

SOP Management Docker Setup – Implementation and Guide



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Pre-requisites

- Docker Desktop
- SQL server 16 or above.
- SOP manage code folder.
- SOP manage database.
- Docker Desktop requires Windows 10 Pro/Enterprise/Home version 19044 or above.

Points to consider when crafting a question:

- When building the SOP, using the <http://10.192.0.228:5173/builder>
- Ensure you switch the multiple-choice question to another format and then revert it back to a multiple-choice question.

A screenshot of a dark-themed user interface for creating a question. At the top left is a 'Question ID' field containing '2057'. To its right is a dropdown menu set to 'Multiple Choice' with a red 'Required' badge. Below these are two red delete icons. In the center is a large text input field with the placeholder 'Enter question text'. The entire interface has a dark background with light-colored text and buttons.

- As shown in the image above, there is no space to write the answers. Changing it to another format will display the option.

A screenshot of a dark-themed user interface for creating a question. At the top left is a 'Question ID' field containing '2057'. To its right is a dropdown menu set to 'Multiple Choice' with a red 'Required' badge. Below these are two red delete icons. The main area contains two separate input fields: 'Option 1' and 'Option 2', each associated with a 'No link' dropdown menu and a red delete icon. At the bottom left is a button labeled 'Add Option'. The interface has a dark background with light-colored text and buttons.

Introduction

The Incident Management System allows administrators to create workflows, which consist of a series of questions and answers designed to guide users through specific incident-handling processes. The system offers features for admins to design workflows, share them with users, and review completed responses.

Docker Setup

- Docker setup is provided in the SOP files
- Just install the docker setup.

Restoring the SOP manage database

- The SOP manage Query is provided
- Just open SQL studio and select the master db and run the SOP manage query

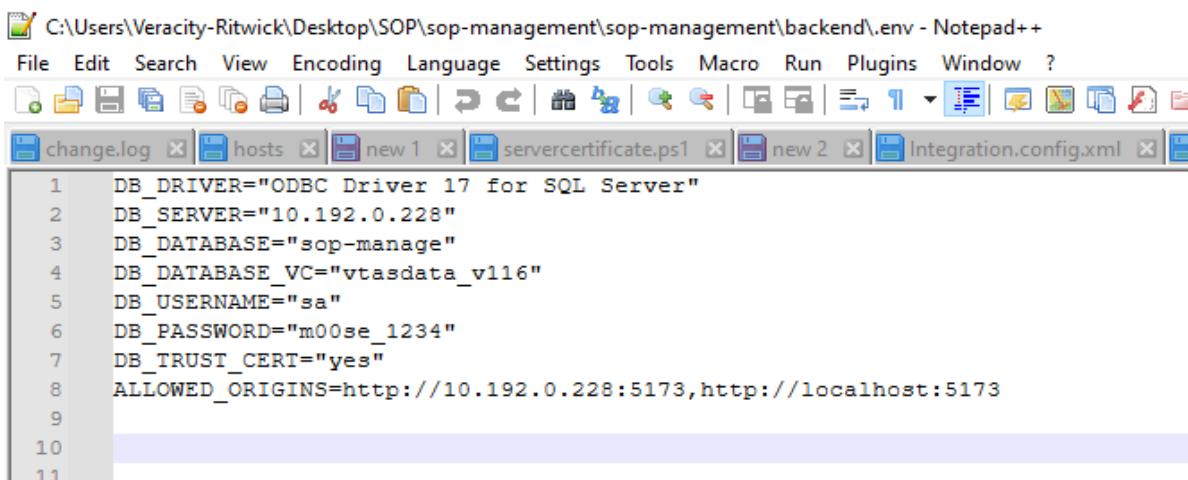
Changes in frontend and backend code

- You will receive a folder named "SOP Management" containing all the frontend and backend code. You can place the folder in any location of your choice.
- Change the code in **.env** (Environment variables).

