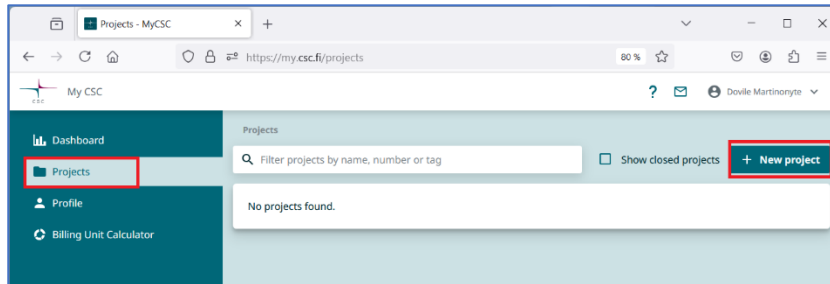Dovile Martinonyte
Renne Jämsén   2025-05-14

1   Create a new project in MyCSC portal

1. Log in to the CSC environment, https://my.csc.fi/.
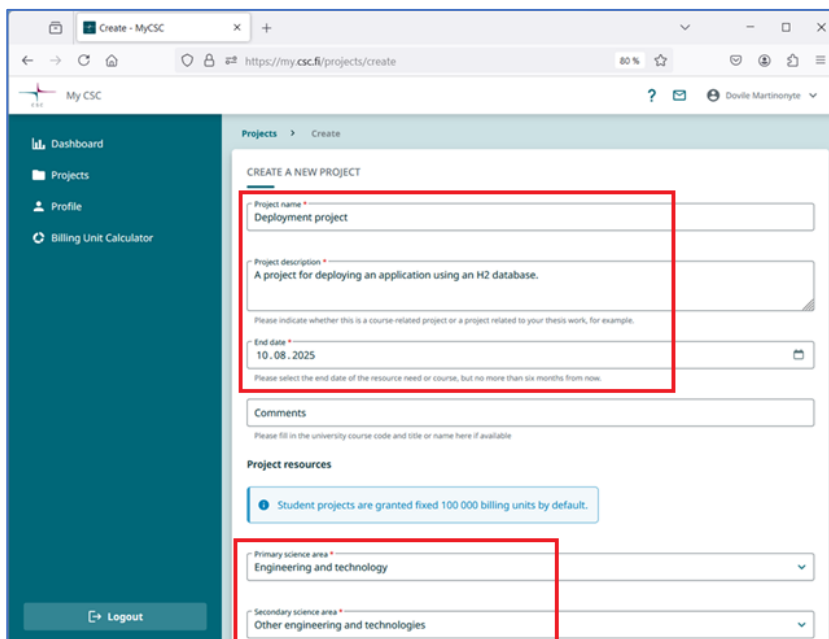2. Navigate to the `Projects` tab in MyCSC portal management view and click `+ New Project`.

3. Enter the required project details:
   - `Project name` and `description`
   - `Course end date`: can be at most six months from the creation date.
   - `Project resources`:
     o Primary science area: `Engineering and technology`
     o Secondary science area: `Other engineering and technologies`
   - Review the Terms of Use and READ CAREFULLY documentation about CSC services for students

   Click the `Create Project` button.
   * A course project is single-use. It cannot be extended, copied, or allocated additional resources. The default resource allocation for the project is 100 000 BU (billing units).
   * The project and all its resources will be automatically deleted after the end date.
   **Note: Personal data must not be stored in course project services.**

4. Add services to your project. In this course, you will need the Rahti service from CSC's offerings. You will also need the **project number** later for the actual application deployment.

