

## Assignment: Snap-in Development Challenge Submission

### Step 2 : Creating a Snap-in

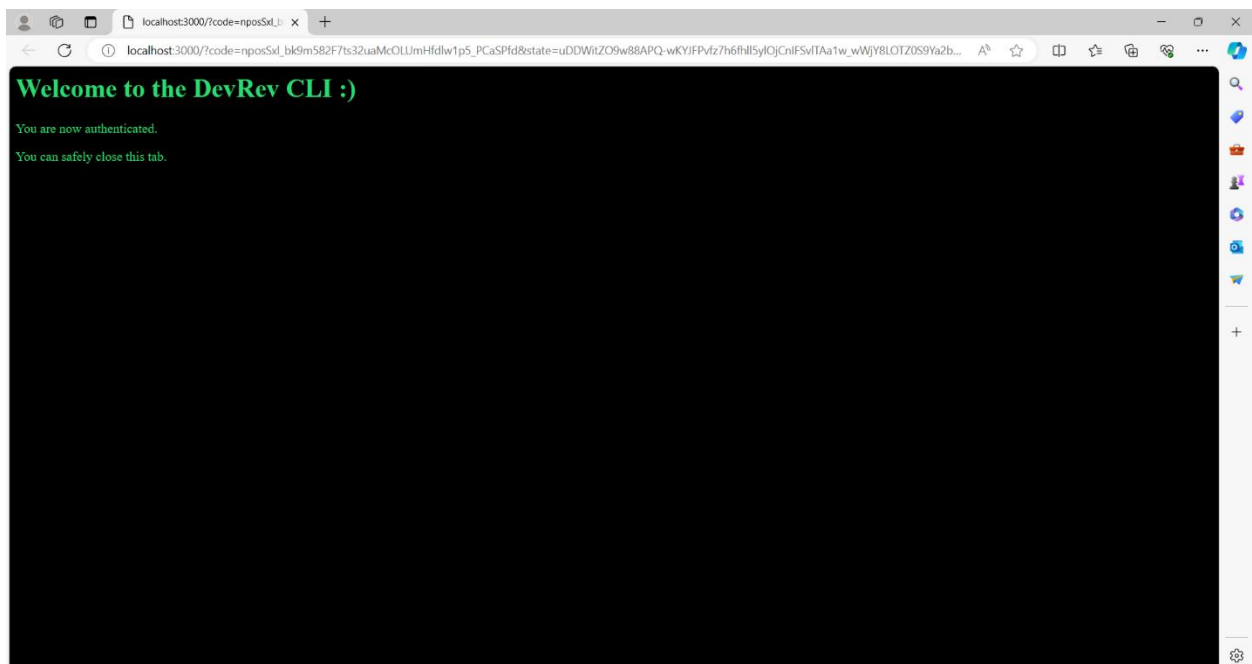
#### Creation and installation of 'Hello World' Snap-in

This snap-in is responsible for monitoring the creation of work items, and each time a new work item is generated, it logs a message.

1. Install DevRev CLI
2. Install jq
3. Logging in to DevRev for authentication running following code in cmd prompt  
*devrev profiles authenticate -o <dev-org-slug> -u <youremail@yourdomain.com>*

```
C:\Users\hp>devrev profiles authenticate -o shreenidhi -u 4nm20is138@nmamit.in
https://auth.devrev.ai/authorize?access_type=offline&audience=janus&client_id=o4o4fpnvdAeisRnmkx0rZZ2Wt5wvzyGB&organization=org_Idn7Y3TcmmgDzSi5&redirect_uri=http%3A%2F%2Flocalhost%3A3000&response_type=code&scope=openid+profile+email+offline_access&state=uDDWitZ09w88APQ-wKYJFPvFz7h6fhll5yL0jCnIFSvITAa1w_wWjY8LOTZ0S9Ya2bqvYajAlfyoFtc-DTdlw%3D%3D
```

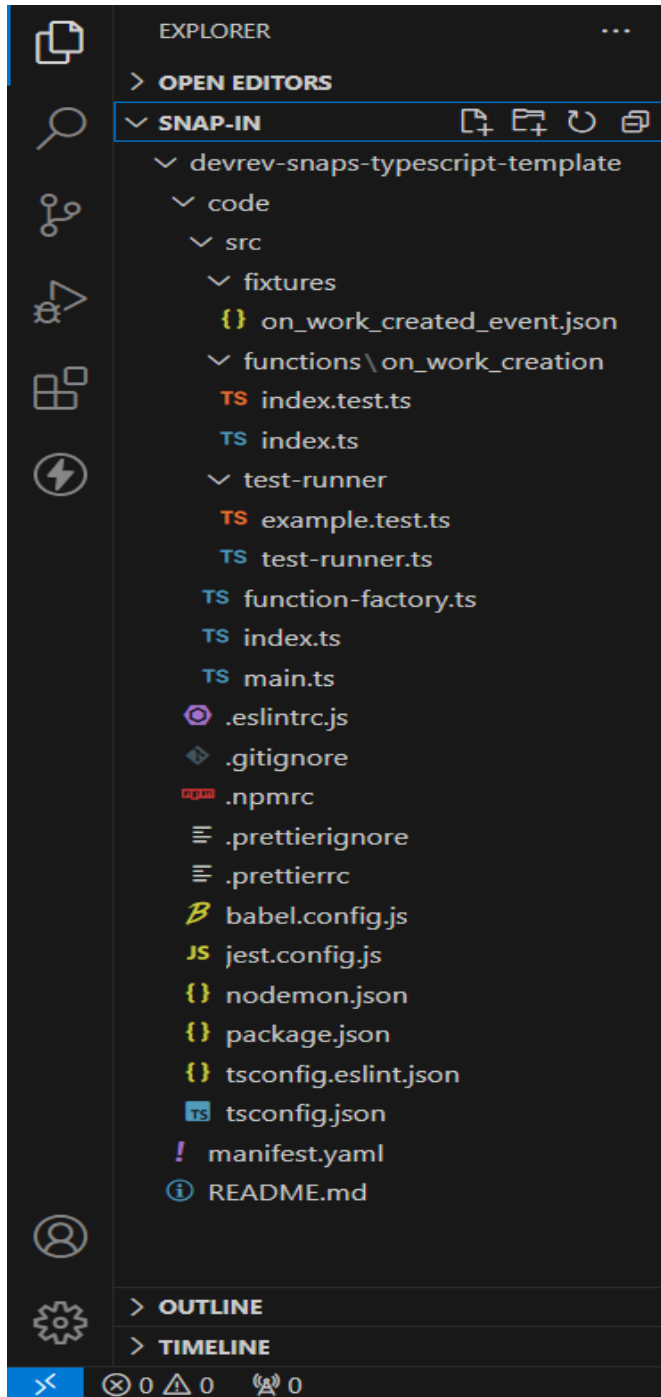
on successful authentication the following window is displayed



4. Initializing a snap-in template by running the following in cmd prompt
- ```
devrev snap_in_version init
```

```
C:\Users\hp\Desktop\DevRev\Snap-In>devrev snap_in_version init  
Snap-in initialized successfully
```

After the command runs, a new folder `devrev-snaps-typescript-template` is created in the filesystem.



