*c4 factory*

project Understanding Document

*VERSION 1.0*

*24/06/2017*

VERSION HISTORY

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| **Version #** | **Implemented**  **By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Reason** |
| 1.0 | *TARUN KHANNA*  *,AYUSHI JAIN, KARAN KHANNA, AKANSHA PAL* | *24/06/2017* | *<name>* | *<mm/dd/yy>* | *<reason>* |
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# introduction

For efficient, effective and economical operation in a manufacturing unit of an organization, it is essential to integrate the production planning and control system. Production planning and subsequent production control follow adaption of product design and finalization of a production process.

Production planning and control address a fundamental problem of low productivity, inventory management and resource utilization.

Production planning is required for scheduling, dispatch, inspection, quality management, inventory management, supply management and equipment management. Production control ensures that production team can achieve required production target, optimum utilization of resources, quality management and cost savings.

**C4** is a user friendly system software which helps production managers and supervisors plan their schedules according to the available raw materials and machines for desired end products.

## Purpose of Project

The main purposes of this project are:-

1. Determining the sequence of operations for continuous production.
2. Issuing co-ordinated work schedules to concerned persons and machinery.
3. Maintaining sufficient inventories to support continuous flow of production.
4. Evaluating performance of workshops.
5. Maintaining production schedules to ensure delivery at proper time.
6. Optimum utilization of resources available.

**Benefits of the Project:**

1. Avoidance of Rush Orders  
Production is well planned and its time aspects are well controlled. Therefore, production control reduces the number of risk-orders and overtime work on plant.

2. Avoidance of Bottlenecks  
The incomplete work does not get accumulated because production control maintains an even flow of work.

3. Cost Reduction  
Production control programmes minimizes the idleness of men and machines, keeps in process inventories at a satisfactory level, leads to a better control of raw materials inventory, reduces costs of storage and materials handling, helps in maintaining quality and containing rejection and thus reduces unit cost of production.

4. Effective Utilization of Resources  
It reduces the loss of time by the workers waiting for materials and makes most effective use of equipments.

5. Co-Ordination  
It serves to co-ordinate the activities of plant and results in a concerted effort by workmen.

6. Benefits to Workers  
Adequate wages, stable employment, job Security, improved working conditions, increased personal satisfaction, high morale.

7. Efficient Service to Customers  
It ensures better service to the customers by enabling production to be conducted in accordance with the time schedules and therefore deliveries are made on promised dates.

# project And Product Overview

Today it is very crucial for an industry to have a production planner assistant software to plan the working schedule in the industry to avoid any wastage of resources and maximize the profit. The system should also support the control feature whereby it can monitor ,update or view the status of work in the industry.

This project will enable users to login for production planning and controlling. The system has workflow which would enable the planning managers and supervisors to plan for further production in a very effective and efficient way.

The C4 FACTORY can be divided into three modules, namely:

**Module 1:Administrator**

This module is responsible for maintaining the overall system based on defined business rules and it perform the following functions:

1. It can add an user , the user may be a production manager or supervisor.
2. It can delete user.
3. It can modify the user details.

**Module 2: Production Manager**

The production manager is responsible for all the decisions to be taken in the production planning and control in the industry. Therefore, a project can only be started by a production manager.

The admin provides a username and password to the newly added production manager. Once the production manager has logged in, he/she can choose to add a new project or choose an existing project.

After a new project has been started, he/she enters the following details:-

* Order ID
* Name of the project
* Start date of the project
* Deadline of the project
* Supervisor of the project
* Number of products

After this he/she provides the raw material , manpower and machinery requirements for the project.

A production manager can perform following fucntions from an existing project:-

* Material management
* Data collection and analysis
* Report generation
* monitoring status

**Module 3: Supervisor**

The supervisor doesn’t make any decisions in the industry. He/she helps the production managers in planning by efficiently scheduling the project.

The admin provides a username and password to the newly added supervisor.