Dovile Martinonyte
Renne Jämsén   2025-05-14
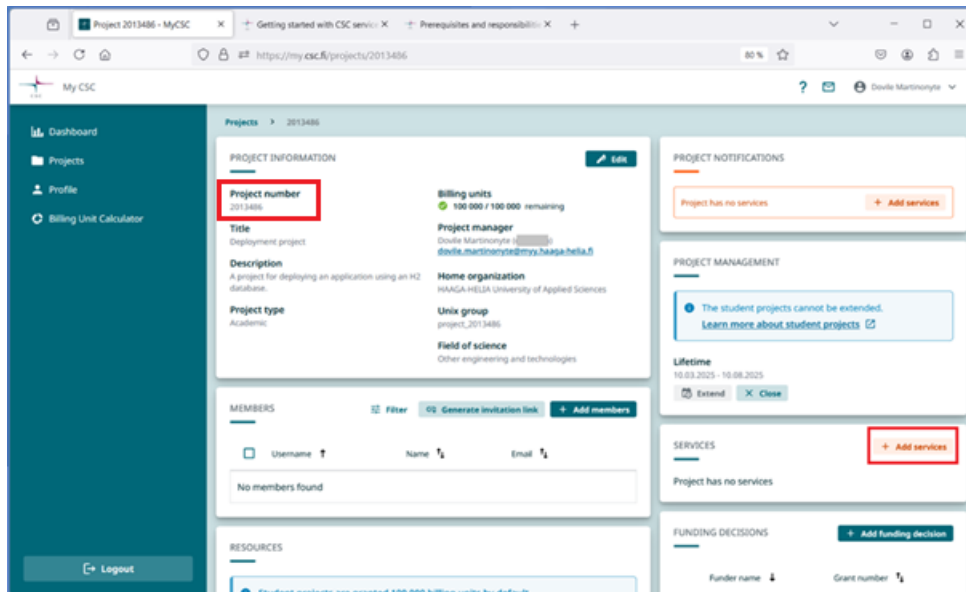
5. Click on the **+ Add services** button. A new view with services listed will appear.
    Select **Rahti**, `accept the terms of use for the Rahti` and click **Add selected services**
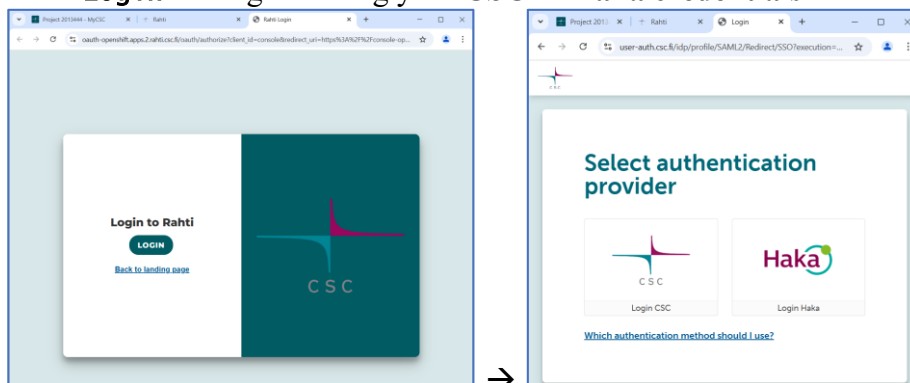   button.

Dovile Martinonyte
Renne Jämsén   2025-05-14
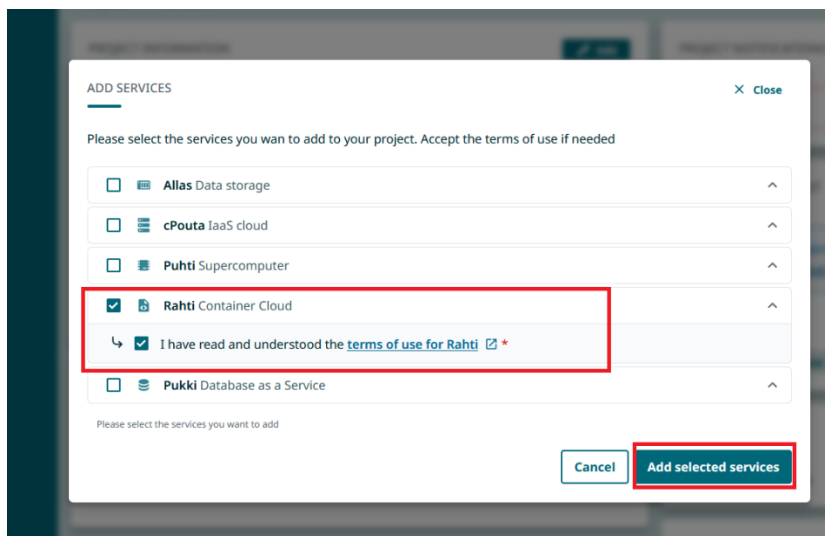
6.   In the **Services** card, you will now see **Rahti Container Cloud** service. Log in to the **Rahti** service by clicking the **Login** button.
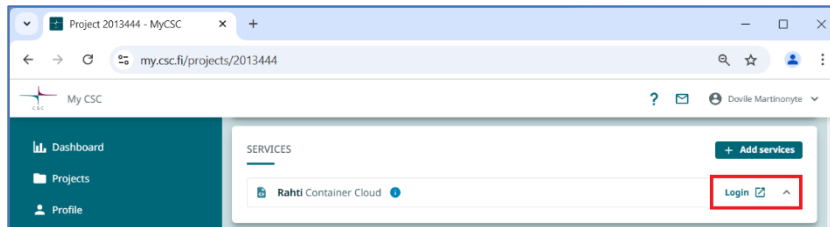

