## -Pipeline details



### -Checkout SCM& Checkout Code

These stages fetch the code from github repo

### -NPM Install

This stage installs the dependences

### -Test

This stage runs the unit tests

### -Publish

This stage publishes the package to nexus

### -Integration Test

This stage makes sure that the package is working

### -Post Actions

This stage cleans the workspace

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## -Nexus - Jenkins integration

We generate a nexus token by this command

```
npm login --registry=http://localhost:8081/repository/npm-nexus-repo/ --always-auth --userconfig=./.npmrc
```

and put it in .npmrc file to allow publishing to nexus during the pipeline run

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