How to Deploy LMS (Learning Management System) Application Application in Enterprise Server?

For Windows 10 or 11 follow step 1.

Step 1. Download and install docker-desktop for Windows from
https://www.docker.com/products/docker-desktop

During installation, make sure Enable Hyper-V feature is selected and click on OK to complete the installation process and restart your computer.

For Windows Server 2019 follow the instructions given in the link
https://www.virtualizationhowto.com/2020/12/install-docker-in-windows-server-2019/
For Windows 10 or 11, follow step 1.

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https://www.virtualizationhowto.com/2020/12/install-docker-in-windows-server-2019/

For Windows Server 2022 follow the instructions given in the link
https://www.virtualizationhowto.com/2022/09/install-docker-on-windows-server-2022/

How to Install docker using power shell in Windows Server 2019 /2022?
Run the following commands in PowerShell to install docker in Windows Server 2019 /2022

Step 1.1:
Install-WindowsFeature -Name 'Containers'
Step 1.2:
Enable-WindowsOptionalFeature –Online -FeatureName Microsoft-Hyper-V –All -NoRestart
Install-WindowsFeature RSAT-Hyper-V-Tools -IncludeAllSubFeature
Step 1.3:
Restart-Computer -force
Step 1.4:
Install-Module -Name DockerMsftProvider -Repository PSGallery -Force
Select "Yes", if you see any popup.
Step 1.5:
Install-Package -Name docker -ProviderName DockerMsftProvider
Select "Yes to All", if you see any popup.
Step 1.6: Restart-Computer -force

NOTE : Step 2 needs to be executed only in Windows 10 and 11

Step 2: After successful installation, go to Docker properties and click "Switch to Windows containers".

Step 3: Setup the running environment for containerized applications.

NOTE: Make sure you have logged in to your Docker account before executing the following commands.

3.1 Download Docker images from Docker Hub by running the following commands in Windows power shell.

Docker pull relgonetworks/academics2022:latest
Docker pull relgonetworks/roc2022:latest
Docker pull relgonetworks/relgoappslive2022:latest
Docker pull relgonetworks/relationsnetlive2022:latest
Docker pull relgonetworks/ocl2022:latest

3.2
Create a new folder called "temp" in C drive.

Download OCLDB.mdf zip file from the following URL. Extract OCLDB.mdf from the downloaded zip file and copy it to the temp folder in the C drive
https://relgo.com/Resources/@Bizcenter$5f19b2f2-8245-4f97-98ac-04c8ab231415-OCLDB_1.0.zip

Download OCLDB_log.ldf zip file from the following URL. Extract OCLDB_log.ldf from downloaded zip file and copy it to the temp folder in the C drive

https://relgo.com/Resources/@Bizcenter$7ae9ea5f-353d-4bde-b006-6bf2bf94dbda-OCLDB_log_1.0.zip

Open Windows PowerShell and run the following commands one by one.

3.3 docker network create --driver=nat --subnet=172.28.0.0/24 --gateway=172.28.0.1 relgonet

3.4 docker run -d --name "OCL" --net=relgonet --ip=172.28.0.21 -p 1433:1433 -v C:/temp/:C:/temp/ -e MSSQL_SA_PASSWORD=Relgo123** -e ACCEPT_EULA=Y -e attach_dbs="[{'dbName':'OCL','dbFiles':['C:\\temp\\ocldb.mdf','C:\\temp\\ocldb_log.ldf']}]" relgonetworks/ocl2022:latest

3.5 docker run -d --name "RelationsNetLive" -m 2GB --cpus="1" --net=relgonet --ip=172.28.0.16 -p 9016:80 relgonetworks/relationsnetlive2022:latest

3.6 docker run -d --name "SolutionPortal" -m 4GB --cpus="1" --net=relgonet --ip=172.28.0.13 -p 9013:80 relgonetworks/roc2022:latest

3.7 docker run -d --name "RelgoAppsLive" -m 8GB --cpus="2" --net=relgonet --ip=172.28.0.14 -p 9014:80 relgonetworks/relgoappslive2022:latest

3.8 docker run -d --name "Academics" m 4GB cpus="2" --net=relgonet --ip=172.28.0.18 -p 9020:80 relgonetworks/academics2022:latest

After successful execution of above commands now you can access Relgo Solution Portal website from your browser by typing http://172.28.0.13

**Note : Now, you can create a token by validating your email address and select token to login to Your Solution Portal website and complete basic installations.
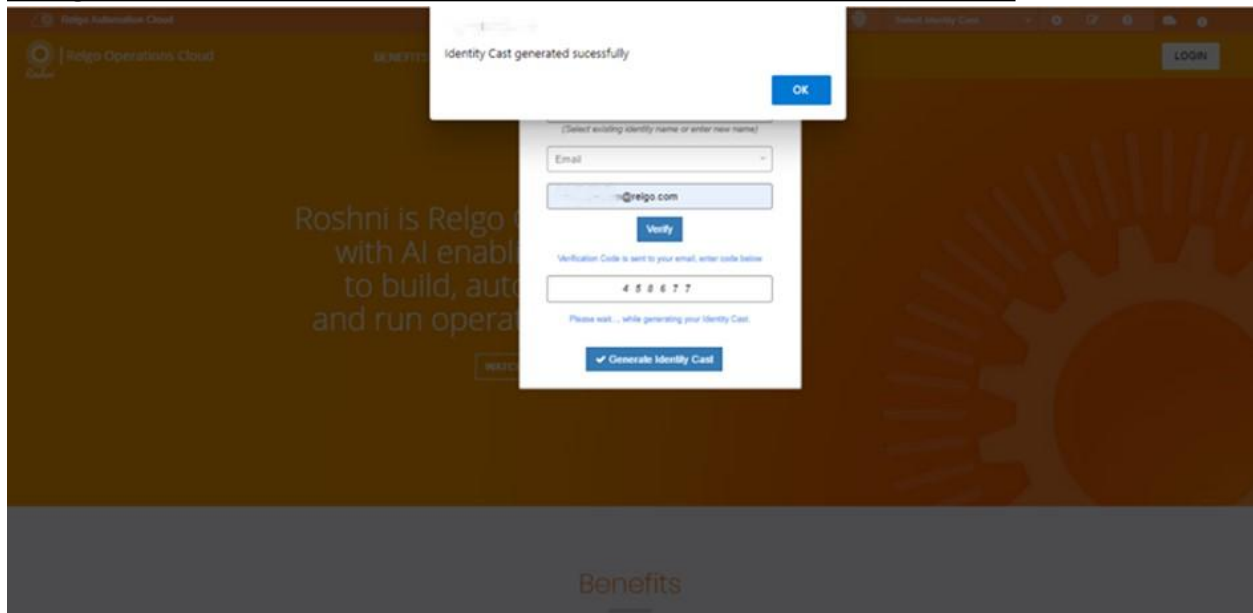
NOTE: FOLLOW STEP 4 INSTRUCTIONS, IF YOU DO NOT HAVE PUBLIC ACCESS TO RelationsNet URL

STEP 4: *NOTE: TO DEPLOY THE APPLICATION PACKAGE FROM RELGO CLOUD, WE NEED TO ENABLE "RELATIONS NET URL" PUBLIC ACCESSIBLE.*

How to make your IP publicly accessible?

Here I will use the port forwarding technique to make your IP publicly accessible.

Step 4.1: Login to http://portmap.io or register yourself if you do not have an account.

Step 4.2: After logging in, go to Configurations and create a new configuration as below.

Name: As per your choice, like "RDP."

Type: OpenVPN (We are going to OpenVPN configuration settings to enable public access to the RelationsNet URL.