A new tab https://rahti.csc.fi/ will open in your browser. Click the **Login** button.
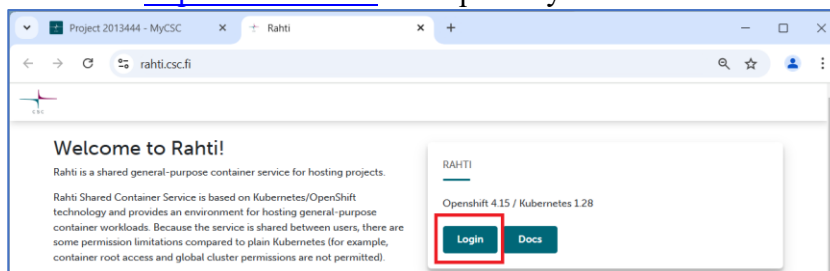
Click **Login** and sign in using your **CSC** or **Haka credentials**.

   →

Note: if you have registered to my.csc.fi just before following these instructions, it may take some time for your account to activate, so you might see an error message: "Could not find user". Try going back to the Rahti service login step after a while.
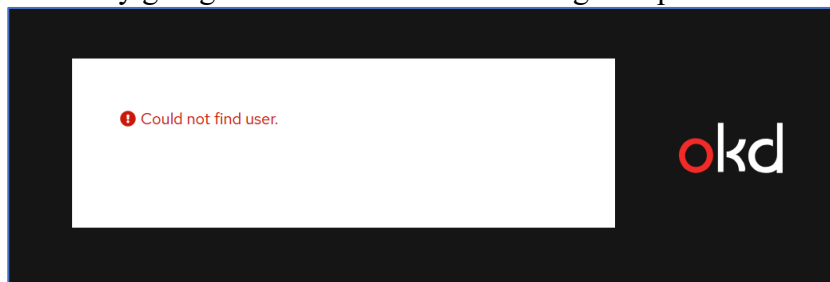

Once your login is successful, you can get started with a tour to improve your workflow or skip it.

Dovile Martinonyte
Renne Jämsén   2025-05-14

2 Deploy a Spring Boot Application with an H2 database on Rahti

2.1 Prepare your Spring Boot Application

1. Create a new file in the **root** directory of your Spring Boot application and name it **Dockerfile** (without a file extension).
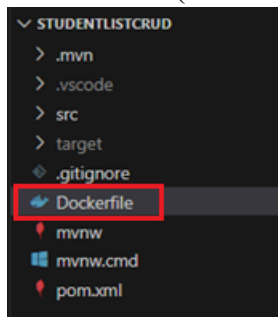

2. Copy the following content into the **Dockerfile** (this can also be found in the course's Moodle page):

```
FROM eclipse-temurin:17-jdk-focal as builder
WORKDIR /opt/app
COPY .mvn/ .mvn
COPY mvnw pom.xml ./
RUN chmod +x ./mvnw
RUN ./mvnw dependency:go-offline
COPY ./src ./src
RUN ./mvnw clean install -DskipTests
RUN find ./target -type f -name '*.jar' -exec cp {} /opt/app/app.jar \; -quit
FROM eclipse-temurin:17-jre-alpine
COPY --from=builder /opt/app/*.jar /opt/app/
EXPOSE 8080
ENTRYPOINT ["java", "-jar", "/opt/app/app.jar"]
```

3. Push your updated application to GitHub.
    Note: These instructions assume you GitHub repository is **public.** *(If needed, you can make it public temporarily during deployment and switch it back to private later.)*
    Private repositories can also be used, but this document does not cover that method.

