VATOOL DOCUMENTATION

Introduction

VA Dashboard application (VATOOL) is a web based application aimed at providing visualisations of VA data and COD reports and summaries, obtained after successfully running/executing OpenVA pipeline. VA and COD data summary will help in monitoring and evaluating VA data collection and also provides information that is informative on VA data quality and also CSMF based on aspects like age group and sex in a specific year. VA Data and COD information are extracted from OpenVA pipeline end results are saved in PostgreSQL database, where the dashboard will pick them for further data management tasks and analysis and finally displayed in the web portal.

Installation and use

Make sure you have installed openva_pipeline. [https://openva-pipeline.readthedocs.io/en/latest/install.html]

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1. Make sure you have installed openva_pipeline. [https://openva-pipeline.readthedocs.io/en/latest/install.html]
2. Make sure you also install postgres database
3. Copy the folder/zip file to any of your directory.
4. Download and Install Xampp [https://vitux.com/how-to-install-xampp-on-your-ubuntu-18-04-lts-system/] (for Windows use wampserver/Xampp)
5. **for Linux**
   Navigate to computer/opt/lamp/htdocs/ and paste the "VATOOL" folder there.

1. step one

- Open the "files_to_run" folder and locate the following:
  - vatooldb.bak - this is the postgres database backup, go to postgres and restore the file for quick setup.
  - After restoring the database, you can go straight to the Dashboard (Type http://dns:port/CRVS or http://localhost/CRVS (If your apache runs in port 80))

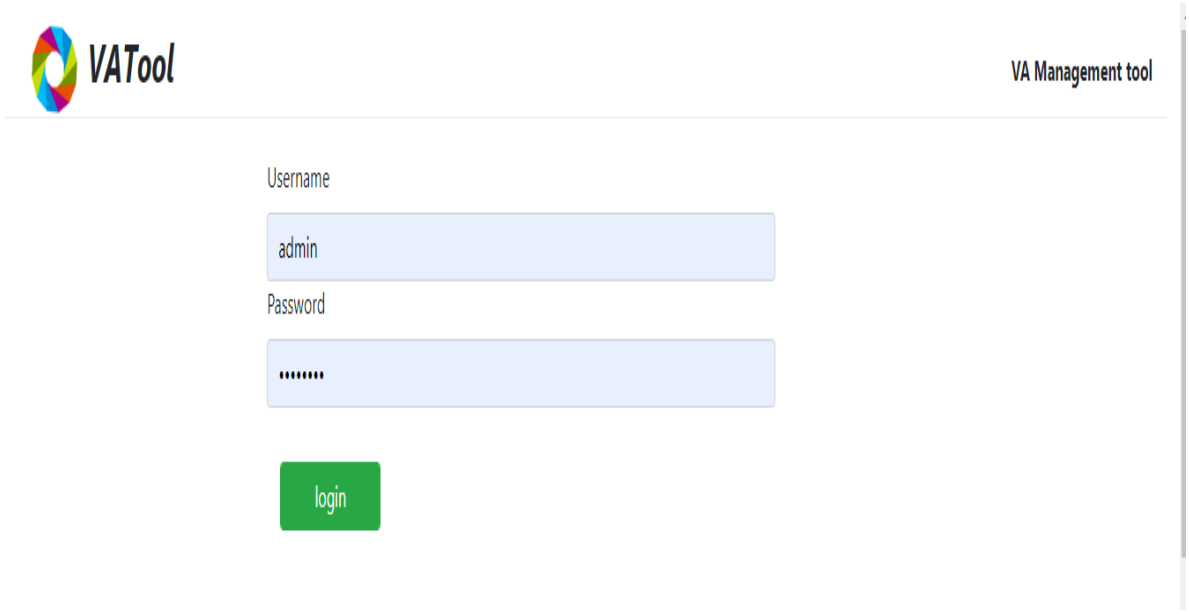
2. step two (files to schedule to run daily)/ Can also use OpenVA Pipeline app

- combine_vadata.R – This is a R file that merges all WHO VA data into one csv. Please make sure you open it and edit it as appropriate. i.e csv file name and working directory
- who_cod.R – This is a R file that runs COD from vadata produced by the pipeline python code. Please make sure you open it and also make necessary edits on working directory folder name and also MALARIA AND HIV SETTINGS at the bottom in function codeVA()
- .bat files – Open each of them and make necessary edits too, like folder locations and odk aggregate credentials for download of data.
- vatool_pipeline.py - Python file to execute all the bat files which in turn executes all the R files, and finally populate data into the database ready for the dashboard. Once everything is set up well, this is the file to schedule to run automatically daily/frequently to download data, COD computation and finally update dashboard tables.

❖ Once the python code executes successfully, you can now go to your browser and enter IP address/DNS of your server. If within the server you can use localhost, then apache port then application name. i.e.

