

Build an Application: Step-by-Step #12

Exercise to Accompany
Reports: Build Basic Charts and Grids

The Appian Step-by-Step series consists of 12 exercises that accompany the courses in the Appian Developer learning path. Exercises build upon each other. Complete exercises in order and keep the app and all objects until you are done with the project.

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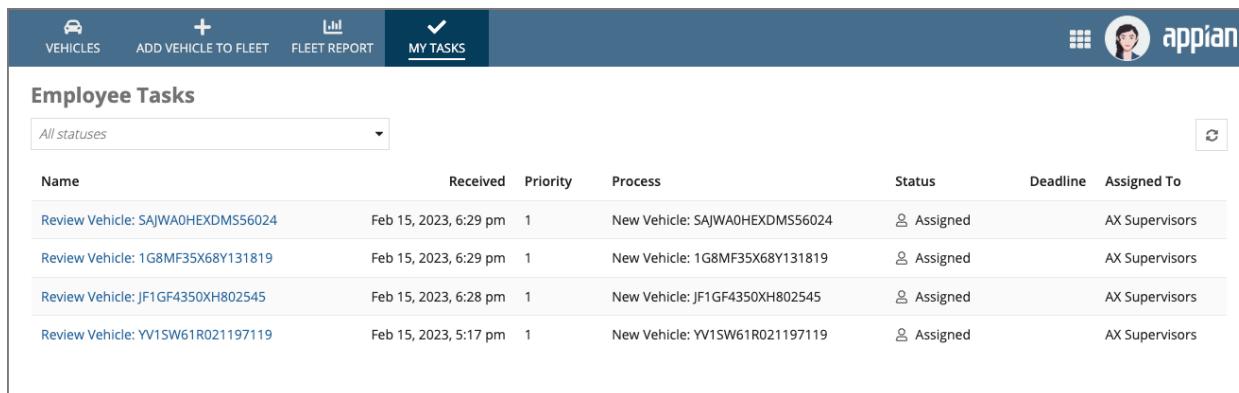
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This exercise was developed for **Appian 25.3**. If Appian Community Edition is on a later Appian version, functionality might be different. Go to academy.appian.com to download the latest exercise.

Exercise 12: Task Report

In this exercise, you will learn how to use a pattern from Appian Documentation to create a task report so supervisors can complete their vehicle approval tasks. After you create the task report, you will add it as a page to the Step-by-Step Site. Supervisors will use this page to view tasks, filter them by status, and navigate to the task forms by clicking the hyperlinked task name. Your final site page will look like the image below:



The screenshot shows the Appian interface with a dark blue header. In the top left, there are three buttons: 'VEHICLES' (with a car icon), 'ADD VEHICLE TO FLEET' (with a plus icon), and 'FLEET REPORT' (with a bar chart icon). The fourth button, 'MY TASKS' (with a checkmark icon), is highlighted with a white background and a dark border. In the top right corner, there is a user profile icon and the 'appian' logo. Below the header, the main content area has a title 'Employee Tasks' and a dropdown menu set to 'All statuses'. A table lists four tasks:

Name	Received	Priority	Process	Status	Deadline	Assigned To
Review Vehicle: SAJWA0HEXDM56024	Feb 15, 2023, 6:29 pm	1	New Vehicle: SAJWA0HEXDM56024	Assigned		AX Supervisors
Review Vehicle: 1G8MF35X68Y131819	Feb 15, 2023, 6:29 pm	1	New Vehicle: 1G8MF35X68Y131819	Assigned		AX Supervisors
Review Vehicle: JF1GF4350XH802545	Feb 15, 2023, 6:28 pm	1	New Vehicle: JF1GF4350XH802545	Assigned		AX Supervisors
Review Vehicle: YV1SW61R021197119	Feb 15, 2023, 5:17 pm	1	New Vehicle: YV1SW61R021197119	Assigned		AX Supervisors

You will complete these steps to create the task report:

- Create a constant to point to the pre-built active tasks process report.
- Build an interface to display active tasks.
- Add the task report interface as a page to the Step-by-Step Site.

Follow the steps below to build a task report.

Create a Constant for the Active Tasks Process Report

Before you create the task report interface, you need to create a constant. You will use it in the interface in the next step.

1. From within the **W#SA Constants** folder, click **NEW > Constant**. Configure the following properties:
 - **Name:** Enter `W#SA_ACTIVE_TASKS_POINTER`.