Dovile Martinonyte
Renne Jämsén   2025-05-14

2.2. Spring Boot application deployment

1. Navigate to the top left menu. Choose your role `Administrator` → `Home` → `Projects`.
   The deployment is done by creating a new project in the Rahti service, click the `Create Project` button.
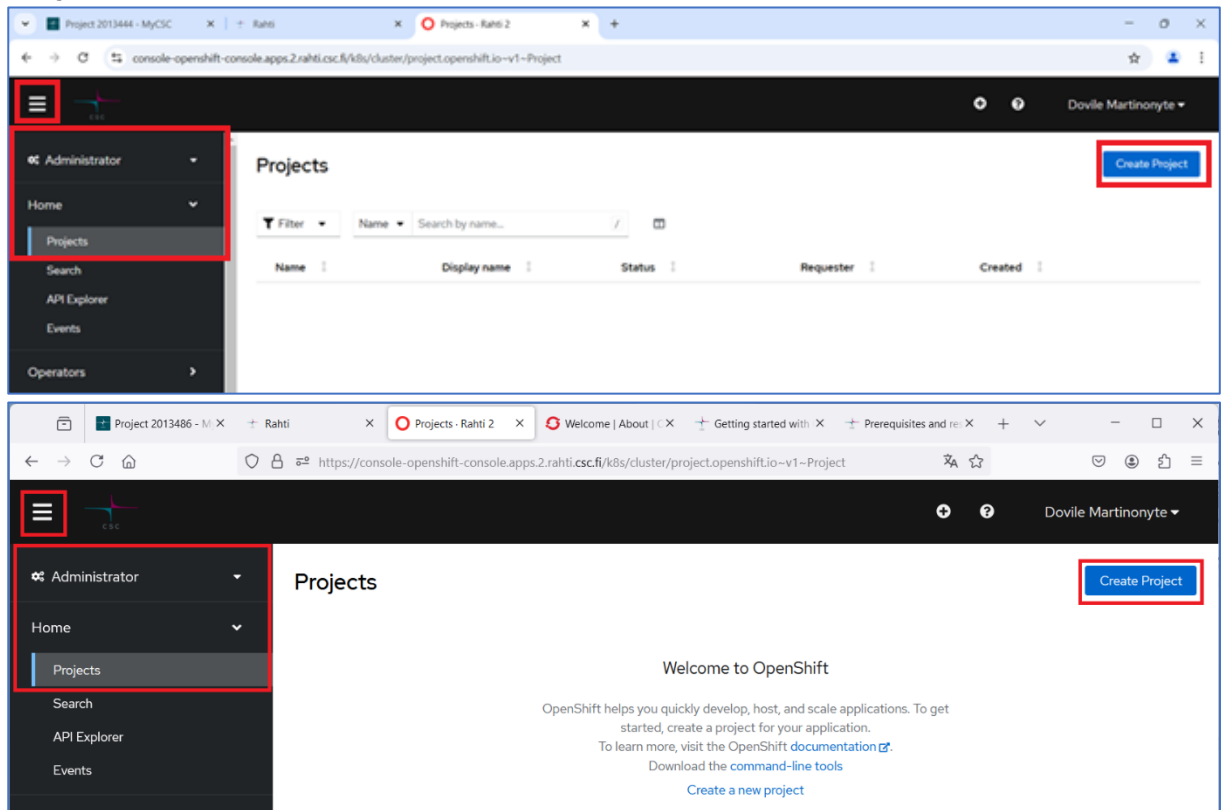
2. Enter the required details. `Name` must be **unique** and it is **case sensitive**.
   Click `Create` button.
   Note: To successfully create the project, you must enter the **CSC project number** (e.g. `csc_project:<project number>`) in the `Description` field.
   If you don't know project number, see **step 1.4**.
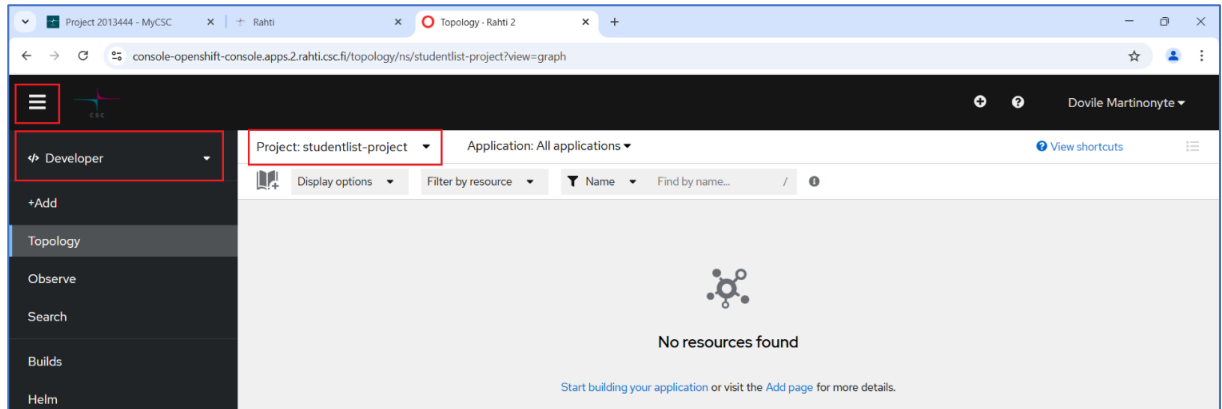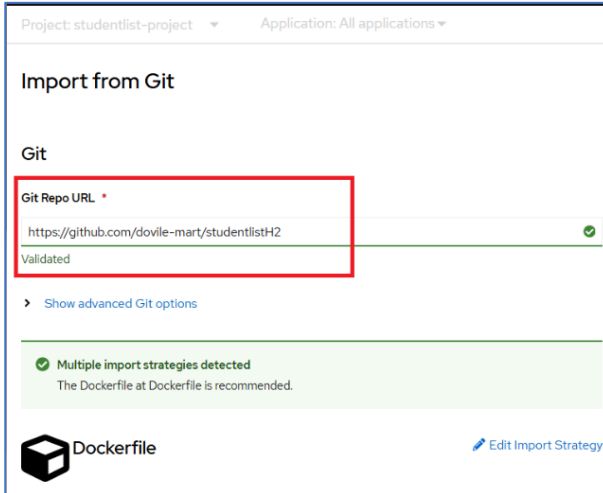
Dovile Martinonyte
Renne Jämsén 2025-05-14