Port: TCP

Click on the Generate button, which will generate an OpenVPN configuration file and download the same to your system.
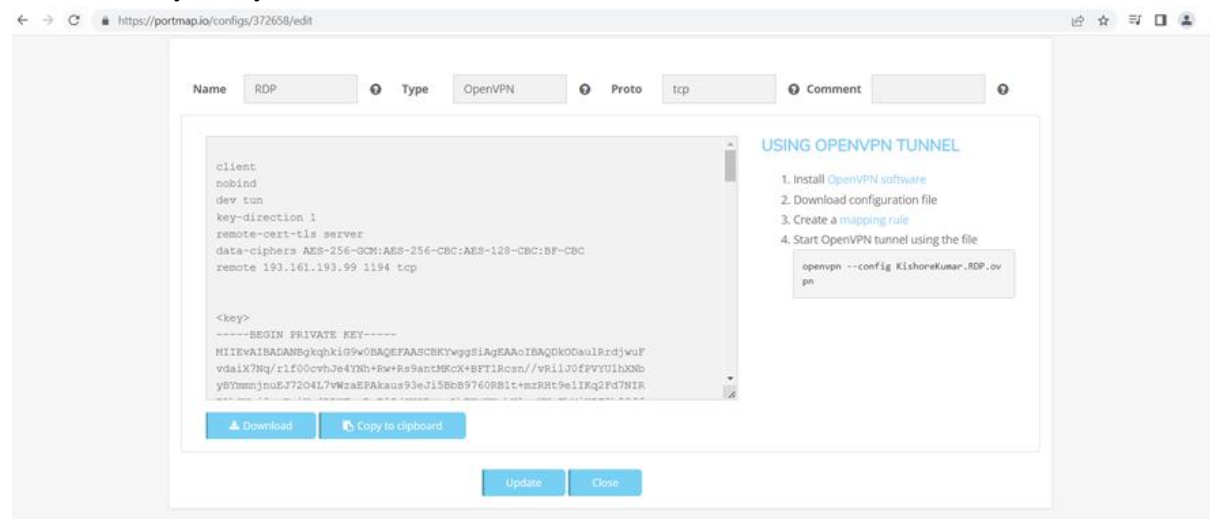
Step 4.3: Now go to MAPPING RULE and click on "Create New Rule".

There is no need to change the default data. Just give the port on your PC as "9255" or the port number you have given during the RelationsNet docker container creation.

Step 4.5: Now you just run OpenVPN software and select the OpenVPN configuration file. If you have not already done so, you must install Open VPN software.

https://openvpn.net/community-downloads/

Now you should be able to access your relations net URL from anywhere through the system browser.

REFERENCE: https://www.youtube.com/watch?v=YE2L0uT153w

5. LMS APPLICATION DEPLOYMENT

5.1 Go to Solution builder website https://www.elasticapps.io (OR) **http://198.71.49.234:9032/**
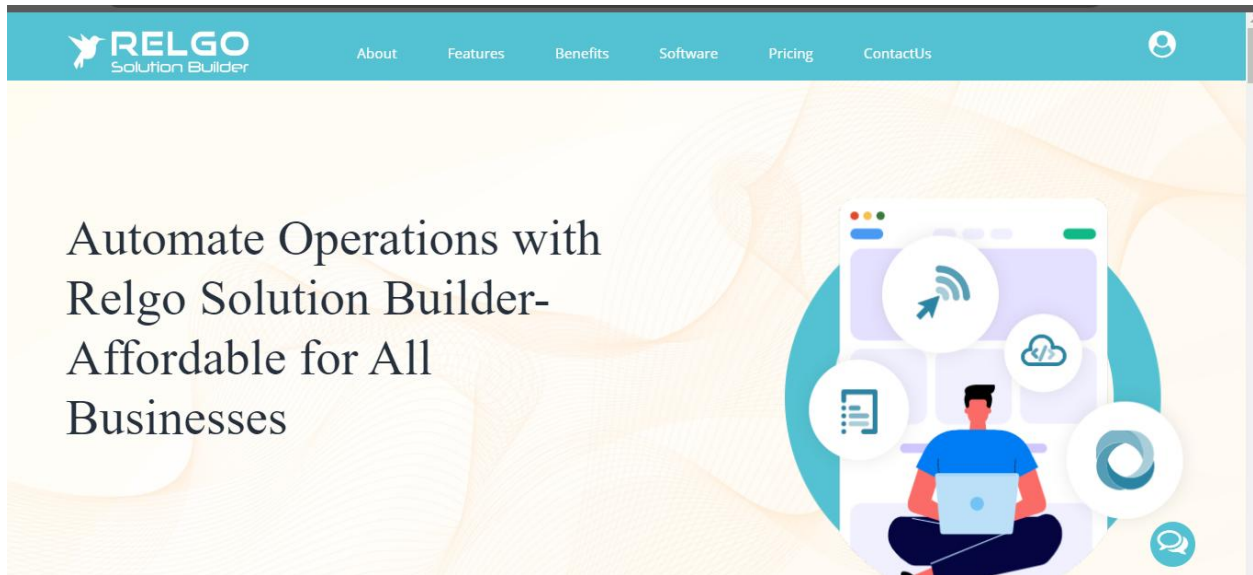
Please click the icon, and once you see the subsequent screen, choose the "subscribe" option.
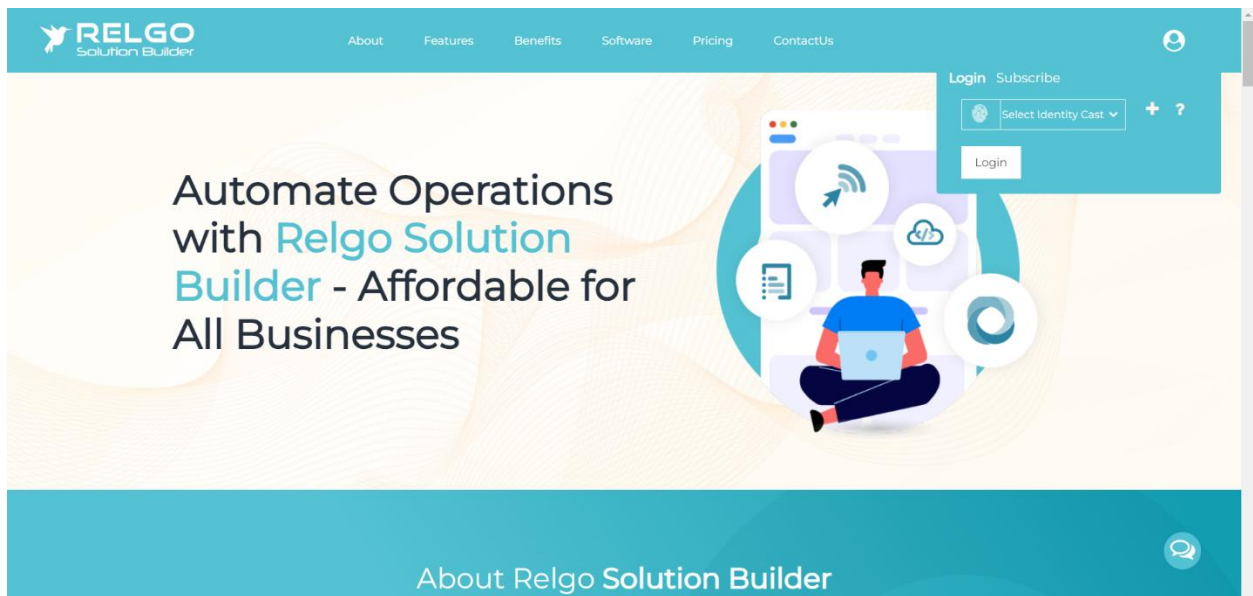
***Note： **Create your identity with your email as you set up in your environment. Now Purchase "Automation Subscription" license to login to solution builder website.**

Click the Automation Subscription, select your identity cast, and then click on the verify option.

After clicking on "verify," a field will appear requesting you to enter your license ID into the provided field.

