Install & Configure Bamboo on Ubuntu

Steps to Install & Configure Bamboo on Ubuntu 20.04 LTS

Bamboo is a free & open source continuous integration and continuous deployment serve. It is developed by Atlassian. It helps to provide an automated and reliable build and test process for application source-codes. We can easily Install and configure Bamboo.

Prerequisites:

- Ubuntu system with Sudo Privileges.
- Java 8.0
- 4GM RAM.

There are some steps to install & configure Bamboo on Ubuntu:

Step 1: Update the System.

```
apt-get update
```

Step 2: Install Java.

apt-get install openjdk-8-jdk

· Check Java version.

iava -version

Here is the command output.

```
root@ip-172-31-47-209:/home/ubuntu# java -version
openjdk version "1.8.0_312"
OpenJDK Runtime Environment (build 1.8.0_312-8u312-b07-0ubuntu1~20.04-b07)
OpenJDK 64-Bit Server VM (build 25.3<u>1</u>2-b07, mixed mode)
```

Step 3: Install PostgreSQL on system.

apt install postgresql postgresql-contrib

· Here is the command output.

```
Pere is the command output.

rootdip-172-31-47-209:/home/ubuntu# apt install postgresql postgresql-contrib

Reading package lists... Done

Building dependency tree

Reading state information... Done

The following additional packages will be installed:
    libllvm10 libpq5 postgresql-12 postgresql-client-12 postgresql-client-common postgresql-common ssl-cert sysstat

Suggested packages:
    postgresql-doc-12 libjson-perl openssl-blacklist isag

The following NEW packages will be installed:
    libllvm10 libpq5 postgresql postgresql-12 postgresql-client-12 postgresql-client-common postgresql-common postgresql-contrib ssl-cert sysstat

8 upgraded, 10 newly installed, 0 to remove and 57 not upgraded.

Need to get 30.6 MB of archives.

After this operation, 122 MB of additional disk space will be used.

Do you want to continue? [Y/n] y
```

· Login to postgresql shell.

sudo -u postgres psql

• Here is the command output.

```
root@ip-172-31-47-209:/home/ubuntu#
psql (12.9 (Ubuntu 12.9-Oubuntu0.20.04.1))
Type "help" for help.
postgres=#
```

Create database.

create database bamboo;

· Create user.

create user user_bamboo with encrypted password 'Password';

Provide the Grant all privileges.

grant all privileges on database bamboo to user_bamboo;

• Type \q to quit.

\q

Step 4: Download the Bamboo.

wget https://www.atlassian.com/software/bamboo/downloads/binary/atlassian-bamboo-8.1.2.tar.gz

· Here is the command output.

```
Here is the command output.

root@ip-172-31-47-209:/home/ubuntu# cd /opt

root@ip-172-31-47-209:/home/ubuntu# cd /opt

root@ip-172-31-47-209:/opt# wget https://www.atlassian.com/software/bamboo/downloads/binary/atlassian-bamboo-8.1.2.tar.gz

--2022-02-10 08:14:05-- https://www.atlassian.com/software/bamboo/downloads/binary/atlassian-bamboo-8.1.2.tar.gz

Resolving www.atlassian.com (www.atlassian.com)... 104.192.142.13, 104.192.142.12, 104.192.142.14

Connecting to www.atlassian.com (www.atlassian.com)... 104.192.142.13]:443... connected.

HITP request sent, awaiting response... 301 Moved Permanently

Location: https://product-downloads.atlassian.com/software/bamboo/downloads/atlassian-bamboo-8.1.2.tar.gz

Resolving product-downloads.atlassian.com (product-downloads.atlassian.com). 54.192.4164, 2600:9000:20fa:e000:1fab86:b4a:17e1, 2600:9000:20fa:e000:1fab86:b4a:17e1, ...

Connecting to product-downloads.atlassian.com (product-downloads.atlassian.com)|54.192.4.164|:443... connected.

HITP request sent, awaiting response... 200 0K

Length: 344518184 (329M) [application/x-tar]

Saving to: 'atlassian-bamboo-8.1.2.tar.gz'
atlassian-bamboo-8.1.2.tar.gz
                                                                                                                                    100%[=======] 328.56M 25.5MB/s in 17s
 022-02-10 08:14:23 (19.8 MB/s) - 'atlassian-bamboo-8.1.2.tar.gz' saved [344518184/344518184]
```

