**CIS 375: Introduction to Software Engineering**

**Project Part 3**

**Software Requirements Specification Document**

**Software Design and Implementation**

Course: CIS 375: Introduction to Software Engineering

Instructor: Tom Steiner

Semester: Winter 2016

Part 3 Due on : April 28, 2017

This project will engage you in requirements analysis and modeling tasks to create a **software requirements specification document** for an **object-oriented software application**.

**Software Application Requirements**:

The task is to develop a pharmacy system:

Your plan should also take into account the effort involved to develop some type of user interface for the system which includes components such as (but not limited to):

* + Given an item (item number or name) - display item data and inventory (overall and per store), allow update of item values (inventory, price, etc.)
  + Request update of store inventory items to specified levels for that store (assume store inventory updated at start of day – this triggers creation of a batch file to run overnight, added to similar functionality below)
  + Calculate historical sales based on inventory for an individual store or individual item- user will request display per day, by week, by month, or by year (total year if prior years data or year-to-date in current year – be sure to label properly)
  + Assign/delete inventory items to a store and company level
  + Enter transaction – customer prescriptions for up to 5 items in each transaction – consists of (account, name and address of patient, name of medicine, and dose) must be verified by another employee before prescriptions can be filled from store inventory. Given name and address - fill in account, given account - fill in name and address. Print prescription labels. Handle for transactions in which one or more prescriptions for medicines not in stock. Enter customer data and create account if one doesn’t already exist – system assigns the account number.

Your plan should also take into account the effort involved to develop some type of ‘daily’ batch file processing for the system which includes components such as (but not limited to):

* + Create/ delete store (file may be “empty” – that is, e.g. no stores to process)
    - store number (cannot already exist)
    - priority level
    - order to default inventory levels for default product list
      * items and inventory level to stock to
    - delete store will create a file to remove all inventory and send to warehouse (taken into process below)
  + Store(s) order inventory from warehouse
    - sort orders by item by store priority (i.e. fill inventory by priority)
    - allocate inventory to stores (error if no inventory available – create file to process again next day – item will keep cycling until inventory available)
  + Item inventory received at warehouse
    - item data (error if item not listed for company)
    - quantity received
    - update inventory
  + Item inventory generation (run after order inventory)
    - if item inventory quantity < reorder point place order with vendor
    - report of items ordered - list by vendor and estimated arrival date
  + Item data update ---- similar to on-line capability but for large number of updates
    - Change/add/delete item data – cannot delete if inventory exists (error message)
  + Yearly item sales (different that on-line user report)
    - Calculate sales based on inventory for individual item by month including subtotals for year and overall total across the entire company

Your project will also include the additional functionality chosen by the team.

Follow the plan created in Project Part 2 and determine how close the estimates and plans compare to actual development efforts.

**Project Progress:**

Weekly progress reports are to be submitted to Canvas every Monday.

**Project Part 3 Submission Requirements:**

Continue updating analysis and design of part 2 artifacts.

Additional artifacts:

* Architecture – hardware and software (include software schedule flows)
* Test plan – based on test strategy what are ALL of your test cases
* 3 full program documentation – fill out template – must be “substancial” program (i.e. cannot to menu selection program). One MUST be a batch program.
* Tracability artifacts – 6 traces
* Code
* Instructions/user guide on setup/executing your application
* Screen prints/file of executed work ….. as you plan your demo take screen shots in case I cannot run your application I can refer to these (think back-up plan!)

An updated version of the SPMP (e.g. estimate and task plan updates) will also be submitted.

The final requirements document, updated SPMP, your presentation slides and other related materials must be submitted to Canvas folder by due date.

**Team member assessments are required – the assessment is only for that part of the project. A final overall assessment for the combination of the three projects will be due after the presentations are complete.**