**OptiSync**

Optimizing Business Processes through Synchronized ERP Solutions.

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# 1. Introduction

**1.1 Document Purpose** This document communicates the business requirements and scope for developing ERP solutions for manufacturing industry. The scope of this document is to define the functional and non-functional requirements, business rules and other constraints requirements.

**1.2 Project Background** Small Scale company losses customers due to lack of systematic planning and control of working. They fail to delivery orders on time due to manual control over production process and cannot quickly estimate the product/order delivery time and calculate the cost options for making decisions. Inefficient supply planning and no operational information about the status of stocks in the warehouse lead to poor manufacturing practices.

**1.3 Goals of the project** Our application allows management to check status for the current orders being executed, raw material entered in vicinity of the company is digitalized and will help overall stock analysis. Tracing of the parts in production is made easy with detail report of the parts being produced. Data generated in quality control for manufactured product is monitored with help of our application. Our application will help to track delivery and dispatch of the products manufactured.

# **1.4 Customers and Stakeholders**

Customers:

* + Small Scale or Medium Scale industry who wants to streamline their process.

Stakeholders:

* + Manufacturing Organization.
  + Production Engineers.
  + Managers

**2. Business Requirements Overview**

• System is the private web application.

• System will be operational only to paid clients.

• This Software solution is made specifically for Small and medium-sized enterprises.

• Clients can streamline their manufacturing process.

• Clients can make better decision based on data coming from shop floor.

• Managers can have an updated status of current orders.

**3. Functional Requirement Overview**

OptiSync System consists of eight modules described as below.

1. Login/Registration Module
2. Admin Module
3. Manager Module
4. Store Module
5. Production Module
6. Assembly Module
7. Quality Module
8. Dispatch Module

3.1. Manager Module

* + Manager can push new orders
  + Manager can check status for the ongoing order.
  + Manager can check daily planning for production, quality, assembly and dispatch and mention feedback in comment box.
  + Manager can check status of raw material and approve incoming request for purchase of raw material.
  + Manager will have an dashboard to get information about monthly and yearly yield.
  + Managers can approve retrieval of credential of a user to admin.
  + Manager will be able to approve final Dispatch Draft.

3.2. Store Module

* + Store incharge can send message to manager for required order of raw material.
  + Store incharge record the existing, incoming and rejected quantity.
  + Store incharge check status of the raw material.
  + Store incharge send the raw material to next department according to order.

3.3 Production Module

* + Supervisor will accept the raw material from previous department.
  + Supervisor can initiate a task which will be assigned to operator on specific machine.
    - He can insert/update daily production at the end of the shift.
    - He can update the quantity of parts send to the next department
  + Supervisor can update machine list.
  + Supervisor can update the part list.

3.4 Assembly Module

* + Assembly incharge will accept the part from previous department.
  + Assembly incharge can initiate a task which will be assigned to employee.
    - He can insert/update daily production at the end of the shift.
    - He can update the quantity of product send to the next department.

3.5 Quality Module

* Quality engineer record the status for accepted and rejected quantity.
* Quality engineer can initiate task which will be assign to employee.
* Quality engineer will check the produced quantity and sent it to next department

3.6 Login Module

* + Login Page for authorized user
  + Send request for retrieval of credential to Manager
  + Registration of an organization according to their subscription plan

3.7 Dispatch Module

* + Dispatch will accept the product from previous department.
  + Dispatch can raise query for the mismatch quantity.(**Reconsider**)
  + Dispatch can initiate task which will be assign to employee.
  + Dispatch in charge will send the final dispatch draft to manager.
  + Dispatch will sign off the final lot which will be dispatched.

3.8 Admin Module

* + Admin can register new user.
  + Admin can maintain overall update data.
  + Admin can give access to new employee.

**4. Non-Functional Requirements**

* + The website should use professional design, look and feel and color scheme.
  + Users will have limitations for accessing the application through Internet. The portal being an internet application it will be accessed by company employee through a pre-paid module. As generally the MSE companies employees around 250 people minimum we will try to support such users employed by the organization.
  + Being a private website, the site must follow general usability and Operability for menus, navigation, colors, links and other actions provided on the screens.
  + The system should be designed in such a manner that user will be able to complete tasks in minimum number of steps.