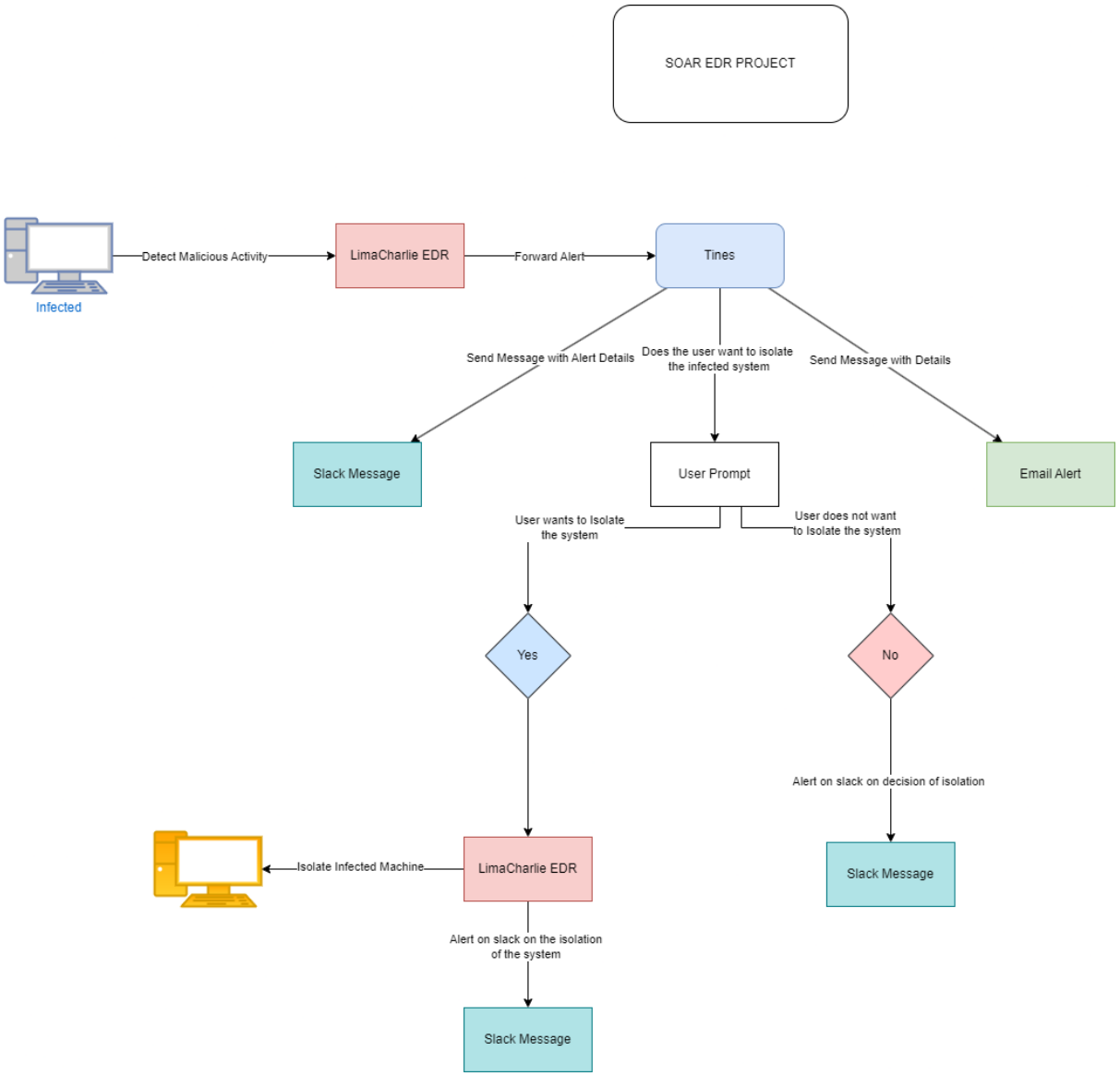
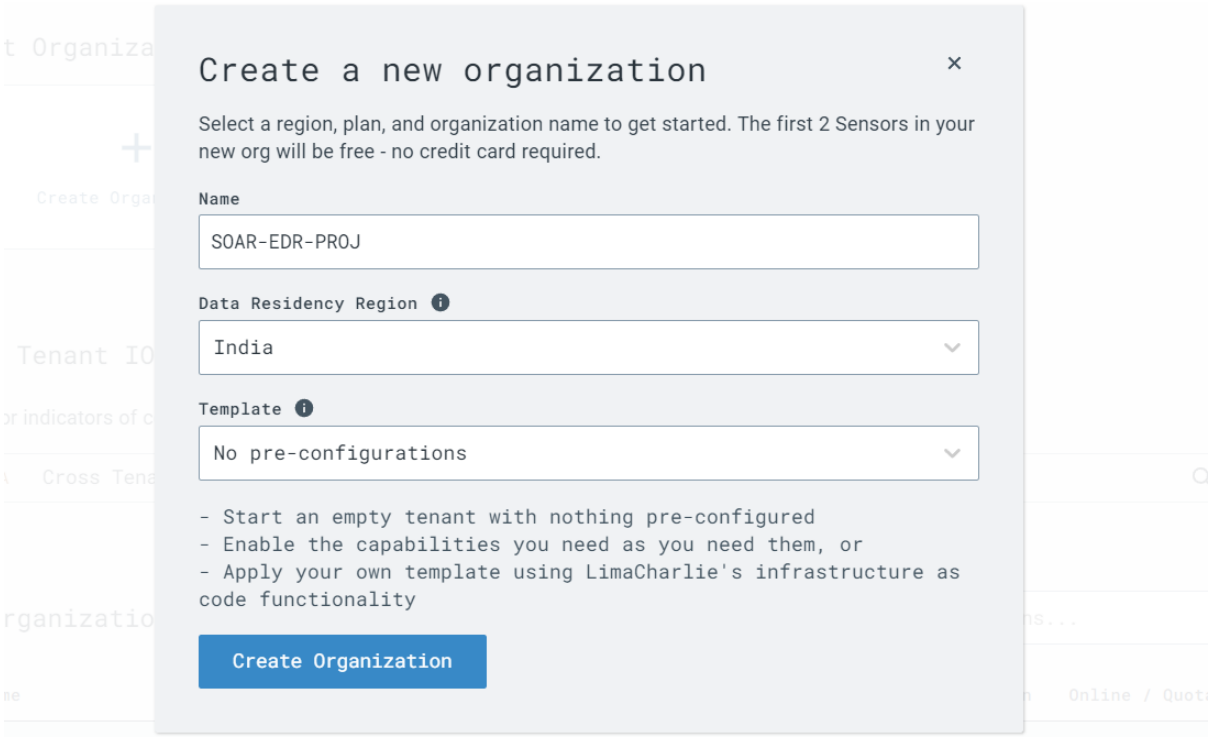
Workflow



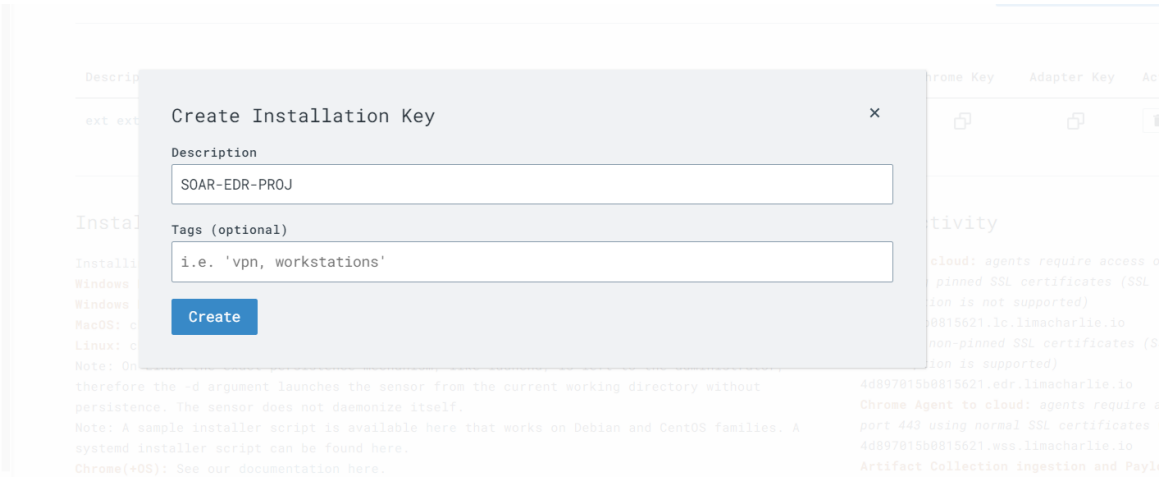
LimaCharlie Setup:

1. **Sign Up**: Head over to LimaCharlie and create an account using **email, Google, GitHub, or Microsoft**.
2. **Organization Creation**:
    - Set up an organization in **LimaCharlie**.

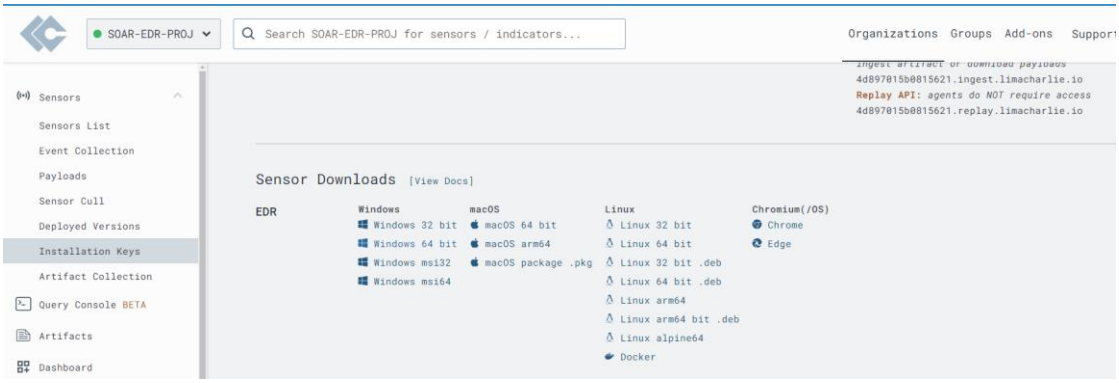


Step 1: Download LimaCharlie

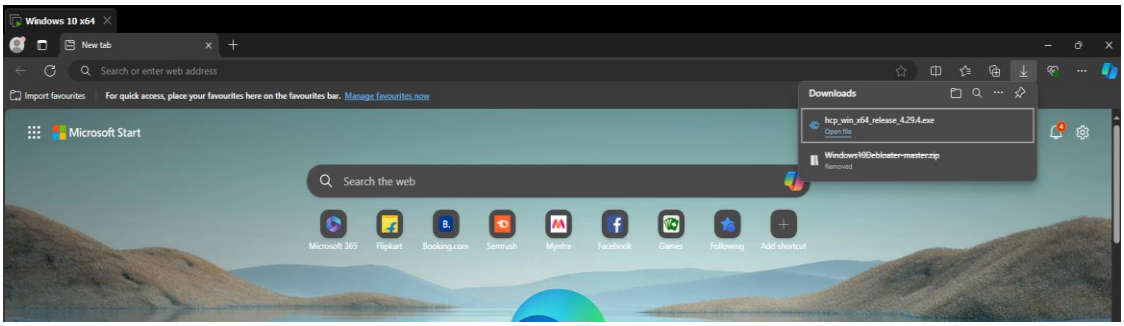
1. **Access Installation Keys**:
   - Navigate to the installation keys section on the LimaCharlie website.
   - Generate a new installation key for the project.



2. **Download EDR**:
   - Scroll down to the "Center Downloads" section.
   - Under the EDR section, locate the download for Windows 64-bit.