Enter your license ID and proceed to click on the subscribe button.
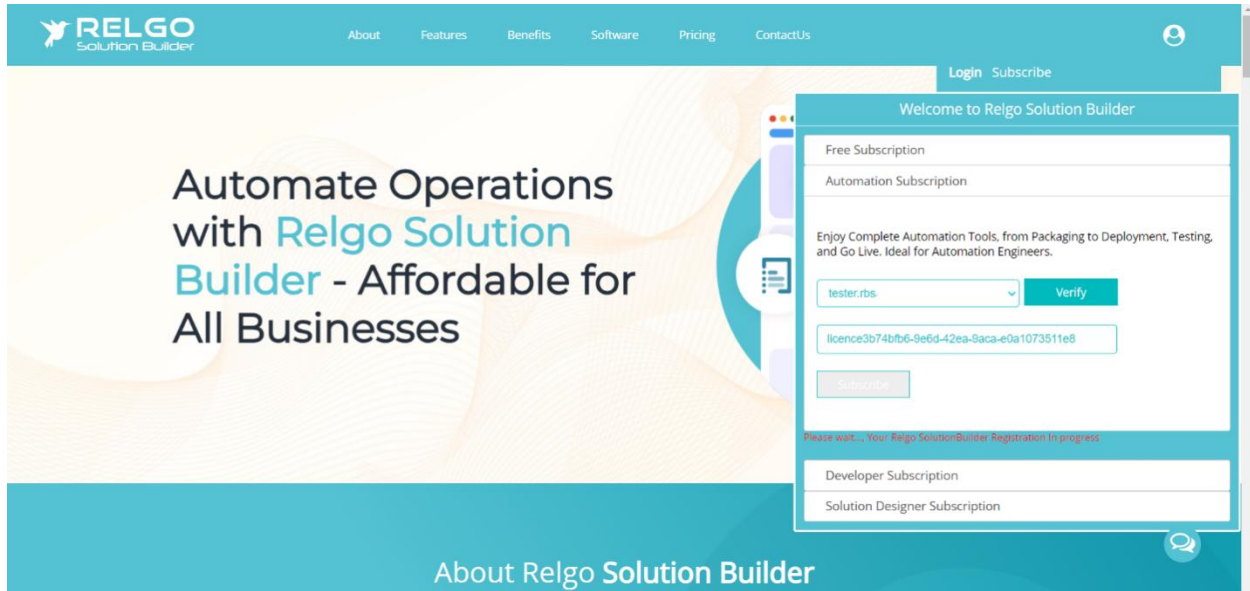
A popup will appear saying license is successfully activated
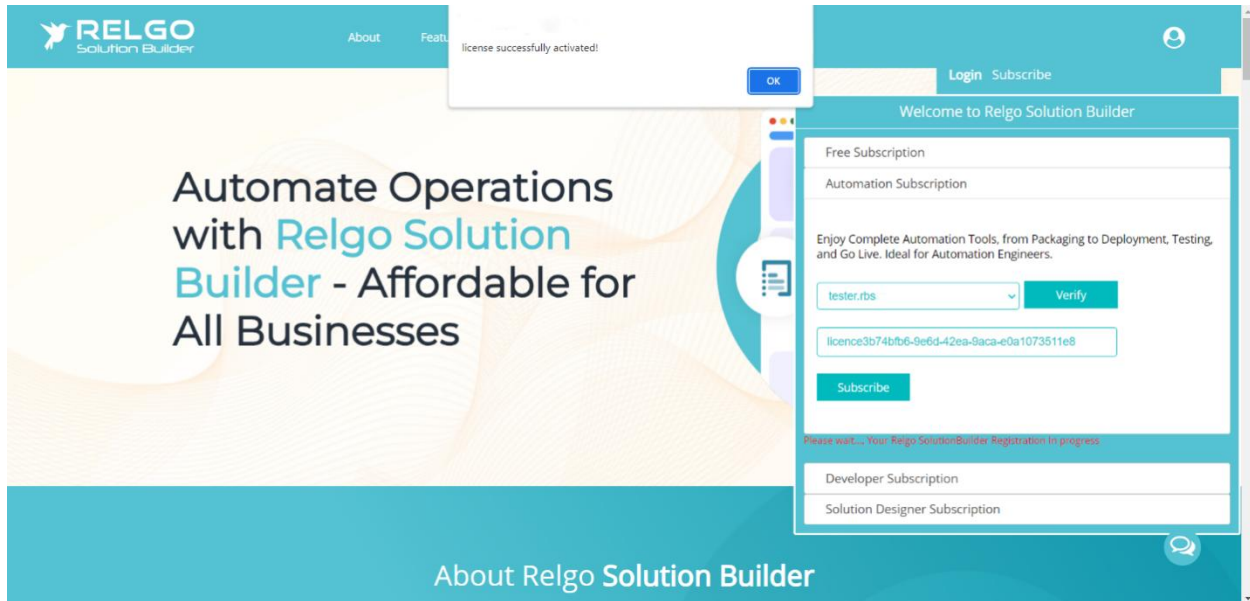
Refresh the page, click on the icon, and then proceed by clicking on the login button. Select your identity cast and click on the login option.
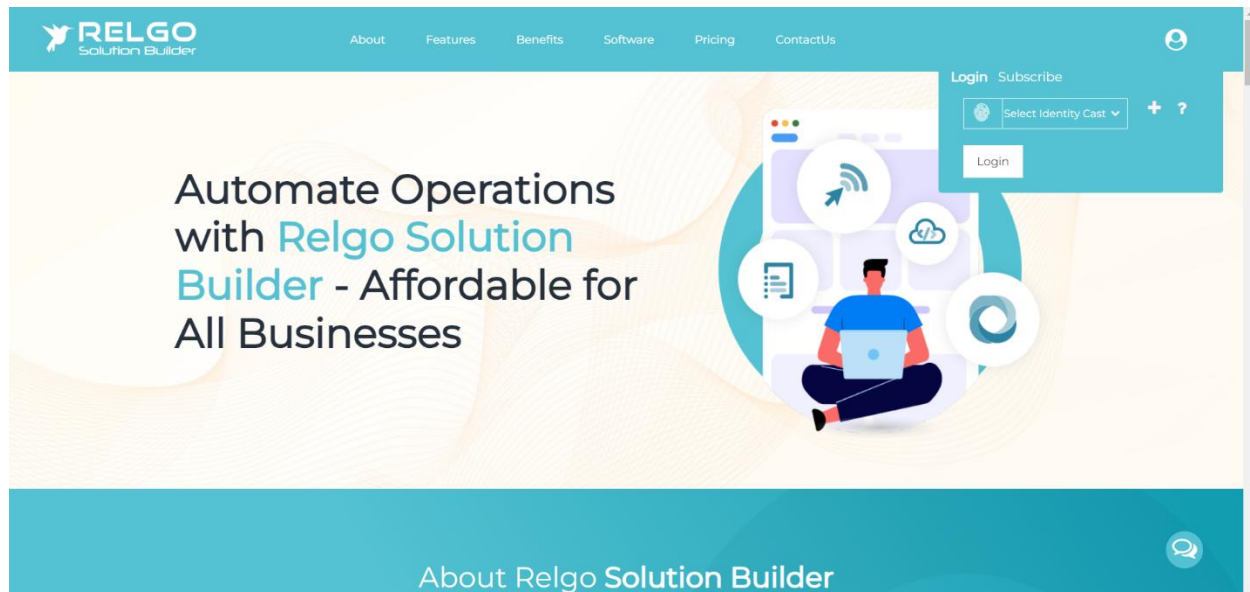
Complete the basic installations after successfully logging in.
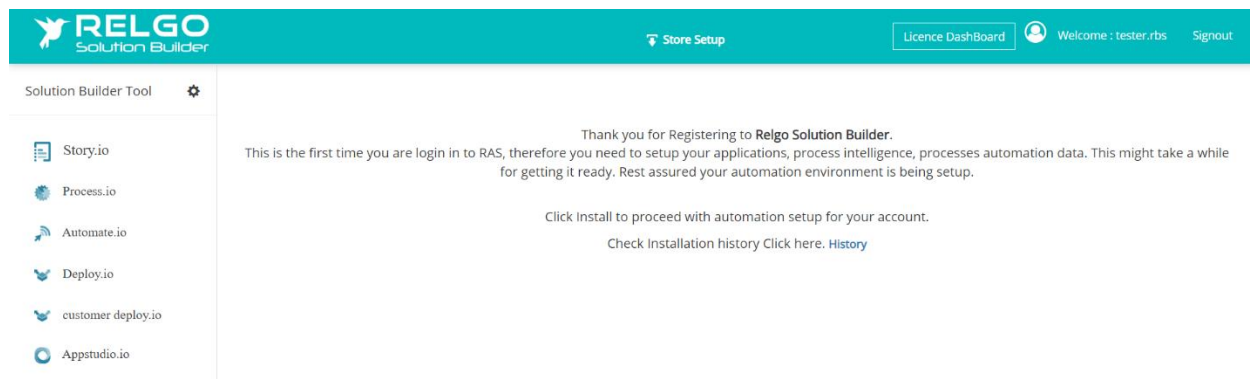
5.2 Create Package

Goto **Process.io → Appspaces→ New Appspace**

- Click on AppSpaces dropdown menu
- Choose 'New AppSpaces'
- Fill the fields like App Space name and description then click on "Publish App Space" button to create the App Space which is shown in below screen

