

SYS366 Requirements Gathering using OO Models

Case Study – Key North Cottage Supply

School of Information and Communications Technology Seneca

College

Key North Cottage Supply (KNCS) opened its doors in 1949. War World II was over and the Muskoka area was experiencing an unprecedented growth of ‘Cottagers’ developing lake front properties as summer retreats to escape the humid heat of Toronto. Sam North opened the store to supply ‘cottagers’ with the hardware necessities required to maintain their properties. 20 years ago, Sam turned over the day-to-day operations of the store to his son, Jeff North and daughter, Darlene Turcott, although as owner of the store, he still has a say in the management of the business. Jeff and Darlene have expanded the business to include a warehouse, an equipment rental business, a classroom facility and a small restaurant.

Jeff focuses on marketing *Key North Cottage Supply*. He works with a team of web developers to maintain the company’s web site. *KNCS*’ engaging web site currently serves as one of the company’s attention draws. The website features sales and promotions, allows customers to enroll in classes and order products. As a family owned company, *KNCS* is proud to support local children’s Sports Teams, the local Army Cadets Corps, Scouts and Guiding troupes. Jeff ensures that 5% of *KNCS*’s profits are donated to these community programs. *KNCS* also contributes to the local high school’s scholarship fund, funding scholarships for students who are interested in apprenticing in building trades. Jeff works hard to ensure that *KNCS* is represented at all local trade shows and festivals and advertised within newspapers and travel websites.

Darlene works with Store Manager, Daniel LaCroix to make sure that *KNCS* is always for open for business as per the advertised schedule. *KNCS* is open for business from 7am until 10pm, 7 days a week from April 1 until October 30, to meet every cottager’s needs. During the winter months, seasonal staff are laid off and *KNCS* runs on a reduced workload – 9am to 8pm, 6 days a week. Darlene and Daniel hire staff as needed, keep track of hours that employees work, submit payroll and tax information to the *Ledgers and Associates*, so that employees are paid. Darlene, Daniel and their team of office staff, ensure that customer’s online and special orders are filled and bills are paid. They also work with storefront staff to ensure that all sales registers are balanced, and they regularly provide profit reports to Sam and Jeff and manage budgets.

Jeremy DeSilva keeps track of inventory. He watches inventory levels in the store and the warehouse and when store inventory is low on a particular item, he transfers inventory from the warehouse. Jeremy orders products from suppliers and periodically suggest to Darlene and Daniel that certain products be ‘put on sale’ when inventory levels are too high.

All sales are kept track of through the *KNCS* Point of Sale (POS) system. *KNCS* accepts payment through cash, Interac/debit, MasterCard and Visa. At the end of the day, storefront staff shut down each point of sale system and at that point, a sales report is printed for Darlene and Daniel.

Local wildlife artist, Jie Chen recently joined the team, as the resident designer. Jie keeps the storefront of *KNCS* looking up-to-date and relevant, with the goal of keeping the small-town charm that makes *KNCS* so appealing. Jie works to ensure that the look of the store changes subtly every weekend, so that returning customers will see something new. Jie and her team of in-house design experts work with Jeremy to keep the store shelves stocked with in demand paint and household decorating items and conduct decorating workshops in the classroom facility. Jie will order products based on Customer Requests. *KNCS* ensures that there is at least one in-house design expert in the store at all times to advise customers.

Bill Smith manages the rental business of the store. He works with Jeremy to stocks his shelves with tools required by the average handyman and also runs the tool rental and repair side of the business. For rentals, Bill keeps track of where each rental tool is, who borrowed it, and so forth. Bill and his team of technicians attempt to fix all of their customers’ tools in house, but sometime have to employ the local small engine repair shop to fix the big problems! Either way, he has to keep track of repair progress and watch expenses. Bill and his team conduct workshops in the classroom, teaching customers the proper and safe methods of using the various tools. Bill will order products based on what he needs to properly fix tools.

Christine Singh manages the hardware section of the store. She ensures that shelves are stocked with anything that a cottager would need to maintain their buildings and properties and works with Jeremy to order products from suppliers as needed. She manages independent contractors to provide building solutions for the customer who might not want to tackle a project on their own. Her list of outside contractors include: general contractors, electricians, plumbers, painters, and landscape companies. Christine prides herself on being able to solve any building problem, quickly and cost effectively for *KNCS* customers. Christine also organizes do-it-yourself classes for Saturday mornings with the idea that customers can buy the supplies, rent the tools, gain the knowledge and complete the project in a weekend!

Jeff’s daughter, Jenny North organizes use of the classroom facility. She works with *KNCS* staff to ensure that the classroom is never double booked and that classes are scheduled at convenient times. Customers can register for classes online or in the store, and classes generally can take 10 students and run about 1-2 hours. If a class involves a

lot of supplies provided by the store, then the class may have a cost for the customer. Jenny calls each customer 2 days before the class is offered, to help ensure maximum attendance. She also ensures that the class room is stocked with all the tools and supplies needed to operate the class. Although she tries to use *KNCS* staff when possible, Jenny will rely on

Christine's list of contractors to teach classes when *KNCS* staff aren't available. Jenny will borrow store models of equipment and hardware from Bill and Christine. The cost of the class will cover the material costs from inventory.

Currently, many of the existing processes are accomplished using individual computers and Microsoft Office. Jeff and Darlene have been thinking about a centralized computer system for a while and finally have money in the budget!