· Extract the downloaded folder.

tar -xvf atlassian-bamboo-8.1.2.tar.gz

Here is the command output.

```
Phere is the command output.

root@ip-172-31-47-209:/opt# tar -xvf atlassian-bamboo-8.1.2.tar.gz
atlassian-bamboo-8.1.2/
atlassian-bamboo-8.1.2/BUILDING.txt
atlassian-bamboo-8.1.2/README.html
atlassian-bamboo-8.1.2/README.html
atlassian-bamboo-8.1.2/README.html
atlassian-bamboo-8.1.2/README.md
atlassian-bamboo-8.1.2/stlassian-bamboo/
atlassian-bamboo-8.1.2/atlassian-bamboo/compile-less.less-compilation-marker
atlassian-bamboo-8.1.2/atlassian-bamboo/META-INF/
atlassian-bamboo-8.1.2/atlassian-bamboo/META-INF/
atlassian-bamboo-8.1.2/atlassian-bamboo/META-INF/maven/
atlassian-bamboo-8.1.2/atlassian-bamboo/META-INF/maven/com.atlassian.bamboo/atlassian-bamboo-web-app/
atlassian-bamboo-8.1.2/atlassian-bamboo/META-INF/maven/com.atlassian.bamboo/atlassian-bamboo-web-app/pom.properties
atlassian-bamboo-8.1.2/atlassian-bamboo/META-INF/maven/com.atlassian.bamboo/atlassian-bamboo-web-app/pom.xml
atlassian-bamboo-8.1.2/atlassian-bamboo/META-INF/maven/com.atlassian.bamboo/atlassian-bamboo-web-app/pom.xml
atlassian-bamboo-8.1.2/atlassian-bamboo/META-INF/maven/com.atlassian.bamboo/atlassian-bamboo-web-app/pom.xml
```

· Change the name.

mv atlassian-bamboo-8.1.2 bamboo

· change the path.

cd /opt/bamboo/

· List the files.

11

• Here is the command output.

```
root@ip-172-31-47-209:/opt# mv atlassian-bamboo-8.1.2 bamboo
root@ip-172-31-47-209:/opt# cd /opt/bamboo/
root@ip-172-31-47-209:/opt# cd /opt/bamboo/
root@ip-172-31-47-209:/opt# cd /opt/bamboo/
root@ip-172-31-47-209:/opt# cd /opt/bamboo/
root@ip-172-31-47-209:/opt# bamboo # ll

total 168

drwxr-xr-x 14 root root  4096 Jan 26 09:11 ./
drwxr-xr-x 3 root root  4096 Feb 10 08:15 ../
-rw-r--r-- 1 root root  4096 Feb 10 08:15 ../
-rw-r--r-- 1 root root  5375 Jan 26 09:10 BUILDING.txt
-rw-r--r-- 1 root root  5375 Jan 26 09:10 NOTICE
-rw-r--r-- 1 root root  3754 Jan 26 09:10 README.html
-rw-r--r-- 1 root root  3354 Jan 26 09:10 README.html
-rw-r--r-- 1 root root  3435 Jan 26 09:10 README.md

drwxr-xr-x 42 root root  4096 Jan 26 09:11 atlassian-bamboo/
-rw-r--r-- 1 root root  1375 Jan 26 09:10 bamboo.sh*

drwxr-xr-x 2 root root  4096 Jan 26 09:11 btn/

drwxr-xr-x 2 root root  4096 Jan 26 09:11 ltb//
drwxr-xr-x 2 root root  4096 Jan 26 09:11 ltcenses/
drwxr-xr-x 2 root root  4096 Jan 26 09:11 ltcenses/
drwxr-xr-x 2 root root  4096 Jan 26 09:11 tcenses/
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```

Step 5: Configure Bamboo.

· Create a directory.

mkdir -p /home/ubuntu//bamboo/bamboo-home

· Open the following file.

vim /opt/bamboo/atlassian-bamboo/WEB-INF/classes/bamboo-init.properties

· Un-comment the line.

#bamboo.home=C:/bamboo/bamboo-home

• Edit the un-commented line.

bamboo.home=/home/ubuntu/bamboo/bamboo-home

• Here is the command output.