5. Navigate to code within `devrev-snaps-typescript-template` and run the following

- `npm install`

```

PROBLEMS  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\hp\Desktop\DevRev\Snap-In> cd devrev-snaps-typescript-template
PS C:\Users\hp\Desktop\DevRev\Snap-In\devrev-snaps-typescript-template> cd code
PS C:\Users\hp\Desktop\DevRev\Snap-In\devrev-snaps-typescript-template\code> npm install

added 765 packages, and audited 766 packages in 2m

124 packages are looking for funding
  run `npm fund` for details

3 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
PS C:\Users\hp\Desktop\DevRev\Snap-In\devrev-snaps-typescript-template\code>

```

- `npm run bluid`

```

PS C:\Users\hp\Desktop\DevRev\Snap-In\devrev-snaps-typescript-template\code> npm run build

> devrev-snaps-typescript-template@1.0.0 build
> rimraf ./dist && tsc

PS C:\Users\hp\Desktop\DevRev\Snap-In\devrev-snaps-typescript-template\code>

```

- `npm run package`

```

PS C:\Users\hp\Desktop\DevRev\Snap-In\devrev-snaps-typescript-template\code> npm run package

> devrev-snaps-typescript-template@1.0.0 prepackage
> npm run build

> devrev-snaps-typescript-template@1.0.0 build
> rimraf ./dist && tsc

> devrev-snaps-typescript-template@1.0.0 package
> tar -cvzf build.tar.gz dist package.json package-lock.json .npmrc

a dist
a dist/function-factory.d.ts
a dist/function-factory.js
a dist/functions
a dist/index.d.ts
a dist/index.js
a dist/main.d.ts
a dist/main.js
a dist/test-runner
a dist/test-runner/example.test.d.ts
a dist/test-runner/example.test.js
a dist/test-runner/test-runner.d.ts
a dist/test-runner/test-runner.js
a dist/functions/on_work_creation
a dist/functions/on_work_creation/index.d.ts
a dist/functions/on_work_creation/index.js
a dist/functions/on_work_creation/index.test.d.ts
a dist/functions/on_work_creation/index.test.js
a package.json
a package-lock.json
a .npmrc
PS C:\Users\hp\Desktop\DevRev\Snap-In\devrev-snaps-typescript-template\code>

```

6. Make changes in code according to the requirements and save all the changes.
7. Creating the snap-in package by running a following in cmd prompt

```
devrev snap_in_package create-one --slug my-first-snap-in | jq .
```

```
c:\Users\hp\Desktop\DevRev\Snap-In>devrev snap_in_package create-one --slug hello_world_sn | jq .
```

```
{
  "snap_in_package": {
    "created_by": {
      "type": "dev_user",
      "display_handle": "4nm20is138",
      "display_id": "DEVU-1",
      "display_name": "4nm20is138",
      "email": "4nm20is138@nmamit.in",
      "full_name": "SHREENIDHI",
      "id": "don:identity:dvr-us-1:devo:1YLVLIfpcc:devu/1",
      "id_v1": "don:DEV-1YLVLIfpcc:dev_user:DEVU-1",
      "state": "active",
      "thumbnail": "https://api.devrev.ai/internal/display-picture/SHREENIDHI.svg"
    },
    "created_date": "2024-04-11T15:39:50.877Z",
    "display_id": "snap_in_package-8e013a12-b07e-4b0b-ab82-f5331a58574c",
    "id": "don:integration:dvr-us-1:devo:1YLVLIfpcc:snap_in_package/0e013a12-b07e-4b0b-ab82-f5331a58574c",
    "modified_by": {
      "type": "dev_user",
      "display_handle": "4nm20is138",
      "display_id": "DEVU-1",
      "display_name": "4nm20is138",
      "email": "4nm20is138@nmamit.in",
      "full_name": "SHREENIDHI",
      "id": "don:identity:dvr-us-1:devo:1YLVLIfpcc:devu/1",
      "id_v1": "don:DEV-1YLVLIfpcc:dev_user:DEVU-1",
      "state": "active",
      "thumbnail": "https://api.devrev.ai/internal/display-picture/SHREENIDHI.svg"
    },
    "modified_date": "2024-04-11T15:39:50.877Z",
    "slug": "hello_world_sn"
  }
}
```

