**ECE 651 Project Requirement Template**

1. The Purpose of the Product

Background: See Project Abstract

1. Client, Customer and other Stakeholders

Client and Customer: Manufacturing facilities

1. Users of the Product

User: Production Manager and/or coordinator of a manufacturing facility

1. Mandated Constraints

* Solution constraints
* The System should run on android tablet
* The system should be able to connect with a printer to print out the daily schedule
* Project Constraints
* The project must be completed before April 5th
* The project expected to be completed within a group of 3 people
* Partner applications
* Email Application in Android Phone

1. Relevant Facts and Assumptions

* Assumptions that the team are making about the project
* This App is designed for manufacturing facility with around 100 to 300 manufacturing personnel
* This App is designed for one person to use

1. The Scope of the Product

* Develop an Android APP which allows manufacturing managers/coordinator manually/automatically produce daily work schedule and record daily work completion.
* If time permits, the APP should come with an algorithm to evaluate employee’s performance base on daily work completion
* If time permits, the APP should come with an algorithm to predict project shipment date base on daily work completion and current work load

1. Functional and Data Requirements

* Functional Requirements
* As a manufacturing manager/coordinator, I want to create the daily schedule by manually assign tasks to each employee
* As a manufacturing manager/coordinator, I want to update the daily project status manually

**Employee List Control**

* As a manufacturing manager/coordinator, I want to add new employee to the system
* As a manufacturing manager/coordinator, I want to update employee information
* As a manufacturing manager/coordinator, I want to view all employee in a list
* As a manufacturing manager/coordinator, I want to view all employee in a list base on different employee properties
* As a manufacturing manager/coordinator, I want to search employee base on certain properties from the list

**Task List Control**

* As a manufacturing manager/coordinator, I want to add new task to the system
* As a manufacturing manager/coordinator, I want to mark inactive or completed task to the system
* As a manufacturing manager/coordinator, I want to view all tasks in a list
* As a manufacturing manager/coordinator, I want to view all task in a list base on different task properties
* As a manufacturing manager/coordinator, I want to search task base on certain properties from the list
* As a manufacturing manager/coordinator, I want to update task information

**Employee Control**

* As a manufacturing manager/coordinator, I want to have each employee has information includes: Name, Employee ID, Department, level, first day of employment, email
* As a manufacturing manager/coordinator, I want to view certain employee detail in one page
* As a manufacturing manager/coordinator, I want to view email employee about their current workload by email
* As a manufacturing manager/coordinator, I want to evaluate an employee’s performance base on how many tasks they successfully completed.

**Task Control**

* As a manufacturing manager/coordinator, I want to have each task has information includes: Name, Task ID, Department, Responsible Employee, level, start date, end date, Description, Status
* As a manufacturing manager/coordinator, I want to view certain task detail in one page
* As a manufacturing manager/coordinator, I want to have a sort of way to notify me about coming due tasks

1. Look and Feel Requirements

* The graphical interface should conform to the Android 9 GUI Style.

1. Usability Requirements

* The APP expected be to use by manufacturing manager/coordinator with intermediate computer knowledge
* An user manual should be produce to allow user understand all features of the APP within 20 minutes by following our user manual
* As a manufacturing manager/coordinator, I want to have a way to automatically import information into the database

1. Performance Requirements

* Automatically daily work schedule creation should be completed within 2 minutes on any Android Tablet released after 2019

1. Maintainability and Portability Requirements

* It is expected that the new project and employee properties can be added into the existing system within reasonable effort