```
## You can specify your bamboo.home and bamboo.shared.home property here or in your system environment variables.

#Local Bamboo home. If running in HA (multi-node) mode, you need to provide a unique, not shared, home directory for node specific content

bamboo.home=/home/ubuntu/bamboo/bamboo-home

#If running in HA mode, you need to provide a shared home directory that will be used by all nodes

#It is allowed to mount this shared directory as a subdirectory of bamboo.home

#Can be left undefined when running in single node mode, in which case the data will be stored in ${bamboo.home}/shared

#bamboo.shared.home=
```

Step 6: Start the bamboo service.

· Change the directory.

cd /opt/bamboo/bin

• Run the following command.

./start-bamboo.sh

• Here is the command output.

```
root@ip-172-31-47-209:/opt/bamboo# cd bin/
root@ip-172-31-47-209:/opt/bamboo/bin# ./start-bamboo.sh

To run Bamboo in the foreground, start the server with start-bamboo.sh -fg

Server startup logs are located in /opt/bamboo/bin/logs/catalina.out

Bamboo Data Center
    Version : 8.1.2

If you encounter issues starting or stopping Bamboo Server, please see the Troubleshooting guide at https://confluence.atlassian.com/display/BAMBOO/Installing+and+upgrading+Bam
boo

Using CATALINA_BASE: /opt/bamboo
Using CATALINA_HOME: /opt/bamboo
Using CATALINA_TMPDIR: /opt/bamboo/temp
Using JRE_HOME: /usr
Using CLASSPATH: /opt/bamboo/bin/bootstrap.jar:/opt/bamboo/bin/tomcat-juli.jar
Using CLASLINA_TMPINE: /opt/bamboo/bin/bootstrap.jar:/opt/bamboo/bin/tomcat-juli.jar
Using CLASSPATH: /opt/bamboo/bin/bootstrap.jar:/opt/bamboo/bin/tomcat-juli.jar
```

• Open the following port number in firewall.

ufw allow 8085

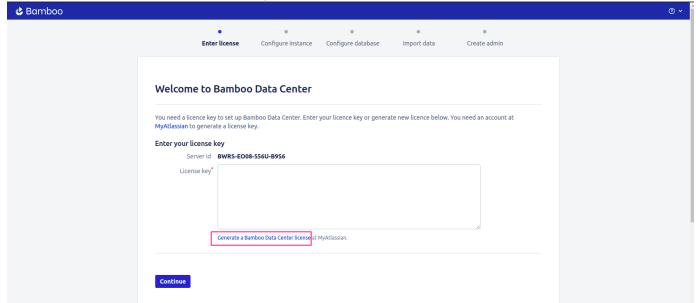
• Here is the command output.