5.3 To Select Processes

Goto **Process.io → Processes→Select Processes**

- Choose the 'select process' under processes
- Opt for 'Cloud App store' as the store.
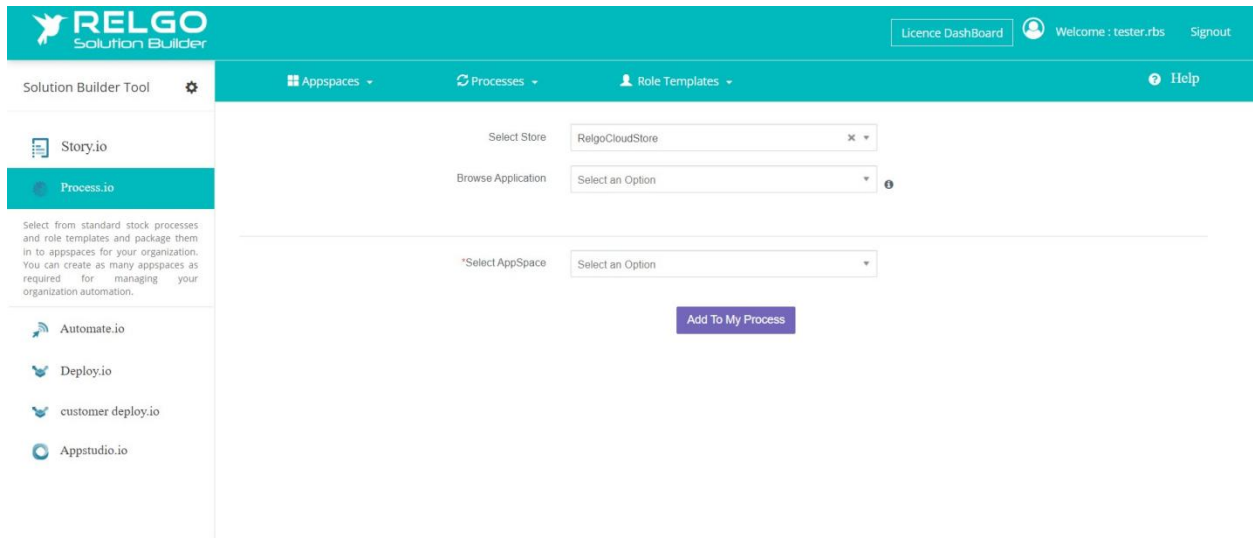
Select the **"Learning Management System"** application from the 'Browse Applications' column.
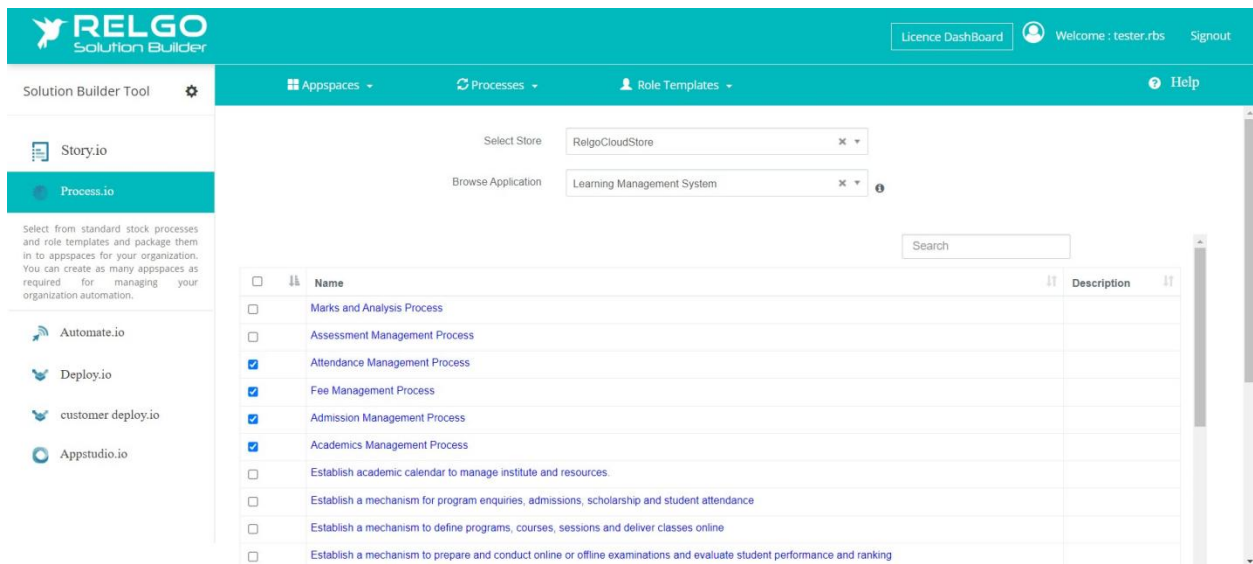
After selecting the application, select the appspace that you have created before, and click on 'add to my processes' as shown in the below image.

Example :- If the user wants Admission Management, Attendance Management, Fee Management and Academic Management. Select these Processes and click on the 'Add to My Process' button as shown below.

5.4 Purchase application license

Goto **Process.io → Appspaces→ My Appspaces**

- Click on AppSpaces dropdown menu
- Select 'My AppSpaces'

You can buy the application by clicking the 'purchase' button as shown in the below screen.
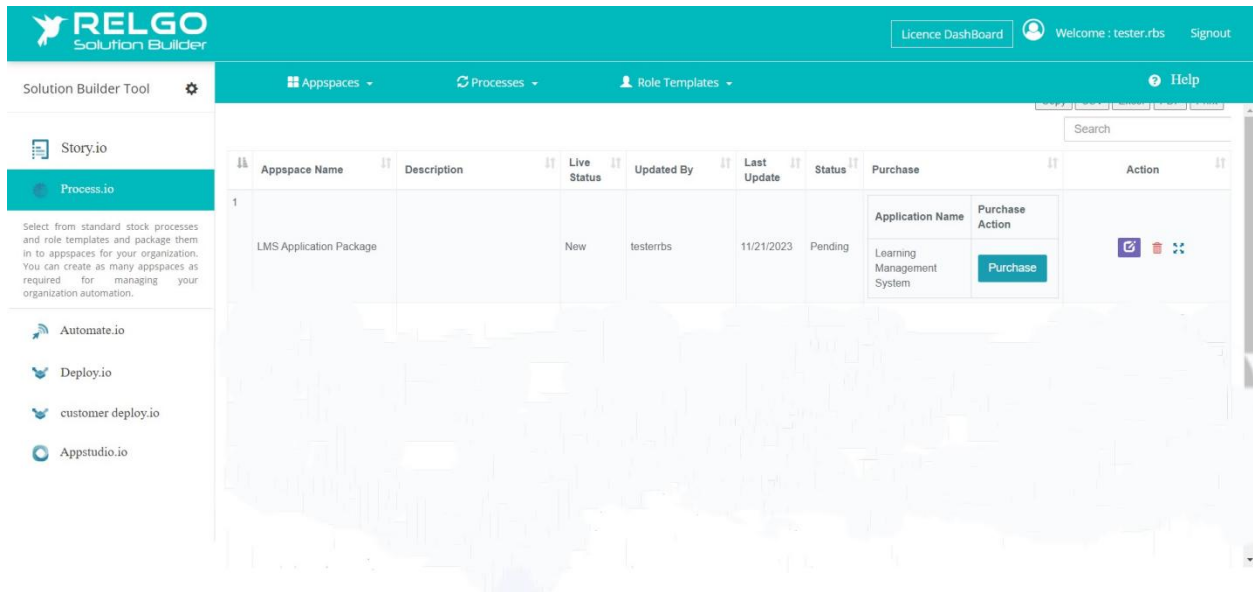
After clicking on purchase, it will redirect you to the store where you can seamlessly complete your purchase.