Path: sop-management\backend\.env

- DB_DRIVER="ODBC Driver 17 for SQL Server" (Check in control panel)
- DB_SERVER="10.192.0.228"
- DB_DATABASE="sop-manage"
- DB_DATABASE_VC="vtasdata_v116" (or the DB which has IncidentLog_TBL)"(where you want to attach SOP)
- DB_USERNAME="sa"
- DB_PASSWORD="m00se_1234"
- DB_TRUST_CERT="yes"
- ALLOWED_ORIGINS=http://10.192.0.228:5173,http://localhost:5173
- **Change the above code according to your system.**

Microsoft Intune Management Extension	Microsoft Corporation	16-12-2024	19.6 MB	1.86.101.0
Microsoft ODBC Driver 17 for SQL Server	Microsoft Corporation	08-11-2024	7.27 MB	17.10.6.1
Microsoft PowerBI Desktop	Microsoft Corporation	08-11-2024	9.45 MB	10.7.1.0



C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management\backend\.env - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

change.log hosts new 1 servercertificate.ps1 new 2 Integration.config.xml

```
1 DB_DRIVER="ODBC Driver 17 for SQL Server"
2 DB_SERVER="10.192.0.228"
3 DB_DATABASE="sop-manage"
4 DB_DATABASE_VC="vtasdata_v116"
5 DB_USERNAME="sa"
6 DB_PASSWORD="m00se_1234"
7 DB_TRUST_CERT="yes"
8 ALLOWED_ORIGINS=http://10.192.0.228:5173,http://localhost:5173
9
10
11
```

- **Change the database name and IP of SQL server in backend/wf_builder_service.py:**
C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management\backend\config

- Change line 18 and 28, add the IP where your SQL is installed
- Change line 19 and 29 according to the database names

```

DB_CONFIG = {
    'driver': os.getenv('DB_DRIVER', 'ODBC Driver 17 for SQL Server'),
    'server': os.getenv('DB_SERVER', '10.192.0.228'),
    'database': os.getenv('DB_DATABASE', 'sop-manage'),
    'username': os.getenv('DB_USERNAME', 'sa'),
    'password': os.getenv('DB_PASSWORD', ''),
    'trust_cert': os.getenv('DB_TRUST_CERT', 'yes'),
}

# Database configuration for TEST database
DB_VC_CONFIG = {
    'driver': os.getenv('DB_DRIVER', 'ODBC Driver 17 for SQL Server'),
    'server': os.getenv('DB_SERVER', '10.192.0.228'),
    'database': os.getenv('DB_DATABASE_VC', 'vtasdata_v116'), # Ensure correct DB name for vtasdata_v116
    'username': os.getenv('DB_USERNAME', 'sa'),
    'password': os.getenv('DB_PASSWORD', ''),
    'trust_cert': os.getenv('DB_TRUST_CERT', 'yes'),
}

```

- **Change the database name in backend/wf_builder_service.py:**

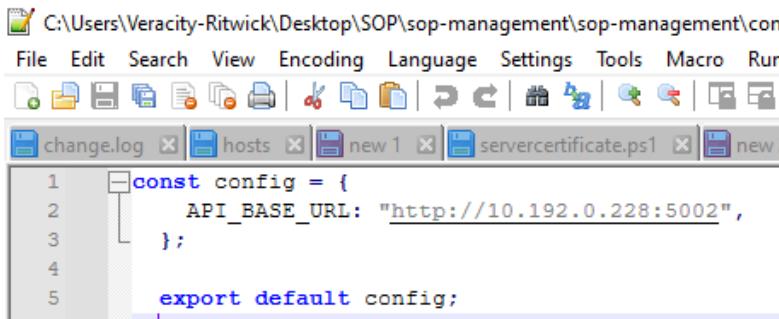
C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management\backend\services

```

472
473     # Dynamically format the heading with the workflow_name
474     static_heading = f"=====SOP - {workflow_name} ====="
475
476     # Construct the SQL query to update inlIncidentDetails_MEM
477     query = text("""
478         UPDATE [vtasdata_v116].[dbo].[IncidentLog_TBL]
479             SET inlIncidentDetails_MEM =
480                 ISNULL(CAST(inlIncidentDetails_MEM AS NVARCHAR(MAX)), '') +
CASE

```

- Change “vtasdata_v116” to the database name —> Line 477
- **code change (Port and IP)**
- config.js should have the url that will run the api, add, "http://10.192.0.228:5002" (Add static IP not local IP) C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management