- Right-click the download link and select "Copy Link Address."
- Open your server environment and paste the link to start the download.



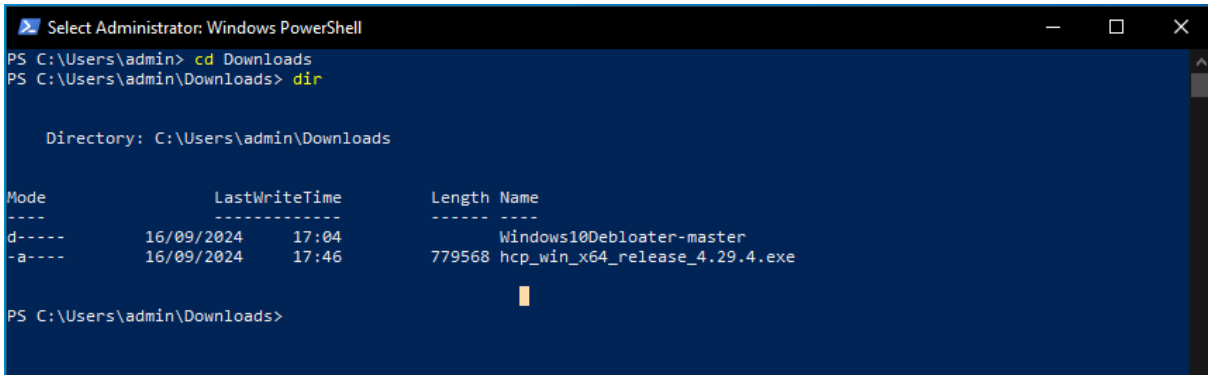
3. **Copy Sensor Key**:
   - While the LimaCharlie installation is downloading, scroll up to find and copy your sensor key. This key will be used as the installation key for your server.

Step 2: Install LimaCharlie

1. **Open PowerShell**:
   - Run PowerShell as an administrator by right-clicking the icon and selecting "Run as Administrator."
2. **Navigate to Downloads Directory**:
   - Type the following commands:

     ```
     cd downloads
     dir
     ```

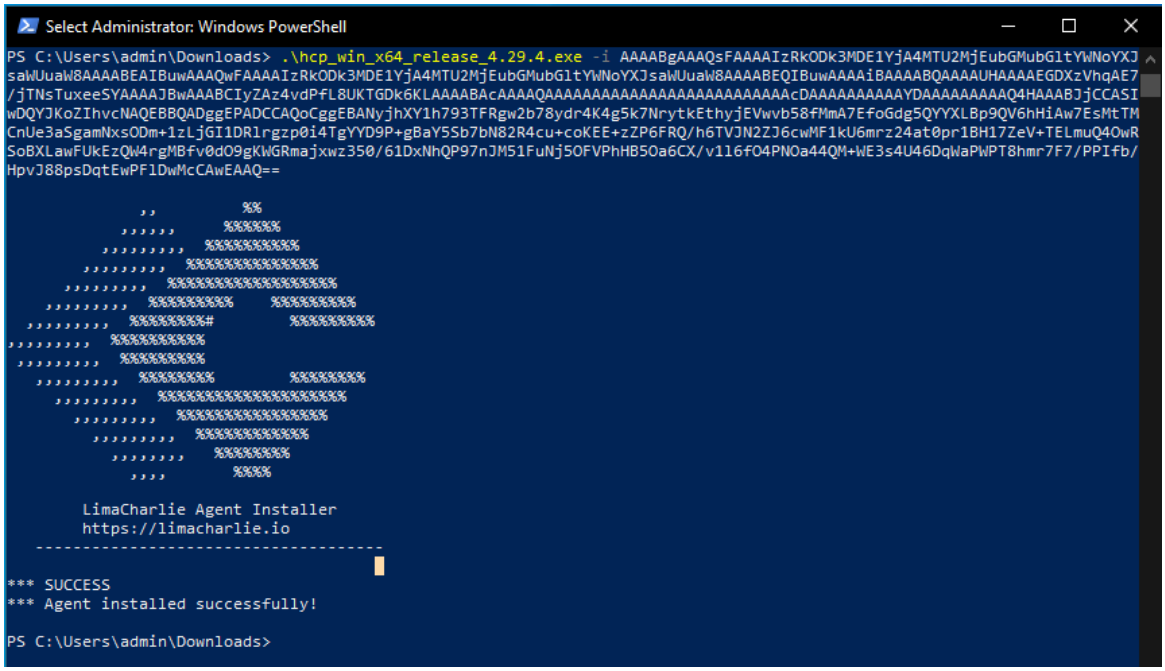
   - You should see the LimaCharlie executable file listed.



3. **Install the Agent**:
   - To install the agent, type:

     ```
     .\lima-charlie-executable-name.exe -i <sensor_key>
     ```

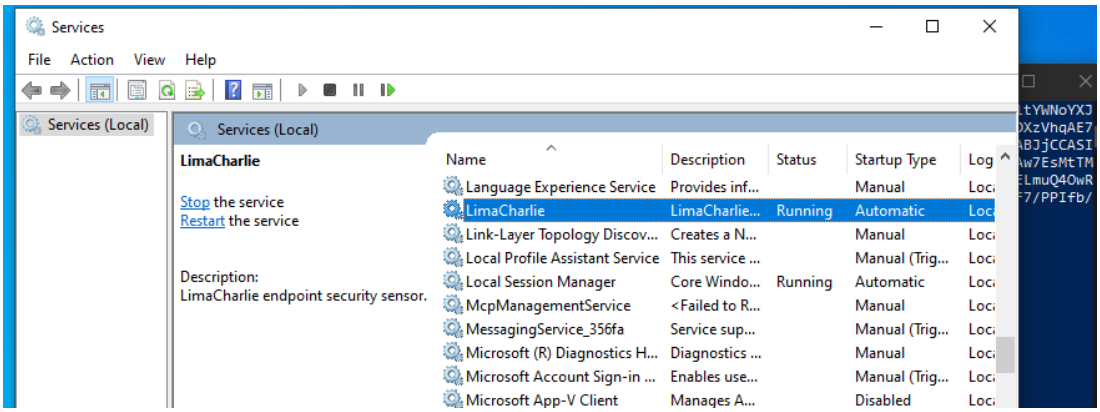
   - Replace `<sensor_key>` with the sensor key you copied earlier.
   - Press Enter to initiate the installation. A success message should appear shortly.



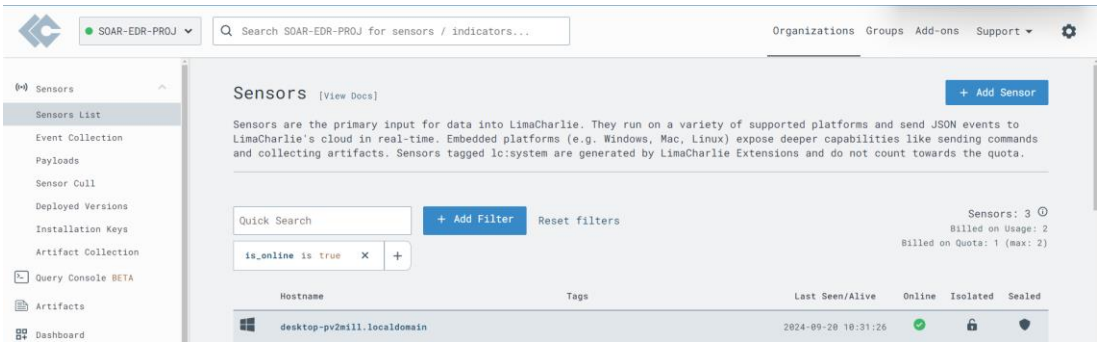
4. **Check for Errors**:
    - If you encounter an error stating "service installed," you can ignore it. Proceed to check if the service is running.

Step 3: Verify Installation

1. **Check Services**:
    - Open the Services management console and filter by "Lima" to confirm the LimaCharlie service is active.



2. **View Sensor Information**:
    - Log into your LimaCharlie dashboard and navigate to the Sensors list.
    - Confirm that your server appears with the correct details such as hostname, network access, and sensor ID.



Key Features Explored

1. Auto Runs

- Under the **Analytics** section, you can view Auto Runs, which lists all auto-starting programs. This is crucial for identifying potential persistence mechanisms.

2. Console Commands

- The **Console** section allows you to run remote commands. For example, using `netstat` to check for active network connections can help identify suspicious processes.

3. Event Collection

- LimaCharlie collects various events from your server, providing insights into system activities.

4. File System Access

- Navigate the file system to inspect files, hashes, and timestamps. You can even perform malware analysis by downloading potentially malicious files.

5. Integrity Monitoring

- File Integrity Monitoring (FIM) enables you to detect changes in file states, which is essential for security audits.

6. Process Management

- Monitor active processes, view modules, and even kill suspicious processes. Detailed information about each process can help in investigating anomalies.

7. User Management

- The Users section displays existing users on the server, which can be useful for detecting unauthorized accounts.

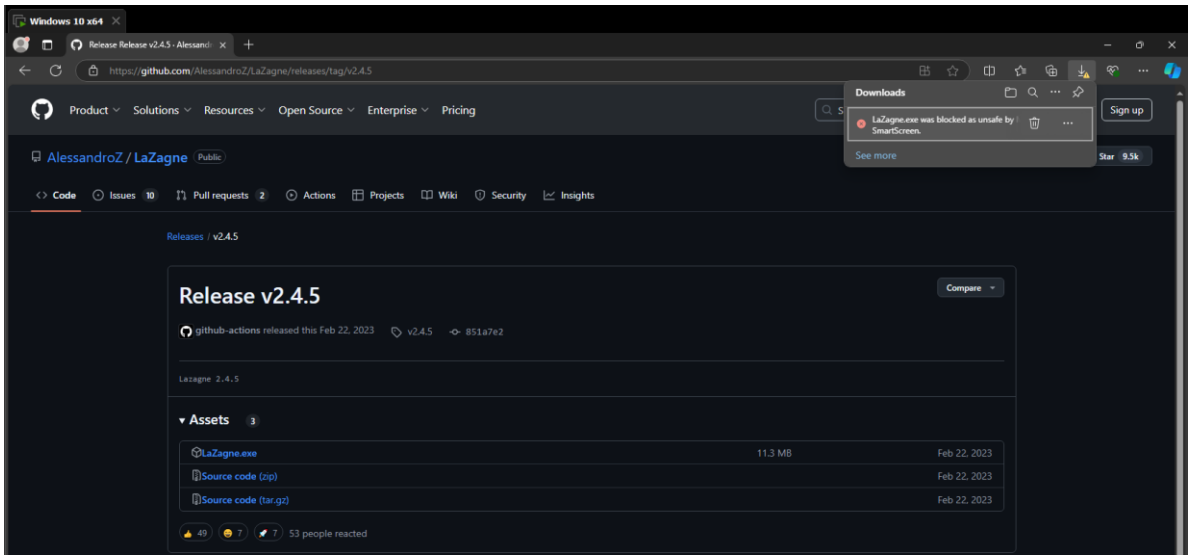
8. Timeline Analysis

- The Timeline feature allows you to track events chronologically, making it easier to investigate incidents based on user-reported issues.