5.4 (A) To buy the desired application, you should now add the application to the cart.
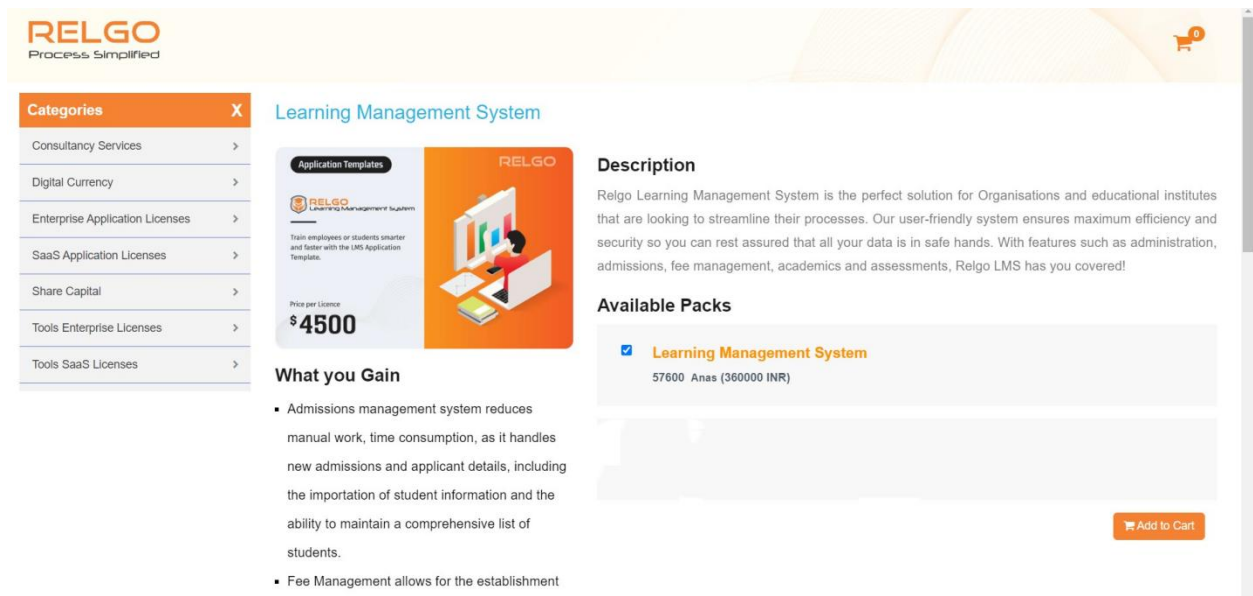
After clicking on add to cart button, the below screen will appear

- Here the user has to select the identity cast, if the user does not have any then create one by clicking on 'no token? Verify Identity and get token' button
- After creating the token, refresh the page
- Then select the created identity cast and click on 'Proceed to Payment' button
- A screen will appear as shown below, there click on 'Proceed'.

Here check all the details, and click on 'confirm'.

A screen will appear saying, your order has been received.

5.5 Deploy the application

After purchasing, again login to your Solution Builder account and deploy the package.

Please setup your **Service** in **Customer deploy.io**

Go to **Customer deploy.io** → **Service Setup**→**Setup Customer Deployment**

- Click on 'Setup customer deployment' under service setup
- Provide the customer service name and service URL and click on Add button
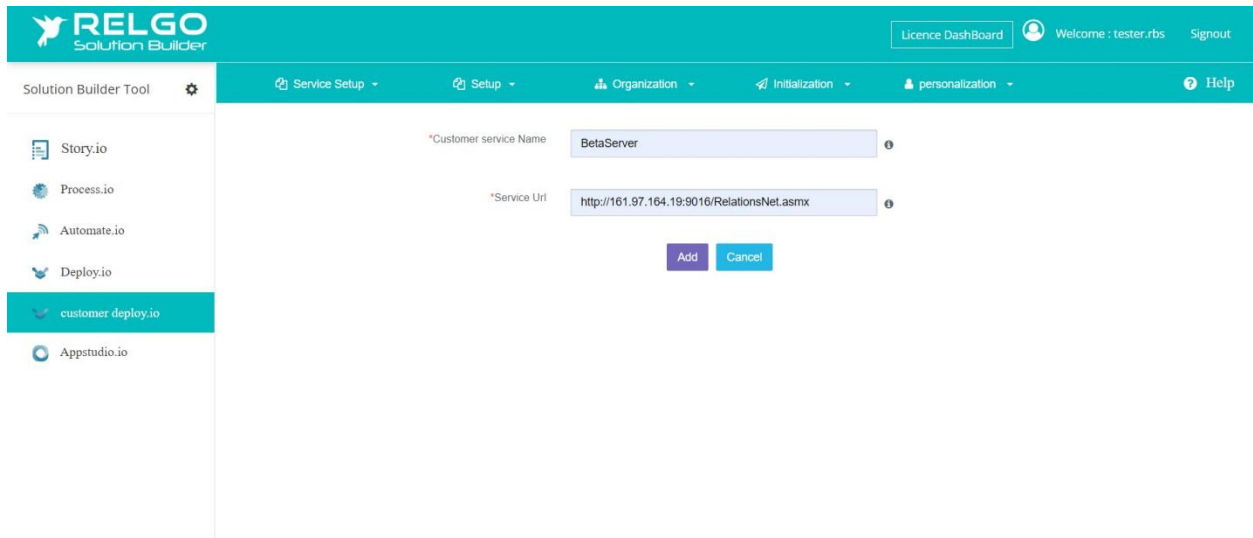
Go to **Customer deploy.io** → **Service Setup**→**Setup Default Customer Deployment**

- Click on 'Setup Default Customer Deployment' under service setup
- Provide the necessary details and click on the Add button.
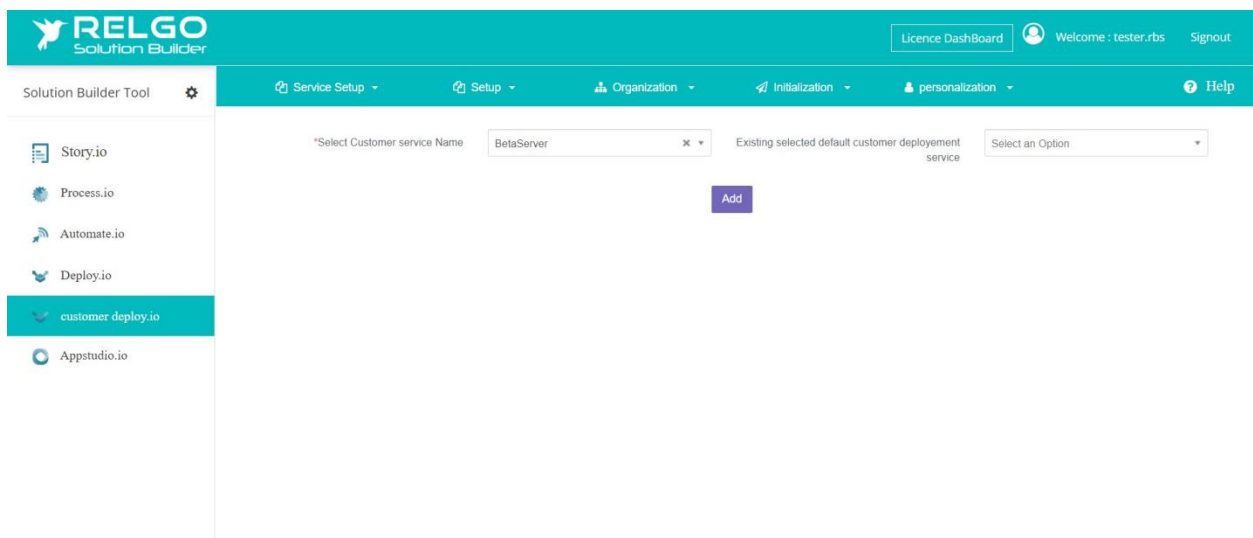
Go to **customer deploy.io** → **Setup** →**My AppSpaces**

- Click on 'My AppSpaces' under setup.
- Here the user has to select the application and click on 'Deploy'.
- A popup appears saying 'Data deployed successfully'
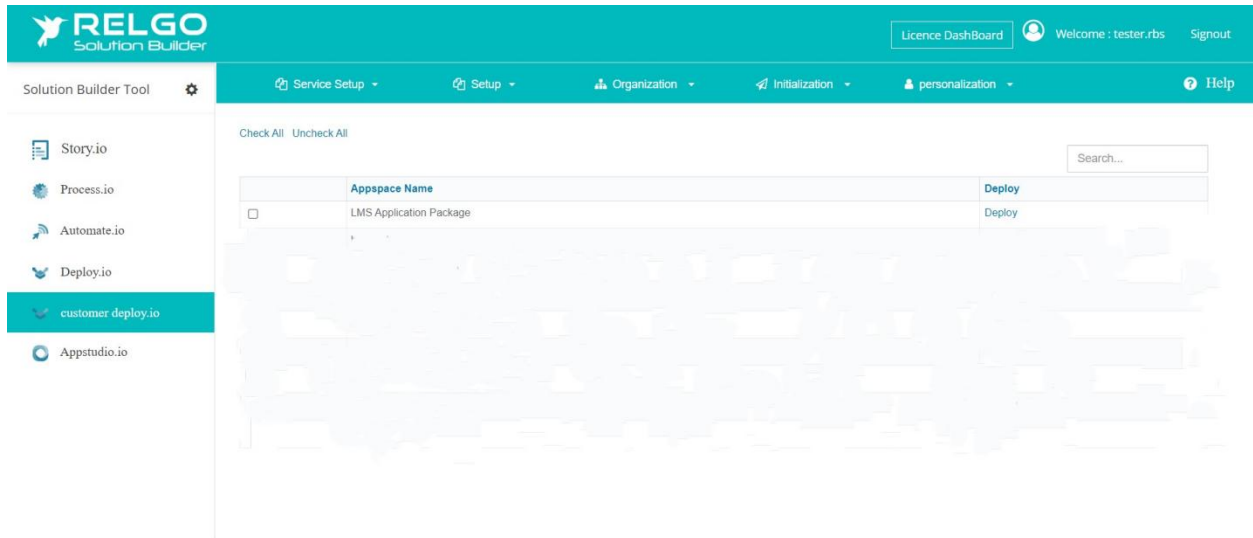
Go to **Customer deploy.io** → **Setup** →**Package Wise Installations**

