System Requirements Specification (SRS)

for

Delaware Technical Community College’s Printer Toner Inventory System

**Group 1**

Khalidah Abdul-Muqtadir

Kayla Collazo

Zachary Muzzleman

James Cooper

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**1 Problem statement**

Delaware Technical Community College’s printer inventory system doesn’t contain software that is able to display toner inventory needed for its separate printer systems located at the Wilmington/George and Stanton campuses. The technician is not able to obtain information regarding when toner needs to be stocked for a specific campus, or the information specific to the toner and the printer that is experiencing toner shortages. A mobile/web system, which can constantly check for printer inventory, needs to be developed to assist technicians with updating stock information. Additionally, this information needs to be made available to the purchaser so toner inventory can be updated and restocked. The end-user should not have to wait long for inventory to be restocked for usage while this system is in place, which will ensure that less time is spent waiting for the printers to be usable.

**2 Overview**

**2.1 Background**

Delaware Technical Community College is a two-year college in Delaware that has a very active IT department. This department consists of approximately 15+ members who have a desire to be as helpful as possible in the most efficient way.

As the school year progresses at the Wilmington/George and Stanton campuses, the need for printer technician assistance has increased tremendously. With the aid of this program, technicians will be able to assist faculty and students easily and more quickly.

**2.2 Overall Description**

Essentially, the toner stock system is providing an interface for technicians to view and update stock information for toner. When a printer’s make and model is selected, the stock information for its specific toner is displayed. Through this interface they can update the current toner stock and view what needs to be ordered when the stock for a specific toner is low.

**3 Input requirements**

A technician should be able to input the brand of the printer. The technician should also be able to pick the model of the brand that they have previously picked.

**3.1 Printer excel file**

One file that will be taken into account will be the printer excel file which lists every known printer associated with Del Tech listed with their barcode, serial number, ink the printer takes and its location. This file will be used for showing where a technician would need to go to refill the printer they are looking for and also what type of ink it would need to be refilled with.

**3.2 Toner excel file**

The other excel file used for input will be a toner based file that shows when each printer model needs toner, its current stock, minimum stock needed, the amount of printers and if toner needs to be ordered for restock.

**3.3 User input**

When the files are displayed to the user he or she will be able to type into their device which brand or model they would want to look at specifically and all the information about that model will display showing it’s current stock and if re order is needed.

**3.4 Flag and Comment input**

The second input feature that will be available is the flag and comment feature. What this means is that a user will be able to flag a model printer that is in need of toner and a technician will be able to see this issue and decide to comment saying they will be ordering more toner for such printer.

**4 Process requirements**

The following requirements are what the Toner Inventory System should be able to properly manage:

The software should have the capability to track the toner models and display the current stock, mini stock, the toners need to be ordered or not, the quantity of toners must be purchased, the location of the toner models (Stanton or Wilmington Campus), and the room number where the printer toners are located right now. All these outputs will be shown to the screen, so the technician can easily process. The software application should also constantly update and display how much toners are in stock for both the Stanton and Wilmington campuses.

**4.1 Database**

The software uses the two updated excel sheets that a technician from Delaware Technical Community College provides: printer.csv and WilmingtonTonerDatabase.csv. These two excel sheets are the primary inputs to check each printer model that Delaware Technical Community College has available and displays the amount of toner cartridges that are currently in stock or what needs to be acquired by the purchaser for future use.

**4.2 Data Integrity**

The technician must check and update the inventory excel spreadsheet to make sure the software can display the toner availability for both Delaware Technical Community College locations (Stanton/Wilmington Campus).

**4.3 Data Validation**

The technician has to be very careful when he/she appends information into the excel spreadsheet. Any errors from the database must be settled, so the software application can run smoothly without any problems .

**4.4 Data Repository**

The Delaware Technical Community College’s printer inventory system will maintain the inventory excel sheet(s) as the main repository of data.

**5 Output requirements**

**5.1 Files shown to user**

When the program starts it should list all the printers with their features to the user which will then have an option to type their desired printer model in to the menu.

**5.2 After printer is chosen**

When the printer is chosen it will be viewed various descriptions, like the current amount of toner, the minimum amount of toner, a YES or NO if an order is needed, and which campus this printer is located at and how much is in stock at each campus and which room they are currently in right now.

**5.3 Flag shown to user**

When a “Flag” is typed into the menu markings will go on each side of that printer model to show that it has been flagged looking something like this “\*\*Model:34XE-DY2\*\*” This feature is used to show a technician that a printer needs toner mostly used by a instructor to let the technician know.

**6 Use Cases**

**6.1 Inventory Check use case**

**Actor/s:**

IT Support Technicians

**Pre-Conditions:**

Inventorysoftware should be made available to the technicians for use from any web-based device.

Amount of inventory should constantly be available to view.

All printers at both campuses should be connected to this software.

**Post-Conditions**

End-user requests help from their computer regarding a printer malfunction

The technician receives user message on device.

The user notifies the technician that the ink is low in the printer.

The technician goes to the room and assesses the problem.

Technician checks toner inventory software on their device to see if the properly identified toner is available for the specified printer.

If toner is in stock, the technician replaces the toner in the printer for use by the end-user.

If toner is not in stock, the technician updates toner inventory in the software for that specific campus, checks the software to see if inventory is available at the other campus, and is able to update the inventory in the system to be viewed by the purchaser.

The updates in the inventory app should then able to be viewed by technicians across both campuses.

**6.2** **Restock use case**

**Actor/s:**

IT Support Technician

**Pre-condition:**

The inventory software will send a message when the toners are very low or out of stock to the technician to the screen.

**Post-condition:**

The technician receives the list of toner cartridges need to be ordered from the inventory software.

The technician reports to the IT Director to request an order for these toner cartridges in both Stanton and Wilmington Campus.

When an IT Director approves, the technician starts to purchase.

The inventory software will stop notifying a technician until he/she updates these toners have been received to the excel spreadsheet.

**6.3 End user use case**

**Actor/s**

Teacher/students

**Pre-Conditions**

Printer-ready devices and the ability to view toner errors

**Post-Conditions**

User selects to print a document

User receives error that toner is low

User notifies technician to fix the issue

Technician checks stop and replaces it if in stock

User selects to print document once toner issue is resolved