

# Production Mode

This section provides instructions for how to do a production installation of Eggplant DAI. This is the recommended installation method.

Before you start, make sure you've read the [Prerequisites](#) section.

## Prepare Helm Configuration

You must use a configuration file to define values for the required settings in the Helm chart.

In a text editor, create a file with the following content, replacing each `<placeholder>` with the appropriate value. In these instructions, the sample file is named as `dai.yaml`, but you can choose another name.

### NOTE

When you upgrade an existing installation, you need to generate this file. See the [Upgrade](#) section for full details.

In addition to the values listed here, there are further configuration options available for Eggplant DAI. See [Values](#) for full details. Further configuration options might be available for third-party sub-charts, e.g. RabbitMQ, Postgres and Minio. Refer to the upstream documentation for these charts to see what options are available.

### NOTE

The file is in YAML format and its `.yaml` suffix follows the convention for YAML-formatted files.

```
global:
  adminPassword: '<password>'
  adminUsername: '<email>'
  license: '<license>'
postgresql:
  enabled: false
```

```

externalDatabase:
  host: '<database hostname>'
  user: '<database username>'
  password: '<database password>'
  port: <database port>
ingress:
  hostnames:
    - '<ingress hostname>'
rabbitmq:
  password: '<rabbitmq password>'
  erlangCookie: '<rabbitmq cookie>'
  persistence:
    enabled: true
minio:
  persistence:
    enabled: true
keycloak:
  url: '<url of keycloak instance>'
  adminPassword: '<keycloak admin password>'

```

Placeholder	Value
<password>	Sets the password for the Eggplant DAI administrator.
<email>	The email address that is used for the username of the Eggplant DAI administrator.
<license>	Your DAI license key string, as supplied by Eggplant.
<database hostname> <database username> <database password> <database port>	Parameters required to access your PostgreSQL database.
<ingress hostname>	The ingress hostname for your Kubernetes DAI namespace. You must supply this value as appropriate for your Kubernetes cluster.

Placeholder	Value
<code>&lt;rabbitmq password&gt;</code>	Supply a password of your choosing for RabbitMQ to use.
<code>&lt;rabbitmq cookie&gt;</code>	Supply a 30-byte cookie, base-64 encoded, for RabbitMQ to use, e.g. to generate: <code>head -c30 /dev/urandom \   base64</code> .
<code>&lt;url of keycloak instance&gt;</code>	Sets the URL for the Eggplant identity and access management system
<code>&lt;keycloak admin password&gt;</code>	Sets the password for the System Administrator for the identity and access management system.

For a complete list of values and their defaults, see the [Values](#) section.

## Bug Hunting Service

The bug hunting service was added in DAI 6.1. The default memory allocation for this service is 750Mi, which is set in:

- `values.bug_hunting.resources.limits.memory`
- `values.bug_hunting.resources.requests.memory`

The actual memory used will vary for every installation, and is dependent on the number of models, and the number of actions in each model. Monitor the bug hunting service to determine a suitable value for your deployments.

## Set up Engine Autoscaling

We recommend, where possible, using [KEDA](#) for engine autoscaling. If you don't enable KEDA, then the default configuration instead provides two engine replicas. This number is configurable using the `ai_engine.replicaCount` parameter. See the [Values](#) section for full details.

1. Before installing the Eggplant DAI chart, [install KEDA V1](#).

**i NOTE**

KEDA version 2 is not currently supported.

2. To enable autoscaling, add the following to your values file:

```
keda:  
  enabled: true
```

## Using Amazon S3

To use an Amazon S3 bucket instead of Minio for object storage, substitute the `minio` section in the values file with your AWS details. See the [Values](#) section for full details.

```
objectStorage:  
  bucketName: my-example-bucket  
  provider: aws  
  aws:  
    existingSecret:  
      name: my-existing-secret  
    region: eu-west-1
```

## Install Eggplant DAI for Production Use

1. Make sure that you can access the PostgreSQL database. For example, use the following `psql` command line:

```
psql -h <database hostname> -U <database username>
```

**i NOTE**

Make sure that the database is named the same as `<database username>`. Use a password that contains alphanumeric characters only: digits 0 through 9 and letters A through Z, uppercase and, or lowercase.

2. Install the DAI Helm chart using the prepared configuration file, like this:

```
helm install dai eggplant/dai --version 0.11.17 -f dai.yaml --namespace dai
```

The `eggplant/dai` chart is installed as a Helm release called `dai` (the first parameter) into the Kubernetes namespace, also called `dai` (the `--namespace` parameter), using the parameters supplied in the `dai.yaml` file. `dai` is used as an example in these instructions, but you can use any name you prefer.

3. To watch the cluster building, use the following command.

```
watch kubectl get pods
```

All the items will display as `Running` after the cluster is built.

After Eggplant DAI is installed, use a web browser to access the ingress hostname specified in the configuration file.