**MIGRATION FROM BIT BUCKET TO GIT HUB**

**INTRODUCTION: -**

These is the document which will help you in migration from the bitbucket to the GitHub. Here we are going to have an idea how to migrate from the bitbucket to GitHub and what are the precautions and what are the procedure need to take while migration from the bitbucket to GitHub.

These are some common and different features between both.

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| **Bitbucket & GitHub common features** | **Bitbucket & GitHub different features** |
| * Repository management * Branch permission * Rest API’s * Merge checks * Built in CI/CD * 3rd party integration * SSH keys * Access keys * Issue tracking * IP whitelisting * Required two step verification. * LADP and SAML base SSO | * Integration with Jira * Bamboo (default for deployment in bitbucket data center) |

**STEPS TO BE FOLLOWED WHILE MIGRATION: -**

These are the following steps need to follow to migrate from the bitbucket to the GitHub cloud.

1. Create the GitHub repository, make sure that the repository is empty and don’t check the readme box while creating the git hub repository.
2. Go to your Bitbucket Cloud account settings and click on "App passwords" under "Access management." Generate a new app password with the required permissions to access your repositories.
3. Go to your GitHub Enterprise Server account settings and click on "Personal access tokens" under "Developer settings." Generate a new personal access token with the required permissions to access your repositories.
4. Check out the existing repository from bitbucket.

* git clone <bitbucket\_repo\_address>
* use the bitbucket app password which was created before to login.

1. Add the new GitHub repository as remote of the repository checked out from BitBucket.

- cd <Project name>

- git remote rm origin

- git remote add origin < http//<username >@<github\_repo\_address >>

1. Clone all branches and tags to your GitHub repository.

* git push -u origin

1. On the pop-up menu give the personal access token which was created before in the password blank and the username in the username blank.
2. Clean Old repository (Now if all contents move to GitHub double check it and after that delete Bitbucket repository if not required)

**NOTE:**

Regarding direct importing to the git hub from bitbucket without cloning to the local machine it is not possible, but in case of any other repo migration to the GitHub it is possible. Directly importing a repository from Bitbucket to GitHub without cloning it to a local machine is not possible. However, you can migrate other types of repositories, such as Git or Subversion, directly to GitHub without cloning them to your local machine. To do this, you can use GitHub's import feature, which allows you to import a repository directly from a source repository URL. You will need to provide your GitHub credentials and any required authentication for the source repository to complete the import process.

**JIRA ISSUES: -**

* These are issues which will be used in bitbucket and for that we have an alternative in the GitHub is GitHub Issues.
* Here we need do that manually while migration, the Jira Issues will not be migrated we need to set it manually according to the project.

**PIPELINES: -**

* The pipeline will not be migrated automated while migration, so here in the GitHub we are having GitHub Actions, there we need create Yaml according to the project requirement in the GitHub actions.
* Here for the Yaml, we are providing the templates for each of the tech stack which will be used widely in the Brillio.

**ACCESS KEYS, SECRETS, PERMISSIONS: -**

* Here the Access Key, Permissions and the secrets in the bitbucket won’t be migrated automatedly, so we need to create it manually in the repository settings.

**NOTE: -**

For replacement of Jira in GitHub we have an inbuilt feature called GitHub Issues, this feature will play the role of the Jira in GitHub.

Bamboo it’s an CI/CD tool used for the data center version only (enterprise version) whereas in GitHub it has its own CI/CD workflow called GitHub Actions to full fill the need.

Rest all are having same features in both, while migrating from Bitbucket to GitHub we need to take care of which permission that we had given in the project has to be given in the GitHub manually not in an Automated way.

Everything other then the code in that repository has to be set up manually only.

**REFERENCES:**

<https://rushabhshah065.medium.com/lets-move-repository-from-bitbucket-to-github-with-all-branches-and-commits-f93c7d3bda67>

<https://gitprotect.io/blog/how-to-migrate-from-bitbucket-to-github/>  
[Migration support for GitHub Enterprise Importer - GitHub Enterprise Cloud Docs](https://docs.github.com/en/enterprise-cloud@latest/early-access/enterprise-importer/understanding-github-enterprise-importer/migration-support-for-github-enterprise-importer#bitbucket-server-migration-support)