- To check if the port is open or not, open cmd, type netstat -an | find "5173" or netstat -an | find "5000" for both frontend and backend respectively
- To change the port, check the main.py, on line 52, change the port for the backend C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management\backend

app.run(host="0.0.0.0", port=5002, debug=True) (just change the port here)

```

46     question_management_service = QuestionManagementService()
47
48     # Set up the Workflow API
49     setup_workflow_api(app, wf_builder_service, question_management_service, vc_service)
50
51     if __name__ == "__main__":
52         app.run(host="0.0.0.0", port=5002, debug=True)
53

```

- **To change the frontend code, then add this to the vite.config.js (Just Change the port and IP)**

- C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management

```

1 import { defineConfig } from 'vite'
2 import react from '@vitejs/plugin-react-swc'
3
4 // https://vite.dev/config/
5 export default defineConfig({
6   plugins: [react()],
7   server: {
8     host: '10.192.0.228',
9     port: 5173,
10   },
11 })

```

- C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management (Docker-compose) Change the details

```

1
2 services:
3   db:
4     image: mcr.microsoft.com/mssql/server:2019-latest
5     container_name: sop_db
6     ports:
7       - "1433:1433"
8     environment:
9       SA_PASSWORD: "M00se1980"
10      ACCEPT_EULA: "Y"
11      MSSQL_PID: "Developer"
12
13   backend:
14     build:
15       context: .
16       dockerfile: backend/Dockerfile
17     container_name: sop_backend
18     ports:
19       - "5002:5002"
20     environment:
21       DB_DRIVER: "ODBC Driver 17 for SQL Server"
22       DB_SERVER: "host.docker.internal"
23       DB_DATABASE: "sop-manage"
24       DB_USERNAME: "sa"
25       DB_PASSWORD: "M00se1980"
26       DB_TRUST_CERT: "yes"
27       ALLOWED_ORIGINS: "http://localhost:5173,http://127.0.0.1:5173"
28       RUNNING_IN_DOCKER: "true"
29
30     depends_on:
31       - db
32
33   frontend:
34     build:
35       context: .
36       dockerfile: Dockerfile.frontend # Ensure this file exists
37     container_name: sop_frontend
38     ports:
39       - "5173:5173"
40     depends_on:
41       - backend
42
43
44

```

- C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management (Default - conf) Change the details

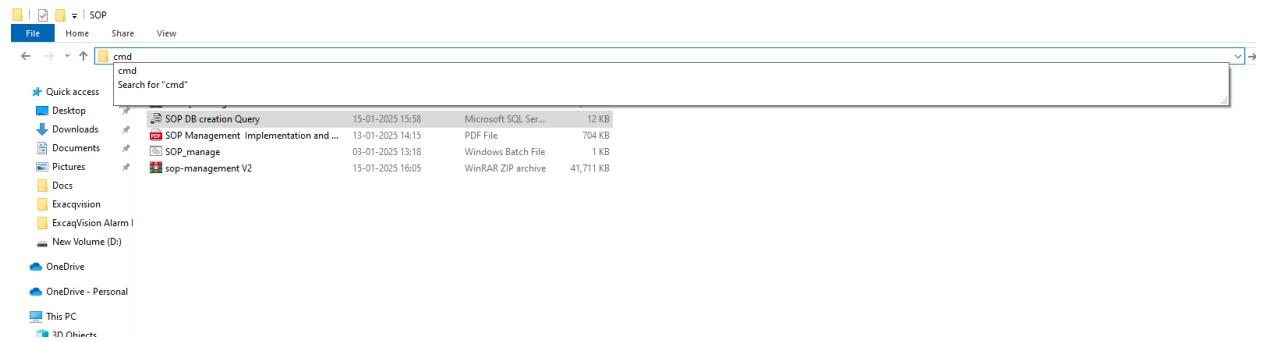
```

1 server {
2   listen 5173;
3   server_name localhost;
4
5   location / {
6     root /usr/share/nginx/html;
7     index index.html;
8     try_files $uri /index.html;
9   }
10
11   error_page 404 /index.html;
12 }
13

```

Code Execution process

- Open the frontend path in cmd where the packet.json file is present
(C:\Users\Veracity-Ritwick\Desktop\SOP\sop-management\sop-management)