8. Creating the snap-in version by running the following in cmd prompt  
`devrev snap_in_version create-one --path ./devrev-snaps-typescript-template | jq .`
9. Installing the snap-in from a snap-in version is done running following in cmd prompt  
`devrev snap_in draft`

```

C:\Users\hp\Desktop\DevRev\Snap-In\devrev-snap-in draft
{"name": "automations", {"name": "handle-work-created-event"}, "created_by": {"type": "dev_user", "display_handle": "4nnm20is138", "display_id": "DEVU-1", "display_name": "4nnm20is138", "email": "4nnm20is138@mmamit.in", "full_name": "SHREENIDHI", "id": "don:identity:drvrv-us-1:dev0/YLVLfpcpc:devu/1", "id_v1": "don:DEV-YLVLfpcpc:dev-user:DEVU-1", "state": "active", "thumbnail": "https://api.devrev.ai/internal/display-picture/SHREENIDHI.svg", "created_date": "2024-04-11T15:48:51.764Z", "custom_fields": {"obj_globals_sample_value": "primary", "description": "Logs a message when a work item is created", "display_id": "snap-in-2a7f2fcb-8997-4d10-8568-fcb4587d291", "event_sources": [{"name": "devrev-event-source"}, "id": "don:integration:drvrv-us-1:dev0/YLVLfpcpc:snap-in/2a7f2fcb-8997-4d10-8568-fcb4587d291", "id_v1": "don:DEV-YLVLfpcpc:snap-in-snap-in-2a7f2fcb-8997-4d10-8568-fcb4587d291", "inputs": [{"name": "sample_value", "value": "primary"}, {"field_type": "text", "default_value": "primary", "description": "Sample input value", "name": "sample_value", "id": "display_name": "Sample Value"}], inputs_snap_in: "snap-in-snap-in-2a7f2fcb-8997-4d10-8568-fcb4587d291", "block_id": "Work Tracker", "form_action": "form_action", "action_type": "remote", "elements": [{"block_id": "sample_value_input", "label": {"text": "Sample Value", "block_id": "sample_value_label", "type": "plain_text"}, "hint": {"text": "Sample input value", "block_id": "sample_value_hint", "type": "plain_text"}, "optional": true, "element": {"block_id": "sample_value", "action_id": "sample_value", "action_type": "remote", "initial_value": "primary", "multiline": true, "type": "plain_text_input", "type": "input_layout"}, "type": "form", "submit_action": {"block_id": "Work Tracker_form_submit_button", "action_id": "Work Tracker_form_submit_action", "action_type": "remote", "text": {"text": "Save", "block_id": "Work Tracker_form_submit_button_text", "type": "plain_text"}, "value": "input_submit_button", "style": "primary", "type": "button"}, "type": "card"}], inputs_values: {"sample_value": "primary"}, "modified_by": {"type": "dev_user", "display_handle": "4nnm20is138", "display_id": "DEVU-1", "display_name": "4nnm20is138", "email": "4nnm20is138@mmamit.in", "full_name": "SHREENIDHI", "id": "don:identity:drvrv-us-1:dev0/YLVLfpcpc:devu/1", "id_v1": "don:DEV-YLVLfpcpc:dev-user:DEVU-1", "state": "active", "thumbnail": "https://api.devrev.ai/internal/display-picture/SHREENIDHI.svg", "modified_date": "2024-04-11T15:48:51.764Z", "name": "Work Tracker", "per_obj_schema": [{"field_type": "text", "default_value": "primary", "description": "Sample input value", "name": "globals_sample_value", "id": "display_name": "Sample Value"}, {"service_account": {"display_handle": "devrev_svcacc_SWCACC48", "display_id": "DEVU-1", "display_name": "DEVU-1", "email": "devrev_svcacc_SWCACC48@mmamit.in", "full_name": "DEVU-1", "state": "active", "thumbnail": "https://api.devrev.ai/internal/display-picture/DEVU-1.svg", "modified_date": "2024-04-11T15:48:51.764Z", "config": {"global_inputs": [{"default_value": "primary", "description": "Sample input value", "display_name": "Sample Value", "name": "sample_value", "type": "string"}], "snap_in_version": "display_id": "snap_in-version-a287c0b5-c397-4b37-be02-89914eb48b77", "id": "don:integration:drvrv-us-1:dev0/YLVLfpcpc:snap-in-package/0e013a12-b07e-4db6-ab82-f531a158574a:snap_in-version/a287c0b5-c397-4b37-be02-89914eb48b77", "status": "draft"}], "https://app.devrev.ai/shreenidhi/settings/snap-ins/snap-in-snap-in-2a7f2fcb-8997-4d10-8568-fcb4587d291"}

```

- ## 10. Install the snap-in on dev org

The image shows two screenshots of the DevRev application interface. The top screenshot displays the 'Snap-ins' settings page. The left sidebar contains a navigation menu with options: Settings, General, Account, Turing Answers, Support, PLuG tokens, PLuG settings, PLuG nudges, Portal settings, Knowledge base, Article collections, Org schedules, SLA, User management, Integrations, Snap-ins (selected), Imports, Billing, Tags, and Setup. The main content area is titled 'Snap-ins' and includes a description: 'Turn slow, repetitive, manual processes, like onboarding or gathering feedback, into rapid automated apps and workflows.' Below this, there are four snap-in cards: 'Work Tracker' with a 'Complete Installation' button, 'Convergence' with an 'Open' button, 'Auto customer reply' with an 'Open' button, and 'Slash Commands' with an 'Open' button. The bottom screenshot shows a modal window for 'Work Tracker' configuration. The modal has a title 'Organization Settings' and a section 'Configuration'. It contains a text input field with the placeholder 'Sample Value' and the text 'Sample input value.' Below the input field is a 'Save' button. At the bottom of the modal, there are two green checkmarks indicating 'All required fields filled' and 'All required connections filled', and an 'Install snap-in' button.

DevRev

Integrate DevRev with Jira, Git, ...

app.devrev.ai/shreenidhi/settings/snap-ins

Settings

Snap-ins

Connections Explore Marketplace

General

Account

Turing Answers

Support

PLuG tokens

PLuG settings

PLuG nudges

Portal settings

Knowledge base

Article collections

Org schedules

SLA

User management

Integrations

Snap-ins

Imports

Billing

Tags

Setup

Snap-ins

Turn slow, repetitive, manual processes, like onboarding or gathering feedback, into rapid automated apps and workflows.

Work Tracker

Complete Installation

Convergence

Real-time updates between customer conversations, support tickets, Product enhancements and developer issues.

Open

Auto customer reply

Personalize your customer response and encourage them to book a demo or meeting with your team.

Open

Slash Commands

Slash commands in DevRev powered by Turing AI for more productivity.

Open

Work Tracker

Logs a message when a work item is created

Organization Settings

Configuration

Sample Value

Sample input value.