3. Now you can deploy your Spring Boot application inside the newly created project in the Rahti service. Navigate to `Developer` mode. If your project name is not visible, select it from the `Project` drop-down menu.

4. Click `+Add` and from the available resources select `Git Repository → Import from Git`.

Dovile Martinonyte
Renne Jämsén   2025-05-14
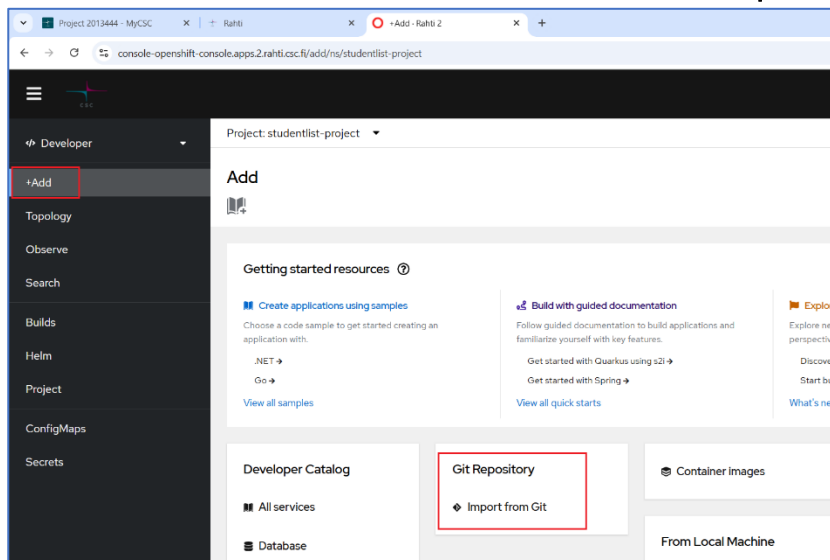
5. Fill in the **Import from Git** form by entering the `Git Repo URL`.
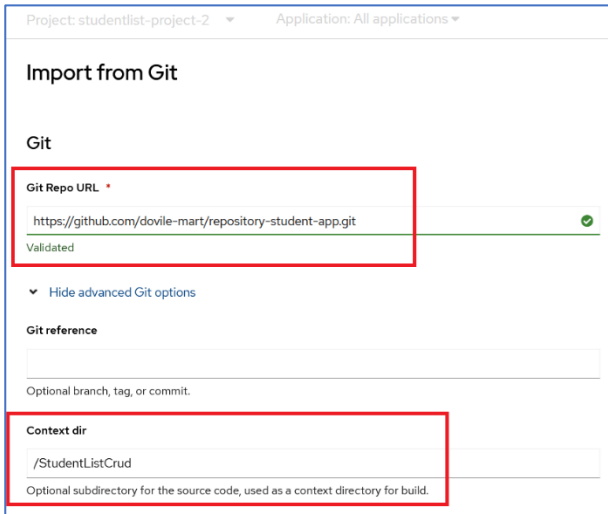
If your repository contains multiple projects, open `Advanced Git options` and specify the path to the root folder in the `Content dir` field:

