❖ Project Overview

Tryton ERP Tasks (Centralized)

Installation & Configuration

I. **Install Python Packages**
II. **Install Tryton ERP – GitHub**
    A. **Replace default database with PostgreSQL database**
    B. **Complete install**

Tryton · GitHub

Tryton · GitLab (heptapod.net)

Tryton Documentation — Tryton Documentation

How to install Tryton — Tryton server

PostgreSQL: The world's most advanced open source database

Stock & Inventory Setup

I. **Test default Tryton ERP stock & inventory module**
II. **Program automated inventory**

Stock Module — Tryton module for stock and inventory

Programming the User Interface for Metrics Display

I. **Grab data using API from PostgreSQL Database**
II. **Plug hard data into formulas to create metrics**
III. **Display metrics via Interface**

Python Tkinter, Display Live Data - Stack Overflow

Modified ERP Tasks (Decentralized)

Installation & Configuration

I. **Duplicate Tryton ERP**
II. **Replace default API with Web3 API**

Database Server & Test Network Setup

I. **Download Ganache & Create Database Server**
II. **Deploy Smart Contract to Setup Ethereum Test Network**
III. **Deploy Smart Contract to Connect Web3 API to Ganache**
IV. **Program automated inventory (same as Centralized)**

gm — web3.py 6.13.0 documentation (web3py.readthedocs.io)

Ganache - Truffle Suite

Retrieve GANACHE address/publicKey Contracts/Transactions with PYTHON Web3 library (devcodef1.com)

Add Code to the User Interface for Second Metrics Display

I. **Grab data using API from Ganache Database**
II. **Plug hard data into formulas to create metrics**
III. **Display both sets of metrics via single Interface**
IV. **Program visualization models to see different plots and graphs of the data for analysis**

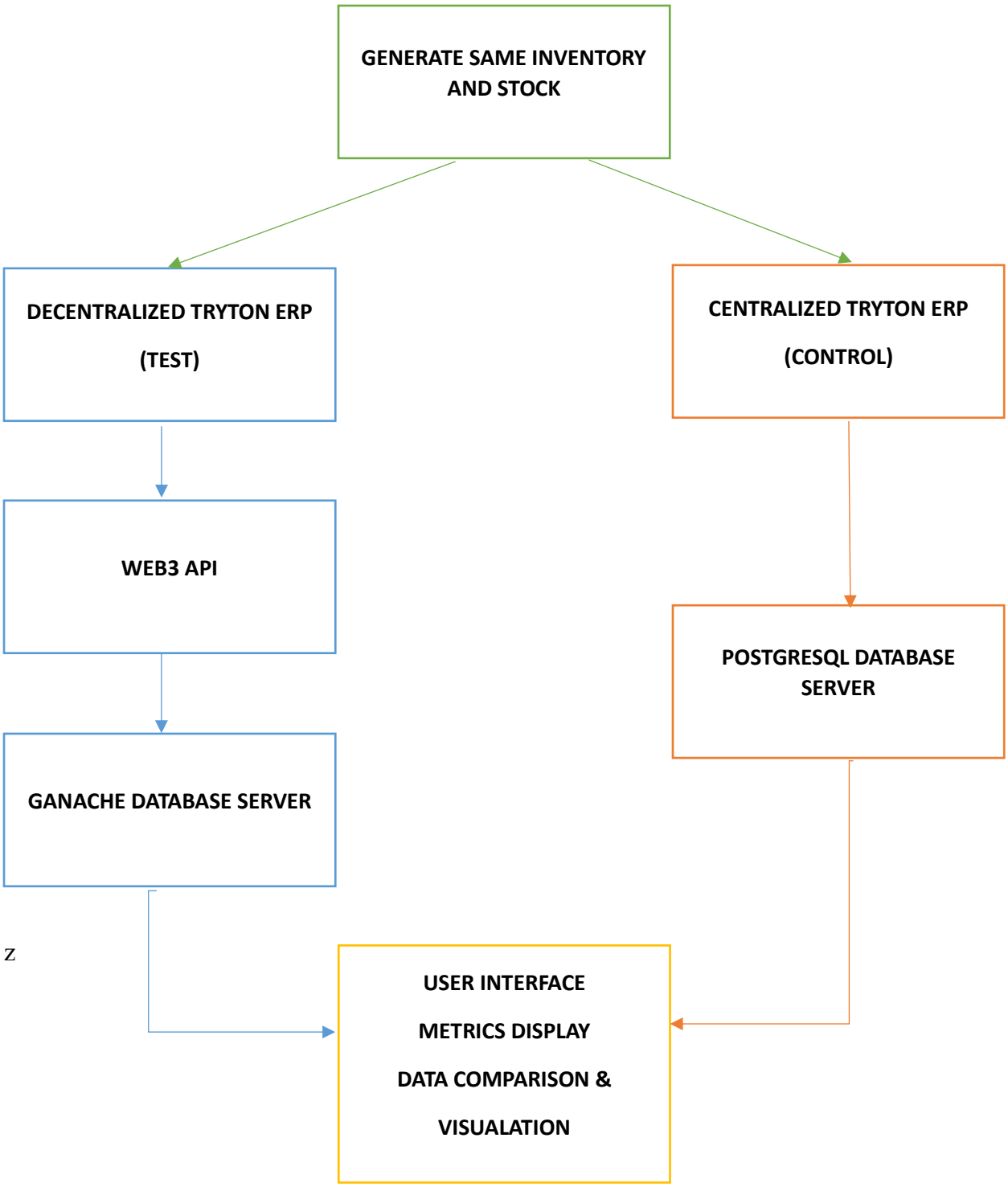

Figure 1. Two System Block Representation