

INDEX

Content		Page
Test Reporter Installation and Update		2
1.	Downloading the Setup folder	2
2.	Dongle Installation	2
3.	Software Installation	3
3.1	MySQL	3
3.2	nginx Installation	10
3.3	Test Reporter Installation	11
4.	DriverMaster Machine Setup	18
4.1	Enabling OpenSSH service on the machine	19
4.2	Steps to create a task in task scheduler	21
4.3	Adding PS library on the machine	25
4.4	Configuration for test-server machine without password	25
5.	Test Reporter Update	27
5.1	Uninstalling the current version of TR	27
5.2	Please refer to section 3.2 and 3.3	29

Test Reporter Installation and Update

This section will guide the user for the Installation of the Licensing Dongle and Test Reporter Application. This will include installation and update steps also.

1. Downloading the Setup folder

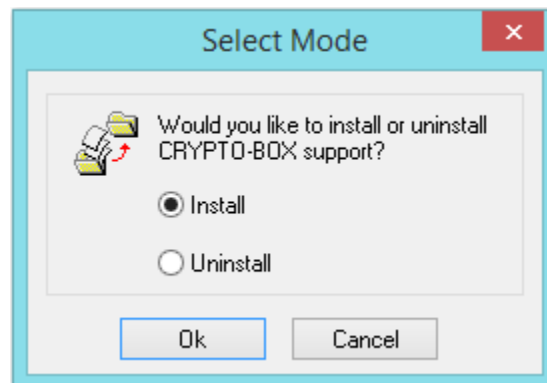
Download the setup folder from the link below. Extract the folder in C drive. The resultant folder structure should be as C:\nginx. From here the nginx folder will be referred as **Set up folder**

<http://document.ulinkreporter.com/nginx.zip>

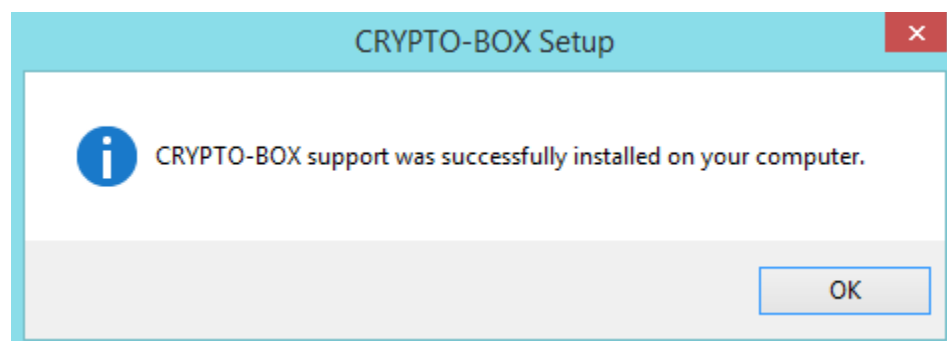
2. Dongle Installation

The next step is the dongle setup. End-User needs the licensing Dongle to use and install the test reporter application. To install Licensing Dongle, users need to double click on the setup file named as “USBKeyDriver.exe” present in the set up folder

Double-clicking the exe will open the ‘Select Mode’ window as shown in the snapshot below. Then select the ‘Install’ option and click Ok. This will install the necessary drivers onto the Windows system.



Once the driver setup is done successfully the following window will appear as shown below. Click Ok and exit the setup window.



3. Software Installation

Software installation consists of installation of all prerequisite software on the server to deploy applications. This is a one time activity.

3.1 MySQL

If you have already installed MySQL Server on your system, then no need to follow the installation steps , you can directly go to the [Step 2](#) for database creation.

- **MySQL Installation**

For downloading latest MySQL installer click on the link below

[Download MySQL Installer](#)

Download the MySQL installer shown in snapshot

MySQL Community Downloads

MySQL Installer

General Availability (GA) Releases Archives

MySQL Installer 5.7.38

Select Operating System:

[Looking for the latest GA version?](#)

Windows (x86, 32-bit), MSI Installer (mysql-installer-web-community-5.7.38.0.msi)	5.7.38	2.3M	Download
Windows (x86, 32-bit), MSI Installer (mysql-installer-community-5.7.38.0.msi)	5.7.38	523.6M	Download

MD5: 8f7eeeb30acc725a4f827240cfa08e67 | [Signature](#)

MD5: b5d0c9024dde0b3a67bc3a91c59d81ee | [Signature](#)

! We suggest that you use the [MD5 checksums](#) and [GnuPG signatures](#) to verify the integrity of the packages you download.

Please Download the Windows(x86, 32-bit),MSI Installer (usually greater than 500 mb)

Click on the download option

Click on the No Thanks, Just Start My Download

MySQL Community Downloads

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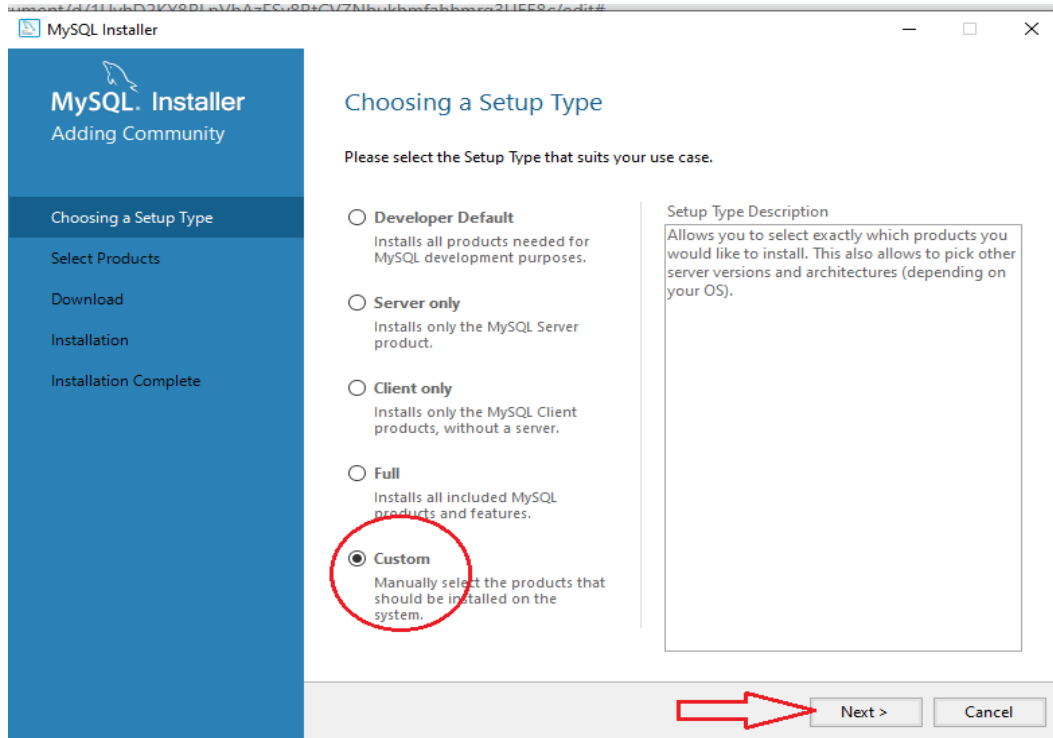
Sign Up »

for an Oracle Web account

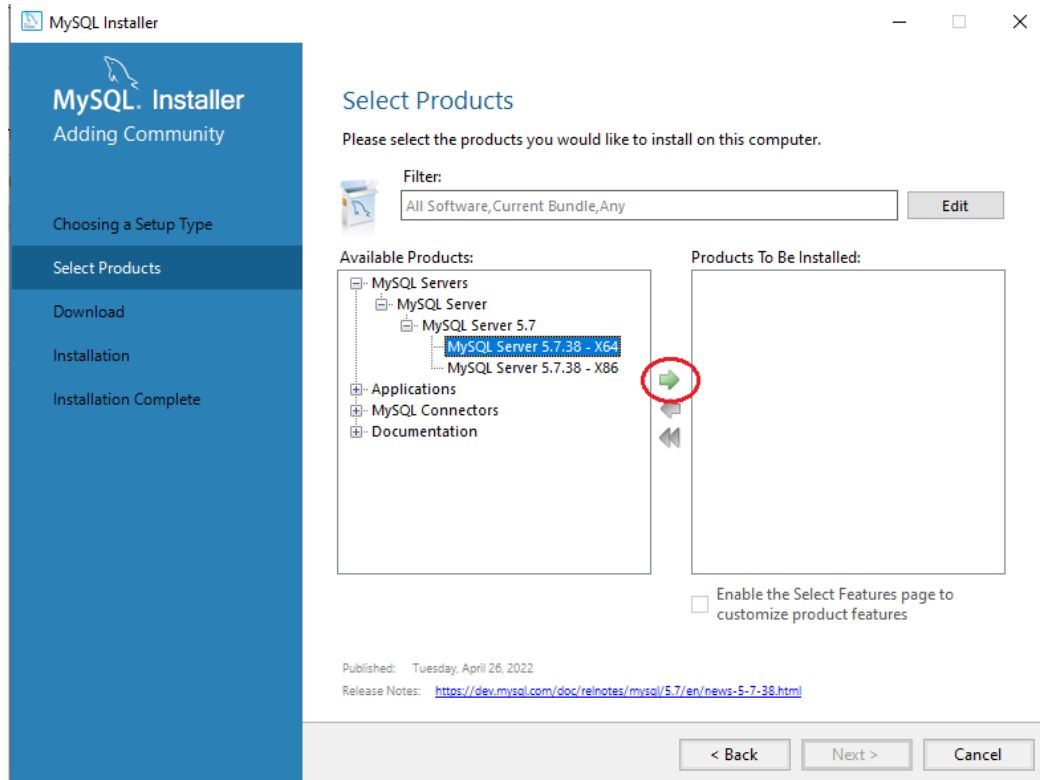
MySQL.com is using Oracle SSO for authentication. If you already have an Oracle Web account, click the Login link. Otherwise, you can sign up for a free account by clicking the Sign Up link and following the instructions.