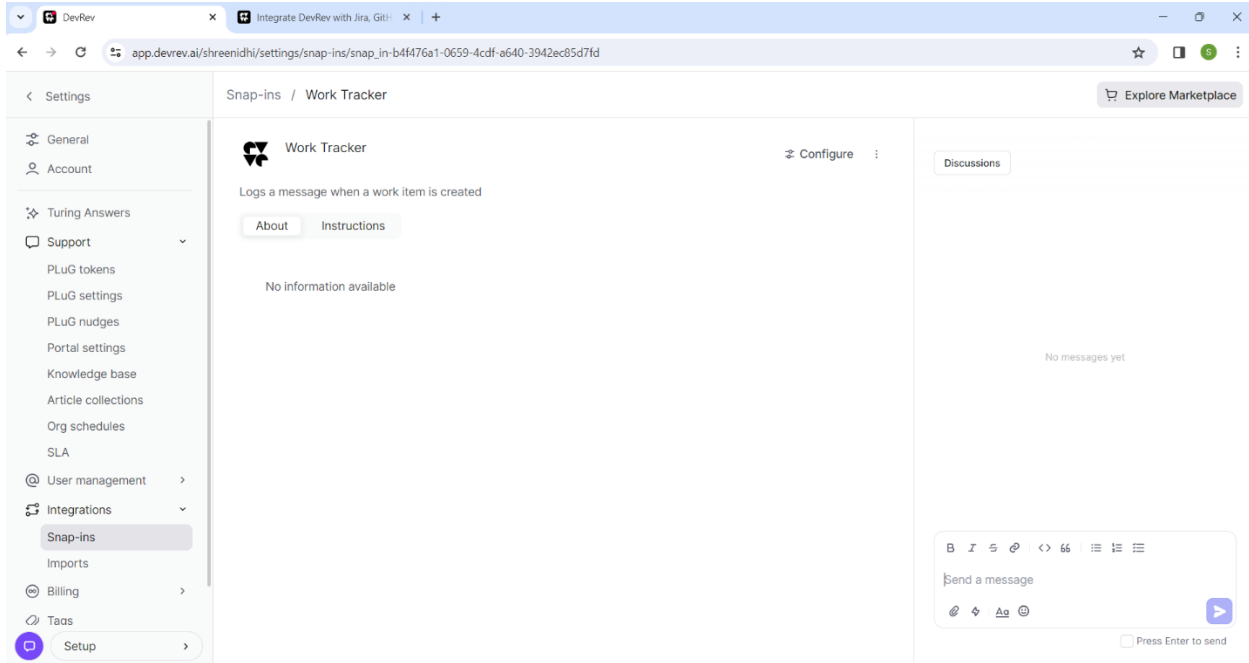
primary

Save

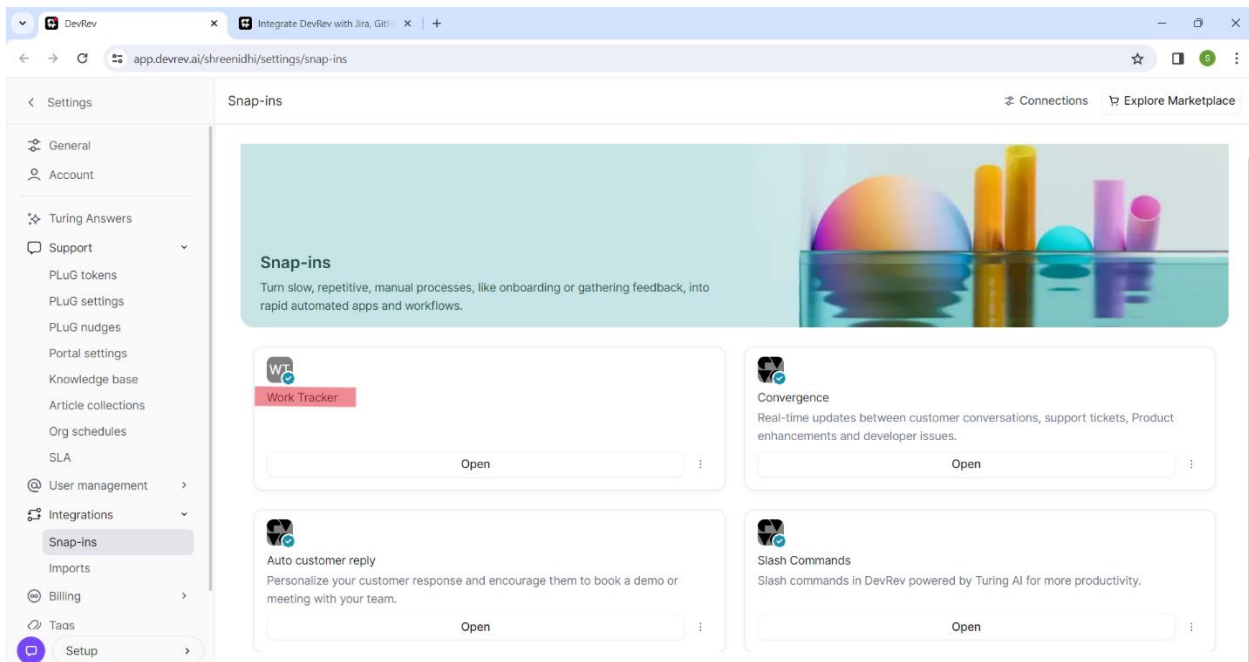
✓ All required fields filled

✓ All required connections filled

Install snap-in



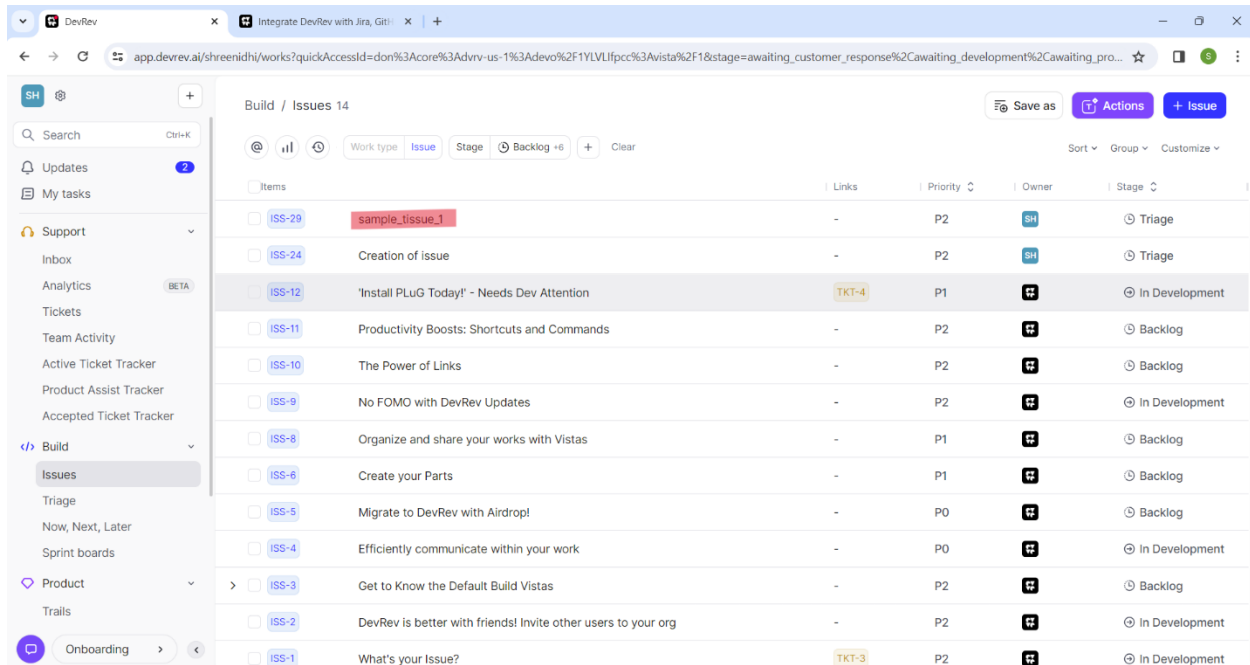
Created new snap-in Work Tracker is shown as below:



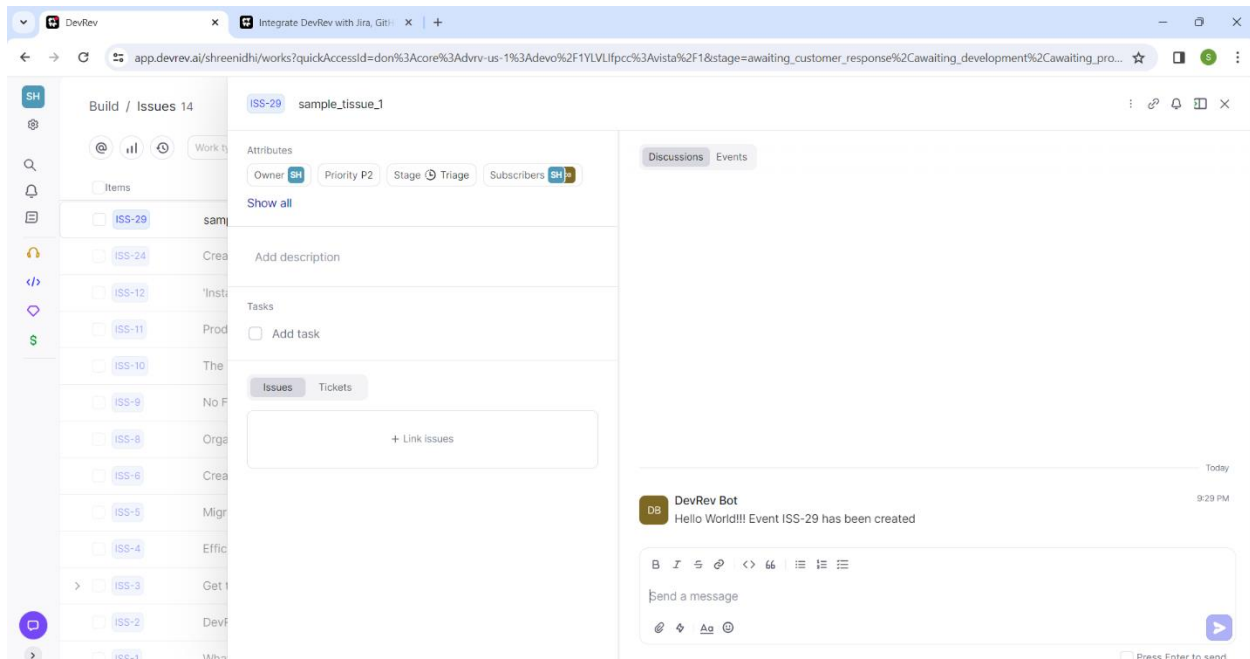
11. To check if the created snap-in is working, create a sample issue and ticket in dev org, after the creation run the following code in cmd prompt  
`devrev snap_in_package logs --after "2023-06-06T00:00:00Z" | jq`

## i. Checking the working of snap-in using sample issue:

- Creation of sample issue



The 'Hello world' message is sent as below:



- Checking in logs

On running the following command

```
devrev snap_in_package logs --after "2024-04-06T00:00:00Z" | jq
```



the log of newly created issue is shown as below

```

C:\WINDOWS\system32\cmd. x +
{
  "level": "info",
  "msg": "END RequestId: c7eb59b3-240d-520c-b555-07212f1c898c Execution time: 749.71 ms",
  "process": "function",
  "snap_in_package": "don:integration:dvr-us-1:devo/1YLVLIfpcc:snap_in_package/0e013a12-b07e-4b0b-ab82-f5331a58574c",
  "timestamp": "2024-04-11T15:59:25.859Z"
},
{
  "id": "i2fizY4BqIYIEz0vqJ-t",
  "level": "debug",
  "msg": "Function execution complete",
  "process": "function",
  "snap_in_package": "don:integration:dvr-us-1:devo/1YLVLIfpcc:snap_in_package/0e013a12-b07e-4b0b-ab82-f5331a58574c",
  "timestamp": "2024-04-11T15:59:25.838Z"
},
{
  "dev_org": "don:identity:dvr-us-1:devo/1YLVLIfpcc",
  "id": "imfizY4BqIYIEz0vqJ-t",
  "level": "info",
  "msg": "Hello World!!! Event ISS-29 has been created",
  "process": "function",
  "snap_in_package": "don:integration:dvr-us-1:devo/1YLVLIfpcc:snap_in_package/0e013a12-b07e-4b0b-ab82-f5331a58574c",
  "snap_in_version": "don:integration:dvr-us-1:devo/1YLVLIfpcc:snap_in_package/0e013a12-b07e-4b0b-ab82-f5331a58574c:snap_in_version/66f1d87b-5e14-47f4-83c0-52f17ee77442",
  "source_type": "automation",
  "timestamp": "2024-04-11T15:59:25.139Z"
},
{
  "id": "iWfizY4BqIYIEz0vqJ-t",
  "level": "debug",
  "msg": "inferring invocation type from event payload",
  "process": "function",
  "snap_in_package": "don:integration:dvr-us-1:devo/1YLVLIfpcc:snap_in_package/0e013a12-b07e-4b0b-ab82-f5331a58574c",
  "timestamp": "2024-04-11T15:59:25.138Z"
},
{
  "id": "iGfizY4BqIYIEz0vqJ-t",
  "level": "info",
  "msg": "START RequestId: c7eb59b3-240d-520c-b555-07212f1c898c",
  "process": "function",
  "snap_in_package": "don:integration:dvr-us-1:devo/1YLVLIfpcc:snap_in_package/0e013a12-b07e-4b0b-ab82-f5331a58574c",
  "timestamp": "2024-04-11T15:59:25.109Z"
}

```

ii. Checking the working of snap-in using sample ticket:

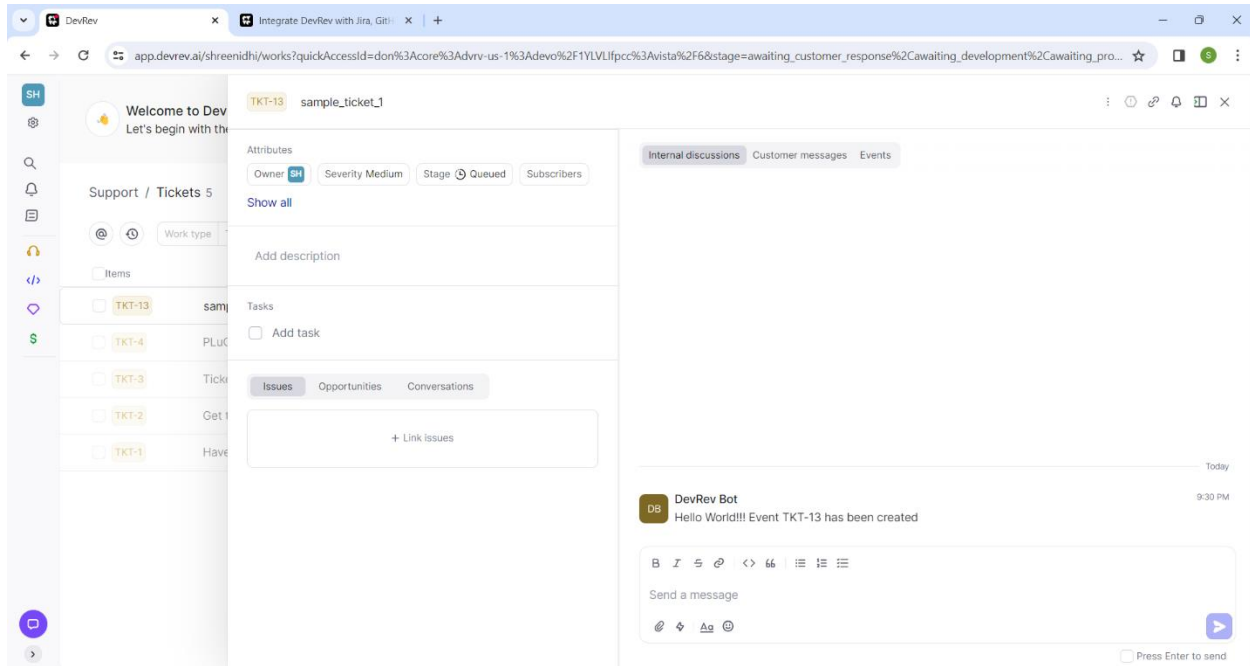
- Creation of sample ticket

The screenshot shows the DevRev application interface. The sidebar on the left contains navigation options: Support, Build, Product, and Onboarding. The main area displays a list of tickets under the heading 'Support / Tickets 5'. The tickets are listed in a table with columns: Items, Customer Workspace, Stage, and Owner. The first ticket, 'sample\_ticket\_1', is highlighted in red. The other tickets are 'TKT-4', 'TKT-3', 'TKT-2', and 'TKT-1'.

| Items                                        | Customer Workspace | Stage          | Owner |
|----------------------------------------------|--------------------|----------------|-------|
| TKT-13 sample_ticket_1                       | -                  | Queued         | SH    |
| TKT-4 PLuG Conversations to Tickets          | shreenidhi_138     | In Development | SH    |
| TKT-3 Tickets Please!                        | -                  | In Development | SH    |
| TKT-2 Get to Know the Default Support Vistas | -                  | Queued         | SH    |
| TKT-1 Have a question?                       | -                  | Queued         | SH    |



The 'Hello world' message is sent as below:

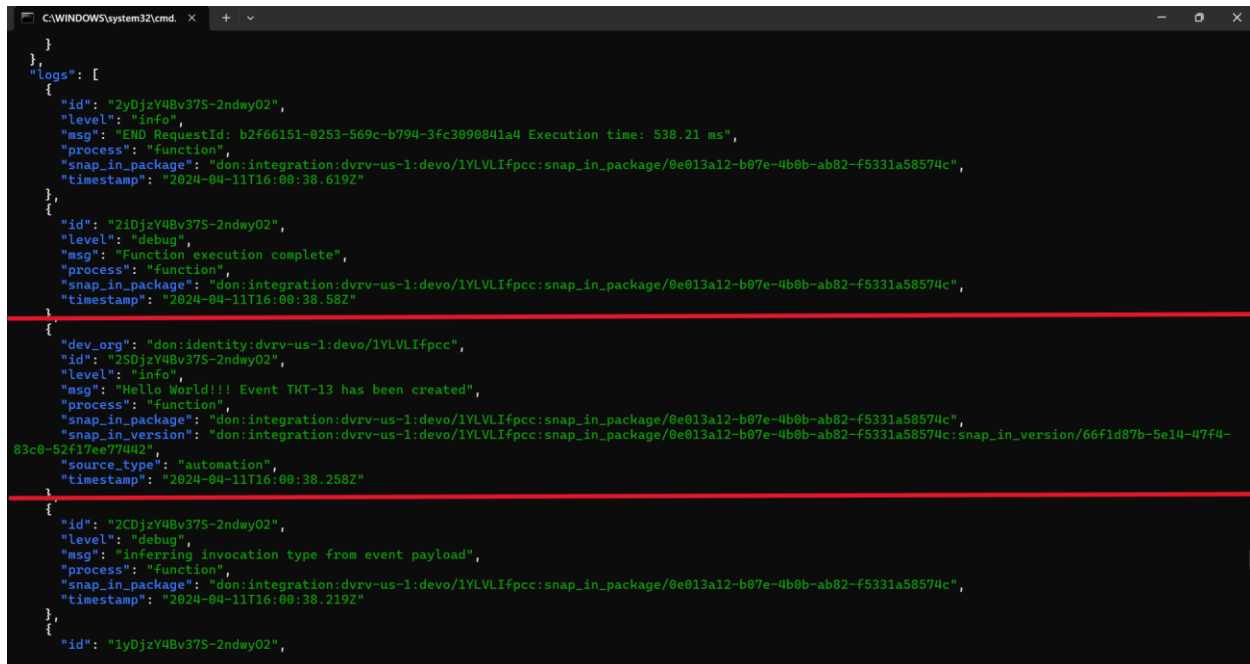


- Checking in logs

On running the following command

`devrev snap_in_package logs --after "2024-04-06T00:00:00Z" | jq`

the log of newly created ticket is shown as below

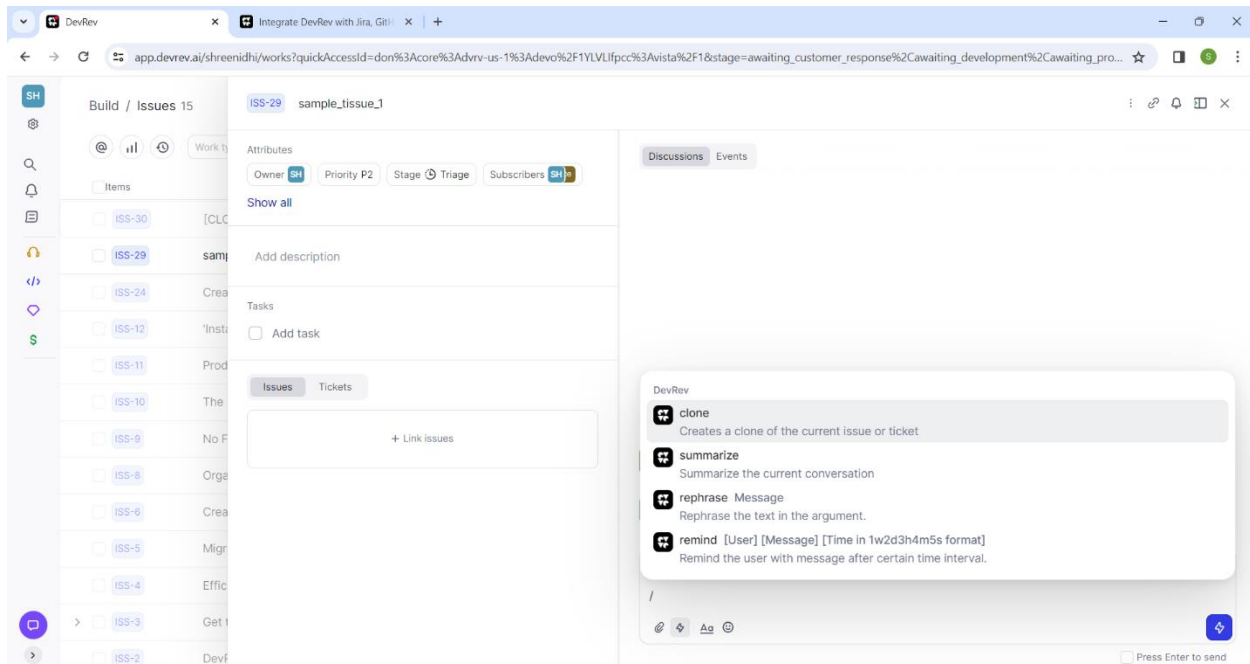


## **Problem Statements that were executed using Snap-In are:**

1. Command to clone a work item (issue/ticket).
2. Auto-Reply to a message if it is outside office hours. The start and end time for office hours can be specified in the input. The auto-reply message can also be taken as an input.

## **Solutions:**

1. Command to clone a work item (issue/ticket).
  - Configure the snap-in in setting
  - Deploy the Snap-in
  - Within the discussions of any ticket or issue type '/' and select clone command



- After selecting the clone command enter the id of ticket or issue to be cloned



• Result:

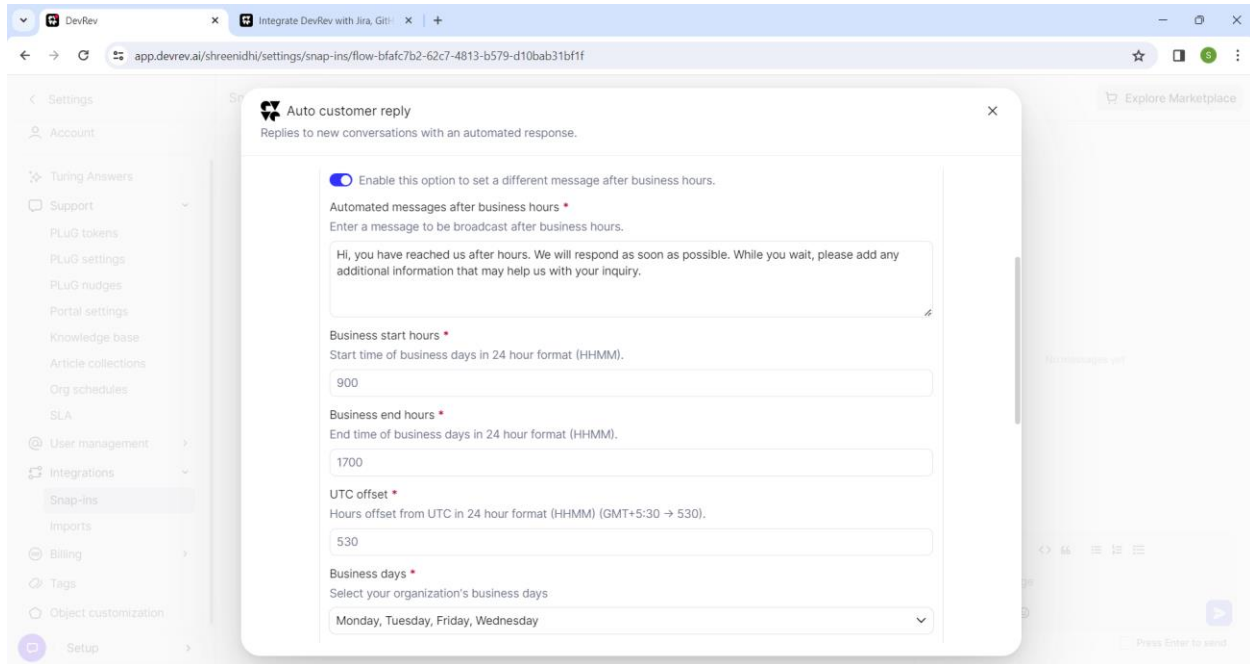
The screenshot shows the DevRev application interface. On the left, a sidebar contains navigation icons and a list of issues (ISS-30 to ISS-2). The main area displays the details for issue 'ISS-29 sample\_tissue\_1'. The 'Attributes' section shows 'Owner: SH', 'Priority: P2', 'Stage: Triage', and 'Subscribers: SH'. Below this, there are sections for 'Add description', 'Tasks' (with an 'Add task' button), and 'Issues' (with a '+ Link issues' button). On the right, a chat window shows a message from 'DevRev Bot' at 9:29 PM: 'Hello World!!! Event ISS-29 has been created'. A subsequent message from '4nm20is138' at 10:38 PM states: 'This issue was cloned and #ISS-30 was created.' The chat input field at the bottom has a 'Send a message' placeholder and a 'Press Enter to send' instruction.