❖ Type http://dns:port/CRVS or http://localhost/CRVS (If your apache runs in port 80) //CRVS name here is demo; this is the name of the folder you posted in htdocs folder

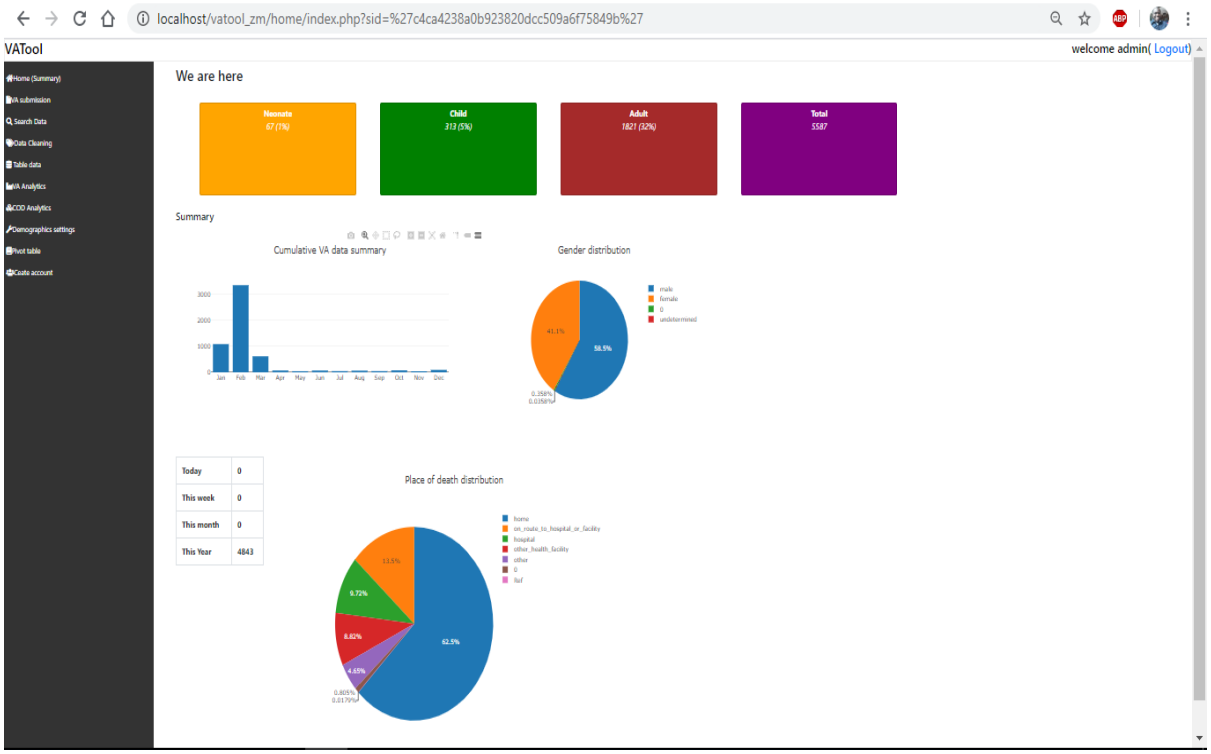
Dashboard is ready for use.



Features and modules modules

1. Home Page

When user first logs in, the first page to be displayed is the Home page. This page provides basic information about VA summaries by age group, cumulative summary of gender distribution of deaths and place of death, cumulative data submission graph across months and tallies of VA done **today/this week/ this month/this year**. More content can be added as the requirements increases.



1. **Creating account and adding users:** This allows for creating and adding of users of the system. In future the system will include role based access to the system modules**.**
2. **Home page:** Summary of VAs done by age group and total of VAs done so far, Cumulative summary of VA submissions by months.
3. **VA Submission; search for Vas done in a specific**
4. **Search Data module: Browse/view Individual VA responses for completed VAs.** This gives a simple interface to preview individual VA data question by question as labels are indicated in the WHO 2016 VA Questionnaire
5. **Data cleaning:** helps in harmonizing interviewer names for cleaner analysis**.**
6. **Table data:** Browsing summaries from SQL Views and other tables.
7. **Demographics settings:** Setting up the demographic levels (Currently featuring for only Zambia setup)
8. **Pivot table:** dynamically select fields to do summaries for.
9. **COD analytics module:**
   - ✓ COD CSMF overall, CSMF by major age groups (Child, Adult, Neonate) and CSMF by sex. All these aspects are being displayed by year of death and the option ***ALL*** is selected if data is to be displayed regardless of the year of death.
   - ✓ Another aspect being displayed here are frequency of undetermined cases by interviewer. This is to help monitor undetermined cases being produced by an interviewer to indicated need for retraining and control data quality from interviewers.

10. **VA analytics module:** Provides distribution by month of deaths that occurred in a specified year by sex and age group. Additionally, you can also monitor VA submissions by month across the specified year for each interviewer**.**