***Wildseve Project Documentation***

**Client Existing Software Architecture:**

GOOGLE CLOUD

ODK Collect App

Google Cloud Engine

**GS**

**GE**

**GS**

**GE**

**ODK Aggregator**

1. ODk Collect Mobile App
2. GE- Google Engine
3. GS- Google Sheet
4. ODK Aggregator

**Manual Process:-**

1. Export Data From GE and GS to G-drive(Monthly)
2. Sort the form data by monthly from Names in G-drive
3. Using R Script to

* Pull Data
* Format Data
* Check for Redundancy
* Check for miss Information
* Re-run the whole cycle if issues found

1. Push corrected data back to G-drive – respective form are replaced with cleaned

**Current Software Architecture**

**Made with complete Automat process based on their business.**

GOOGLE CLOUD

**Data Visualization**

**DASHBOARD**

**Angular**

**Format and redundancy check**

**Node Script Server**

ODK Collect App

Google Cloud VM

**Relational Database**

**ODK Aggregator**

**How does it Works:**

**ODK Aggregator:**

1. ODK and Relational DB are hosted on Google cloud Virtual Machine.
2. By Default create unstructured database in Relation DB and inject the data into table when Aggregator get the Form uploaded or submitted form from odk collect.

.

**Node API:**

1. Node API hosted on Google App Engine using Node server configuration.
2. It uses for automate the data format, data check and redundancy check.
3. It does data format from ODK aggregator to RDBMS.
4. It provides the API’s for Reporting and data visualization on Dashboard.

**Dashboard:**

1. Interface Design in AngulerJs and it sending the request and getting response from node server with API which works to visualize the data for user access.

CLIENT’S NEED:

Client’s had manual work for their business. It’s difficult to manage work and accuracy in entire work. They wanted to come up with new solution to overcome.

We have suggested, going with software analytics tools so it would automate your work, accuracy in work, reduce the time and cost and increase the performance of your business.

Requirements:

Existing unstructured data should be load on database and format it. No Manual intervention need to be exist. Build Fully Automate and managed tool.

They had ODK Aggregator server and it configured on Google app Engine. Its store unstructured data. They wanted setup relation database with existing one. So there is big challenge to configure Aggregator with external relational database to pull the raw data. Afterwards cleansing the raw data, does the format Check redundancy and load to relation database. Afterwards transform and populate on the graphical representation on dashboard.

Why Sysarks ?

Because it assures the quality and robust of the data. “Data analytics challenges involved in moving data in a consistent way between one to another server”

Client’s has come up with their business goal and we understand the client’s requirements up to their goal and business. We are fully specialized to does the analysis and provide the better solution so client’s reach up to mark.

Especially we appreciate the way, how Sysarks Technology solution enables them to format and validate the data, and to intervene to solve complexity in convenient work flow.

**Solution:**

Sysarks solution’s experts are completely replacing the company’s custom scripts and staff has been relieved of the spadework of data movement, security and accuracy issues. Focus on complete analytics data visualize into graphical representation.

**Architecture:**