- **Description:** Enter Points to the active_tasks process report.
Active Tasks is a pre-built system report that is available for use as a template. It displays all active tasks assigned to the currently logged in user.
- **Type:** Select **Document**.
- **Value:** Enter and select **active_tasks**.

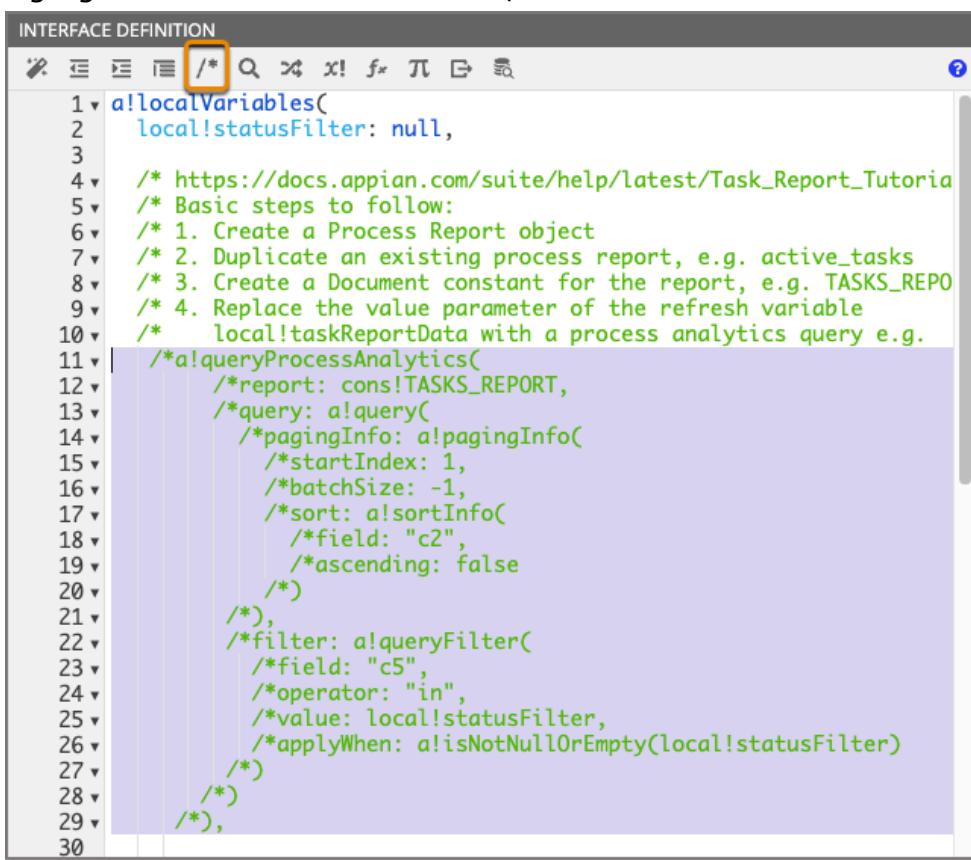
2. Click **CREATE**.

Create an Interface for the Task Report

In this section, you will use an interface pattern to display all tasks in a grid. Later, you will use this interface to create a task report.

1. From within the **W#SA Interfaces** folder, click **NEW > Interface**. Configure the following properties:
 - **Name:** Enter `W#SA_TaskReportInterface`.
 - **Description:** Enter `Interface to display tasks for the currently logged in user`.
 - **Save In:** Ensure the folder is **W#SA Interfaces**.
2. In the interface, click **EXPRESSION MODE**.
3. Use the **Task Report Pattern** found in Appian Documentation.
 - Go to docs.appian.com.
 - In the search bar, search for `Task Report Pattern`.
 - Scroll down to the **Pattern expression** section.
 - Copy and paste this pattern expression into the interface expression.

4. Highlight **lines 11 to 29**. In the toolbar, click **Comment** to uncomment these lines.



The screenshot shows a code editor window titled "INTERFACE DEFINITION". The code is written in a language like Appian or BPMN. Lines 11 through 29 are highlighted with a purple background. The toolbar at the top has several icons, and the "Comment" icon (a double slash symbol) is highlighted with an orange box. The code itself includes annotations like /* and */ and various variable declarations and method calls.