Downloading and Installing Lasagna for Testing

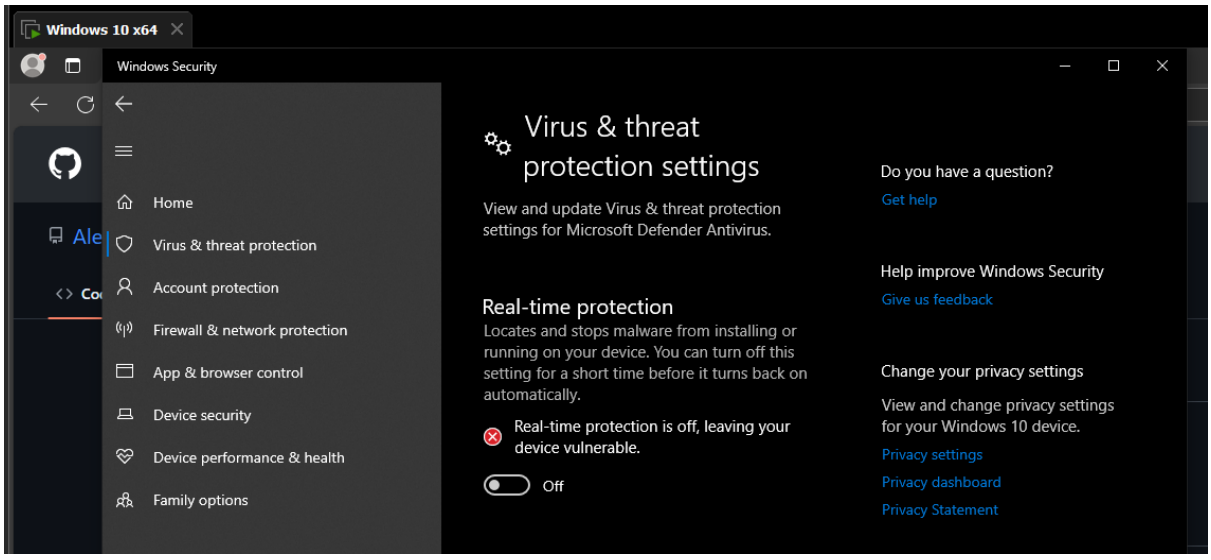
1. **Download Lasagna**:

    - Navigate to the Lasagna GitHub.
    - Download the executable (lasagna.exe) from the "Releases" section.



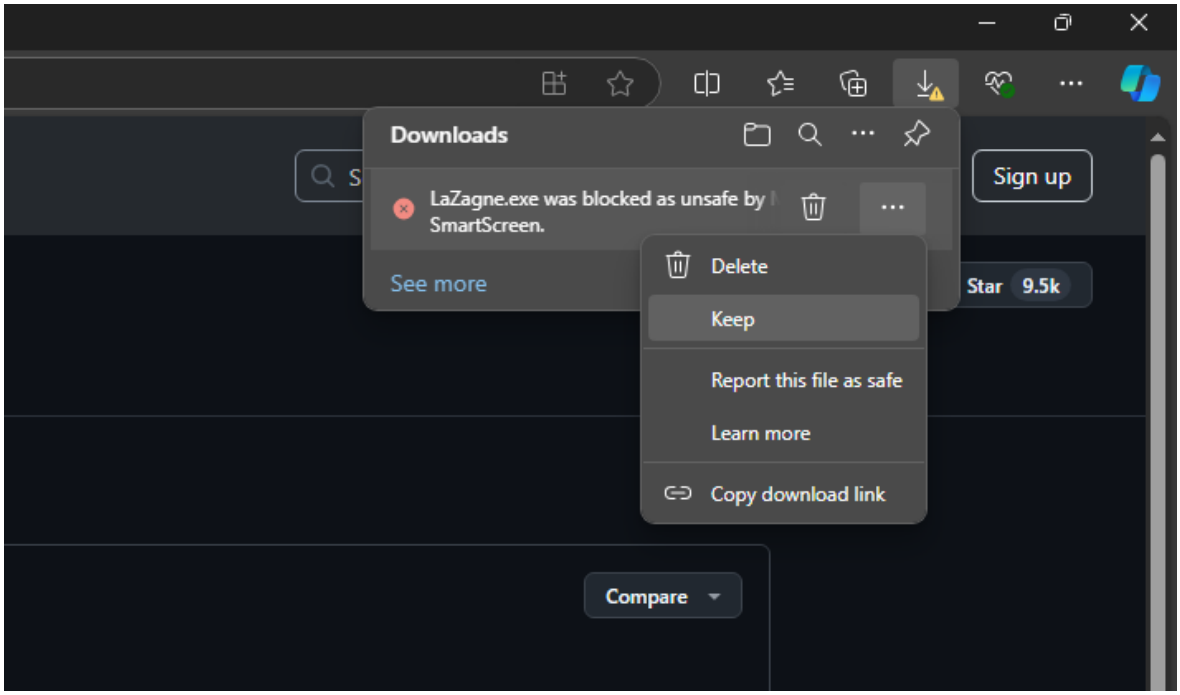
2. **Disable Windows Security**:

    - Open "Windows Security."
    - Select "Virus & Threat Protection" and click "Manage Settings."
    - Disable "Real-time protection."



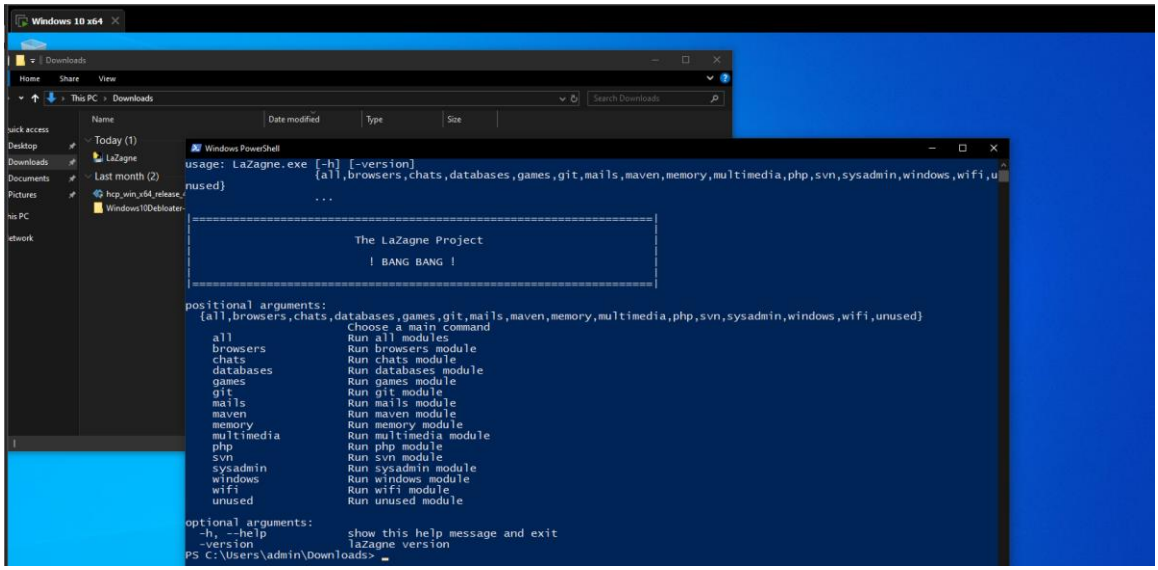
3. **Bypass Defender's Warning**:

    - When Lasagna is blocked by Microsoft Defender SmartScreen, click on the three dots next to the warning.
    - Select "Keep" to download it, ignoring the warning that it is unsafe.



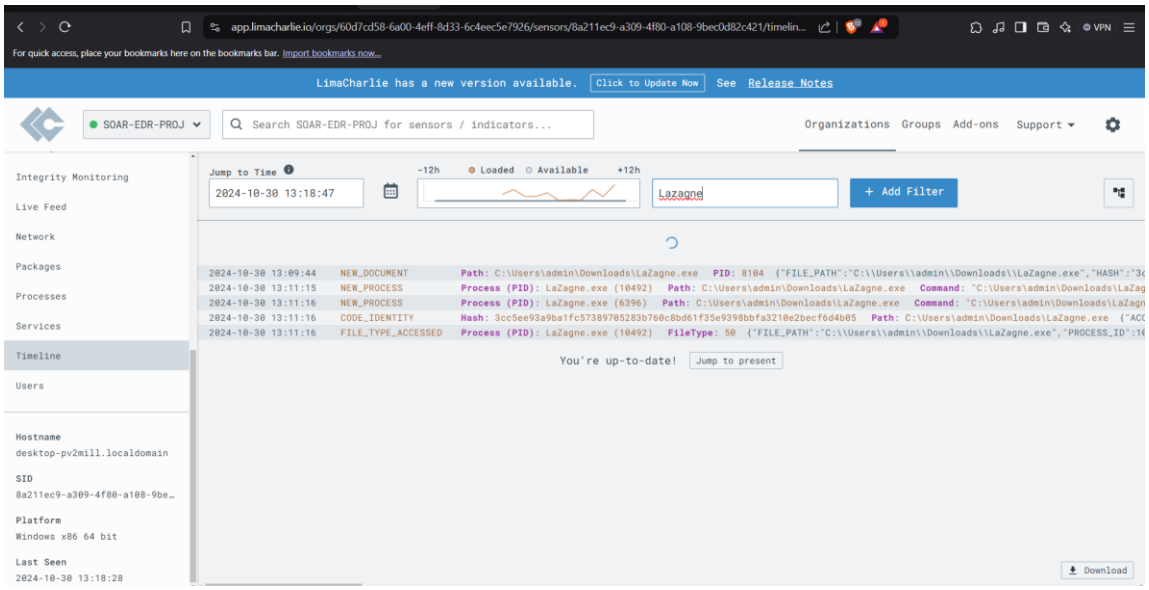
4. **Run Lasagna in PowerShell**:

- Open the download folder and launch PowerShell.
- Hold **Shift + Right-click** and choose "Open PowerShell window here."
- Execute lasagna in the terminal.



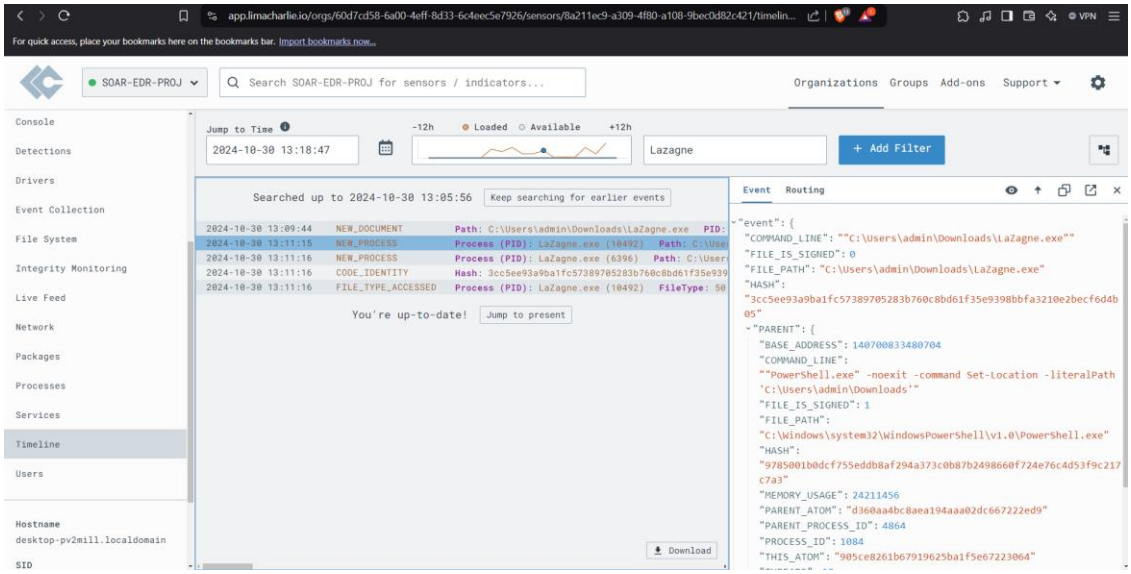
5. **Verify Activity in Lima Charlie**:

    - Head over to Lima Charlie.
    - Navigate to the **Sensors List** and click on the relevant sensor.
    - Go to the **Timeline** and filter for events by typing "lasagna" to confirm its execution was detected.