- Just type CMD in the frontend path.
- To Compose docker build, run this command – **docker compose up –build -d**
- To shutdown the build, run this command – **docker-compose down**
- To run the composed build, run this command – **docker-compose up**

The screenshot shows a completed workflow form titled "Veracity Global - Completed Workflow". The form consists of four questions:

- Question 1 of 5**: DID YOU CALL FIRE BRIGADE. Answer: no
- Question 2 of 5**: DID THEY REACH ON TIME. Answer: No answer provided
- Question 3 of 5**: DID YOU UPDATE SUPERVISOR THAT FIRE BRIGADE NOT REQUIRED. Answer: No answer provided
- Question 4 of 5**: please close the incident and update to supervisor

System Features

1. Admin Dashboard

- Create Workflows: Administrators can design workflows consisting of sequential questions and branching paths based on user inputs.
- Manage Workflows: Admins can edit, delete, and update existing workflows as needed.
- Assign and Share Workflows: Admins can share a workflow link with users, enabling them to participate in incident-specific workflows.
- Analyse Responses: Admins can review completed questions submitted by users for specific incidents.

2. User Interface (Form Format)

- Dynamic Question Flow: Users answer questions dynamically, progressing through the form based on their inputs.
- Workflow Summary: Upon completion, users are shown a summary of the questions they answered.

3. Pages Overview

- Workflow Collection for administrators (<http://127.0.0.1:5173/workflow-collection>): Displays all available workflows for the admin.
- Workflow Builder (<http://127.0.0.1:5173/builder>): Enables admins to create or edit workflows.
- Workflow Showcase (<http://127.0.0.1:5173/workflow//>): A sharable link where users can access and fill out the form for a specific workflow and incident number.
- Workflow Lists for Operators (<http://127.0.0.1:5173>): Display all available workflow to operators

ID	Name	Incident Type	Created
4	Updated IT Equipment Request	updated设备请求	03/11/2024, 13:34:10
5	IT Equipment Request	设备请求	04/11/2024, 10:44:20
1005	Workflow 1	DEFAULT	16/11/2024, 19:16:14
1006	test-for-wf_showcase	DEFAULT	20/11/2024, 08:21:56
2006	test-build	DEFAULT	20/11/2024, 17:03:29
2007	test-build-1	DEFAULT	21/11/2024, 09:01:08
2008	checkbox-test	DEFAULT	22/11/2024, 14:20:03
2009	test-26112024		

How It Works

1. Admin Creating Workflow

- Step 1: The admin logs into the system and navigates to the Workflow Builder page (<http://127.0.0.1:5173/builder>).
- Step 2: The admin can define the start question (Q1) and connect subsequent questions (Q2, Q3, etc.) based on the user's answer (Yes/No or other answers).
- Step 3: Each option in question leads to another question, and the admin can keep adding branches until the workflow is fully built. PS: The Builder component allows only MULTIPLE CHOICE TO BE CONNECTED Checkbox, Subjective and Instructions cannot be connected and will be shown
- Step 4: The workflow is saved and can be assigned to users for incidents.

The screenshot shows the Veracity Global platform's workflow editor. It displays three questions in a vertical stack:

- Question ID: 2035**: Multiple Choice, Required. Options: Yes, No. Decision logic: If Yes, link to Question 2036; if No, link to Question 2035.
- Question ID: 2036**: Multiple Choice, Required. Options: Yes, No. Decision logic: If Yes, link to Question 2036; if No, link to Question 2036.
- Question ID: 2037**: Subjective, Required.

2. User Taking a form

- Step 1: The user opens the sharable link and enters the incident_number through the modal or through the link (<http://127.0.0.1:5173/workflow//>)
- Step 2: The user answers questions dynamically presented based on their previous responses.
- Step 3: After completing the workflow, the user is shown a summary of the questions they answered.

A modal dialog titled "Enter Incident Number" is shown. It contains a text input field labeled "Enter incident number" and a blue "Submit" button.

3. Viewing Completed Questions

- Step 1: Admins or users with access can view completed questions for a specific incident by visiting the Workflow Showcase page: (<http://127.0.0.1:5173/workflow/>)
- Step 2: The incident number can be entered via a modal or appended directly to the URL.
- Step 3: The decision tree helps the admin analyse the user's decision-making process for future incident management.