No thanks, just start my download.

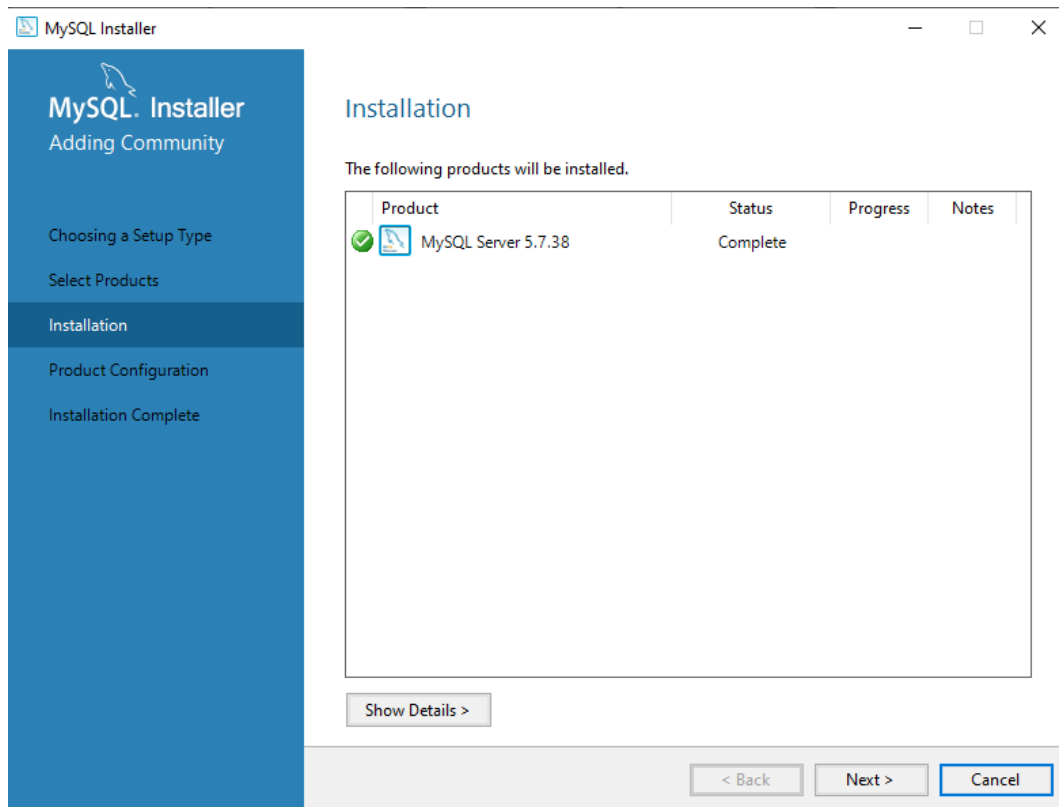
- a. After download the installer file double click on the file
It will ask for permission; when it does, click **“Yes”**.
- b. The installer will then open. Now, it will ask to choose the setup type. Here, select **“Custom”**.



- c. Click on Next. With this, you will install MySQL server
- d. Open MySQL Servers, select the server to install, and move it to the Products/Features to be installed window section.
Expand the MySQL Servers and select MySQL Server 5.7.xx -x64 (here xx stands for minor version of MySQL installed)
And click on the green arrow it will add the product to the installed window section.



- e. Click on the **“Next”** button. Now, click on the Execute button to download and install the MySQL server



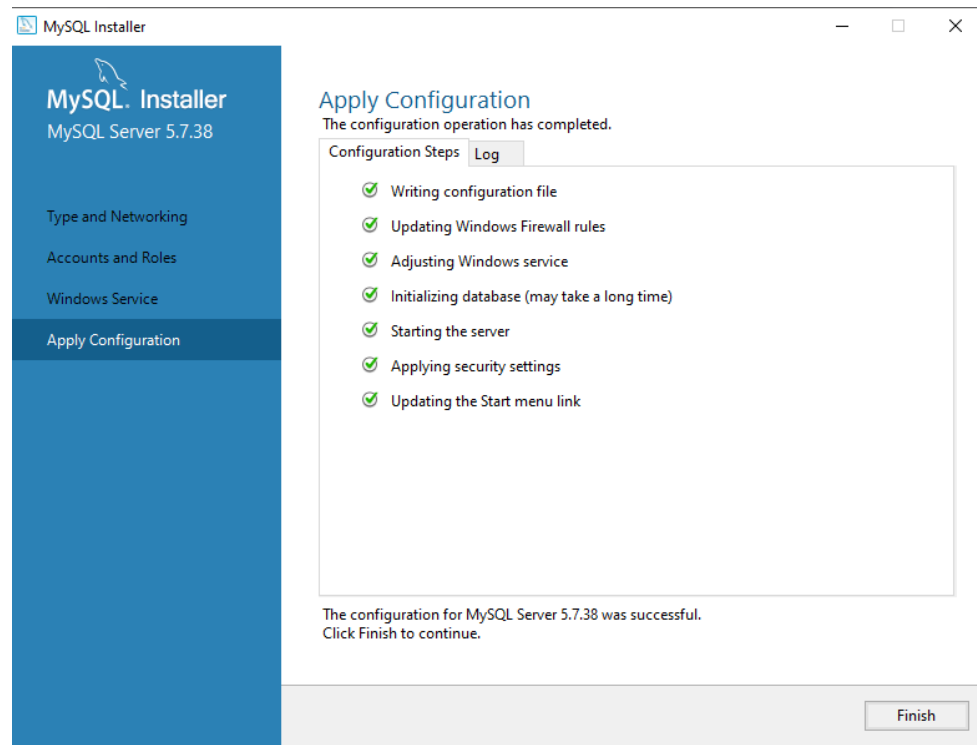
- f. Once the product is ready to configure, click on **“Next”**. Under Type and Networking, go with the default settings and select **“Next”**.
- g. Set your MySQL Root password
Set password as **root**
and click on **“Next”**.

The screenshot shows the MySQL Installer window for MySQL Server 5.7.38. The left sidebar has four options: 'Type and Networking', 'Accounts and Roles' (which is selected and highlighted in dark blue), 'Windows Service', and 'Apply Configuration'. The main area is titled 'Accounts and Roles' and contains two sections. The first section, 'Root Account Password', asks the user to enter a password for the root account. It has two input fields: 'MySQL Root Password:' and 'Repeat Password:'. Both fields contain four dots. Below these fields, it says 'Password strength: Weak' in red text. The second section, 'MySQL User Accounts', instructs the user to create MySQL user accounts. It features a table with three columns: 'MySQL User Name', 'Host', and 'User Role'. To the right of the table are three buttons: 'Add User', 'Edit User', and 'Delete'. At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'.

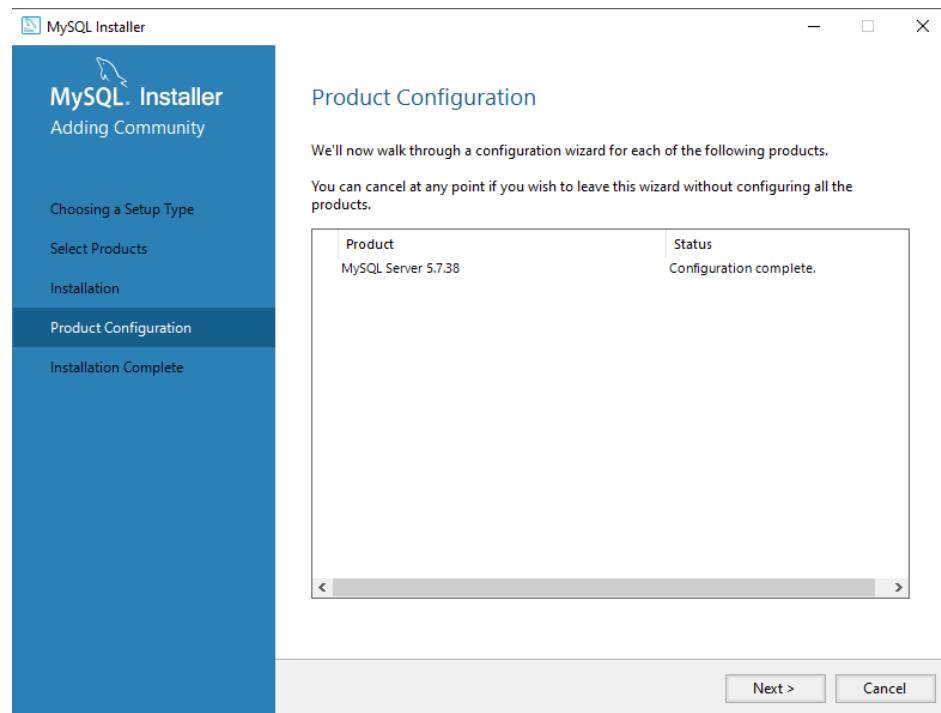
MySQL User Name	Host	User Role
-----------------	------	-----------

- h. Go for the default windows service settings.