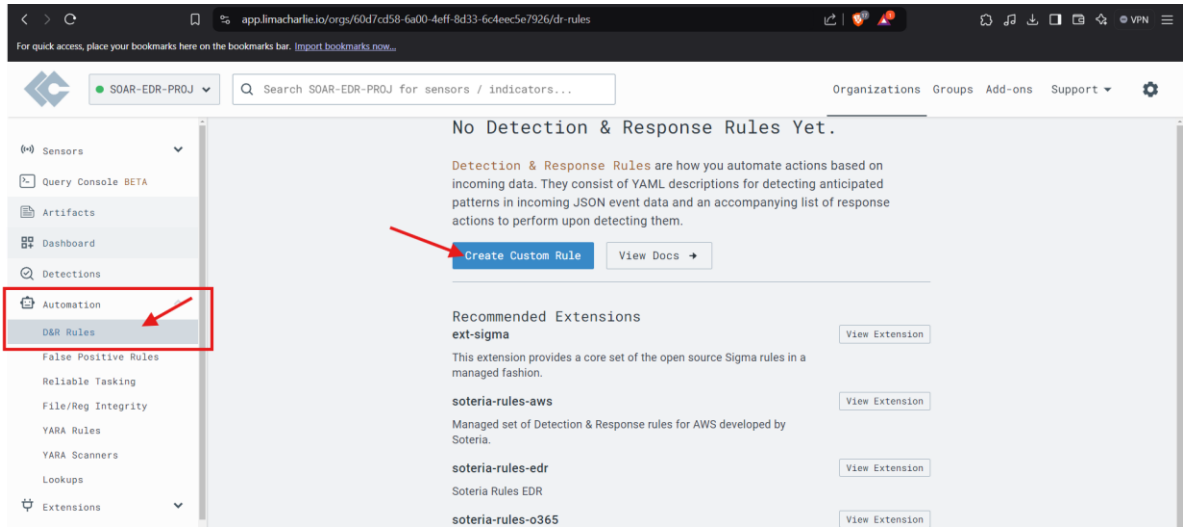
6. **Extract Information**:

    - Examine the **new process event**.
    - Collect information like:
        - File path (C:\Users\Administrator\Downloads)
        - Process ID
        - Command-line arguments, etc.



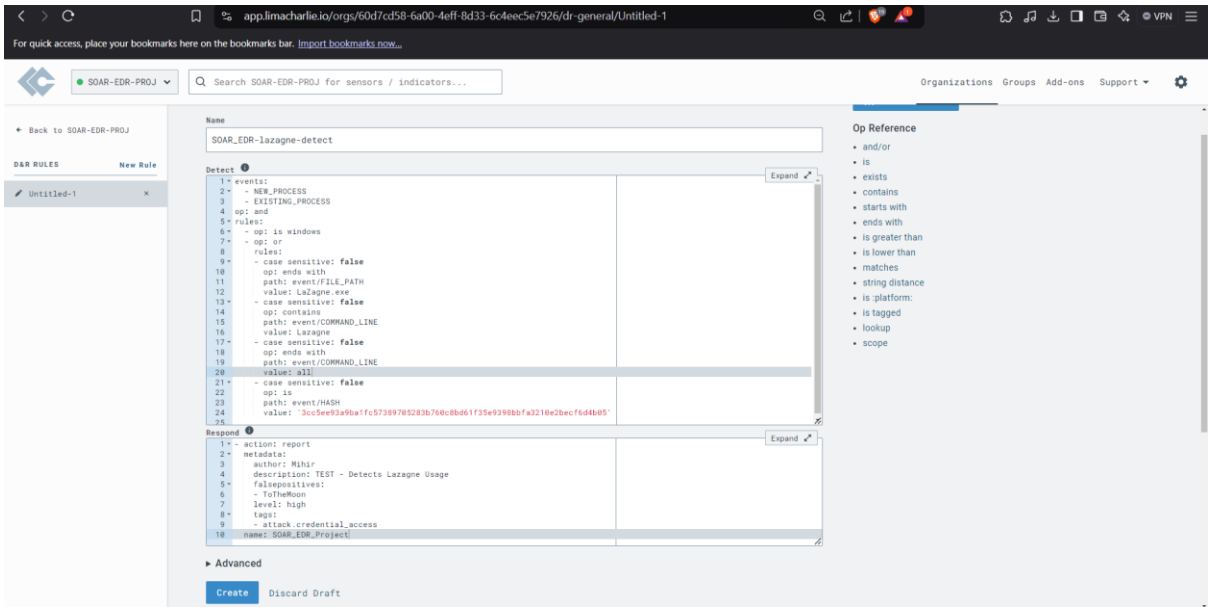
7. **Create Detection Rule**:

    - In Lima Charlie, go to your organization and navigate to **Automation > DNR Rules**.
    - Click **New Rule** to begin.



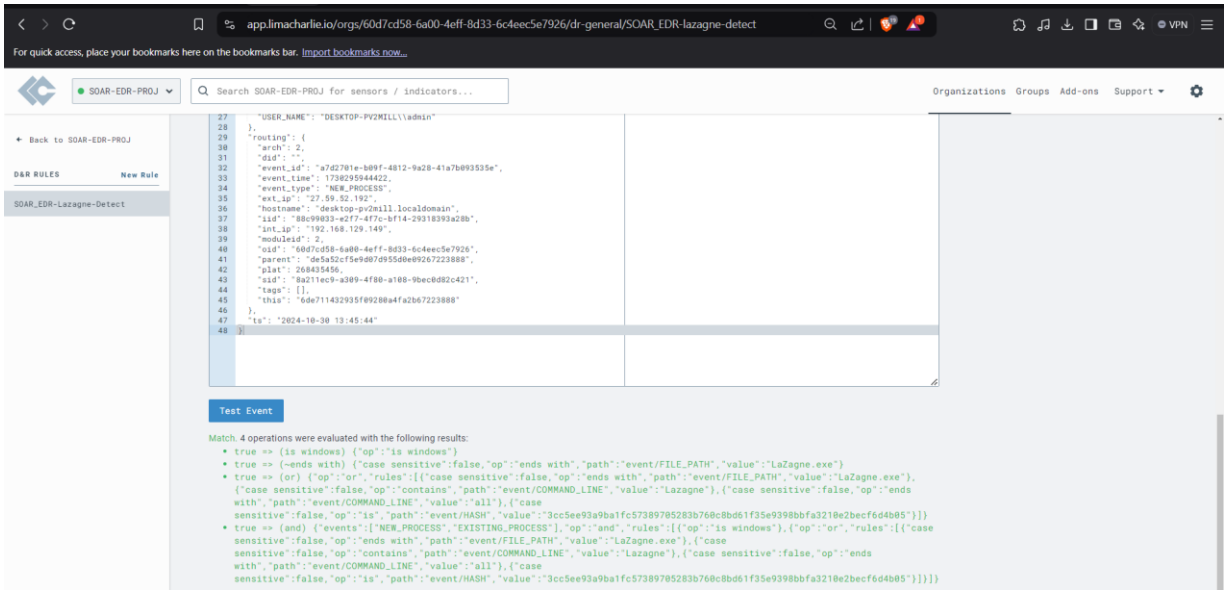
8. **Write the Rules**:

    - Modify it to suit the Lasagna detection by filtering based on "process creation."



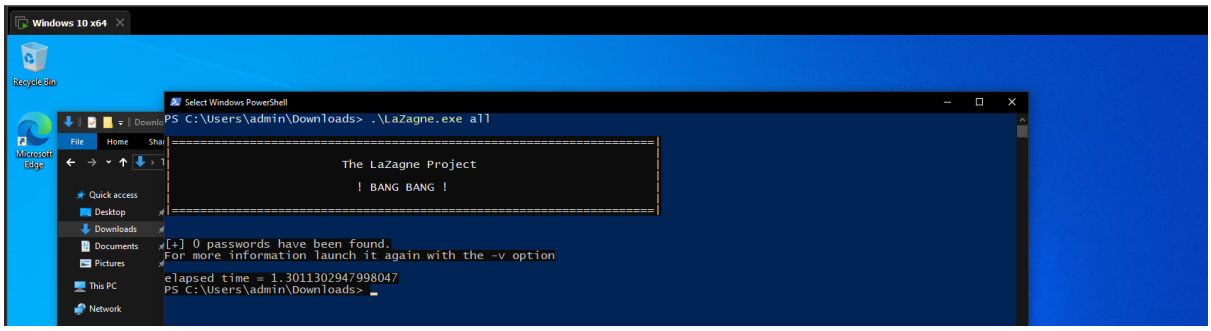
9. **Testing the Rule**:

    - In the rule editor, click **Target Event** to test it.
    - Paste the event and check if the rule triggers successfully.

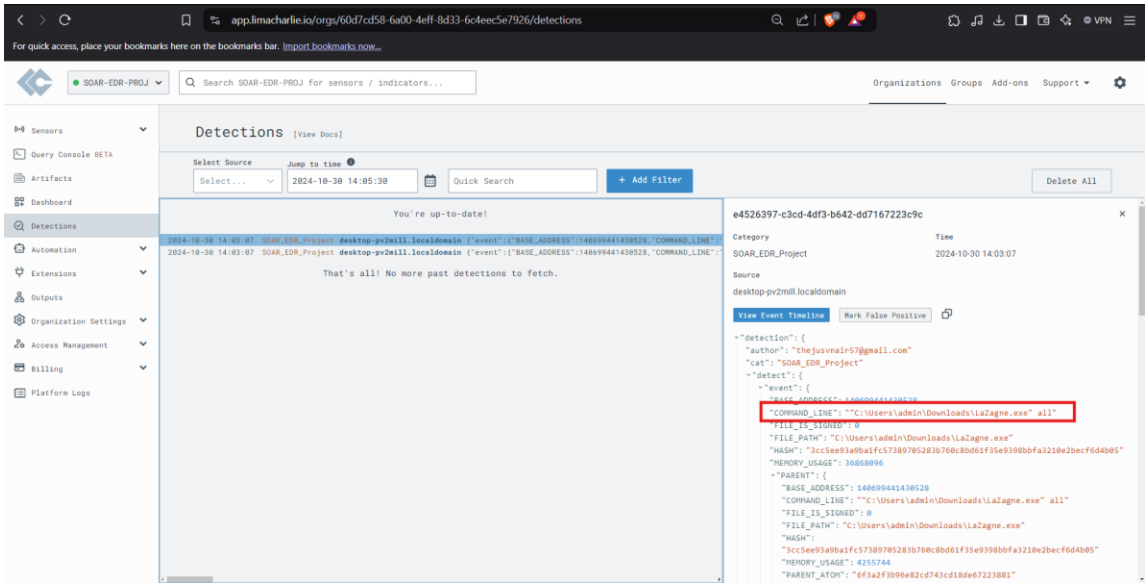


10. **Generate Detections**:

- Re-run lasagna from PowerShell with the --all flag to trigger the detection.



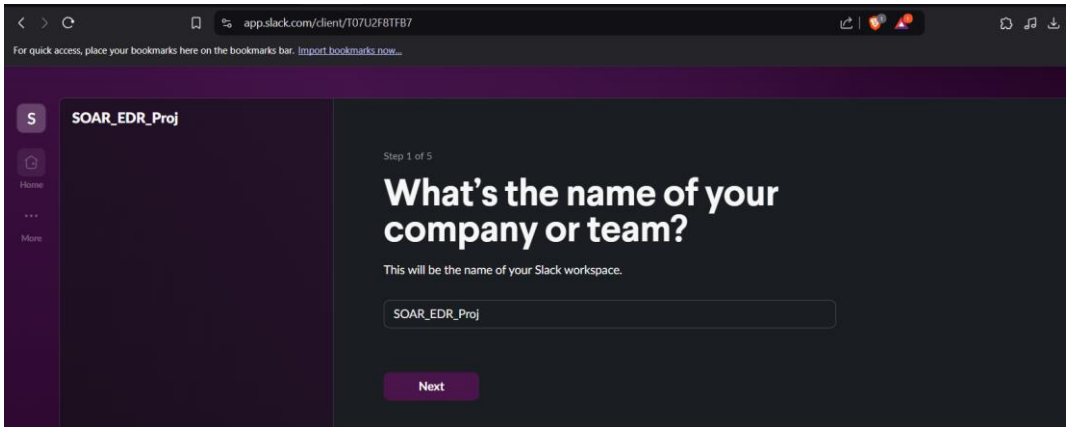
- Refresh the Lima Charlie dashboard to verify the detection.