Once the supervisor has logged in, he/she will get a notification of unscheduled project assigned to him/her by a production manager. he/she can then choose to schedule the project . the scheduling will take place in the following way:-

* setting the order of processes
* allocating days to the project
* setting the working hours of manpower and machinery.
* Optimize usage of resources available

After scheduling he/she can perform following functions-

* Report generation
* Monitoring status
* Updating the schedule
* Adding machinery or manpower

# Scope

## Objectives

1. The admin may add , update or delete any record of production manager and supervisor.
2. For each addition of a new user, maintain the record in the database.
3. For each new registration a profile is to be created which will include all the necessary related details of production manager/supervisor.
4. When a production manager has logged in the system via username and a password, he/she can perform two functions either add a new project or select an existing project.
5. To add a new project , the production manager will have to add details concerning the project like name of the project , start and deadline date, supervisor of the project, raw materials ,manpower and machineries required for the project,etc.
6. Production manager can choose to monitor the status or generate a report from the existing projects.
7. When a supervisor has logged in via username and password, he/she can schedule the processes depending upon the manpower and machineries available for the project he/she is selected.
8. The supervisor can also monitor the status and generate the daily,weekly and monthly report.
9. After all the processes required for a project have been completed, the end product is produced and dispatched to the concerning department.

## High-Level Requirements

The following table presents the requirements that the project’s product, service or result must meet in order for the project objectives to be satisfied.

| Req. # | I Requirement Description |
| --- | --- |
| Registration | To Provide complete access to the users i.e.to become a valid user. |
| Availability | Raw Materials and Machines should be available for production. |
| Product Consignment | Production Manager should receive product orders. |
| High skill labor | Planning, scheduling and implementing the techniques to achieve the desired product. |
|  |  |
| Result |  |

## Business Rules and Special considerations

1. Only the admin can add, delete or modify the records of the particular user who may be a production manager or a supervisor.
2. Each user can access the system only via a username and a password.
3. Only the production manager can start a new project providing details like name, start and deadline date, order id ,etc of the project.
4. Only the production manager will decide the requirements like raw material, machinery and manpower.
5. User should provide valid details.
6. The database of the system should not be tampered.
7. The scheduling should be done in a way to complete the project before the deadline.
8. Only a production manager can appoint a supervisor for a project.
9. Only the supervisor will deal with the scheduling of the project.
10. Daily, weekly and monthly status updating will be done by the supervisor.
11. Report generation will be done by the production manager
12. Any anonymous user to avail resources from the portal has to become a registered user.

## Major Deliverables/Milestones

[Provide a list of the major deliverables/milestones that will be completed by the end of this project. A deliverable is any unique and verifiable product, result or capability to perform a service that must be produced in order to complete a process, phase or project. A milestone is a key performance indicator that is typically reported to executives to indicate the project’s progress.]

| Major Deliverable | I Deliverable Description |
| --- | --- |
| Developed individual modules | Completion of the developed modules which separately includes the basic functionality of the project. |
| Linking of the modules | The basic functionality modules are linked to provide an overall interface to the entire project. |
| Final complete software | The ppc system software has now been designed and completed to assist the users in efficient production planning and control. |

# 

# Duration

## Timeline

[Provide an estimate of the project duration (e.g., 18 months). You may provide a high-level timeline for the project if information is available at this time. This time estimate will be further refined in the Planning Phase of the project. If applicable, also state the expected life of the product. An example of a high-level timeline is provided below.]

System Development

Completed

Developed Prototype

Requirements Analysis

Completed

Project Plan Completed

System Development

Completed

Developed Prototype

Requirements Analysis

Completed

Project Plan Completed

26/03

27/03

05/04

23/04

# project understanding approval

The undersigned acknowledge they have reviewed the **Project Understanding Document** forthe **ACADEMICBUDDY.COM** project. Changes to this document will be coordinated with and approved by the undersigned or their designated representatives.

[List the individuals whose signatures are desired. Examples of such individuals are Business Steward, Project Manager or Project Sponsor. Add additional lines for signature as necessary. Although signatures are desired, they are not always required to move forward with the practices outlined within this document.]

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| Role: |  |  |  |

APPENDIX A: REFERENCES

[Insert the name, version number, description, and physical location of any documents referenced in this document. Add rows to the table as necessary.]

The following table summarizes the documents referenced in this document.

|  |  |  |
| --- | --- | --- |
| **Document Name and Version** | **Description** | **Location** |
| *<Document Name and Version Number>* | *[Provide description of the document]* | *<URL or Network path where document is located>* |

APPENDIX B: KEY TERMS

The following table provides definitions for terms relevant to this document.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| **Credit/Debit Card** | means any credit/debit card issued on the account to the holder and must be a valid card. |
| **VISA/MasterCard** | types of cards issued by the banks which may be used for making payments. |
| **Transaction** | Transfer of monetary value from one bank account to another. |
| **Web Portal** | website bringing together information from diverse sources in a unified way. |
| **Authentic** | valid things, refers to the truthfulness of origins, attributions and commitment. |
| **Discretion** | depends upon the understanding of the user judgment power |
| **Contemporary** | relating to the current world |
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