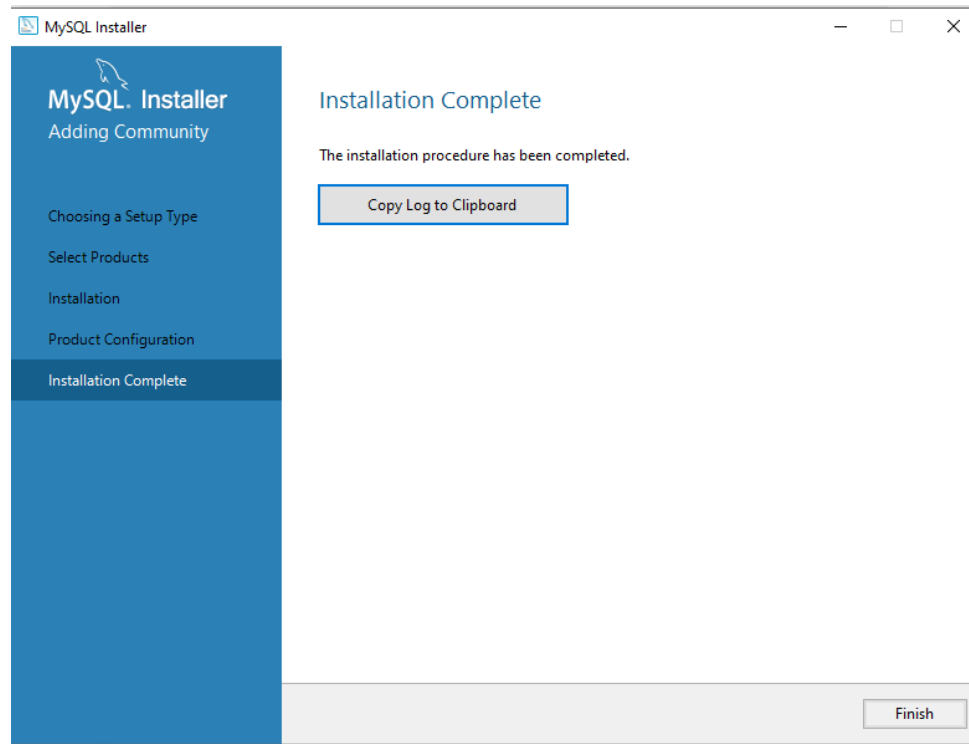
- i. Under apply configuration, click on execute. Once the configuration is complete, click on **“Finish”**.



- j. Click the **“Next”** button on the product Configuration page.



- k. Click on the **“Finish”** button.



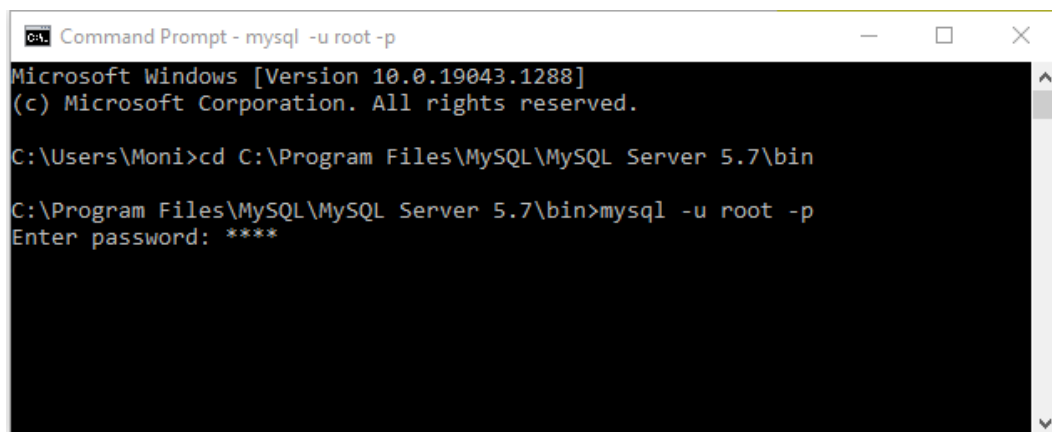
- l. Installation completed.

After completing installation, open command prompt and go to mysql installation directory (cd C:\Program Files\MySQL\MySQL Server 5.7\bin)

- **Database creation**

Type command “mysql -u root -p” and press enter. It asks for the password, enter the password of root user as **“root”**

The screen shot explains the same.



After that you have to create database using following command:

create database ulinkdb;

You can check the created databases by using the following command.

show databases;

Screenshot explains the same.

```

Command Prompt - mysql -u root -p
C:\Program Files\MySQL\MySQL Server 5.7\bin>mysql -u root -p
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 5.7.23-log MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database ulinkdb;
Query OK, 1 row affected (0.02 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
| ulinkdb |
+-----+
5 rows in set (0.02 sec)

mysql>

```

We need to create the folder structure in our system to process the test comparator data. For that, double click on the “**create_folder_script.bat**” file Which is in **C:\nginx\script\create_folder_script.bat**.

Note: If you double-click the create_folder_script.bat file, the command window will be opened and closed executing all the commands in it.

This will create the folder structure in the “C:\ulink_TR\Documents\” folder and you are ready to process data for test cases.

Go to “C:\ulink_TR\Documents\ulink” folder and verify that all the folder structures are created successfully.