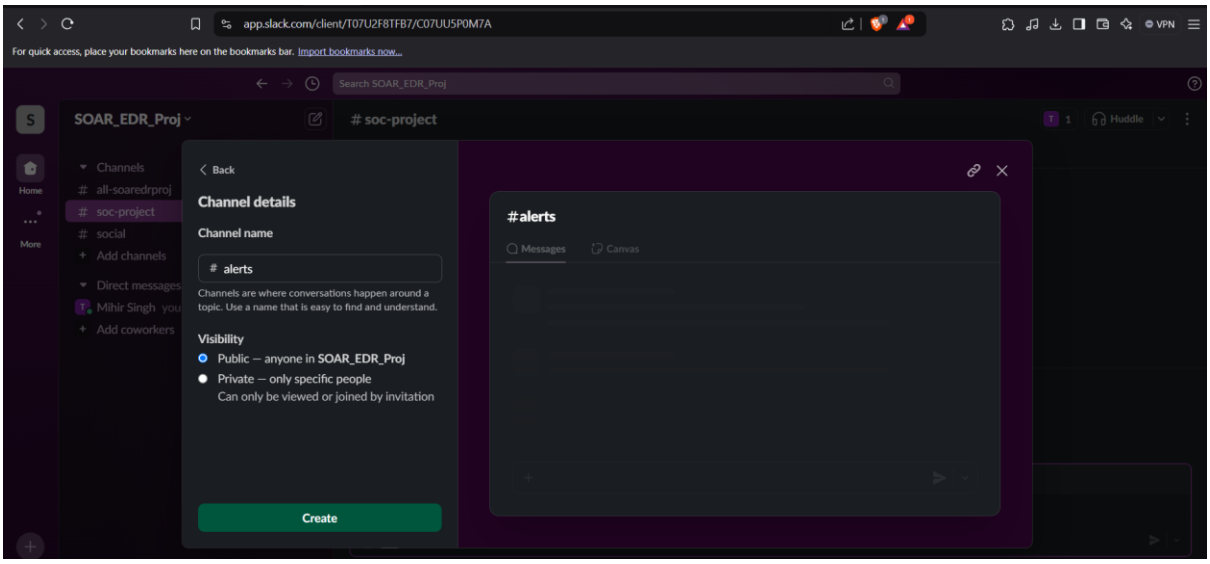
Setting Up Slack and Tines for Automation

Step 1: Setting Up Slack

1. Visit Slack.com and create an account.
2. **Create a workspace**: name it something identifiable for the project.



3. **Add an Alerts Channel**:
    - Click on **Add channels** > **Create a new channel** and name it **alerts**.

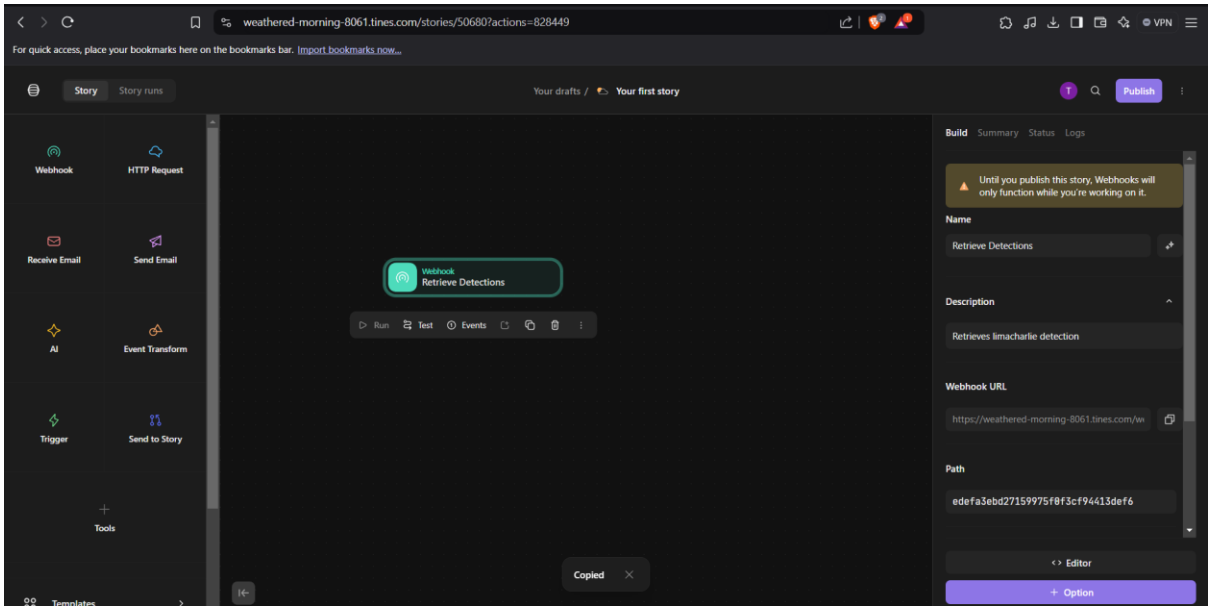


Step 2: Setting Up Tines

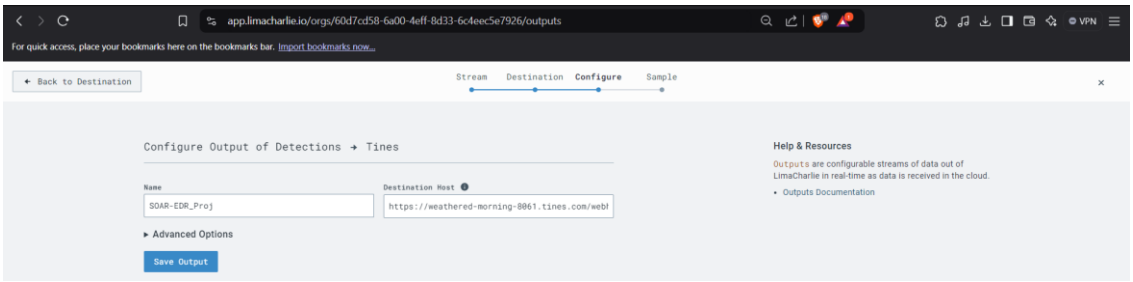
1. Go to Tines and **sign up** using a valid email.
2. Familiarize yourself with the **action menu** on the left side. Here, you can add:
    - **Webhooks**
    - **HTTP requests**
    - **Pre-built templates** like **VirusTotal** for hash lookups and others for common automation tasks.

Step 3: Linking LimaCharlie and Tines

1. Start by creating a **Webhook in Tines**:
    - Name it `Retrieve Detections`.
    - Set the description to `Retrieve LimaCharlie detections`.
    - **Copy the Webhook URL** generated for use in LimaCharlie.

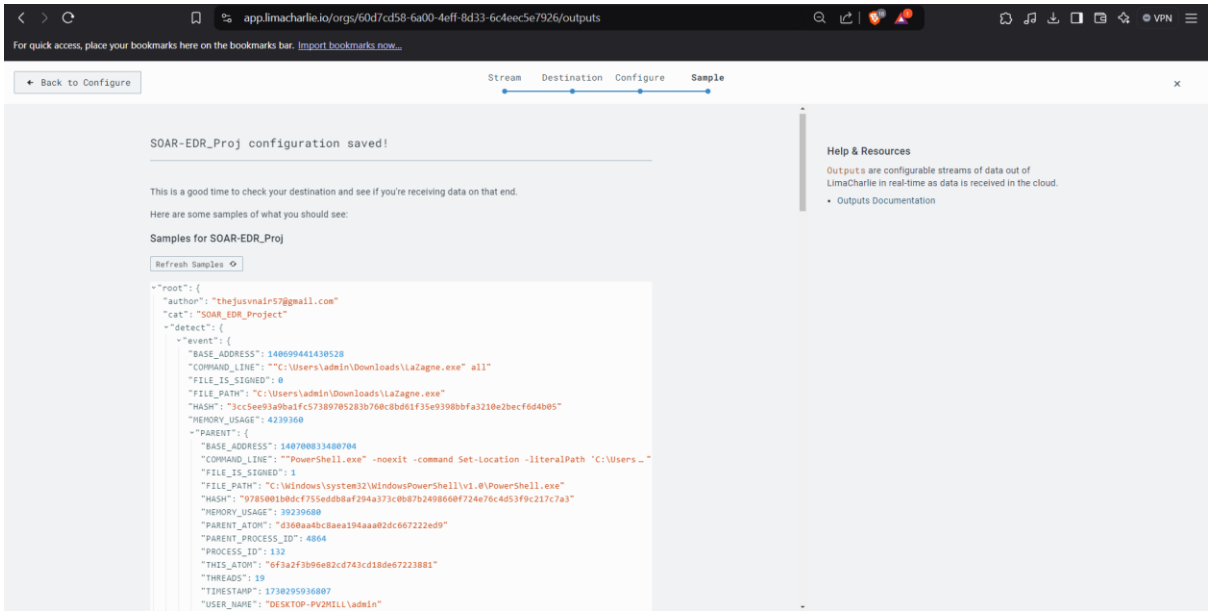


2. In **LimaCharlie**, configure the **Outputs**:
    - Under **Outputs**, click **Add Output** and select **Detections** (stream of detections from LimaCharlie's rule engine).
    - Select **Tines** as the output application (or Webhook if Tines isn't available).
    - Paste the Webhook URL copied from Tines.
    - Click **Save Output** to finalize.

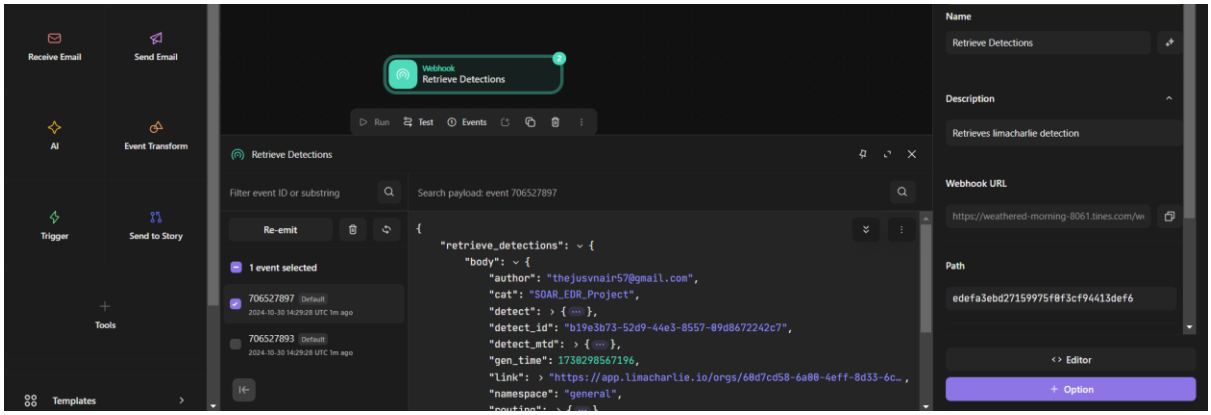


Step 4: Testing Detection

1. **Regenerate Detection**:
    - In your server environment, simulate a detection by running `lasagna` or another known test event.
    - Go back to the **Outputs** section in LimaCharlie and **refresh**. You should see the detection appear.