- Click on Package wise Installations under setup
- User has to select the deployed package here for package wise installations
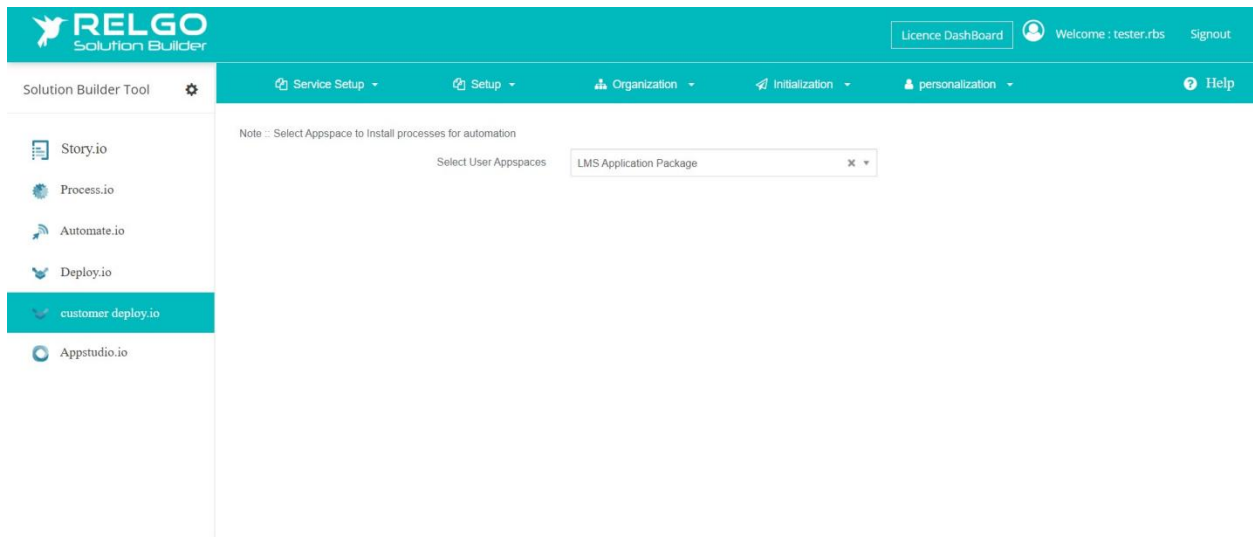
NOTE: If you try to deploy the application without purchasing the application template license, a popup message will appear, as shown below.
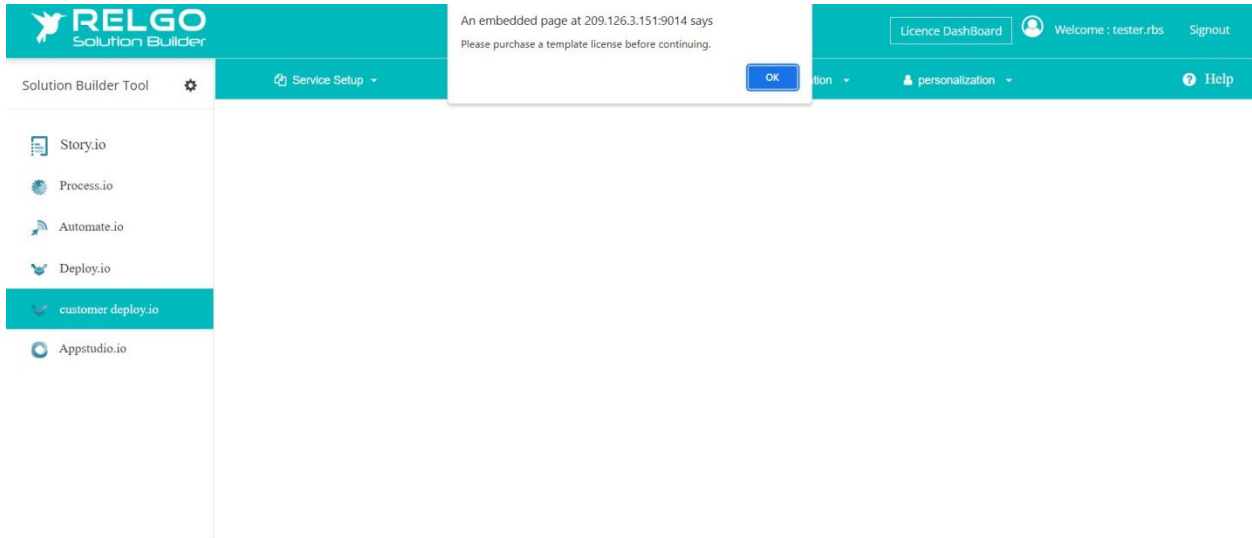
5.5(A) Application Installations

Install each process by clicking on 'Install', followed by 'Install Menu Data'
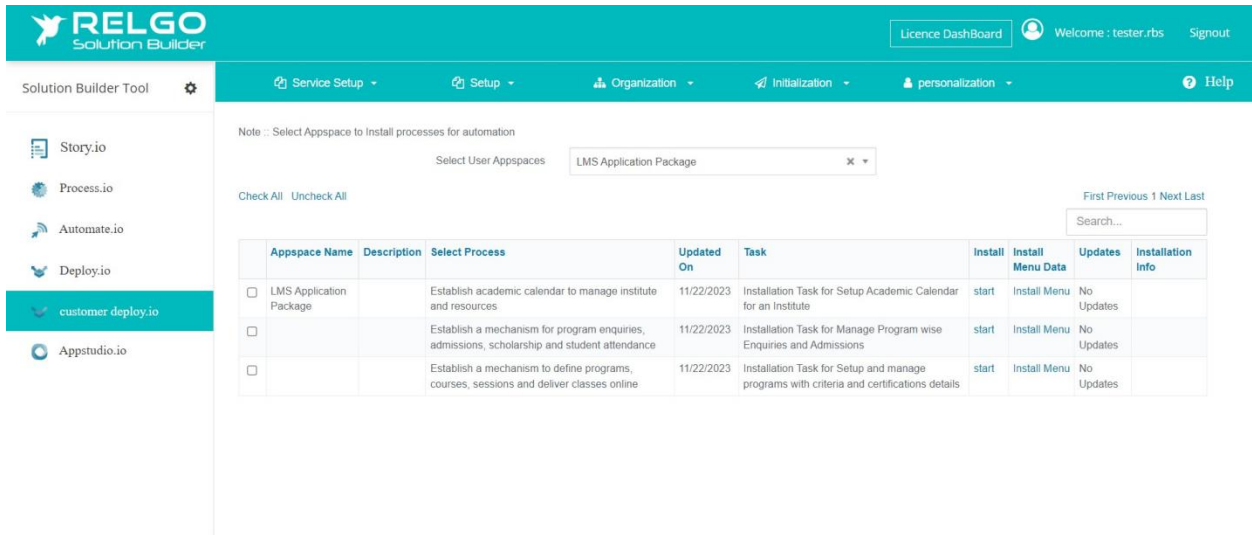
Click on **'**Start' button, then a popup will appear saying installation process completed, as shown below.

