SETUP IIT ML MODEL ON DOCKER

Objective: **This user guide provides a summarized procedure for setting up IIT Machine Learning Model on a docker environment**

Background:

TaifaCare (K) incorporates machine learning (ML) capabilities to predict specific patient-related outcomes based on medical history and demographic information. Currently, the system includes ML models for **Interruption in Treatment (IIT)** prediction and **HIV risk** prediction.

While these functionalities provide valuable insights for clinical decision support, they can occasionally place a heavy load on the EMR server due to intensive data processing requirements. This may lead to degraded server performance and poor user experience.

To address this challenge, a standalone, **dockerized version of the IIT model** has been developed. This approach isolates computationally heavy ML tasks from the core EMR system, ensuring improved performance and reliability.

This document provides step-by-step instructions on how to set up and configure the dockerized IIT model instance.
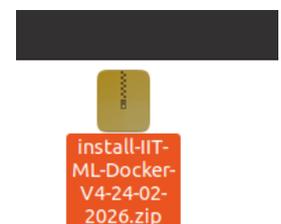
Prerequisite:

- Internet connectivity
- Resource Files
- TaifaCare(K) version 19.2.2 or higher
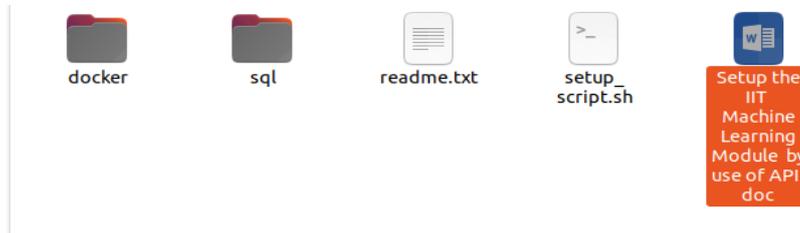
Steps :

Obtain the installation resources

1. Go to GitHub page   (**https://github.com/palladiumkenya/kenyahmis-releases/releases/tag/v01**) and download the zipped file: **install-IIT-ML-Docker-V4-24-02-2026.zip**
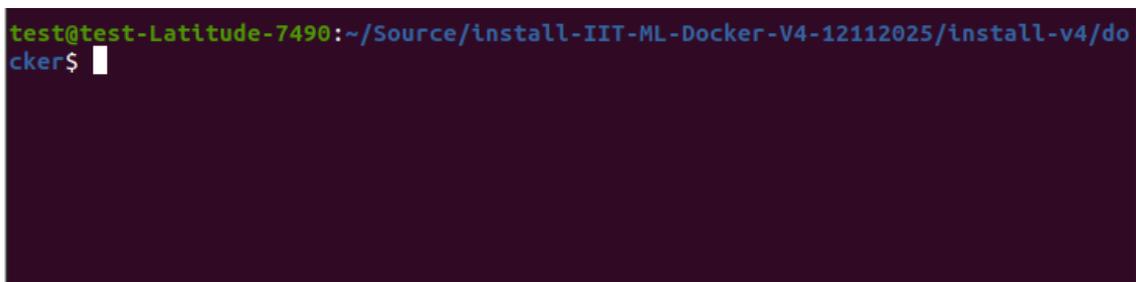

2. Unzip the file to the file location of your location by running in the terminal

   `unzip  install-IIT-ML-Docker-V4-24-02-2026.zip`
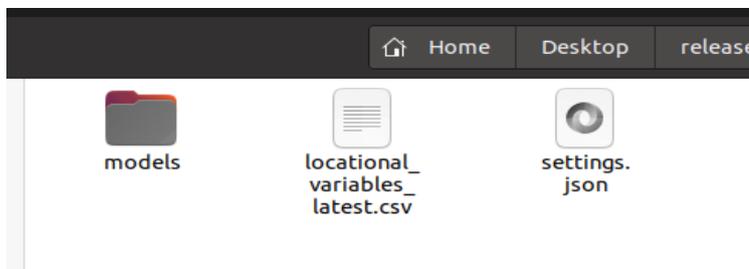
DHA
DIGITAL HEALTH AGENCY