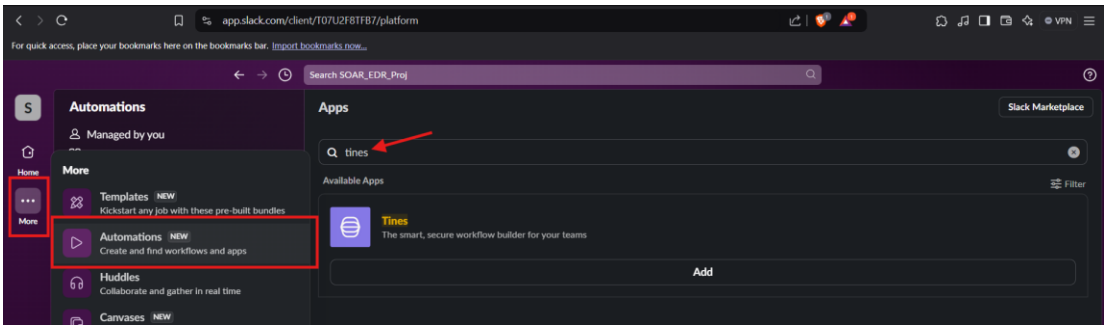


2. In **Tines**, verify the detection:
    - Check under the `Retrieve Detections` webhook action and expand the **latest detection**.
    - Confirm detection details like **title, command line, file path, hash,** and **username**.



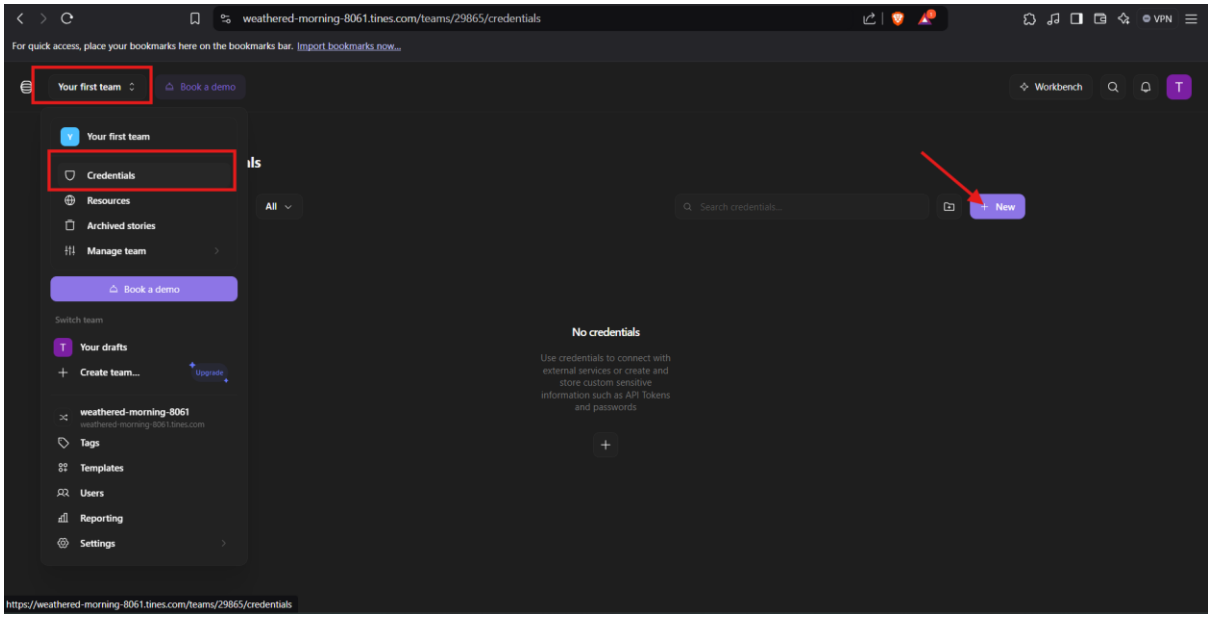
3. Add the **Tines** Application in slack:

    - Search for **Tines** in the **Slack** App Directory and add it.
    - Accept permissions for Tines to send messages and create channels.



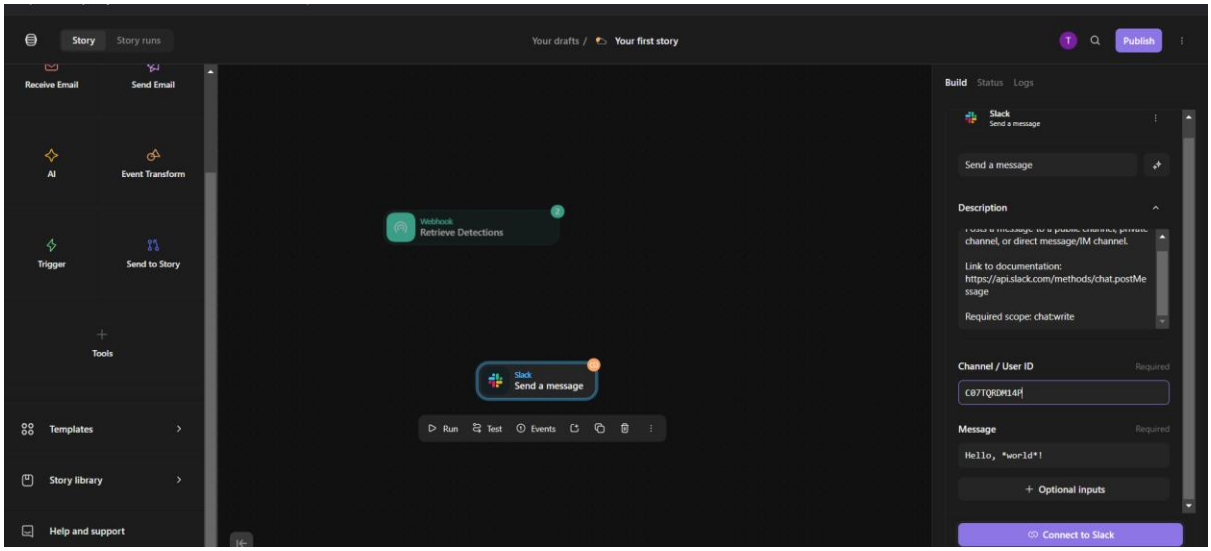
Step 5. Setting Up Tines

1. **Establish a Link between Tines and Slack**:
    - Go to the **Credentials** section in Tines.
    - Create a new Slack credential to connect Tines and Slack.
    - Use this credential in the workflow to enable Tines to send alerts to the `alerts` channel in Slack.



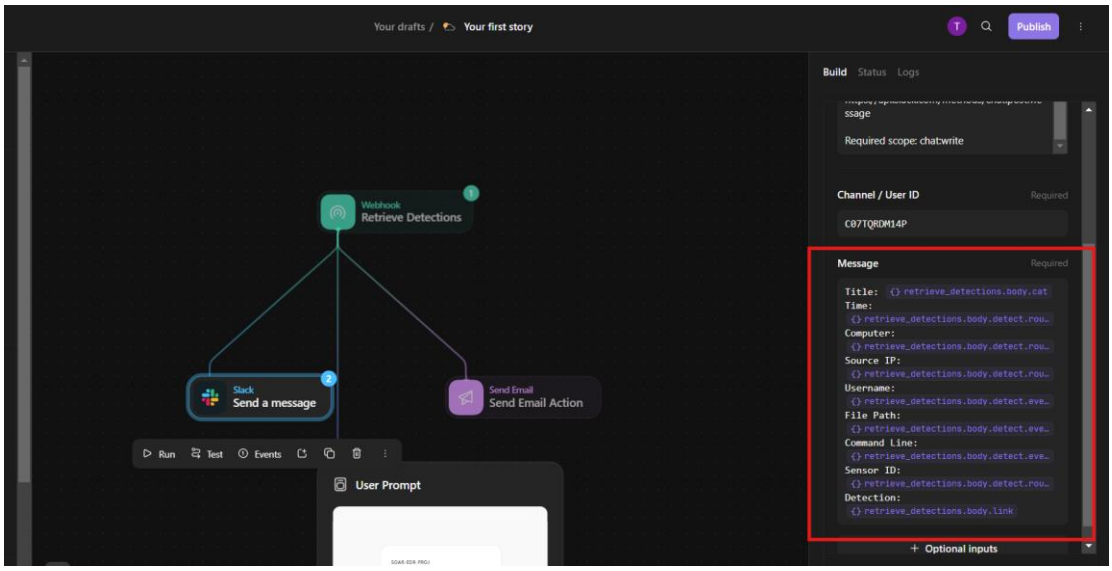
Step 6. Connecting Slack to Tines

1. Back in **Tines**, use the **Slack template** from the **Templates Library**:
    - **Action**: Send a Message.
    - **Description**: Post a message to a public or private channel.
2. Use the channel identifier (ID) for `#alerts`:
    - Go to **Slack**, select **#alerts > Channel Details**.
    - Copy the **Channel ID** and paste it into the Tines configuration.

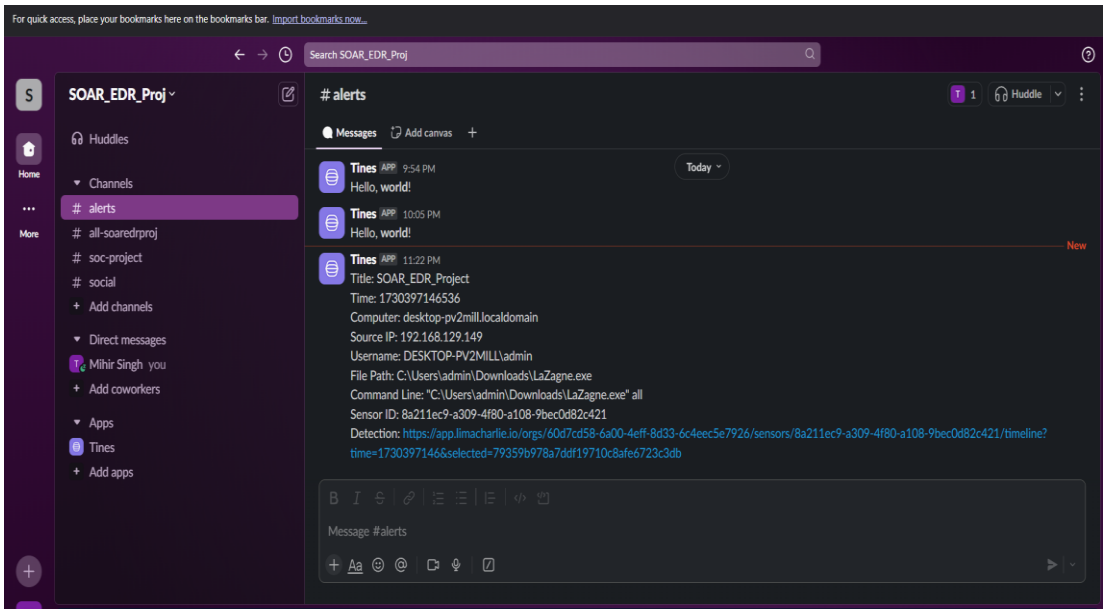


Step 7. Automating Alert Messaging in Slack

1. **Configure Slack Messaging in Tines**:
    - Use the Slack action in Tines to send a message to the alerts channel upon receiving a detection.
    - Customize the message with relevant detection details such as:
        - Detection time
        - Computer name
        - Source IP
        - Detection link for investigation

