# Getting started with midPoint using Docker

**Purpose:** To help someone with no experience with midPoint be able to setup and run midPoint. Provide basic configuration to pull in users from a data source and sync that data to external target system such as LDAP.

**Pull new Docker Image from Evolveum:**

ON Linux VM:

add user to docker group (dont run as sudo)

```
docker run -d -p 8080:8080 --name midpoint evolveum/midpoint:latest
```

**Start and Stop container**

Once you have your container created use start and stop commands for starting and stopping it.

- Start not running container:

```
docker start midpoint
```

- Stop running container:

```
docker stop midpoint
```

Stop command will save your configuration until you remove midPoint container.

To Stop/Start only Tomcat: enter the midPoint container bash use:

```
docker exec -it midpoint bash
```

In Docker container fix midpoint.sh - change: #!/bin/bash to #!/bin/sh

Should be running here: http://<VMname>:8080/midpoint/

Login as Administrator with default password and changeit.

**Create Incoming sync from Oracle DB**

Copy Oracle Driver to VM.

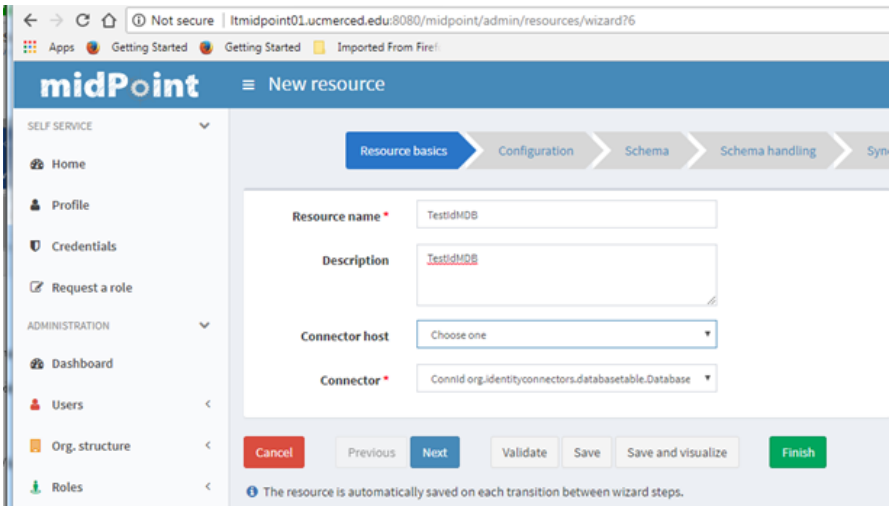
/opt/midpoint/var/lib

Go to: Resources -> New Resource

**Resource Basics Tab:**

Add Resource Name

Connector: ConnId org.identityconnectors.databasetable.DatabaseTableConnector v1.4.2 0




Next:

**Configuration Tab:**

Host: <DB Server>

TCP Port: <DB Port>

User: <DB UserName>

User Password: <DB Pwd>

Database: <Oracle DB Name>

Table: <IdM Table Name>

Key Column: <Table Primary Key>

JDBC Driver: oracle.jdbc.driver.OracleDriver

Change Log Column: <for us> OPERATIONTIMESTAMP

**Schema Tab:**

Should automatically bring in AccountObjectClass with all DB columns. You can remove columns if you need to, but for us we accepted them all since it's just a view of columns we need in the DB anyway.

Next:

**Schema handling Tab:**

Click Add Object type to add mappings from DB to midPoint.

Kind: Account

Intent: default

Display name: Default Account

Make sure Default is selected.

Object class: AccountObjectClass

Add Attributes (Click plus + sign):

Select DB Attribute from drop down.

ri: NETID

ri: FIRSTNAME

ri: LASTNAME

Add Inbound mappings (Click plus + sign):

Select Authoritative.

Target: $user/name

Target: $user/givenName

Target: $user/familyName

Next:

**Synchronization Tab:**

Click Add synchronization object to add Actions for syncs.

Name: Default Account

Kind: Account

Intent: default

**Select** Enabled.

**Add** Correlation (Click plus + sign):

Filter clause:

```
<q:equal xmlns:org="http://midpoint.evolveum.com/xml/ns/public/common/org-3">
  <q:path>name</q:path>
  <expression>
    <path>$account/attributes/ri:ldapid</path>
  </expression>
</q:equal>
```

**Add** Reactions (Click plus + sign):

**Choose Situation**: Linked

**Synchronize**: True

**Choose Situation**: Deleted

**Synchronize**: True

**Action**: unlink

**Choose Situation**: Unlinked

**Synchronize**: True

**Action**: link

**Choose Situation**: Unmatched

**Synchronize**: True

**Action**: Add focus

**Re-Select** Enabled if it disappeared.

Next.

**Capabilities Tab:**

Finish.