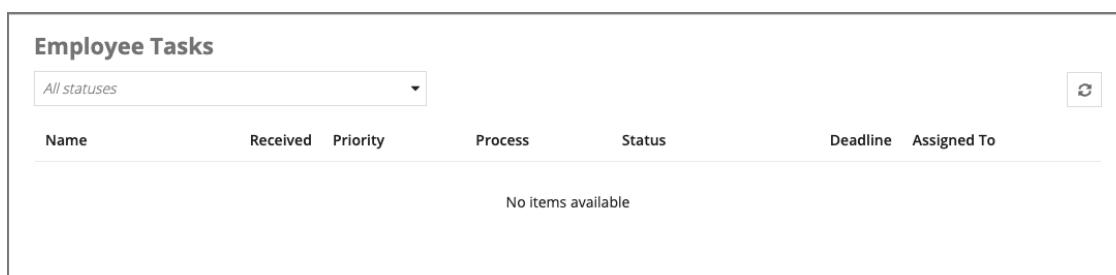
```
1 * a!localVariables(
2     local!statusFilter: null,
3
4     /* https://docs.appian.com/suite/help/latest/Task_Report_Tutorial
5     /* Basic steps to follow:
6     /* 1. Create a Process Report object
7     /* 2. Duplicate an existing process report, e.g. active_tasks
8     /* 3. Create a Document constant for the report, e.g. TASKS_REPO
9     /* 4. Replace the value parameter of the refresh variable
10    /* local!taskReportData with a process analytics query e.g.
11   /*a!queryProcessAnalytics(
12       /*report: cons!TASKS_REPORT,
13       /*query: a!query(
14           /*pagingInfo: a!pagingInfo(
15               /*startIndex: 1,
16               /*batchSize: -1,
17               /*sort: a!sortInfo(
18                   /*field: "c2",
19                   /*ascending: false
20               /*)
21           /*),
22           /*filter: a!queryFilter(
23               /*field: "c5",
24               /*operator: "in",
25               /*value: local!statusFilter,
26               /*applyWhen: a!isNotNullOrEmpty(local!statusFilter)
27           /*)
28           /*)
29       /*),
30   /*)
```

5. Next, Cut (Control X or Command X) lines 11 to 29.
6. In **line 17**, collapse the line, and delete the **a!refreshVariable(↔)** expression.

7. In line 17, after **local!taskReportData**: paste the expression you cut from step 5.

```
15
16 /*
17 * Placeholder variable for the task data returned by a process analytics query */
18 local!taskReportData: a!queryProcessAnalytics(
19   report: cons!TASKS_REPORT,
20   query: a!query(
21     pagingInfo: a!pagingInfo(
22       startIndex: 1,
23       batchSize: -1,
24       sort: a!sortInfo(
25         field: "c2",
26         ascending: false
27       )
28     ),
29     filter: a!queryFilter(
30       field: "c5",
31       operator: "in",
32       value: local!statusFilter,
33       applyWhen: a!isNotNullOrEmpty(local!statusFilter)
34     )
35   )
36 /* Maps the "c5" / "Status" field values to status names */
37 local!taskStatuses: {
38   a!map(name: "Assigned", icon: "user-o", color: "#666666"),
39   a!map(name: "Accepted", icon: "user-check", color: "ACCENT"),
40   a!map(name: "Completed", icon: "check-circle", color: "POSITIVE")
41 }
```

8. In line 18, replace **cons!TASKS_REPORT** with **cons!W#SA_ACTIVE_TASKS_POINTER**.
9. In line 35, after the parentheses, add a **comma ,**.
10. Click **TEST**. The task report will refresh to the active tasks in your environment.



Add the Task Report Page to the Step-by-Step Acme Auto Site

Finally, add the W#SA Task Report interface to the Step-by-Step Site.

1. Open the **Step-by-Step Site**, and click **ADD PAGE**. In the **Add Page** dialog, configure the following properties:

- **Title:** Enter **My Tasks**.
- **Icon:** Select an appropriate icon.
- **Type:** Select **Interface**.
- **Content:** Select **W#SA_TaskReportInterface**.
- **Visibility:** Select **Only show when**, and enter the following expression:

```
a!isUserMemberOfGroup(loggedInUser(),  
cons!W#SA_SUPERVISORS_POINTER)
```

- Click **ADD**.
2. Click **SAVE**.
 3. To preview the new My Tasks page, click the site **URL**, and go to the new **My Tasks** page. From here, supervisors can access all of their tasks in a single place.

NOTE: The task report will display all tasks for the logged in user. You might see tasks assigned to other groups because your user account is part of those groups.

Congratulations! You completed the Appian Step-by-Step Exercises!