The screenshot displays a table of issues in the DevRev application. The table has columns for 'Items', 'Links', 'Priority', 'Owner', and 'Stage'. The issues listed are as follows:

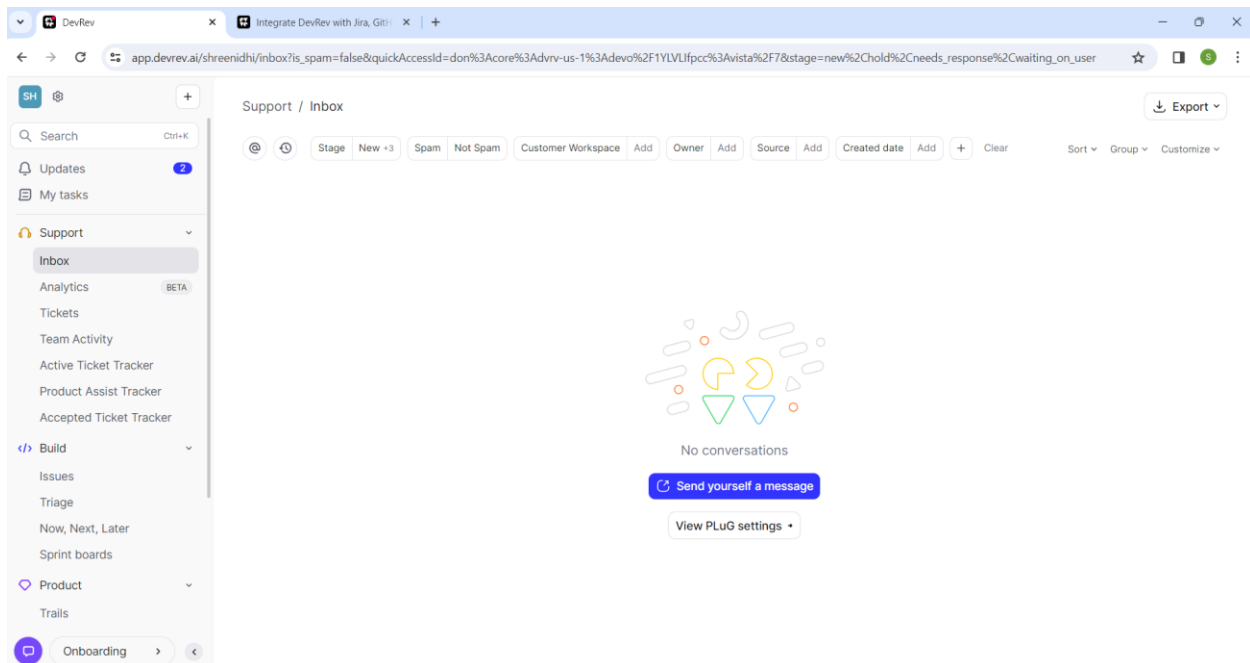
| Items                                                               | Links | Priority | Owner | Stage          |
|---------------------------------------------------------------------|-------|----------|-------|----------------|
| ISS-30 [CLONE] sample_tissue_1                                      | -     | P2       | SH    | Triage         |
| ISS-29 sample_tissue_1                                              | -     | P2       | SH    | Triage         |
| ISS-24 Creation of issue                                            | -     | P2       | SH    | Triage         |
| ISS-12 'Install PLuG Today!' - Needs Dev Attention                  | TKT-4 | P1       | SH    | In Development |
| ISS-11 Productivity Boosts: Shortcuts and Commands                  | -     | P2       | SH    | Backlog        |
| ISS-10 The Power of Links                                           | -     | P2       | SH    | Backlog        |
| ISS-9 No FOMO with DevRev Updates                                   | -     | P2       | SH    | In Development |
| ISS-8 Organize and share your works with Vistas                     | -     | P1       | SH    | Backlog        |
| ISS-6 Create your Parts                                             | -     | P1       | SH    | Backlog        |
| ISS-5 Migrate to DevRev with Airdropt                               | -     | P0       | SH    | Backlog        |
| ISS-4 Efficiently communicate within your work                      | -     | P0       | SH    | In Development |
| ISS-3 Get to Know the Default Build Vistas                          | -     | P2       | SH    | Backlog        |
| ISS-2 DevRev is better with friends! Invite other users to your org | -     | P2       | SH    | In Development |

- Auto-Reply to a message if it is outside office hours. The start and end time for office hours can be specified in the input. The auto-reply message can also be taken as an input.

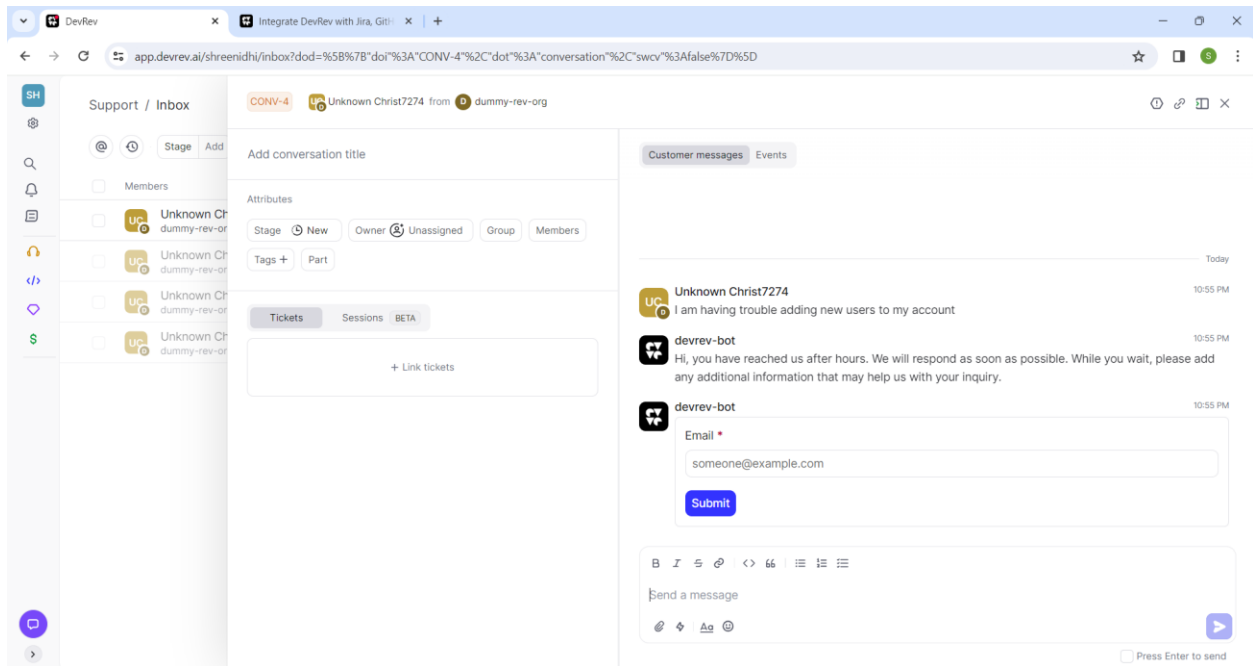
- Configure the snap-in in setting



- Deploy the Snap-in
- Navigate to inbox and click on 'send yourself a message'



• Result:



\*\*\*\*\*