3.2 Nginx Installation

Goto C:\nginx\TRSetup\StartNginx.exe

Double click on exe files

It will start the nginx server of your machine

For shortcut you can copy and paste the exe file on desktop

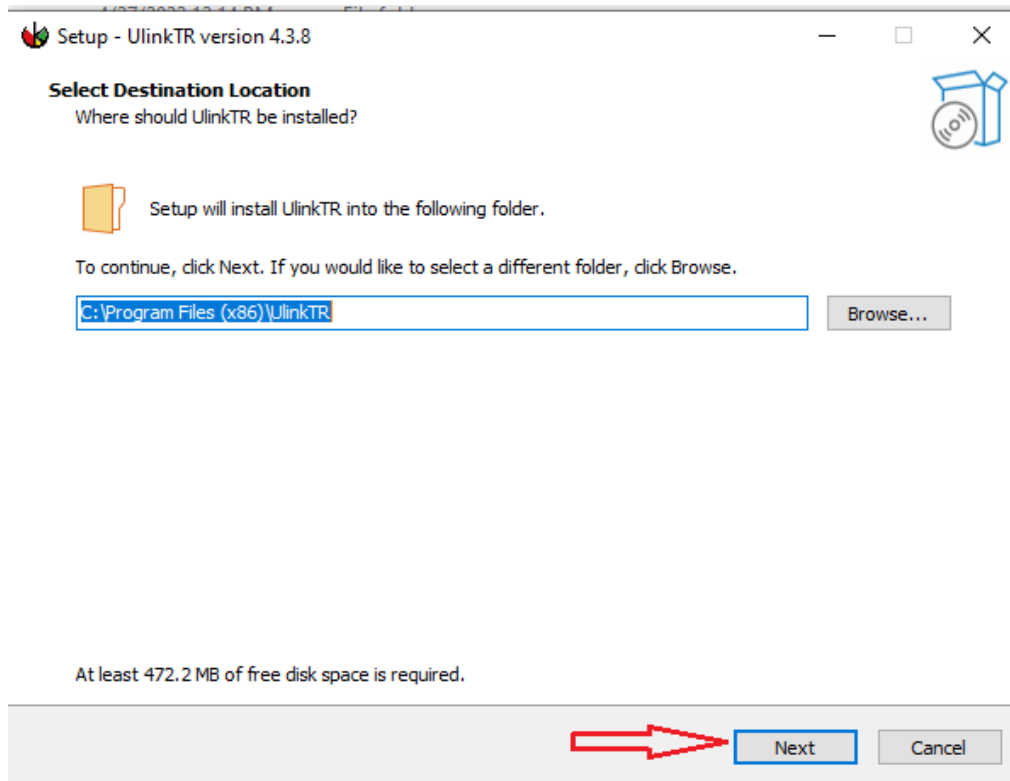
3.3 Test Reporter Installation

- **Application Setup**

Goto C:\nginx\TRSetup\UlinkTR.exe

Double click on UlinkTR.exe

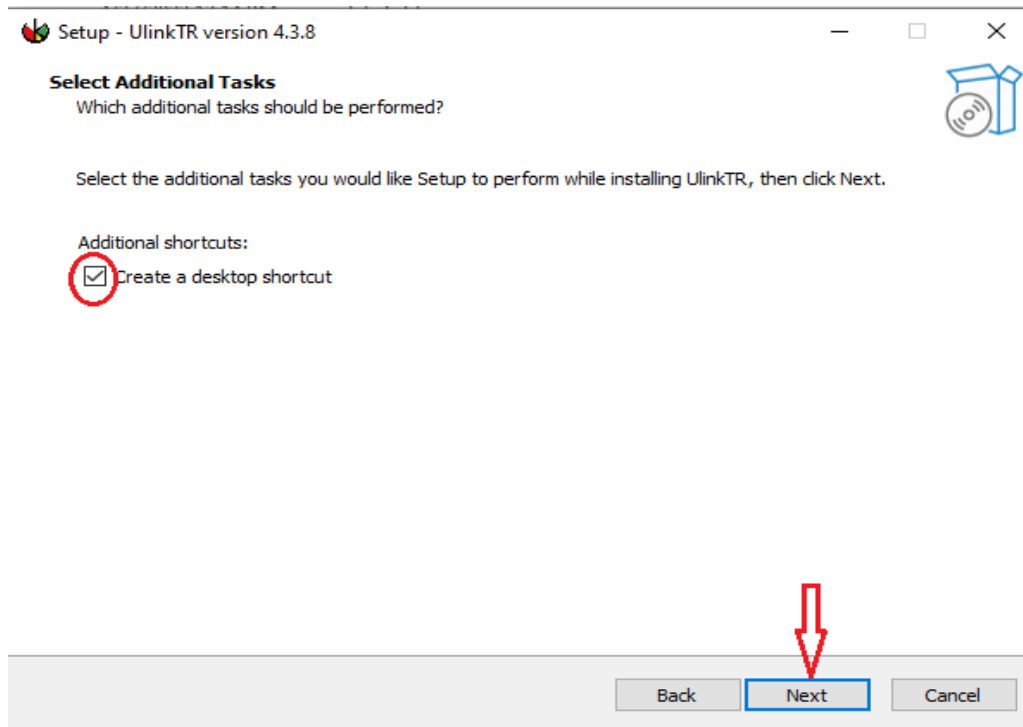
- a. Click on Next



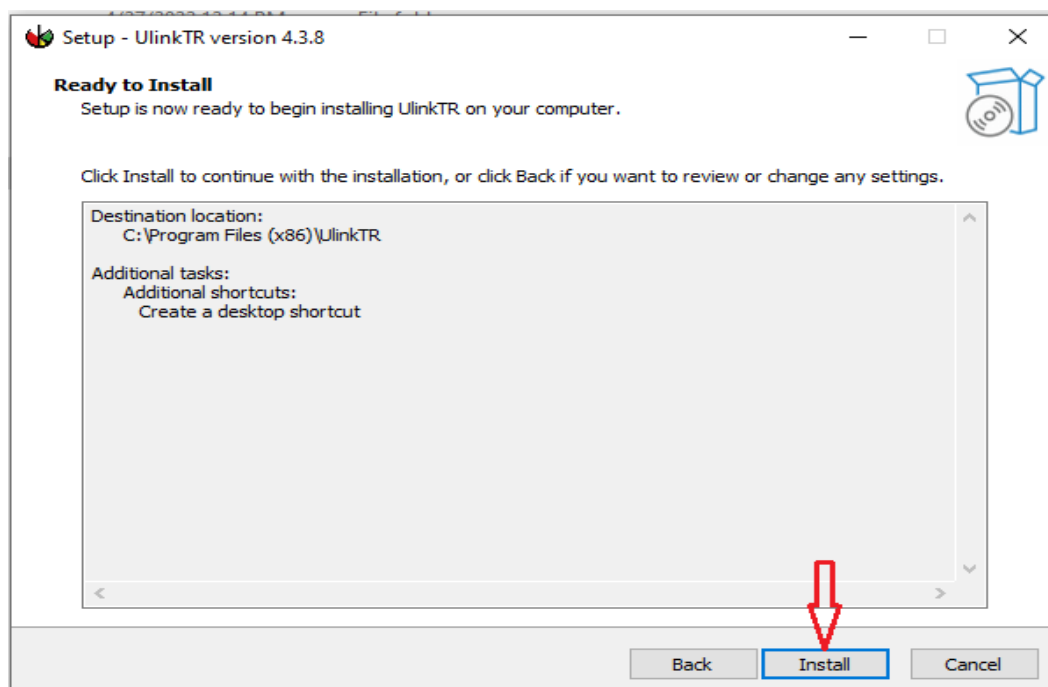
- b. Please check the checkbox **Create a desktop shortcut**

And Click on **Next** button

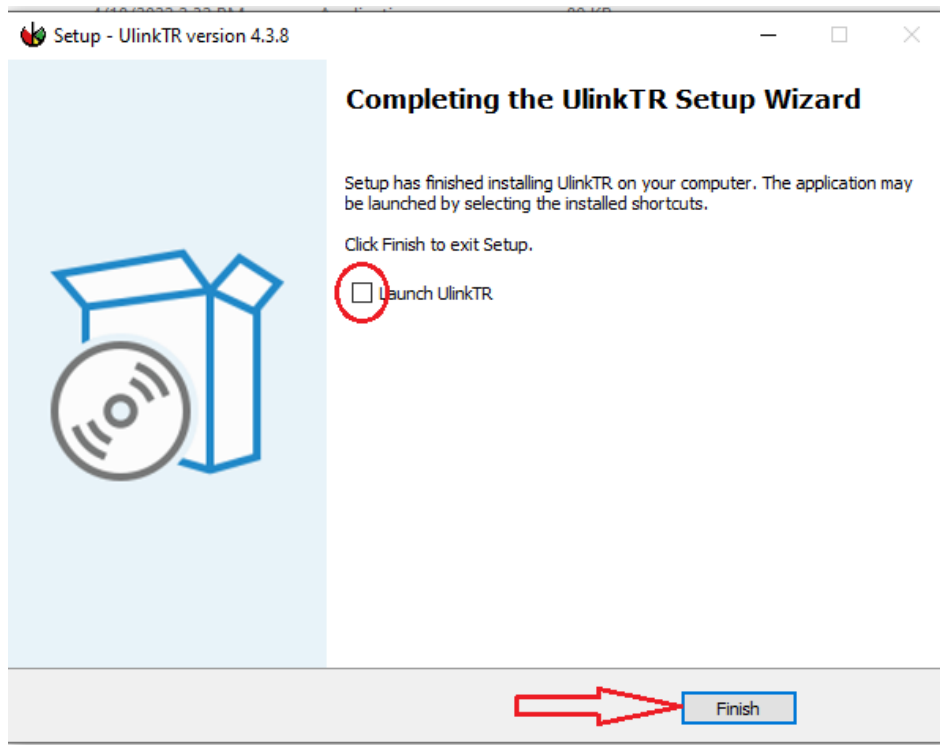
Shown in the snapshot below



c. Click on the **Install** button.

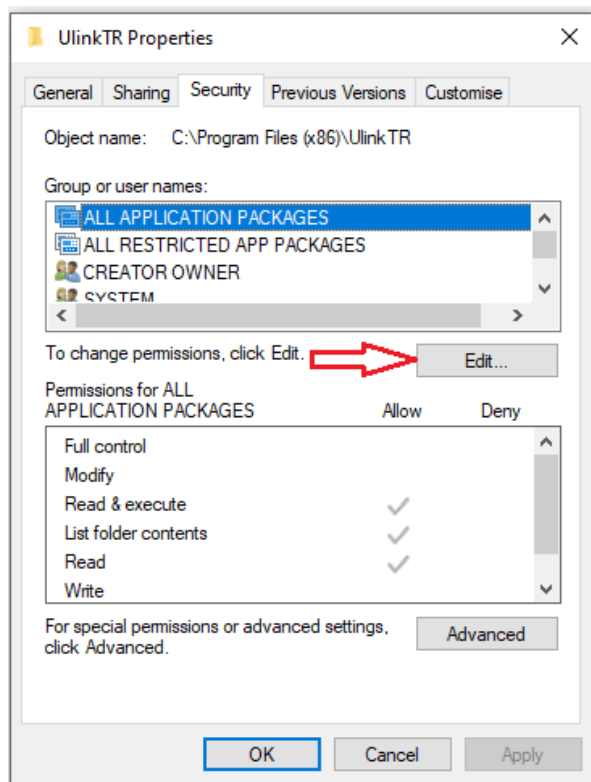


- d. Please uncheck the checkbox **Launch UlinkTR**
Click on **Finish** button
Shown in the snapshot below



It will install a UlinkTR.exe and create a desktop shortcut

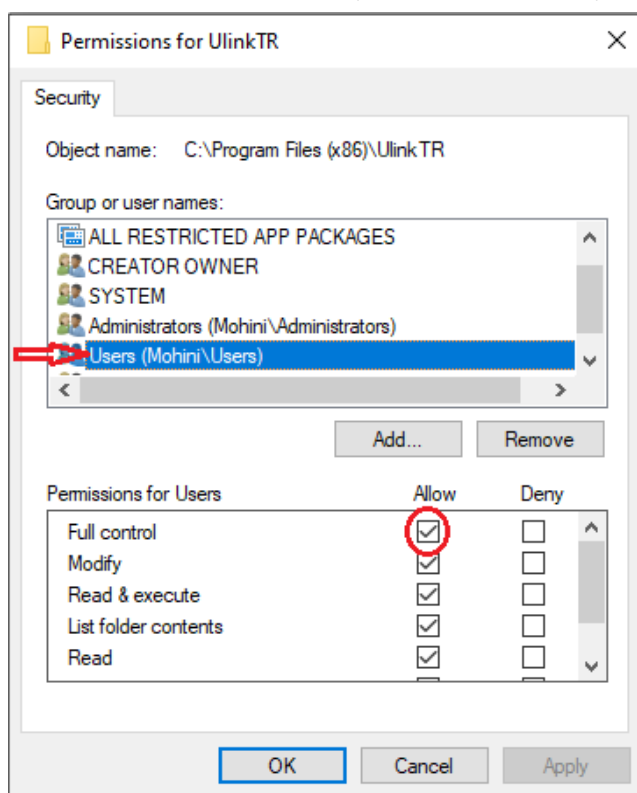
- **Allow Permissions**
Goto C:\Program Files (x86)\UlinkTR
Right click on the UlinkTR folder select the **Properties**
Select the **Security** tab.
Click on **Edit**



Select the **Users(<XXX>\Users)**

where <XXX> is your current user name

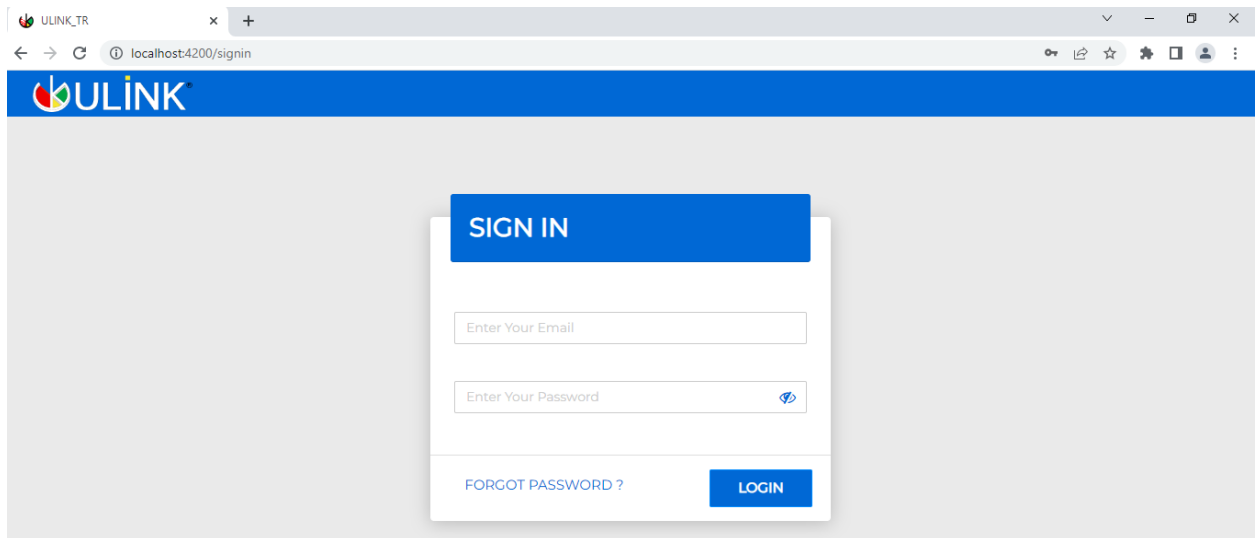
In the Permissions section, check **Full control** , Shown in the snapshot below



- **Execution**

To start Ulink TR double click on the UlinkTR
Goto browser and hit the url to open the TR login page.