Installation Process Completed

[OK]
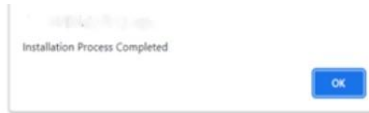
After that click on 'Install Menu', then you will get a popup saying Menu Data installation process completed, as shown below.
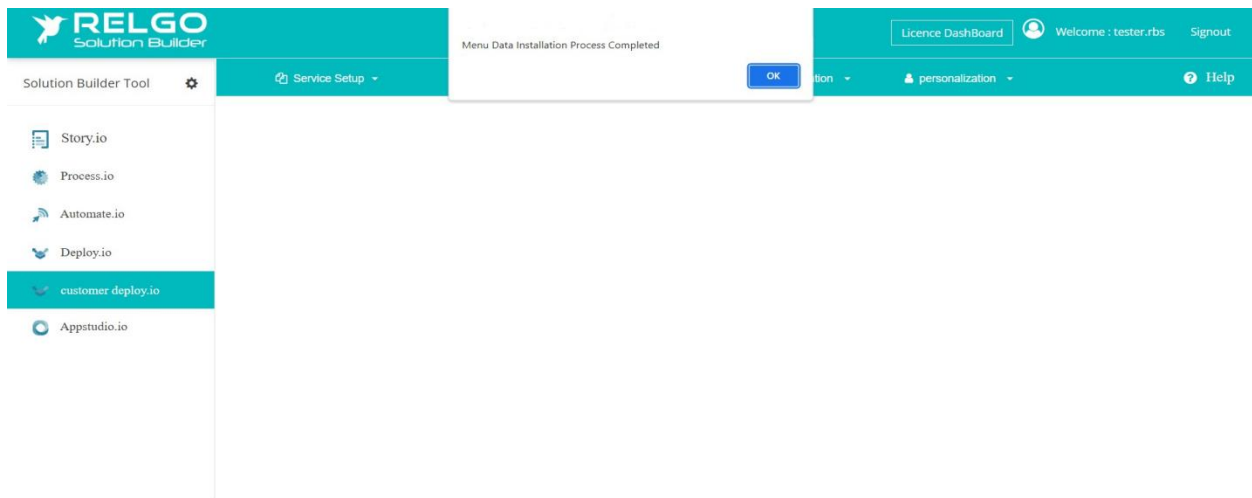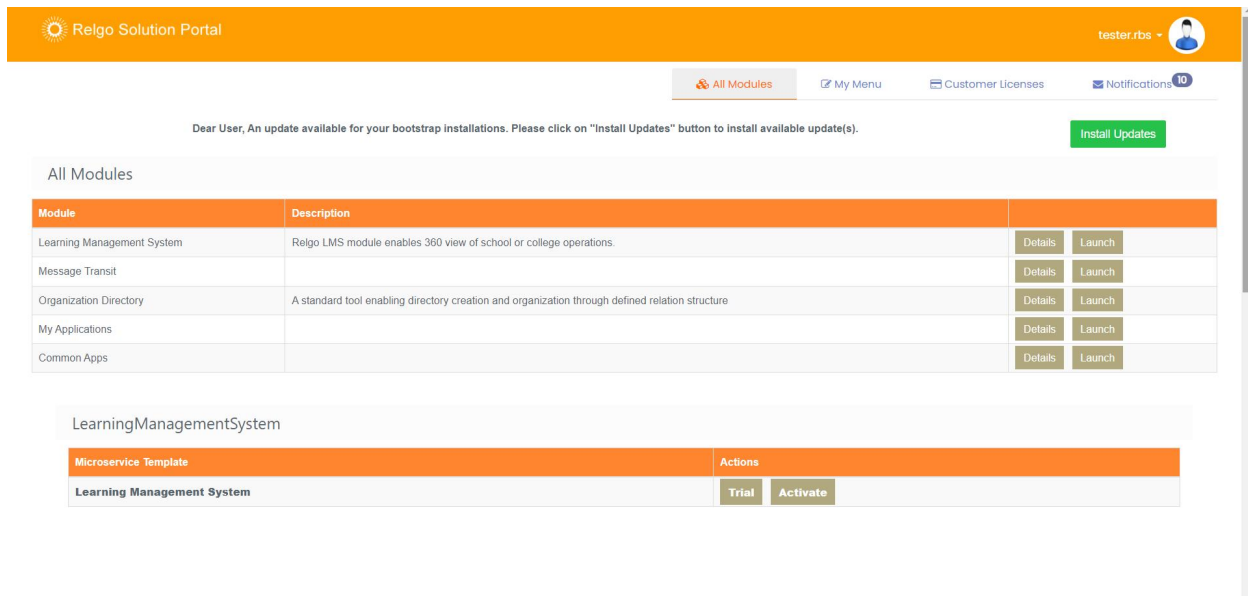
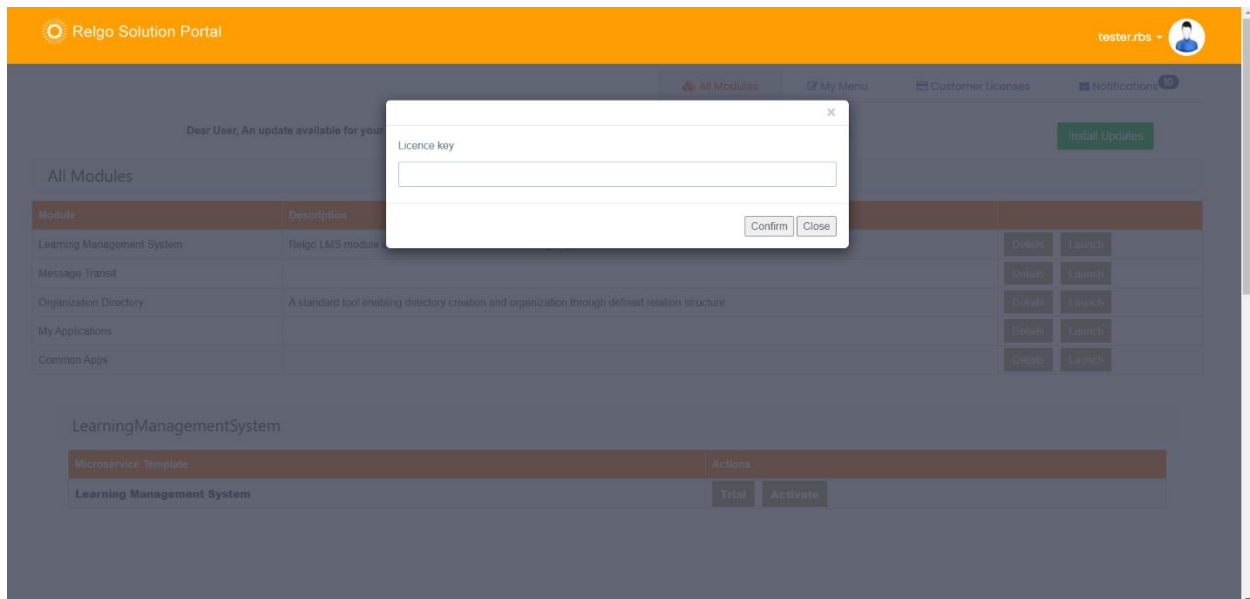## 5.6 Login to Your Solution Portal account
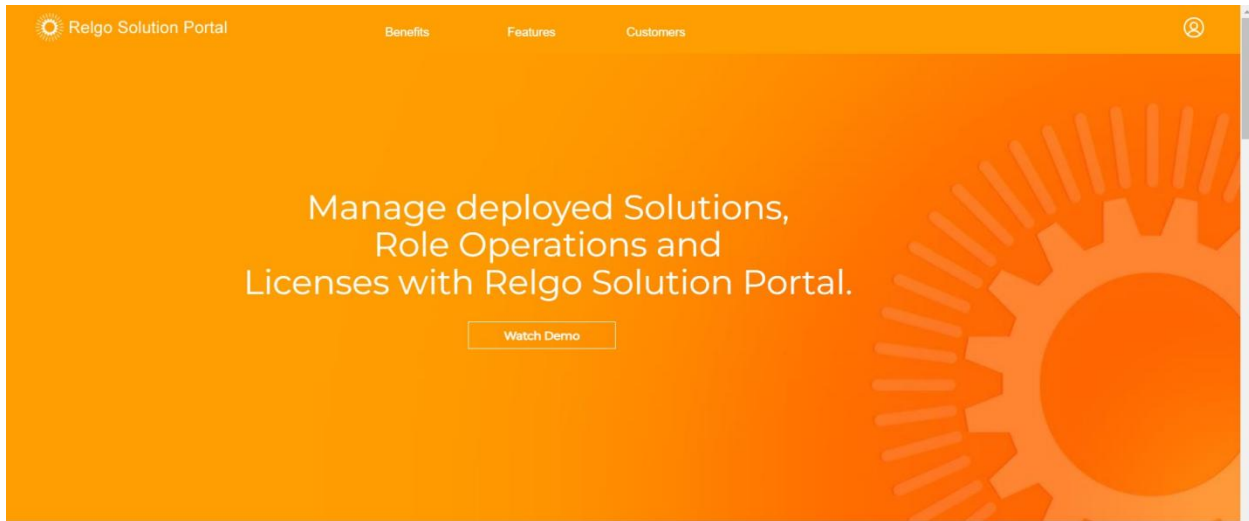
After successful login, the following screen appears
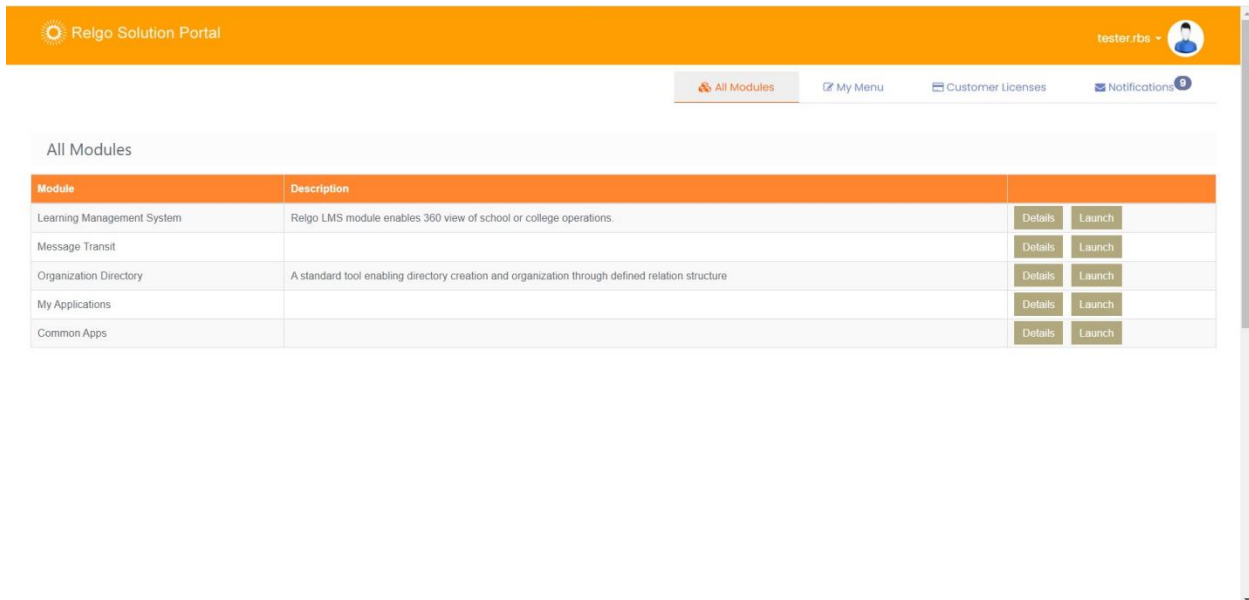
The page will load after you enable the template license.
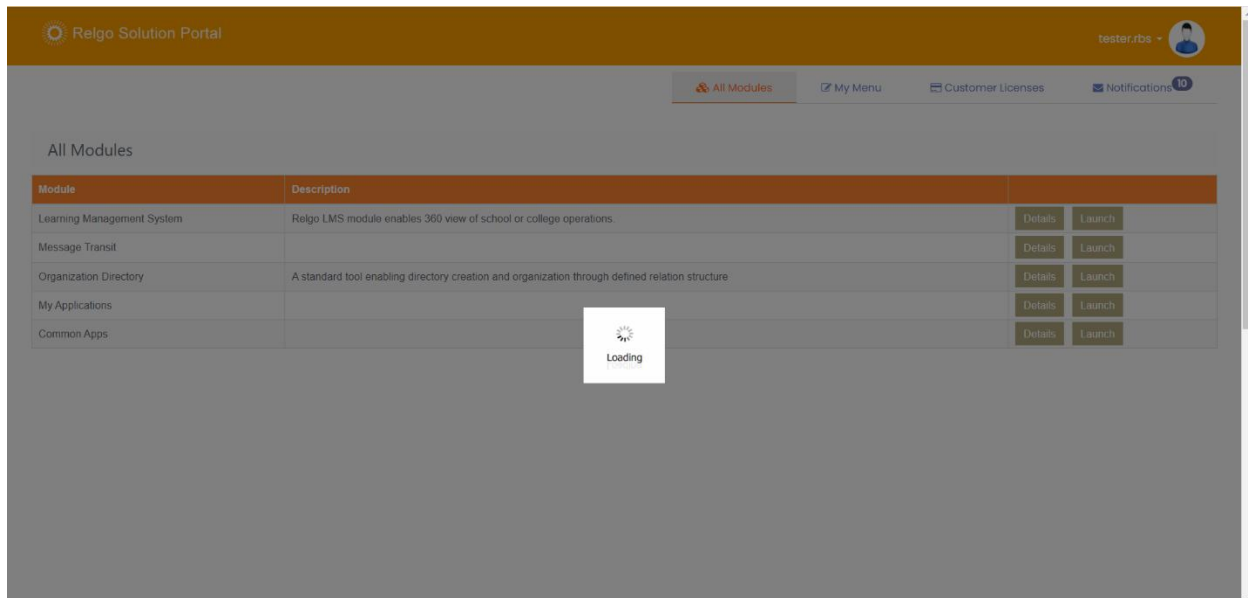
Once the page has loaded, you'll encounter the following screen, click on the "activate" button.