TaifaCare
INTEGRATED HEALTH INFORMATION MANAGEMENT SYSTEM

KeHMIS
Kenya Health Management Information Systems

3. Open the unzipped file and go to the **Docker folder** as shown below: Here are the resources contained in the folder
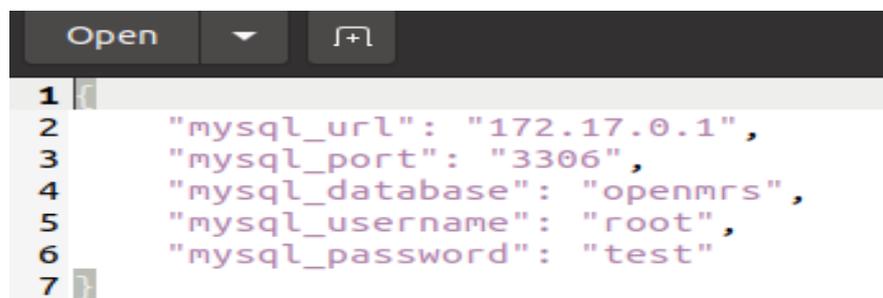

docker   sql   readme.txt   setup_script.sh   Setup the IIT Machine Learning Module by use of API. doc

4. Open the **Docker folder** by use of the terminal as shown below:


```
test@test-Latitude-7490:~/Source/install-IIT-ML-Docker-V4-12112025/install-v4/docker$
```

5. Go to the **settings.json** file location which by terminal you run **cd ml/iit**

Home   Desktop   release

models   locational_variables_latest.csv   settings.json

6. Open the **settings.json** ensure the database is reference OpenMRS and the MySQL root user is aligned with the correct password.


```
1 {
2     "mysql_url": "172.17.0.1",
3     "mysql_port": "3306",
4     "mysql_database": "openmrs",
5     "mysql_username": "root",
6     "mysql_password": "test"
7 }
```
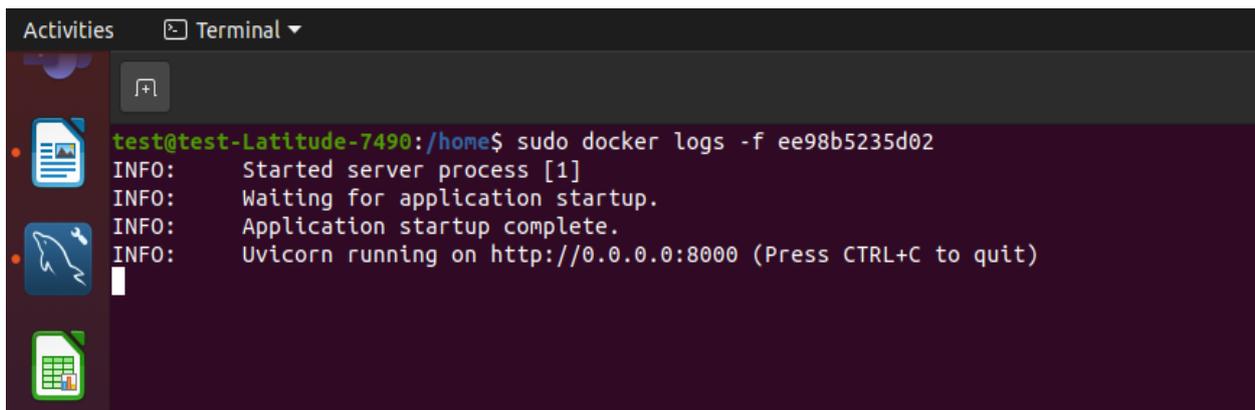
7. Run the setup script i.e. *sudo sh setup_script.sh* file to install the docker image and required files as a super user:
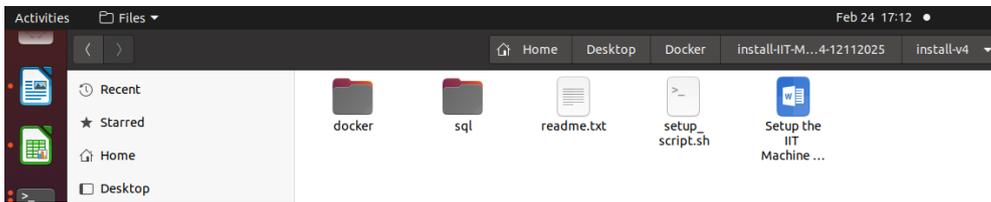
8. Check to ensure the model is running by executing this command in the terminal window:
   docker logs -f <container_name_or_id>