<http://localhost:4200>, This will bring the Sign in page



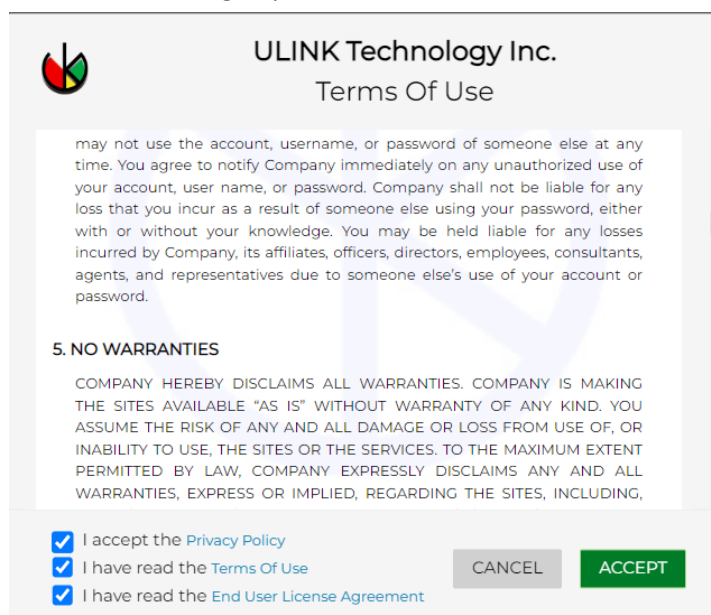
- This is the login page for TR. We need to input email and password here. In case you are installing new TR application the credentials are as follows:

Email: support@testreporter.ulinktech.com

Password: Password123#

If TR application is updated from previous version, user can use it's own email and password here

- After successful login, you have to check all the terms and conditions in the application.



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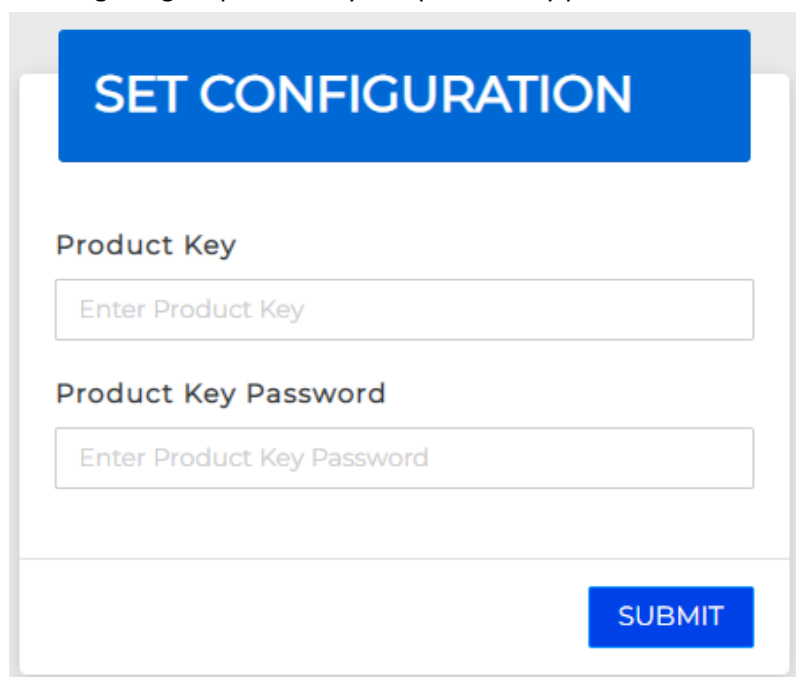
may not use the account, username, or password of someone else at any time. You agree to notify Company immediately on any unauthorized use of your account, user name, or password. Company shall not be liable for any loss that you incur as a result of someone else using your password, either with or without your knowledge. You may be held liable for any losses incurred by Company, its affiliates, officers, directors, employees, consultants, agents, and representatives due to someone else's use of your account or password.

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☒ I accept the [Privacy Policy](#)
☒ I have read the [Terms Of Use](#)
☒ I have read the [End User License Agreement](#)

- After clicking on all checkboxes click on Accept.
- This will prompt you to the Licensing dongle configuration page. The user has to put the licensing dongle's product key and product key password



SET CONFIGURATION

Product Key

Enter Product Key

Product Key Password

Enter Product Key Password

- ***Note:** This is only for new TR installation, once the user has configured the dongle in the application, he need not to configure it again

- Once the licensing dongle configuration is completed, the user can see the TR dashboard

The screenshot displays the ULINK TestReporter dashboard in a web browser. The interface features a blue sidebar with navigation links: Dashboard, Users, Devices, Result, Test Suite, Test System View, Non Template View, Test Run, Script Template, Settings, and Support. The main content area is divided into several sections:

- Timeline (Days):** Shows Operations (0) and Data Logging (0).
- Data Size:** Displays All Data (5.9 GB), Raw Data (4.3 GB), Database (9.3 MB), and Available Disk Size (23.65 %).
- Test Suites:** Shows Test Suites (6) and Test Suites Versions (6).
- Parsing Statistics:** Indicates Current Status as Idle and includes a Parsing Summary for the last 1 week with Completed Count (0), Incomplete Count (0), and Error Count (0).
- Drives/Devices (Counts):** Lists Total Count (0) for SATA, SAS, and NVMe.
- Parsed Test Results (Counts):** Shows Total Count (0) for SATA, SAS, and NVMe.
- System Info:** Provides Total System Count (0), Total Test System Count (0), and Total Test System Available (0).
- Record Info (Numbers):** Displays Raw Records (0), Complete Records (0), Visible Records (0), Error Records (0), and Deleted Records (0).
- Test Results Statistics:** Shows Total Test Results (0) and Pass Results (0), with a note "No Data Available".

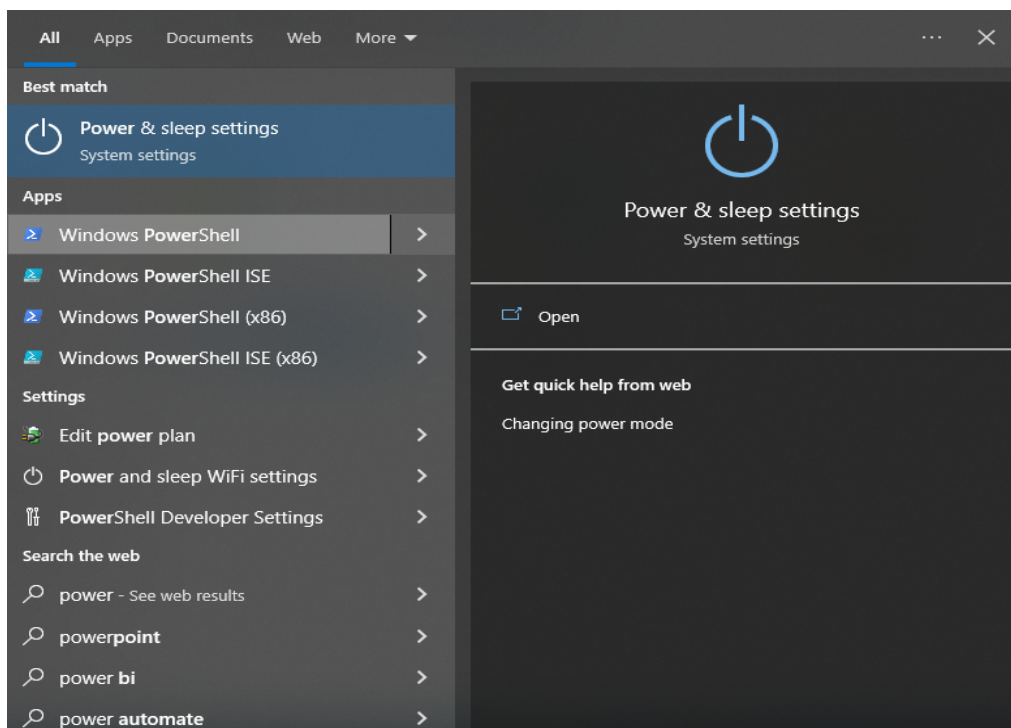
The footer includes the copyright notice "©2023 ULINK Technology, Inc." and links for "Privacy Policy" and "Terms of Use".

4. DriverMaster Machine Setup

- This section is for the drive master machine setup. If you don't want to add and work on 'Test Run' functionality, you can skip this section
- This section makes the remote machine capable of executing DriveMaster whenever client machine requests
- **Note:** The steps shown below need to be only followed on drive master machine i.e on the machine where drive master is hosted; not on our local TR installation machine

4.1 Enabling OpenSSH service on the machine

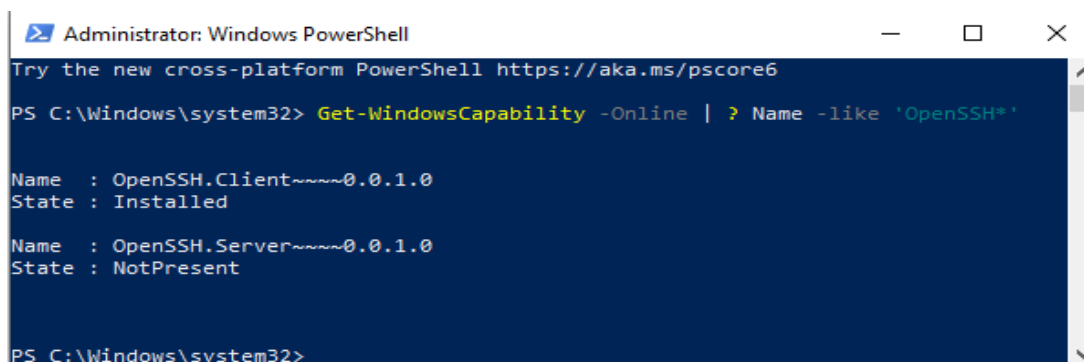
- To enable OpenSSH service, search for powershell in Windows Search and click 'Windows PowerShell' and then choose Run as administrator.