```
root@ip-172-31-47-209:/opt/bamboo/bin# ufw allow 8085
Rules updated
Rules updated (v6)
```

Step 7: Open Bamboo web interface.

http://server-ip:8085

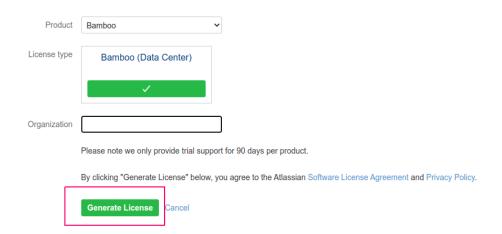
- Here is the output.
- We need a License key.
- Click on Generate a Bamboo Data Center license option.



- Provide a Organization name.
- Click on Generate License.

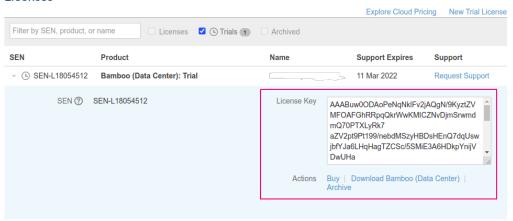
My Atlassian

New Trial License

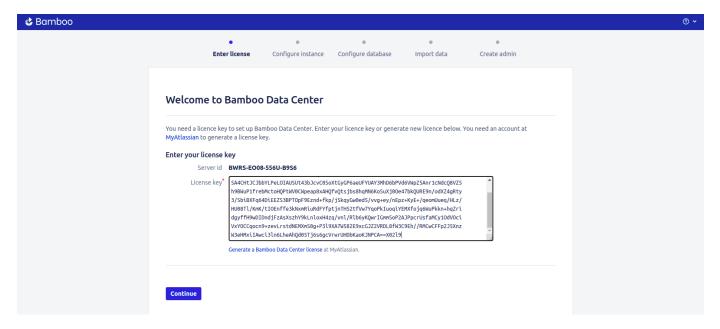


· Copy the License key.

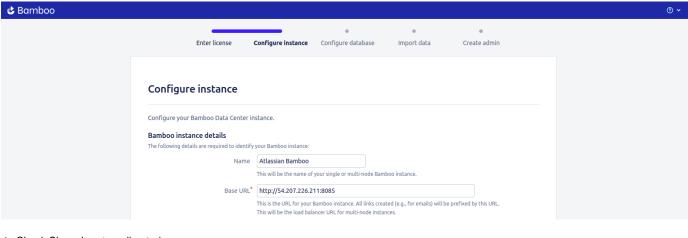
Licenses



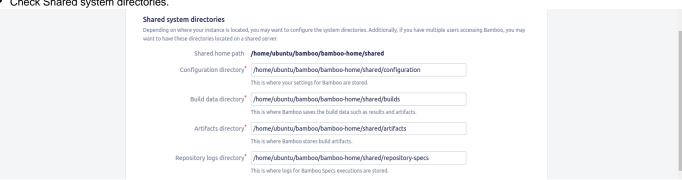
- Paste in license key column.
- Click on Continue.



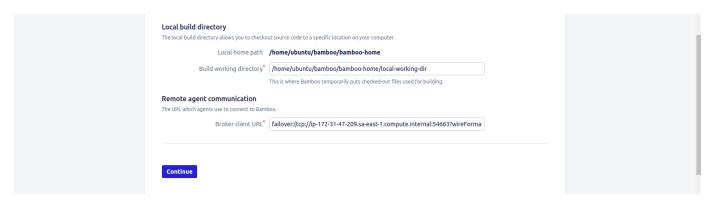
- Configure the instance.
- Provide the Bamboo instance name & check Base URL



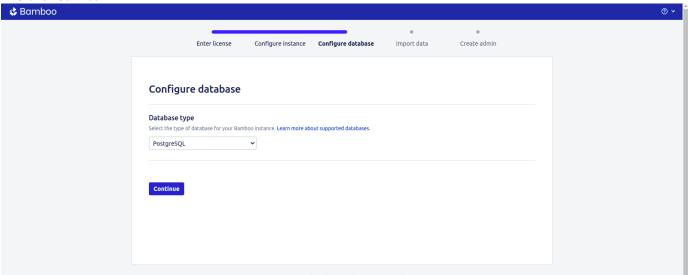
• Check Shared system directories.



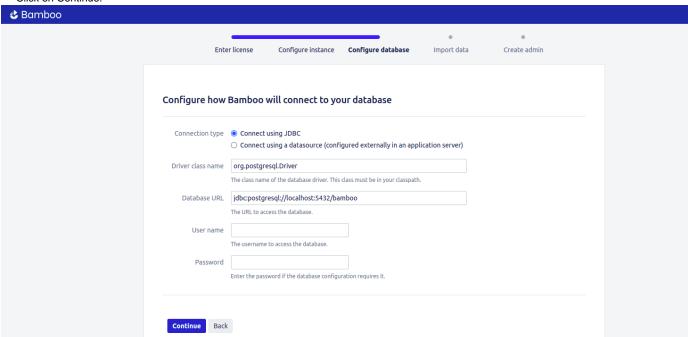
· Click on Continue.



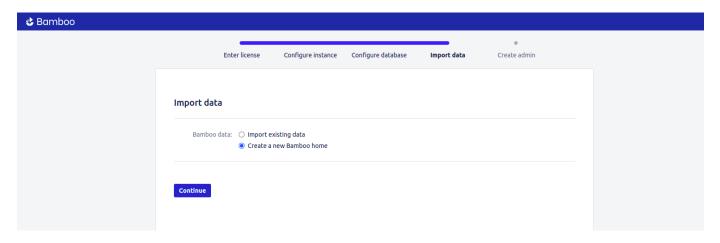
- Select Database Type.For example: select PostgreSQL database type.
- Click on Continue.



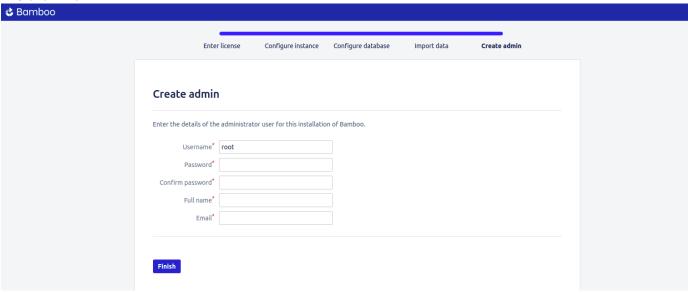
- Configure the database.
- Provide the Db Username & Password.
- Click on Continue.



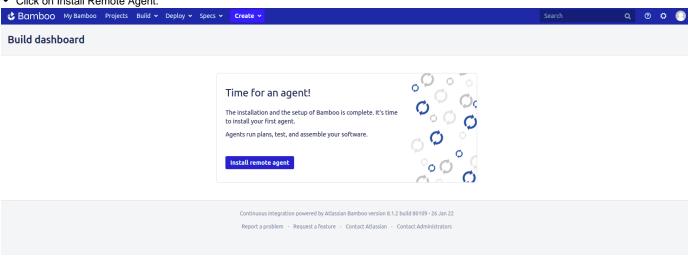
- As first time installation, Click on Create a New Bamboo home.
- · Click on Continue.



- Provide the Admin credentials such as username, password, full name & email-address.