   You can also start the container by running the following command:

   docker start <container_name_or_id>

PART 2: Global Property Configurations

Make the following changes in the Global Property sectiion of TaifaCare(K).

NOTE: Great care must be taken when updating the global property, as any incorrect input or unintended change may negatively affect system performance.

Steps:

Login to TaifaCare(K) and access the following global properties and ensure the following is set to TRUE

Ensure the admin password for the user is correct in the following global properties:

kenyaemr.iit.machine.learning.APIpassword	Admin123
The API password for IIT	

kenyaemr.iit.machine.learning.APIURL	`http://127.0.0.1:8000/inference`
The API url for IIT	

kenyaemr.iit.machine.learning.APIusername	admin
The API username for IIT	

Ensure the API URL should indicate the URL where the docker is setup the default settings are as below:

kenyaemr.iit.machine.learning.APIURL	`http://127.0.0.1:8000/inference`
The API url for IIT	

To run the IIT Module one needs to run the machine learning module and generate the risk scores by clicking *Generate Patient Scores*
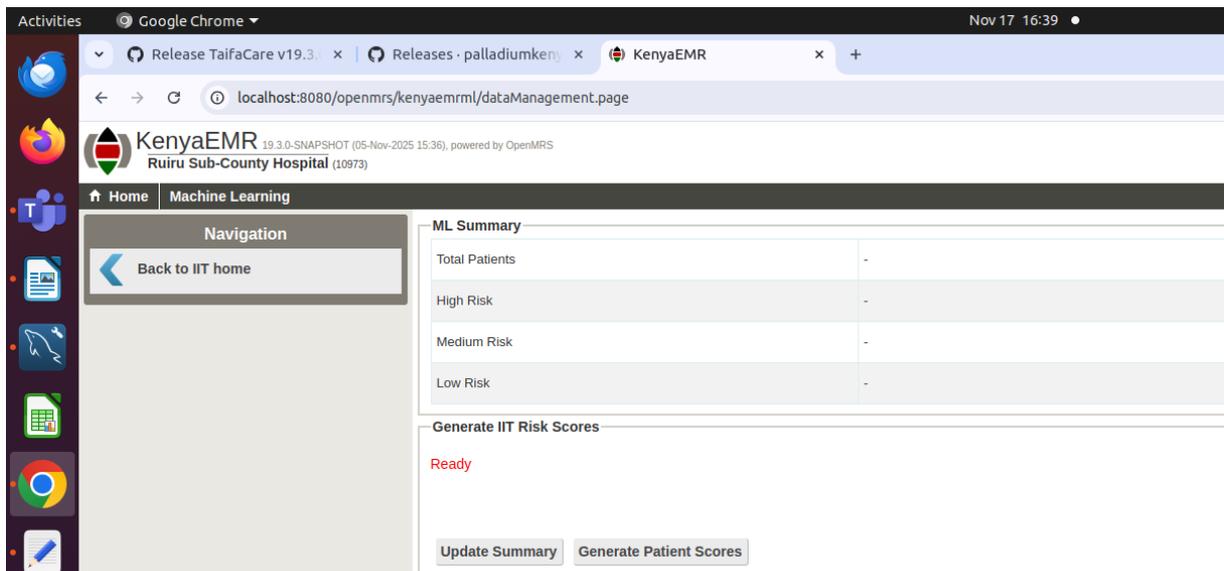
Further support

If in need of additional support, please contact us on the following toll-free line: **0800722440**

THE END