- This will open a blue background command prompt window. There type the following command:

```
Get-WindowsCapability -Online | ? Name -like 'OpenSSH*'
```

This should give the following output:



```

Administrator: Windows PowerShell
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Windows\system32> Get-WindowsCapability -Online | ? Name -like 'OpenSSH*'

Name : OpenSSH.Client~~~~0.0.1.0
State : Installed

Name : OpenSSH.Server~~~~0.0.1.0
State : NotPresent

PS C:\Windows\system32>

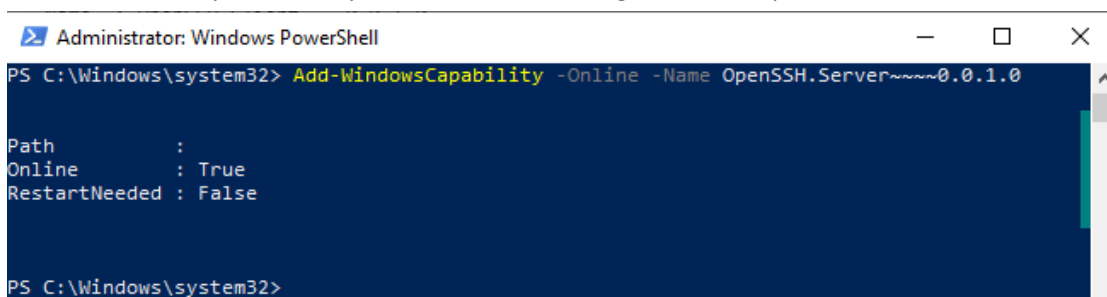
```

The State **NotPresent** indicates that your machine is not enabled with OpenSSH service

- To enable it type the following command

```
Add-WindowsCapability -Online -Name OpenSSH.Server~~~~0.0.1.0
```

This will enable OpenSSH on your machine and will give such output:



```

Administrator: Windows PowerShell
PS C:\Windows\system32> Add-WindowsCapability -Online -Name OpenSSH.Server~~~~0.0.1.0

Path      :
Online    : True
RestartNeeded : False

PS C:\Windows\system32>

```

- Once the service is installed, we need to start this service. Input the following command for the same:

```
Start-Service sshd
```

- Now, you have to make this service to be setted **Automatic**, so that we need to start it again and again. The command for this is:

```
Set-Service -Name sshd -StartupType 'Automatic'
```

In this way, you can make this service enabled and run on Automatic mode.

- For debugging SSH connection, Follow the following steps
step1 : Open the command prompt.
Type here : ssh <username>@<test pc ip address> and hit enter
For ex : ssh agsuser@127.0.0.1
step 2 :Then type test pc password.

```
Microsoft Windows [Version 10.0.19044.2604]
(c) Microsoft Corporation. All rights reserved.

C:\Users\agsuser>ssh agsuser@127.0.0.1
agsuser@127.0.0.1's password:
```

Step3 : After successful connection with test PC. Will get test PC cmd.

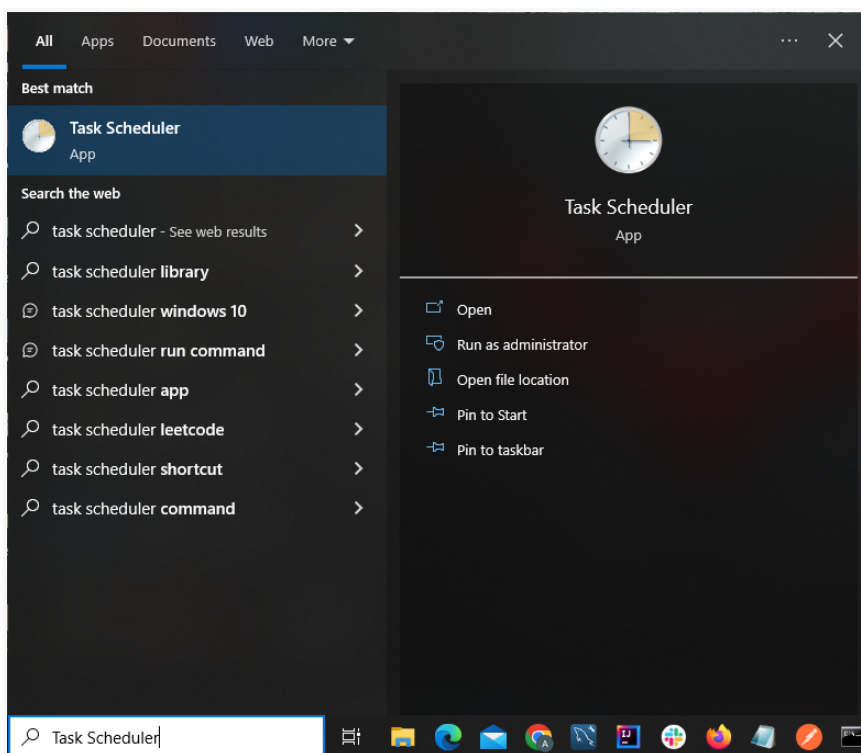
```
Microsoft Windows [Version 10.0.19044.2604]
(c) Microsoft Corporation. All rights reserved.

agsuser@AGS-P-136 C:\Users\agsuser>
```

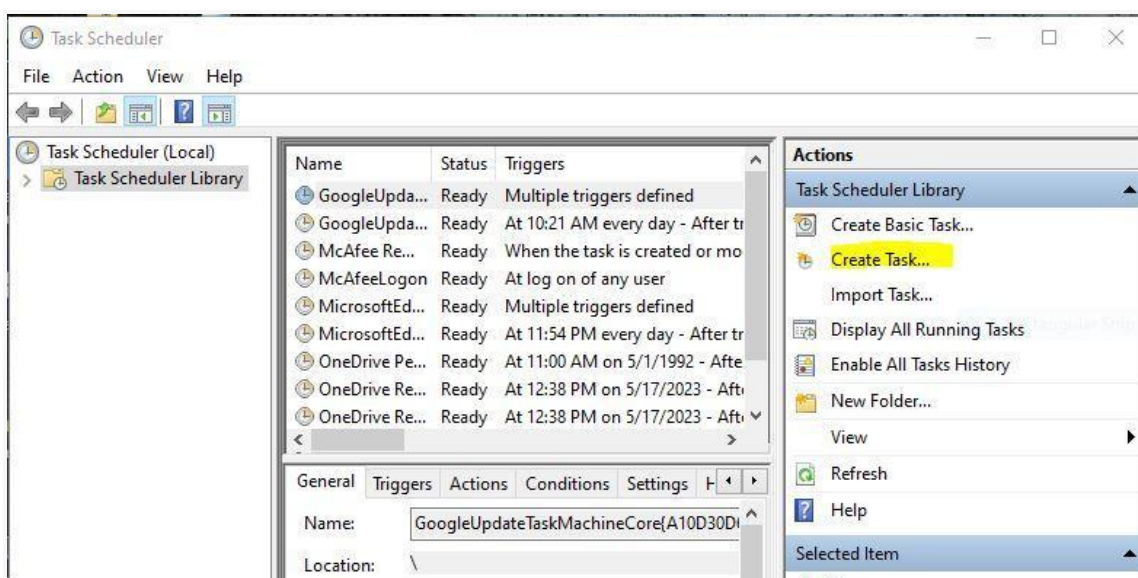
(Note - For debugging ssh connection the test pc and server pc are required in same network)

4.2 Steps to create a task in the task scheduler

- Open the Task Scheduler
Press the Windows key and search for "Task Scheduler." Click on the "Task Scheduler" app that appears in the search results.



- Create a task.
In the Task Scheduler window, click on "Create Task" from the right-hand sidebar.



- Click on "General" tab
Provide "Name" and click on checkbox of "Run with highest privileges"

The screenshot shows the 'Create Task' dialog box with the 'General' tab selected. The 'Name' field is filled with 'OpenSSH Service'. The 'Location' field is empty. The 'Author' field is filled with 'AGS-P-136\agsuser'. The 'Description' field is empty. Under 'Security options', the 'When running the task, use the following user account:' section shows 'AGS-P-136\agsuser' with a 'Change User or Group...' button. The 'Run only when user is logged on' radio button is selected. The 'Run whether user is logged on or not' radio button is unselected. The 'Do not store password. The task will only have access to local computer resources.' checkbox is unselected. The 'Run with highest privileges' checkbox is checked. The 'Hidden' checkbox is unselected. The 'Configure for:' dropdown is set to 'Windows Vista™, Windows Server™ 2008'. The 'OK' and 'Cancel' buttons are at the bottom right.

- Click on "Triggers" tab
In the triggers tab, click on "New" to create a new trigger for the task.

The screenshot shows the 'Create Task' dialog box with the 'Triggers' tab selected. The 'When you create a task, you can specify the conditions that will trigger the task.' text is at the top. Below it is a table with three columns: 'Trigger', 'Details', and 'Status'. The table is empty. At the bottom left, there are three buttons: 'New...', 'Edit...', and 'Delete'. The 'New...' button is highlighted. At the bottom right, there are 'OK' and 'Cancel' buttons.

In the 'New trigger window' Specify the schedule and frequency when the task should run. Did the same changes as mentioned in the following screenshot.

New Trigger

Begin the task: At startup

Settings

No additional settings required.

Advanced settings

☐ Delay task for: 15 minutes

☒ Repeat task every: 5 minutes for a duration of: Indefinitely

☐ Stop all running tasks at end of repetition duration

☐ Stop task if it runs longer than: 3 days

☐ Activate: 5/22/2023 12:17:43 PM ☐ Synchronize across time zones

☐ Expire: 5/22/2024 12:17:43 PM ☐ Synchronize across time zones

☒ Enabled

OK Cancel

After clicking OK, the trigger has been successfully added.