- Click on Finish.



• Click on Install Remote Agent.



- Now,we need a Agent Machine.
- Install Java 8.0 on Agent Machine.
- Download the Remote Agent JAR file on Agent machine.
- Right click on Download Remote Agent JAR option—->Copy the link Address.Run on Agent machine

Running a remote agent

Once installed, you can run the remote agent by executing the following command line from the directory containing the remote agent jar file:

java -jar atlassian-bamboo-agent-installer-8.1.2.jar http://54.207.226.211:8085/agentServer/

This will start a service wrapper for your agent, which will automatically restart in case of failure. You may also add extra system properties like -Dbanboo. hone-... to customize the agent's home location. For more information, see our Bamboo remote agent installation guide.

Running the agents without the service wrapper

For customers wanting to run the Bamboo agent without the service wrapper, the direct agent jar is available at bamboo-agent-8.1.2.jar. For more information about using the JAR directly please consult our documentation.

· Here is the output.

Linked repositories

Shared credentials Repository settings

ELASTIC BAMBOO

Configuration

Quarantine settings

PLANS
Concurrent builds

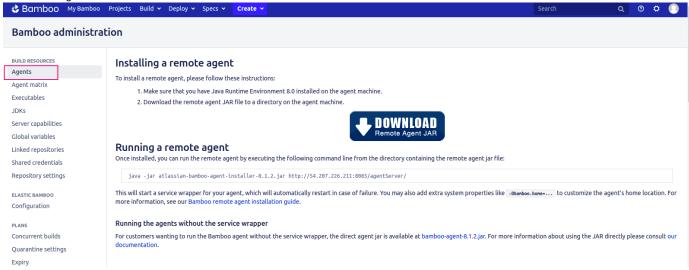
- Once remote agent JAR installed, Run the Remote Agent command.
- Here is the output.