**Create the Import Sync for the Resource**

Go to the Resource Details Page

Click on Accounts Tab:

Click the Import Button bottom left -> Create New

TaskName: IdMImportSync

Type: Importing accounts

Kind: Account

Intent: default

Object class: AccountObjectClass

Check Recurring task

Schedule interval (seconds): 300

Save.

**Should now have users in midPoint**

When it runs after 5 mins.

Go to Users -> List users

Users from IdM DB should be listed.

**Create Export sync to LDAP**

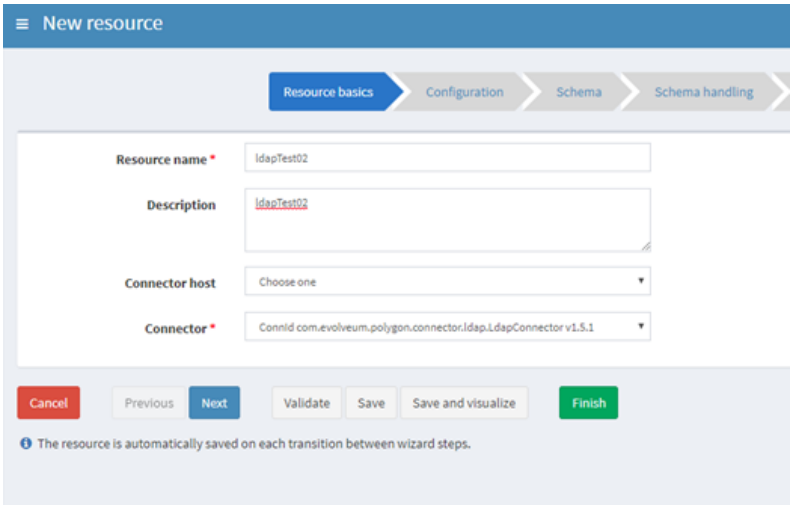
For us, it is Oracle DS

Go to: Resources -> New Resource

**Resource Basics Tab:**

Add Resource Name

Connector: ConnId com.evolveum.polygon.connector.ldap.LdapConnector v1.5.1




Next:

**Configuration Tab:**

Host: <LDAP Server>

TCP Port: < LDAP Port>

Bind DN: < LDAP BindDN>

Bind Password: <LDAP Pwd>

Connect timeout: 300000

Maximum number of attempts: 5

Base context: <LDAP base context>

Paging strategy: auto

Paging block size: 1000

VLV sort attribute: uid

Primary identifier attribute: uid

**Schema Tab:**

This will bring in all ObjectClasses from LDAP server automatically.

You have to edit XML to remove objectClasses that are not needed. I just downloaded to eclipse to modify then re-uploaded it.

Next:

**Schema handling Tab:**

Click Add Object type to add mappings from midPoint to LDAP.

Kind: Account

Intent: default

Display name: Default Account

Make sure Default is selected.

Object class: inetOrgPerson (for us)

Add Attributes (Click plus + sign):

Select LDAP Attribute from drop down.

ri: dn

ri: uid

ri: givenName

ri: cn

ri: sn

Add Outbound mappings (Click plus + sign):

Select Authoritative.

Strength **Strong**

Source: $user/name

Expression type: **Script**

Language: **Groovy**

Expression:

```
<script xmlns:org="http://midpoint.evolveum.com/xml/ns/public/common/org-3">
  <code>
    'uid=' + name + ',ou=People,dc=<campus>,dc=edu'
```

</code>

</script>

Source: $user/name

Source: $user/givenName

Source: $user/fullName

Source: $user/familyName

Make sure Default is **Still** selected.

Next:

**Synchronization Tab:**

Click Add synchronization object to add Actions for syncs.

Name: Default Account

Kind: Account

Intent: default

**Select** Enabled.

**Add** Correlation (Click plus + sign):

Filter clause:

```
<q:equal xmlns:org="http://midpoint.evolveum.com/xml/ns/public/common/org-3">
  <q:path>c:name</q:path>
  <expression>
    <path>declare namespace ri="http://midpoint.evolveum.com/xml/ns/public/resource/instance-3";
    $account/attributes/ri:uid
    </path>
  </expression>
</q:equal>
```

**Add** Reactions (Click plus + sign):

**Choose Situation**: Linked

**Synchronize**: True

**Choose Situation**: Deleted

**Synchronize**: True

**Action**: unlink

**Choose Situation**: Unlinked

**Synchronize**: True

**Action**: link

**Re-Select** Enabled if it disappeared.

Next:

**Capabilities Tab:**

Finish.

**Create LiveSync for the Resource**

Go to the Resource Details Page

Click on Accounts Tab:

Click the Live Sync Button bottom left -> Create New

TaskName: LdapExportSync

Type: Live synchronization

Resource reference: <Resource Name>

Kind: Account

Intent: default

Object class: inetOrgPerson

Select: Recurring task

Schedule interval (seconds): 300

**IdM users should be synced: Oracle -> midPoint -> LDAP**

It took 2-3 days to initially import 100k users from our test LDAP, so we will work on performance tuning next.