- Click on "Actions" tab

In the Actions tab, click on "New" to create a new action for the task.

Create Task

General Triggers **Actions** Conditions Settings

When you create a task, you must specify the action that will occur when your task starts.

Action	Details

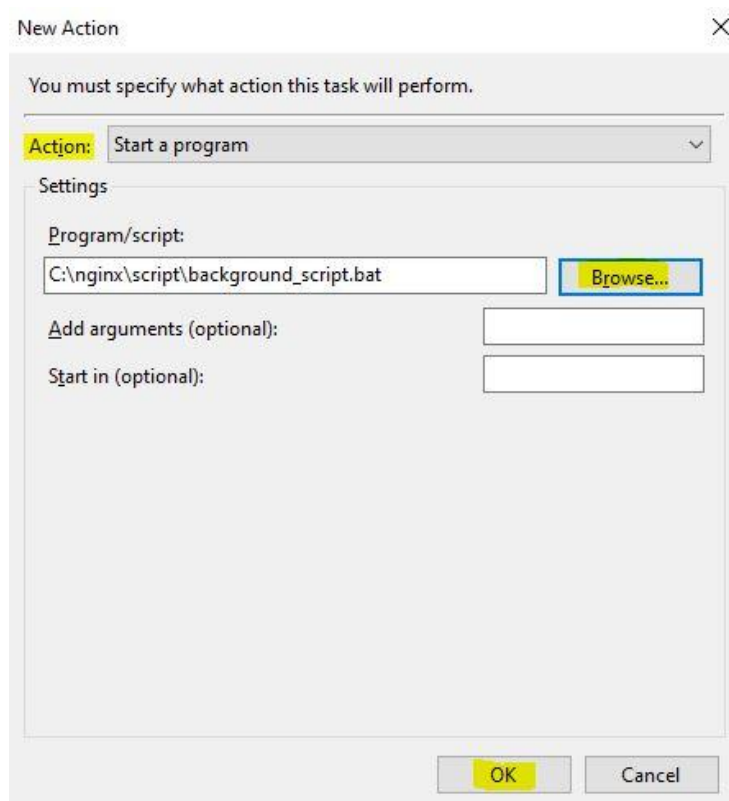
New... Edit... Delete

OK Cancel

In the 'New Actions' window specify the following Actions we need to perform

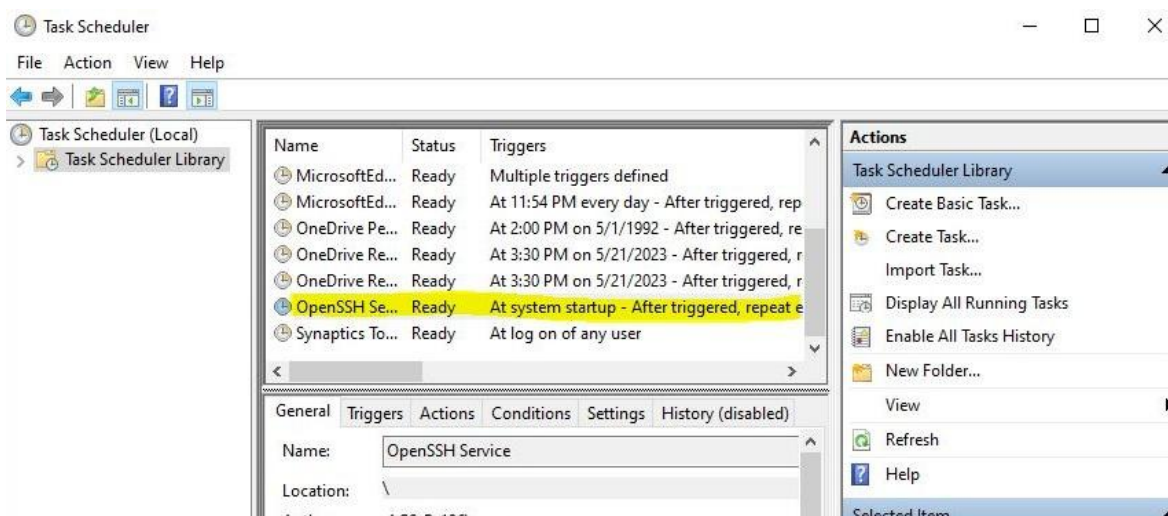
- First we need to select the action as '**Start a program**'.
- Second in the settings we need to browse and select the **.bat** file which contains logic to restart OpenSSH service.

Script location - `\nginx\script\background_script.bat`



After clicking OK, the Action has been successfully added.

- Once again, click "OK" on the task creation window. The task has now been successfully created.

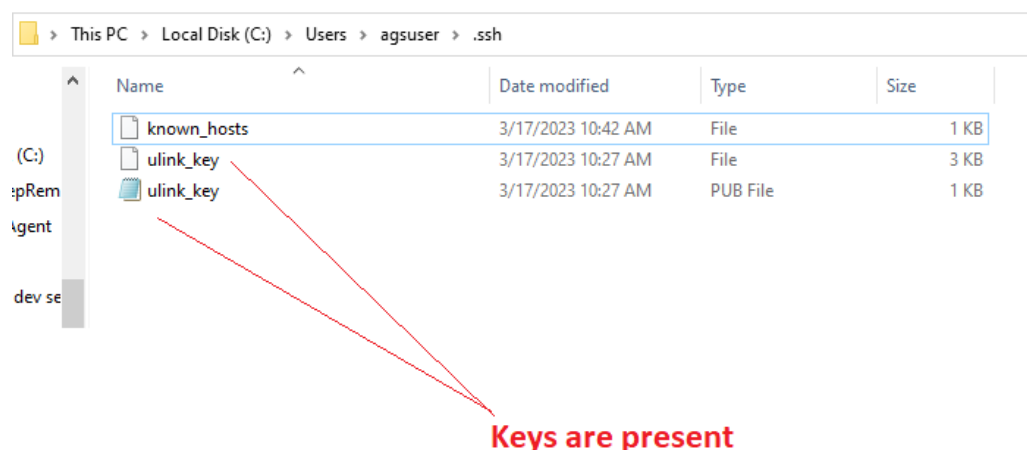


4.3 Adding PS library on the machine

- Use this [Link](#) to download the PS Tools zip file
- Extract this downloaded zip file on location, C:\Program Files i.e the resultant folder structure should be C:\Program Files\PSTools
- By doing this, you have added PS library in the machine

4.4 Configuration for test-server machine without password

- When we are working in Test Run section and we want to connect to server machine that are without login password, we need to make some settings in the server machine and the test machine as well
- This mechanism is basically based on SSH key sharing between test and server . It contains the following sections:
 - Generating SSH key on test machine if not generated
 - Copying the SSH key to server machine
 - Setting the SSH key on server machine
- By following the below steps, we can make our test compatible for connecting without the password of a server machine.
 1. First check whether the SSH key is created on the test machine or not. It is present in the path "**C:\Users\<username>\.ssh**", Here we will be able to see two keys viz private and public
If these keys are present that means we have the keys generated. If not we need to generate the keys



2. To generate the key, we have to run(Double Click) a batch file *test_run_client_keygen.bat* which is present in the nginx zip path which was downloaded for install/update. The path for this batch is "*C:\nginx\script\test_run_client_keygen.bat*"
After successful run, we can see the keys created named *ulink_key*
3. Now we have to transfer this file to the server machine. This should be transferred under path "*C:\ProgramData\ssh*"

If this path is not present in the server machine, Please make sure you have completed step [4.1](#).

4. After successful transfer, we need to set the key on the server machine. For this we need to run(Double Click) another batch script which is *test_run_server_key_setup.bat*, present again on nginx zip path, “C:\nginx\script\test_run_server_key_setup.bat”

Note: Run this batch script via Administrator so that it is properly configured in server machine

This PC > Local Disk (C:) > ProgramData > ssh

Name	Date modified	Type	Size
logs	3/20/2023 11:09 AM	File folder	
administrators_authorized_keys	3/20/2023 11:10 AM	File	1 KB
ssh_host_dsa_key	3/20/2023 11:09 AM	File	2 KB
ssh_host_dsa_key	3/20/2023 11:09 AM	PUB File	1 KB
ssh_host_ecdsa_key	3/20/2023 11:09 AM	File	1 KB
ssh_host_ecdsa_key	3/20/2023 11:09 AM	PUB File	1 KB
ssh_host_ed25519_key	3/20/2023 11:09 AM	File	1 KB
ssh_host_ed25519_key	3/20/2023 11:09 AM	PUB File	1 KB
ssh_host_rsa_key	3/20/2023 11:09 AM	File	3 KB
ssh_host_rsa_key	3/20/2023 11:09 AM	PUB File	1 KB
sshd.pid	3/20/2023 11:09 AM	PID File	1 KB
sshd_config	2/2/2023 3:35 PM	File	3 KB

This file is either newly created or modified after the batch file run

5. Once we run the batch file, we can see a file named *administrators_authorized_keys* newly created or modified via the batch run.
6. By completing these steps, now we are ready to connect to the server machine with no password