```
root@ip-172-31-17-88:/home/ubuntu# java -jar atlassian-bamboo-agent-installer-8.1.2.jar http://s4.207.226.211:8085/agentServer/
Reinstalling wrapper binaries, reason: agent either not installed or outdated
Installing file: /generic/conf/wrapper-license.conf to: /root/bamboo-agent-home/conf/wrapper-license.conf
Installing file: /generic/lib/wrapper.jar to: /root/bamboo-agent-home/lib/wrapper.jar
Installing file: /arch/linux/x86_64/wrapper to: /root/bamboo-agent-home/lib/wrapper.so
Installing file: /generic/bin/bamboo-agent.per.so to: /root/bamboo-agent-home/bin/bamboo-agent.sh
Installing file: /generic/bin/bamboo-agent.per.conf
Installing file: /root/bamboo-agent.bome/conf/wrapper.conf
Installing file: /generic/lib/bamboo-agent-bootstrap-jar-with-dependencies.jar to: /root/bamboo-agent-home/lib/bamboo-agent-bootstrap.jar
Unzipping /classpath.zip to /root/bamboo-agent-home/classpath
Extracting 'mANIFEST.DAT'
Extracting 'atlassian-user-core-5.4.14.jar'
Extracting 'atlassian-cache-api-4.4.0.3.jar'
Extracting 'slipt-2.4.1.jar'
Extracting 'slipt-2.4.1.jar'
Extracting 'sjon-1.1.3.jar'
Extracting 'sjon-1.3.jar'
Extracting 'sgenimo-ips_1.1.spec-1.1.1.jar'
Extracting 'genonimo-ips_1.1.spec-1.1.1.jar'
Extracting 'genonimo-ips_1.1.spec-1.1.3.jar'
Extracting 'panopticon-api-1.1.3.jar'
Extracting 'spec-1.0.0.jar'
```

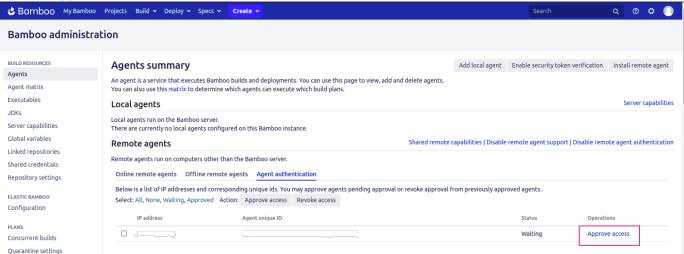
After sometime, we need a approval for Remote Agent.

