i2b2 Documentation

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Quick Start - Demo install Guide

This guide provides step-by-step instructions for installing i2b2 using Docker. It is intended for users setting up a fresh i2b2 instance.

Prerequisites

Ensure that your system meets the following requirements before proceeding with the installation.

Operating System

- **Ubuntu** (Recommended)
- **Windows**

Software Requirements

- **Git**
- **Docker**
- **Docker Compose**

Installation Instructions

Step 1: Clone the Repository

Open a terminal and execute the following command:

```
git clone https://github.com/i2b2/i2b2-docker.git
```

Step 2: Navigate to the Repository Directory

```
cd i2b2-docker/
```

Step 3: Start the i2b2 Containers

Change to the pg directory and start the containers using Docker Compose:

```
cd pg
docker-compose up -d i2b2-webclient
```

This command starts the **Postgres Database**, **Webclient**, and **Core Server** containers in detached mode.

Step 4: Wait for Initialization

Allow a few moments for the containers to initialize and for **Core Server** to start completely.

Step 5: Access the i2b2 Webclient Application

Ensure port **80** is forwarded then Open your preferred web browser and navigate to:

```
http://localhost/webclient
```

Step 6: Log In to the Application

Use the default credentials:

- **Username:** `demo`
- **Password:** `demouser`

Troubleshooting Guide

Verify Running Containers

Check whether all necessary containers (**Webclient, Core Server, Postgres**) are running:

```
docker ps
```

View Container Logs

To inspect logs for debugging, run:

```
docker logs -f <container_name>
```

Stop All Running Containers

```
docker-compose stop
```

Start All Stopped Containers

```
docker-compose start
```

Fresh Installation

If you need to perform a **clean installation**, follow these steps:

Step 1: Remove All Containers and Volumes

⚠ *This will delete all existing Docker containers and volumes.*

```
docker rm -f $(docker ps -a -q)
docker volume rm $(docker volume ls -q)
```

Step 2: Recreate and Start the Containers

```
cd i2b2-docker/pg
docker-compose up -d
```

This completes the setup and installation of i2b2 using Docker. If you encounter any issues, refer to the troubleshooting guide above.

i2b2 Production Deployment Guide

This guide provides instructions for deploying i2b2 in a production environment, assuming you are using a PostgreSQL database on a remote production server.

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1. Setting up Subnets in the Cloud

Setting up Subnets in the Cloud

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2. Setting up PostgreSQL Database

Follow the official i2b2 guide to set up the PostgreSQL database:

> [i2b2 Data Installation Guide]

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3. Deploying Client Containers and Database Connectivity

This section provides guidance for deploying the i2b2 web client and Core Server service using Docker while connecting them to a pre-configured production PostgreSQL database.

Step 1: Clone the Repository

If you have not already cloned the repository, execute:

```
git clone https://github.com/i2b2/i2b2-docker.git
```

Step 2: Navigate to the Repository Directory

```
cd i2b2-docker
```

Step 3: Checkout the Production Branch

Checkout the branch that contains only the web client and Core Server service.

```
git checkout release-v1.8.1a.0001_prod_db_foundation
```

Step 4: Configure the Database

Ensure that the PostgreSQL production database is already set up and running.

- Update the database environment variables in the `.env` file to match your production settings.
- Configure the following parameters:
  - **Database Host**
  - **Port**
  - **Username**
  - **Password**
  - **Database Name**
  - **Schema Name**

Step 5: Start the Webclient and Core Server Containers

Run the following command to start the containers:

```
docker-compose up -d i2b2-webclient
```

Step 6: Verify the Deployment

- Check if the Core Server container has started successfully:

```
docker-compose logs i2b2-core-server
```

- Access the i2b2 web client in your browser using the appropriate production URL and port.

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4. Custom Configuration

Update the database lookup tables in i2b2hive

- update crc_db_lookup set c_db_fullschema = 'i2b2demodata'
- update work_db_lookup set c_db_fullschema = 'i2b2workdata'
- update ont_db_lookup set c_db_fullschema = 'i2b2metadata'

Update the Core Server URL in Database

- File location: /i2b2/i2b2-data/edu.harvard.i2b2.data/Release_1-8/NewInstall/Pmdata/scripts/demo/pm_access_insert_data.sql
- Required variables: $I2B2_WILDFLY_HOST:$I2B2_WILDFLY_PORT
- Sed command: sed -i "s/localhost:9090/$I2B2_WILDFLY_HOST:$I2B2_WILDFLY_PORT/g" /i2b2/i2b2-data/edu.harvard.i2b2.data/Release_1-8/NewInstall/Pmdata/scripts/demo/pm_access_insert_data.sql

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This completes the i2b2 production deployment. If you encounter any issues, refer to the logs or the official i2b2 documentation.

i2b2 Administration Module Guide

The official documentation for the **i2b2 Administration Module** is available in the following PDF:

Download i2b2 Admin Help Documentation (May 2024)

For further details, refer to the **i2b2 Community Wiki**.