A name for your application component in `Name` field is be generated automatically but you can also create your own **unique name**. This component will be used to name associated resources. Then click the `Create` button.

HAAGA-HELIA
ammattikorkeakoulu

Dovile Martinonyte
Renne Jämsén   2025-05-14

General

Application

studentlist-h-2-app

Select an Application to group this component.

Name *

studentlist-h-2

A unique name given to the component that will be used to name associated resources.

Build

Build Option

Builds

Build Option to use for building the application.

> Show advanced Build option

→

Deploy

Resource type

Deployment

Resource type to generate. The default can be set in User Preferences.

> Show advanced Deployment option

Advanced options

Target port

8080

Target port for traffic.

☑ Create a route
Exposes your component at a public URL

> Show advanced Routing options

Click on the names to access advanced options for Health checks, Scaling, Resource limits, and Labels.

Create   Cancel

Dovile Martinonyte
Renne Jämsén					2025-05-14
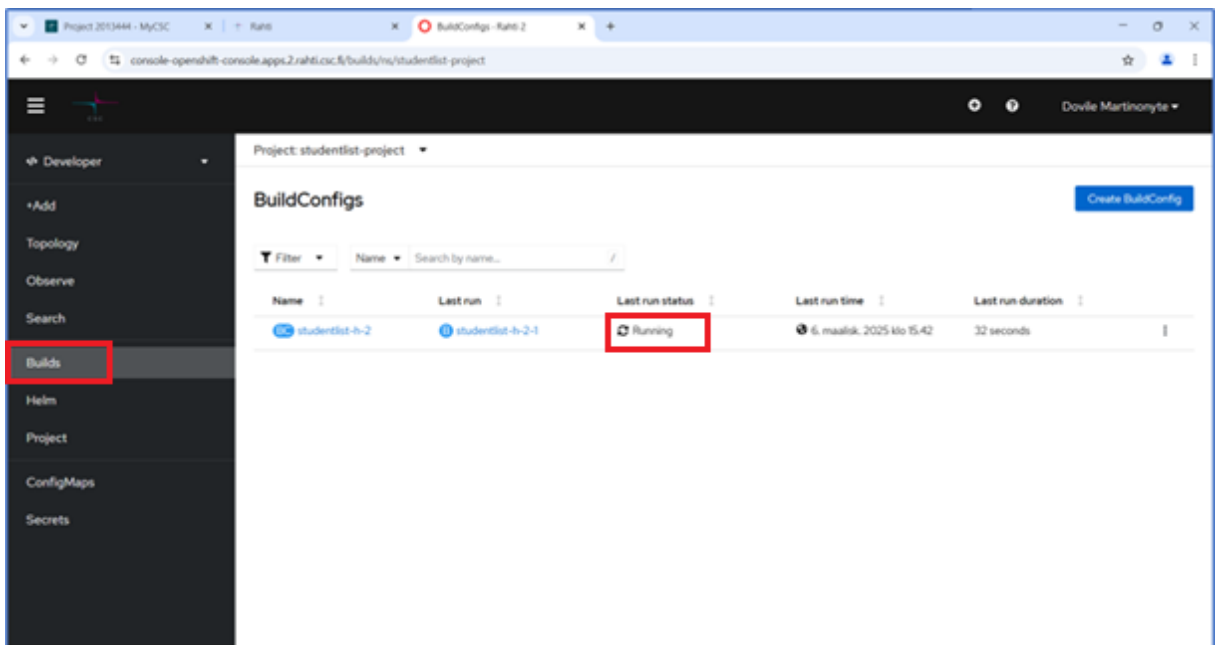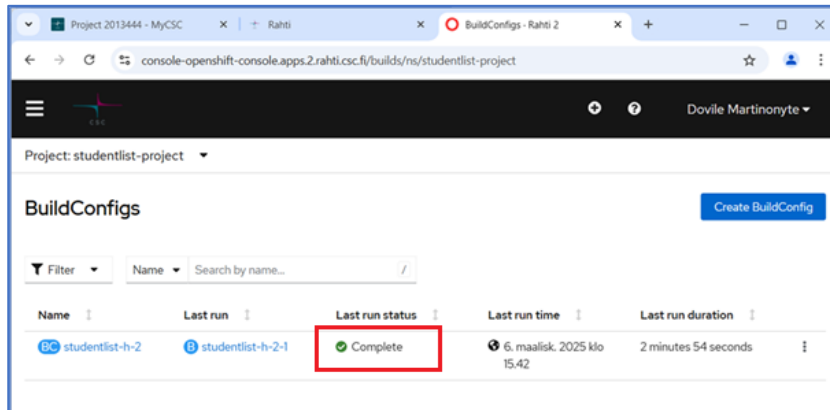
6. The build process will start and may take a few minutes. You can find application component under **Developer** mode → **Topology** view:
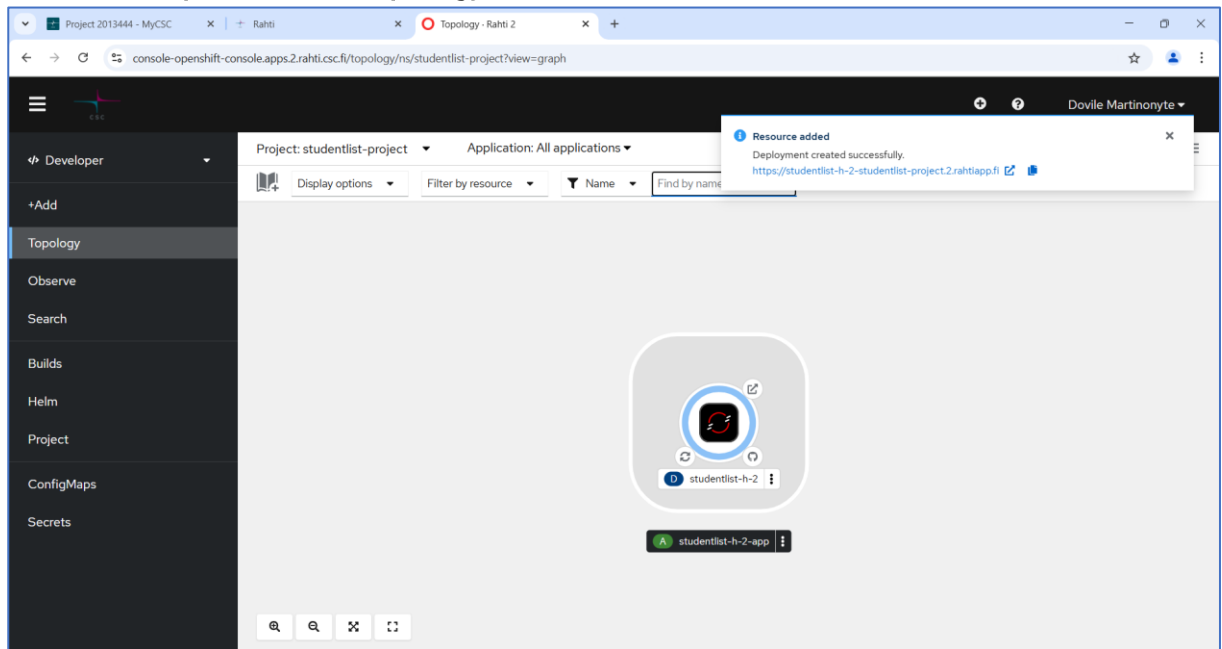

7. Follow the build progress in the **Developer** mode → **Builds** view.
While application is being built, its status will be **Running**.