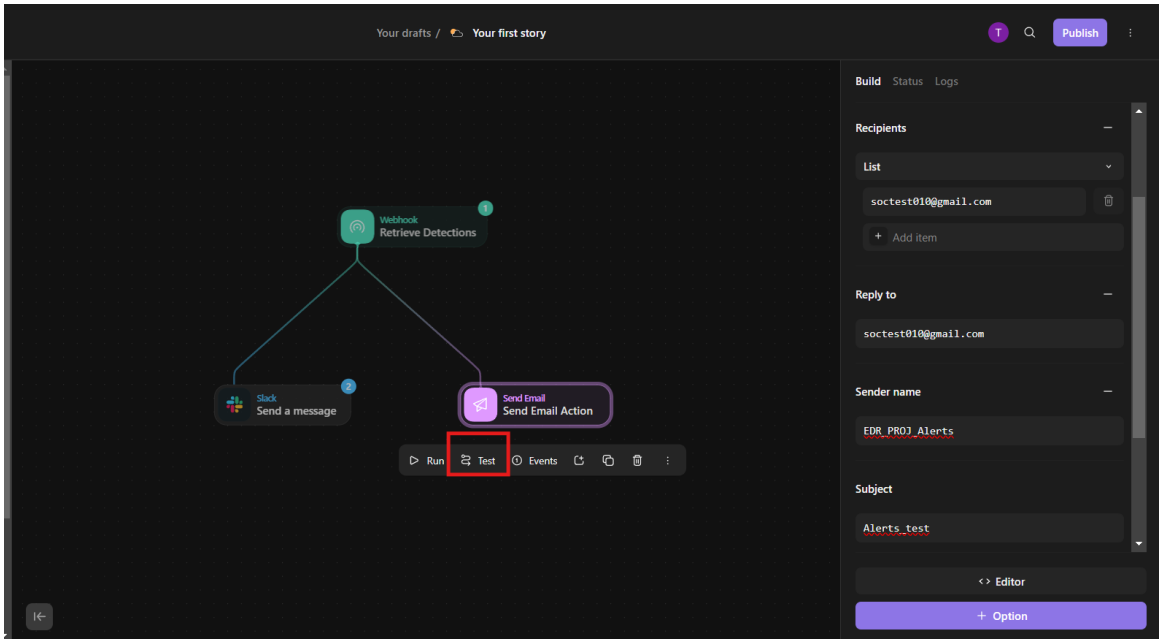


2. **Test Slack Messaging**:
    - Run the detection scenario to verify that Tines successfully posts an alert to Slack, containing all relevant information.



Step 8. Setting up Email Alerts in Tines

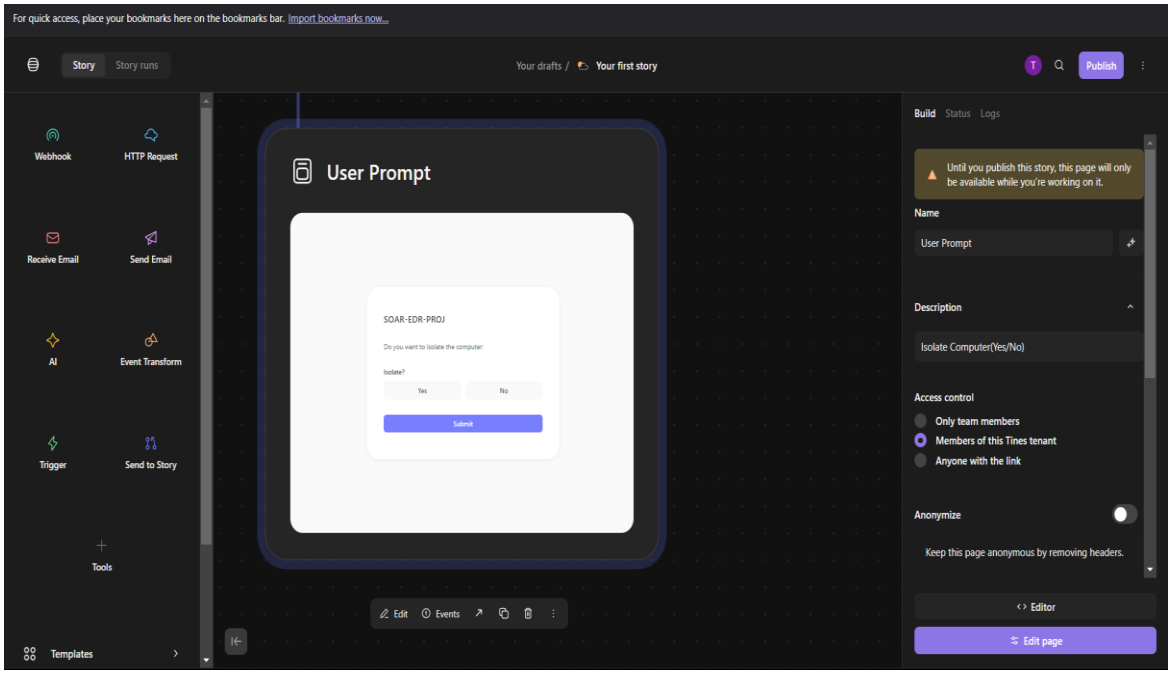
1. **Create an Email Action**:
    - In Tines, add an **Email** action, using a disposable email address if necessary.
    - Customize the email body with detection details similar to the Slack alert.



2. **Test Email Alerts**:
    - Trigger a detection and confirm that an email is sent with the appropriate alert information.

Step 9. Adding a User Prompt for Isolation Decision

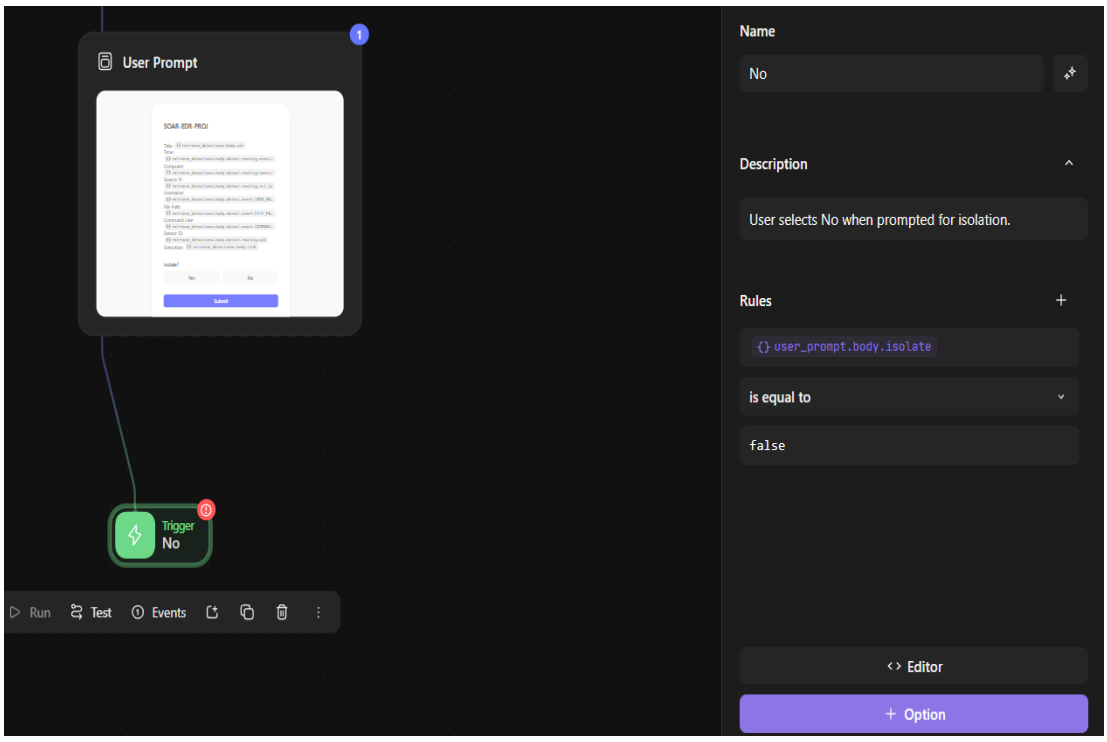
1. **Create a User Prompt**:
    - In Tines, create a **Page** action to prompt the user with a Yes/No option to decide whether to isolate the affected machine.
    - Include detection details in the prompt so the user can make an informed decision.



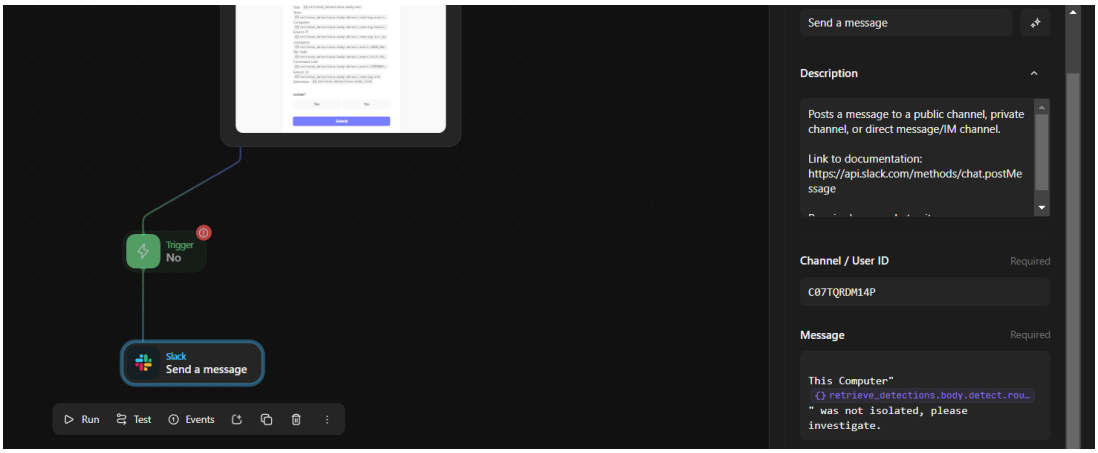
2. **If-Else Actions for User Response**:
    - Use **If-Else** actions to handle responses:
        - If Yes, trigger isolation through LimaCharlie.
        - If No, send a Slack message to indicate that isolation was not performed.

Step 10. Handling the scenario where the user selects 'NO' for isolation

1. **Add Trigger**:
    - Add trigger in the flow chart and connect it with user prompt page.

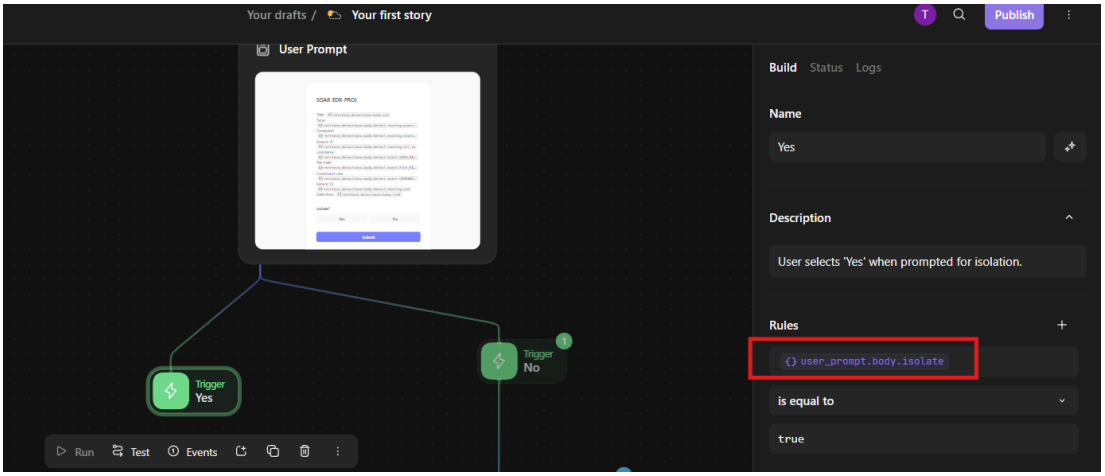


- Add a new slack to send message as shown in the flow chart.