```
| 2022/02/10 09:19:13 | 2022-02-10 09:19:13,017 INFO [WrapperSimpleAppMain] [AgentContext] Authenticating against Bamboo server at http://54.207.226.211:8085/
agentServ
INFO |
INFO |
INFO |
INFO |
INFO |
INFO |
         rver/
| jvm 1
| jent+aut
                         2022/02/10 09:19:13 | 2022-02-10 09:19:13,032 WARN [WrapperSimpleAppMain] [AgentContext]
                         2022/02/10 09:19:13 |
2022/02/10 09:19:13 |
2022/02/10 09:19:13 |
2022/02/10 09:19:13 |
                                                     ************************
                                                   | * | * This agent requires manual approval. | * This agent requires manual approval. | * UNID: 71130977-1c6a-428f-a9dc-6d68942c5c89 | * UNID: 71130977-1c6a-428f-a9dc-6d68942c5c89 | * Message from the server is: | * Approve this agent at 'http://54.207.226.211:8085/admin/agent/viewAgents.action?focusUuid=7113907f-1c6a-428f-a9dc-6d68942c5c89&selec the IP is correct. | * Next authentication attempt in 60 seconds... | * Next authentication attempt in 60 seconds...
                         2022/02/10 09:19:13
                        NFO
INFO
INFO
tedTab
INFO
INFO
           jvm 1
jvm 1
jvm 1
jvm 1
jvm 1
INFO
INFO
INFO
                        agentS
INFO
           jvm 1
INFO
INFO
INFO
 NFO
INFO
INFO
INFO
```

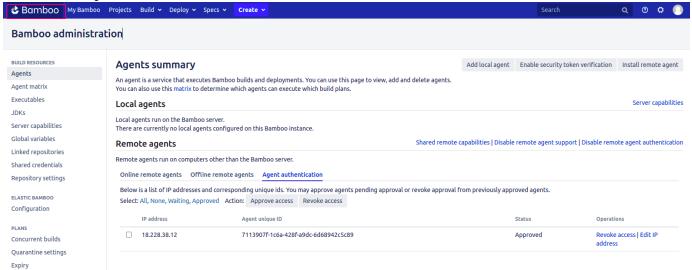
- · Go to Bamboo web interface.
- Click on Agents.



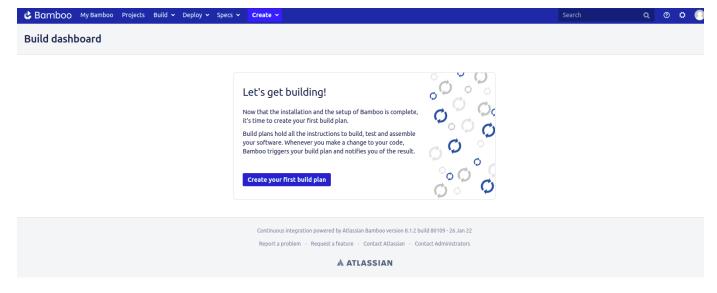
Click on Approve Access.



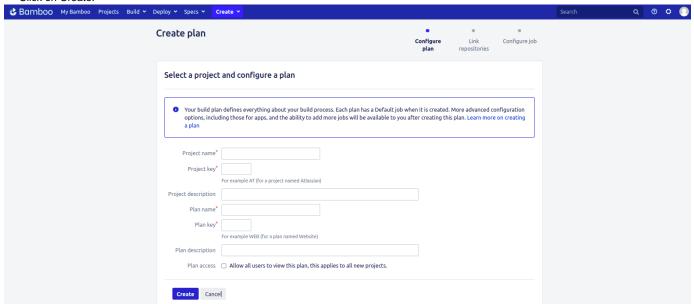
- Access Approved.
- Once Remote Agent installed, click on Bamboo.



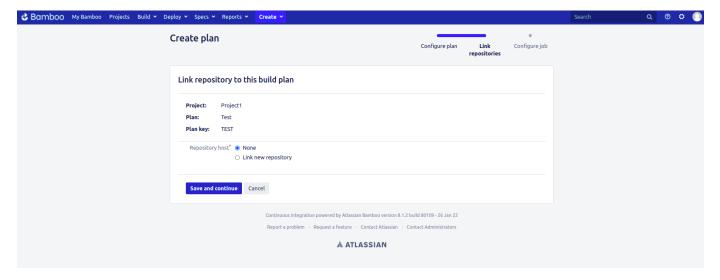
• Click on Create Your First Build Plan.



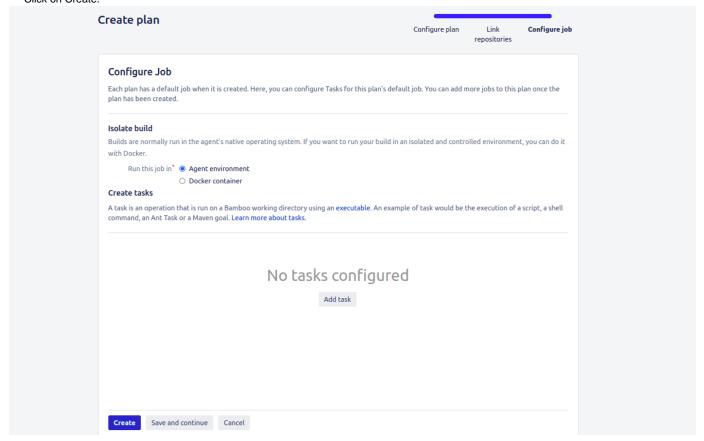
- Provide a Project & Plan name.
- Select Plan access. If we want to allow all users to view this plan then enable the plan access.
- Click on Create.



- Provide a Repository host.
- Select Link New repository so provide Bitbucket or GitHub link or select none.
- · Click on Save & Continue.



- Configure the Job as per needs or requirements.
- Click on Create.



• Now First build plan is successfully created.