Dovile Martinonyte
Renne Jämsén   2025-05-14

8. Once the build is complete, the status will change to `Complete`.

9. You can find your application's URL, by navigating to the `Topology` view → selecting the component → when the sidebar on the right opens, navigate to the `Resources` tab → the application's URL will be under `Routes`. Click the link, and the application will open in your web browser.

Dovile Martinonyte
Renne Jämsén   2025-05-14
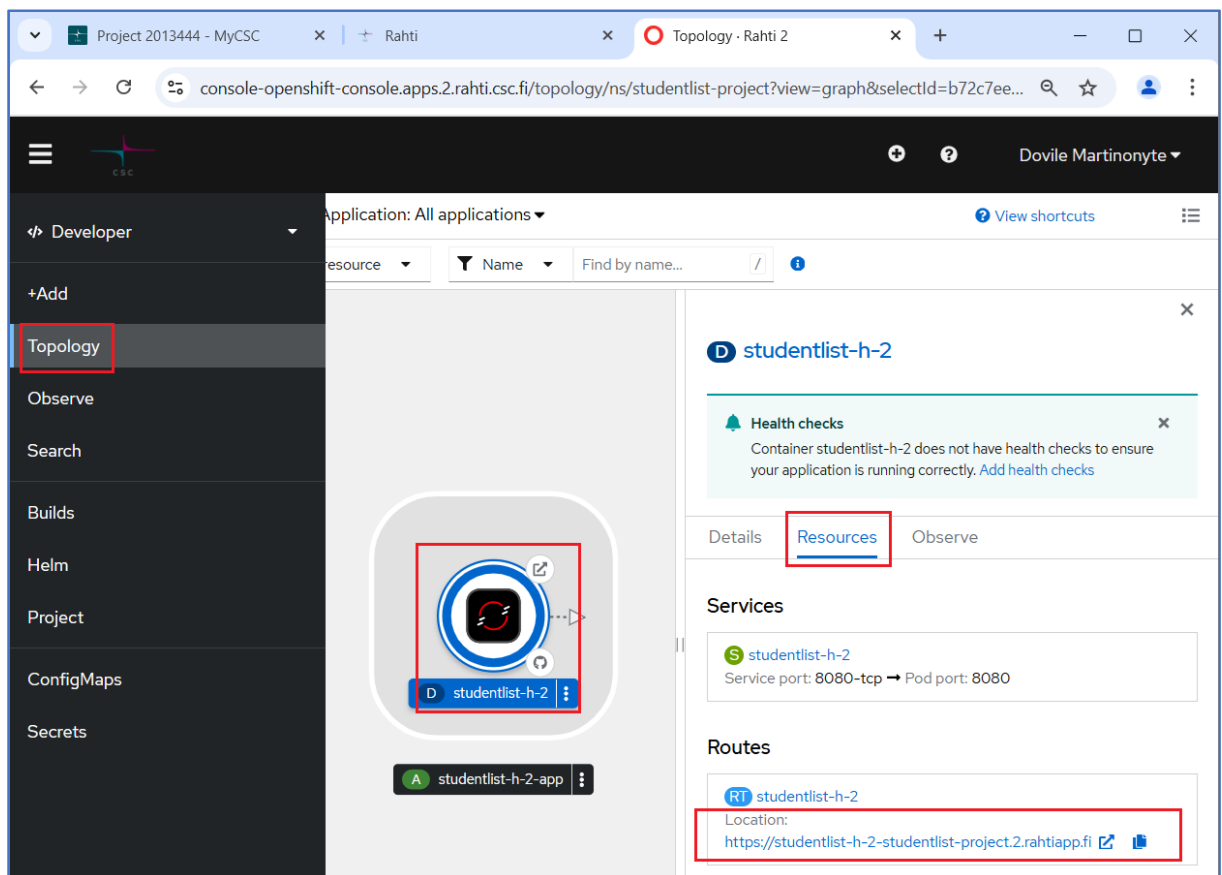
10. Congratulations, your application is deployed!