★ **Points to remember:**

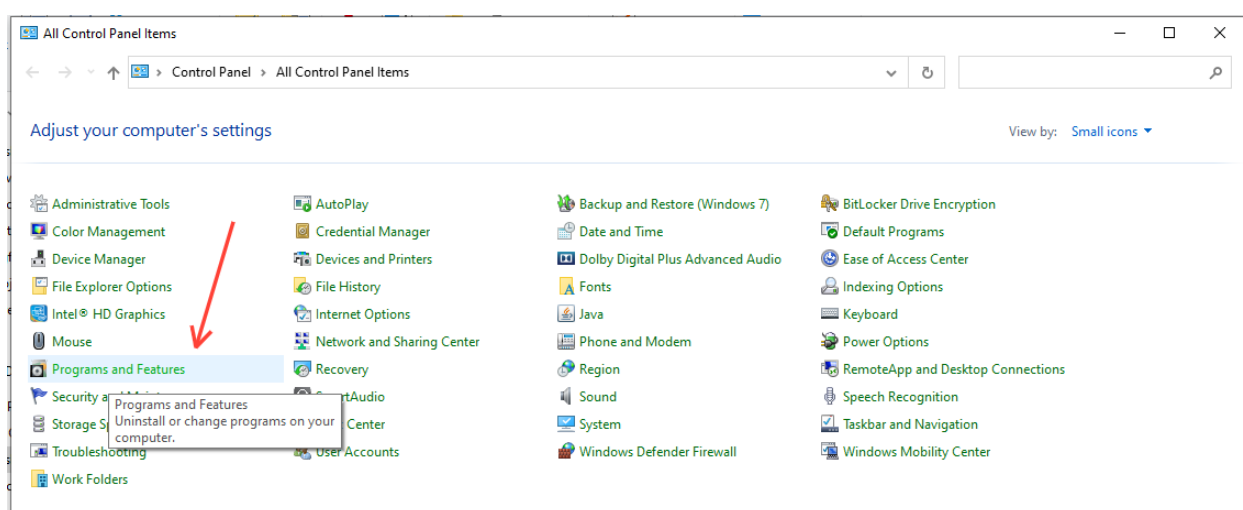
- Make sure you have completed the 4.1 and 4.2 steps before performing these above steps
- The test machine key once generated should never be deleted or modified as it can change the key setup on server
- If we want another test to connect to a passwordless server, we need to perform the same operation

5. Test Reporter Update

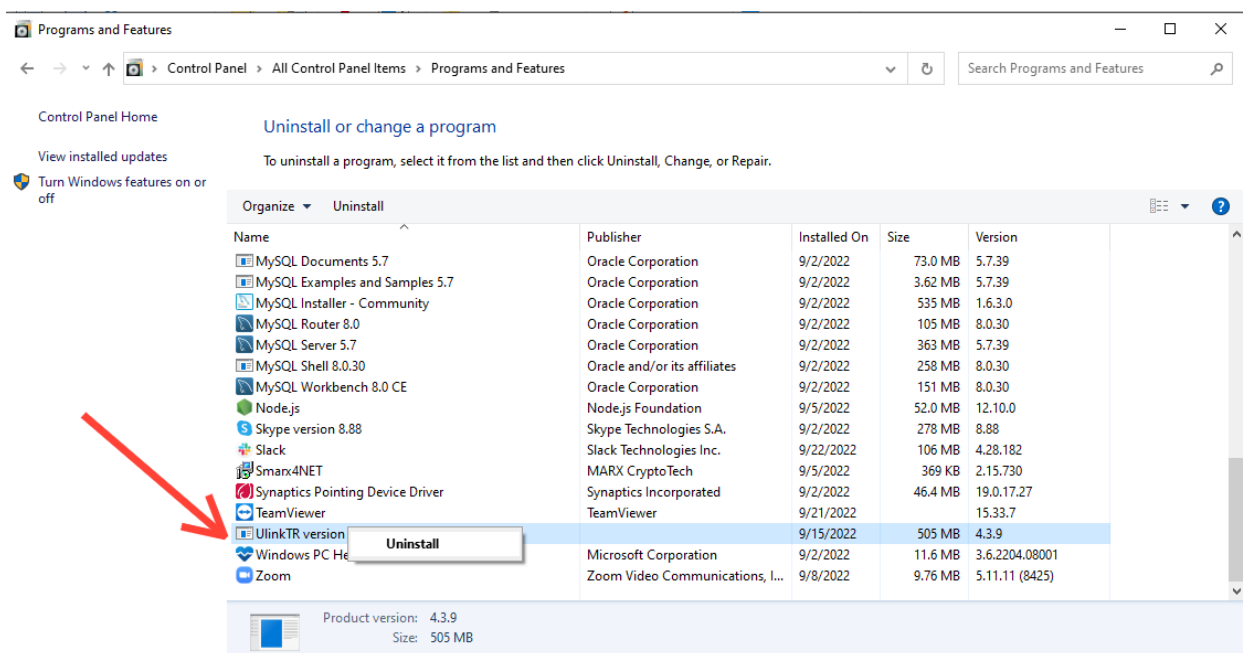
- This section will guide the user for updating the Test Reporter Application.
- When we update the TR version only the software update is needed
- We don't need to do the USB driver installation and database installation
- By doing the following steps, you can update the TR version on your machine

5.1 Uninstalling the current version of TR

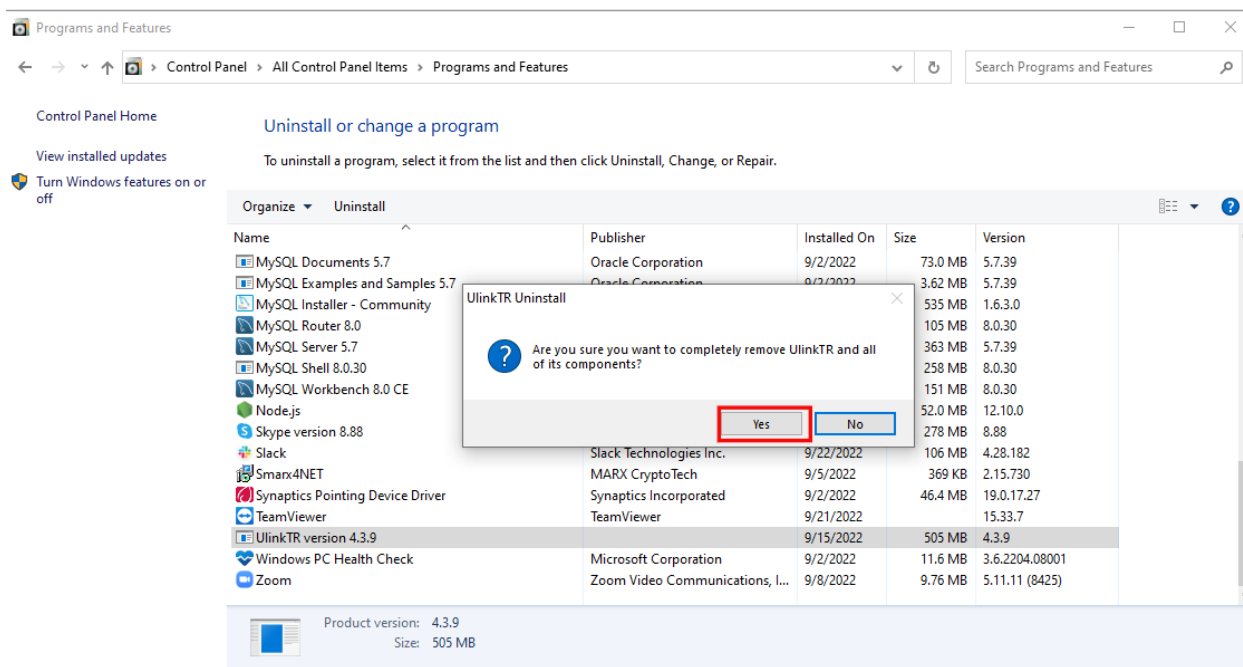
- For the uninstall process, we have to **restart the machine**. This process is needed for smooth uninstall
- After restart, we need to start with the uninstall process
- For this, Goto Control Panel and Select Programs and Features as shown below.



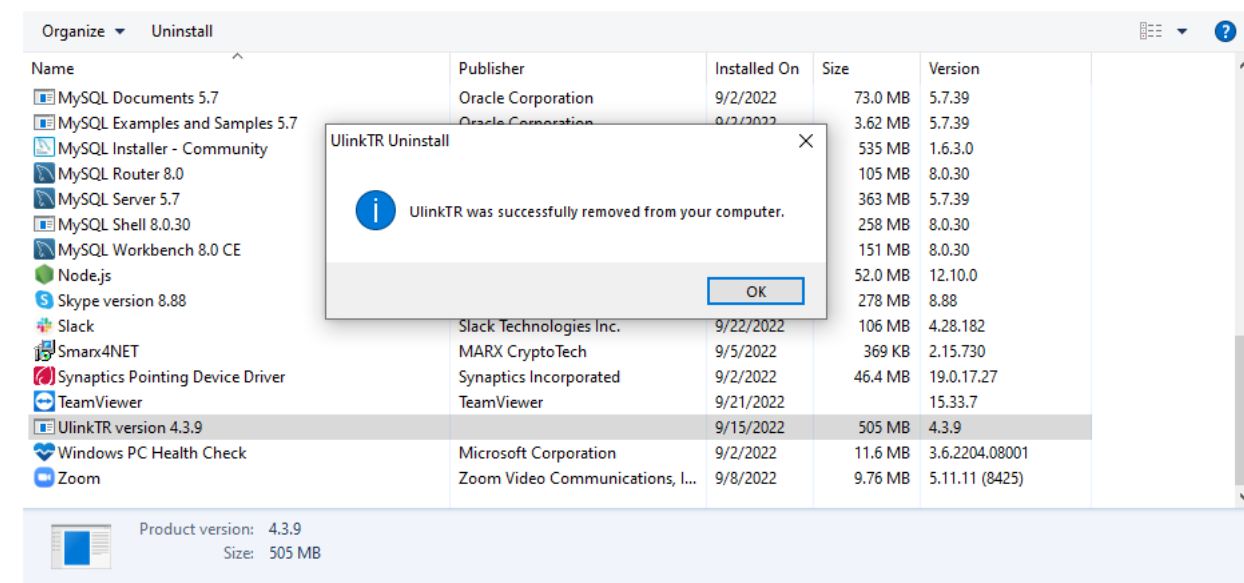
- Search for Ulink TR in the programs list, and right click Uninstall as show below.



- After clicking , you will be prompted a confirmation window, Proceed with Yes.
- Again click for yes, as shown below



- In last you will see a confirmation window for successful uninstall of the application



5.2 Please refer to section 3.2 and 3.3

After having a successful uninstall of the software, you can proceed with the installation steps. These steps are included in section 3.2 and 3.3.

If you are new to Test Run feature also follow the steps in section 4