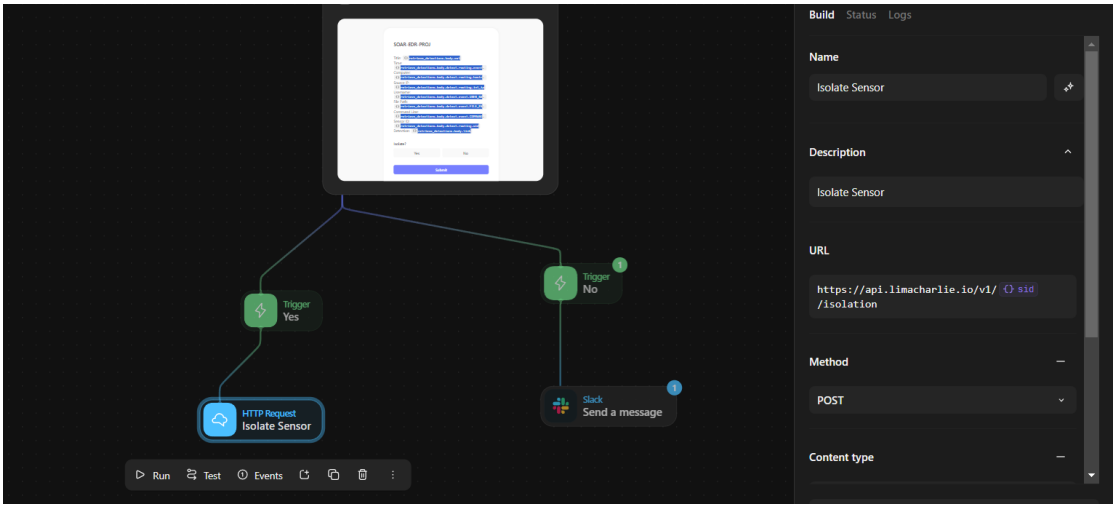


Step 11. Automating Machine Isolation in LimaCharlie

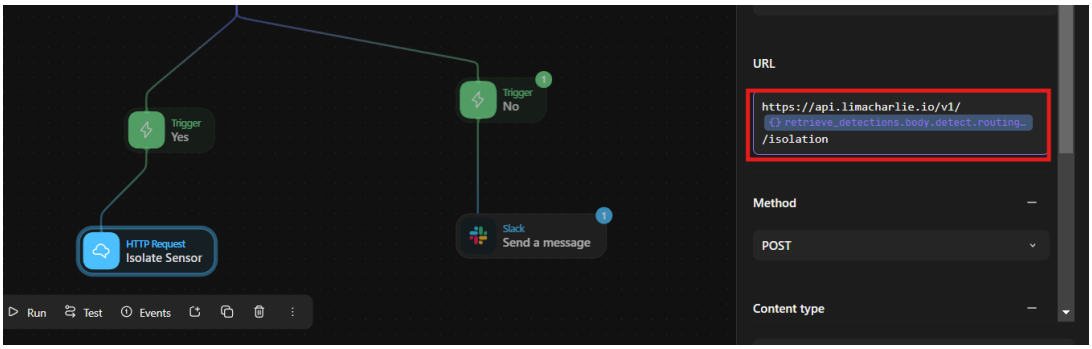
1. **Add new Trigger Action:**
   - Add new Trigger "Yes" to the flowchart and add the isolate path from user prompt.



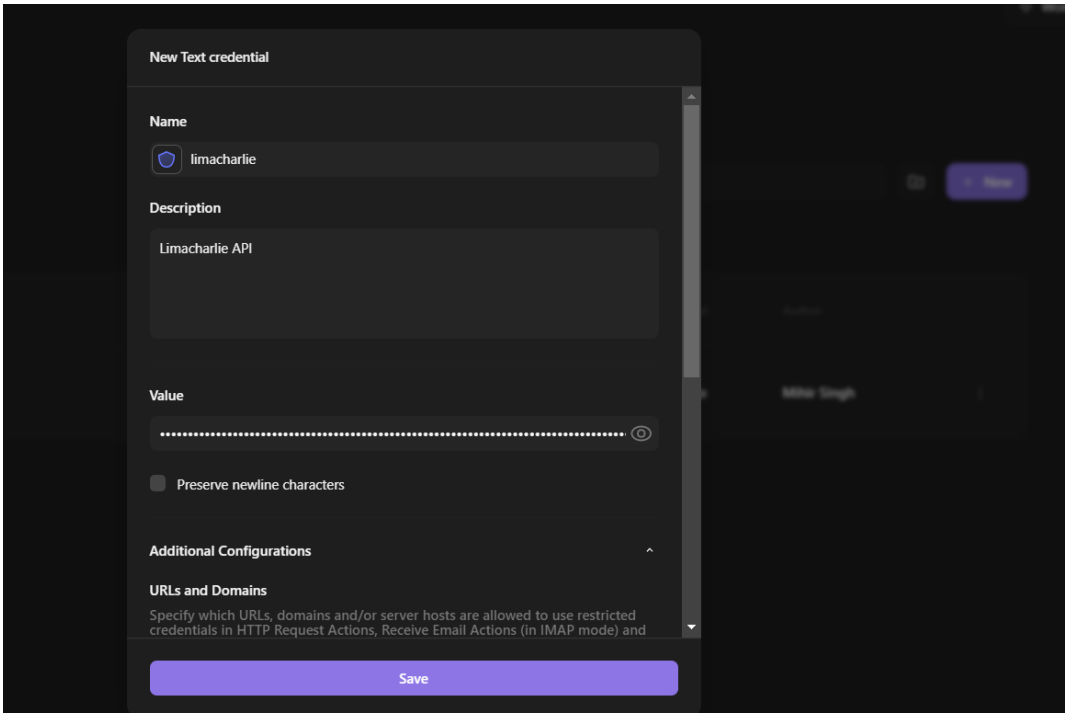
   - Add Lima Charlie Action and connect it to Trigger "Yes" and select "Isolate Sensor" Template.



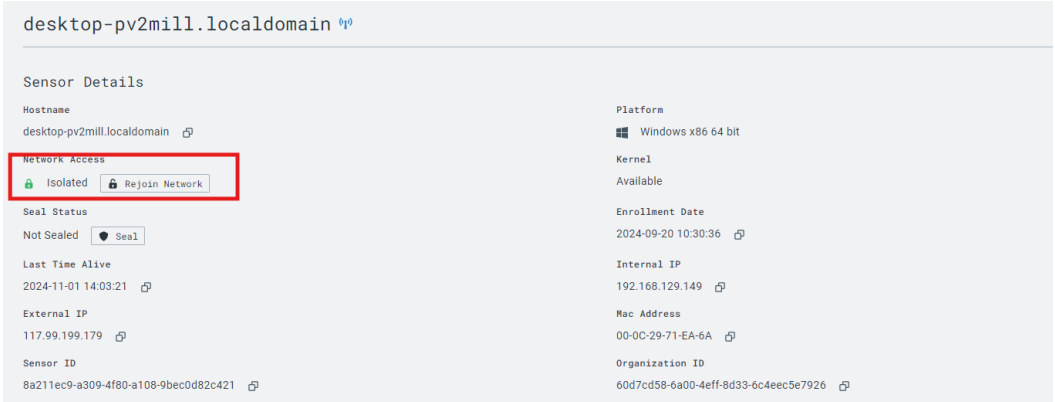
2. **Add Isolation Command**:
    - Use the **LimaCharlie action** in Tines to send an isolation command to the detected machine.
    - Use the **Sensor ID** to specify the target machine.



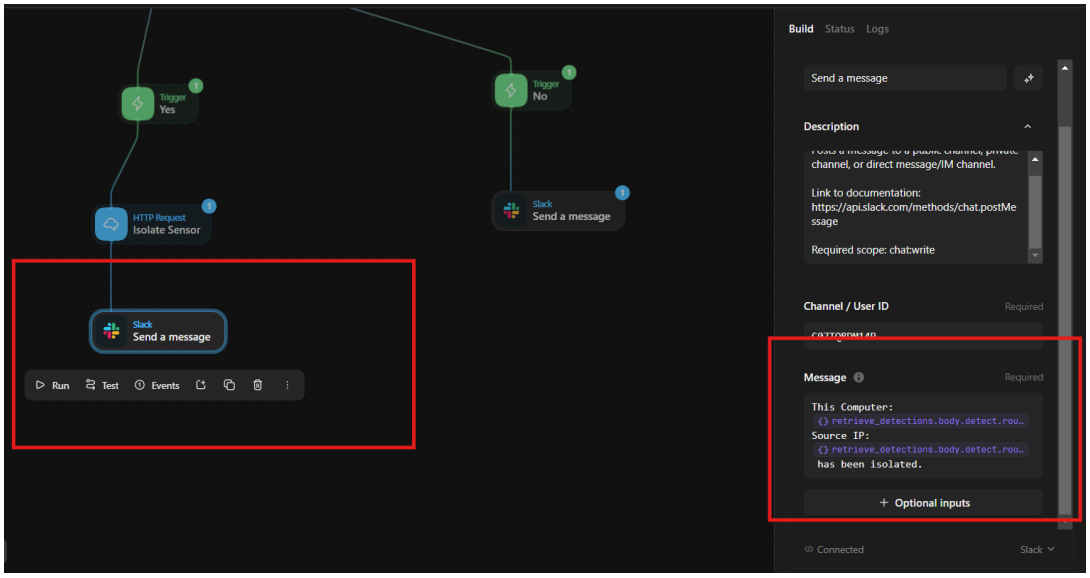
    - Add LimaCharlie as a credential using its API



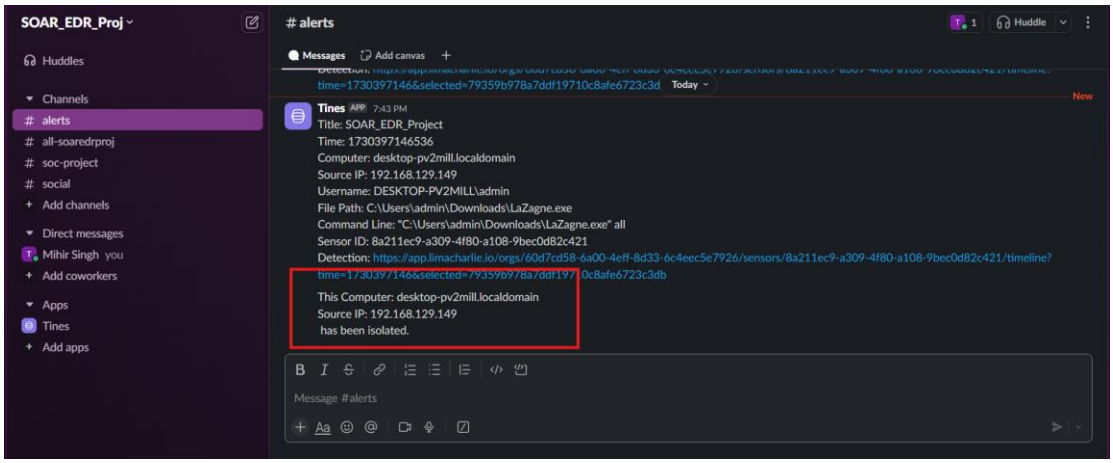
    - Confirm with a test that the machine is isolated successfully.



2. **Send Isolation Status to Slack**:
    - Once isolation is complete, send a Slack message confirming the machine's isolation status.



    - Now test the slack message to check the final test.



With this the SOAR-EDR Automation project is completed.

Final Tines Workflow