Upon selecting "Activate," a popup will appear, please enter the license key and then click on confirm button

A popup will display, indicating that the license has been successfully activated.
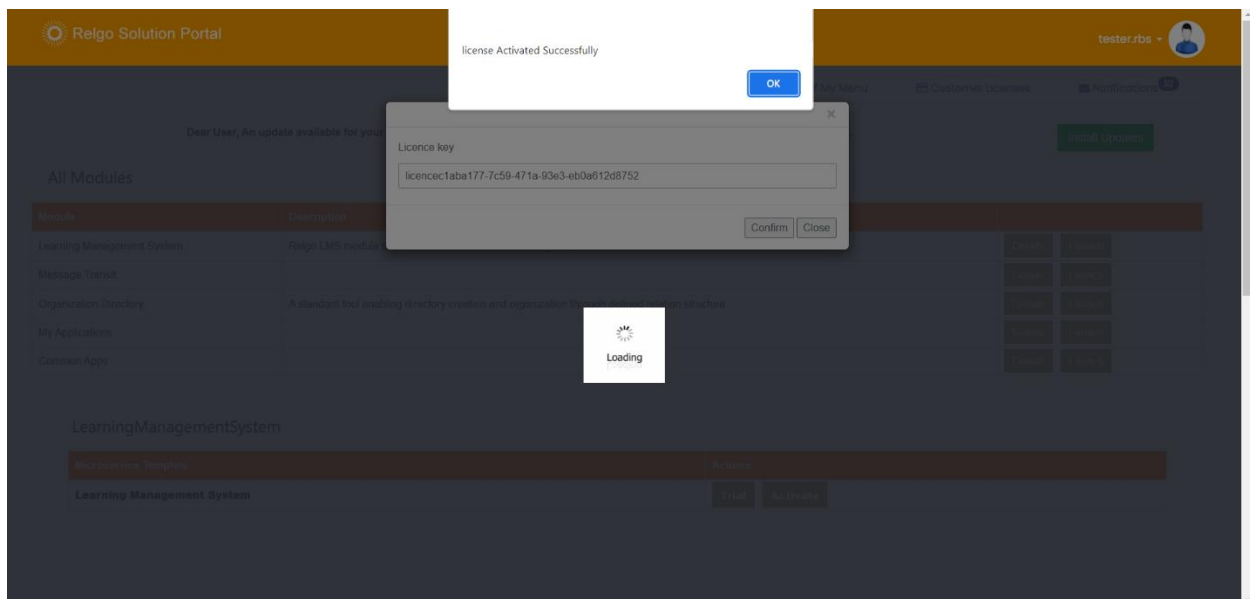
After activating the license, a subsequent screen will appear, please proceed by clicking on "launch."

By clicking on launch, you will be directed to the application container as shown below.