



# OPTITECH SOLUTIONS

# Optical Center: Description

- Prominent seller of traditional and technologically advanced eye-wear
- Offer personal services:
  - One Hour Lab
  - Repair Service
  - Insurance
- Two branches in:
  - Hamilton
  - St.Catharines

# Problems?

- No exposure via Internet
- Inability to generate reports
- Error prone paper based systems:
  - Customer/employee records
  - Employee work scheduling
  - Inventory recording
  - Appointment taking
  - Sales records
- Underlying Problem?
  - Inefficient time management!

# Functional Requirements

- For a solution to solve these problems, the software:
  - must utilize a well developed GUI
  - must allow users to pull and store information in and out of databases
  - must allow users to access it from external sources, (i.e. other than the store itself)
  - must be able to send notifications and alerts regarding inventory and appointment information
  - must automatically keep track of daily and monthly inventory changes

# Non-functional requirements

- For a solution to solve these problems, the system must:
  - be flexible and well-documented for future features and upgrades
  - have online capabilities
  - use proven, low risk off-the-shelf technology in attempts to reduce general risk

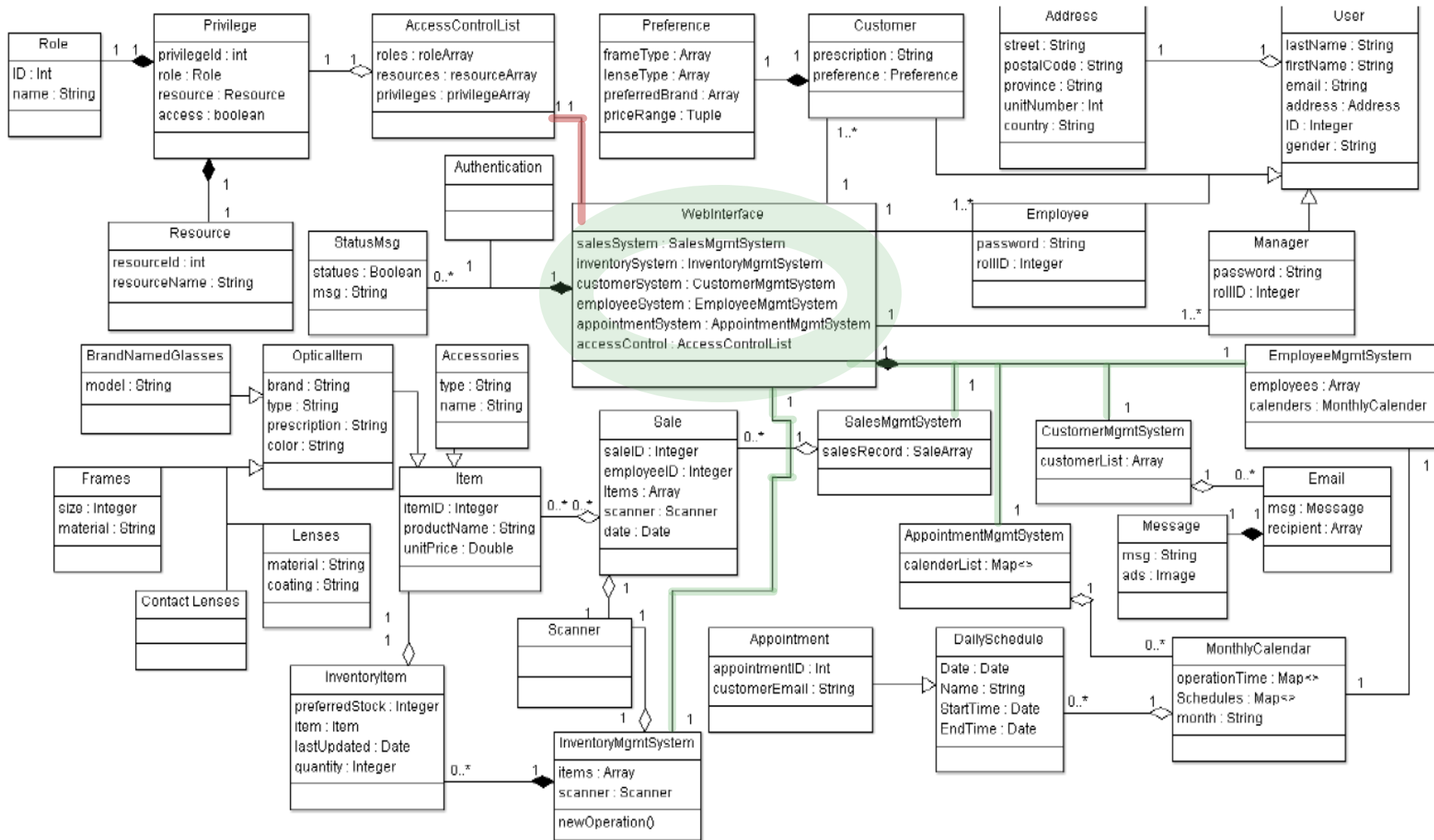
# Solution?

- Make a web-based application to:
  - Allow customers to make their own appointments
  - Keep records in online databases for easy lookup, changes, trend keeping and report generating
    - Removing paper-based systems
  - Allow accessibility to anyone on the Internet
- Introduce scanners to speed up the sale process and automate sales records keeping

# Hardware Introduced

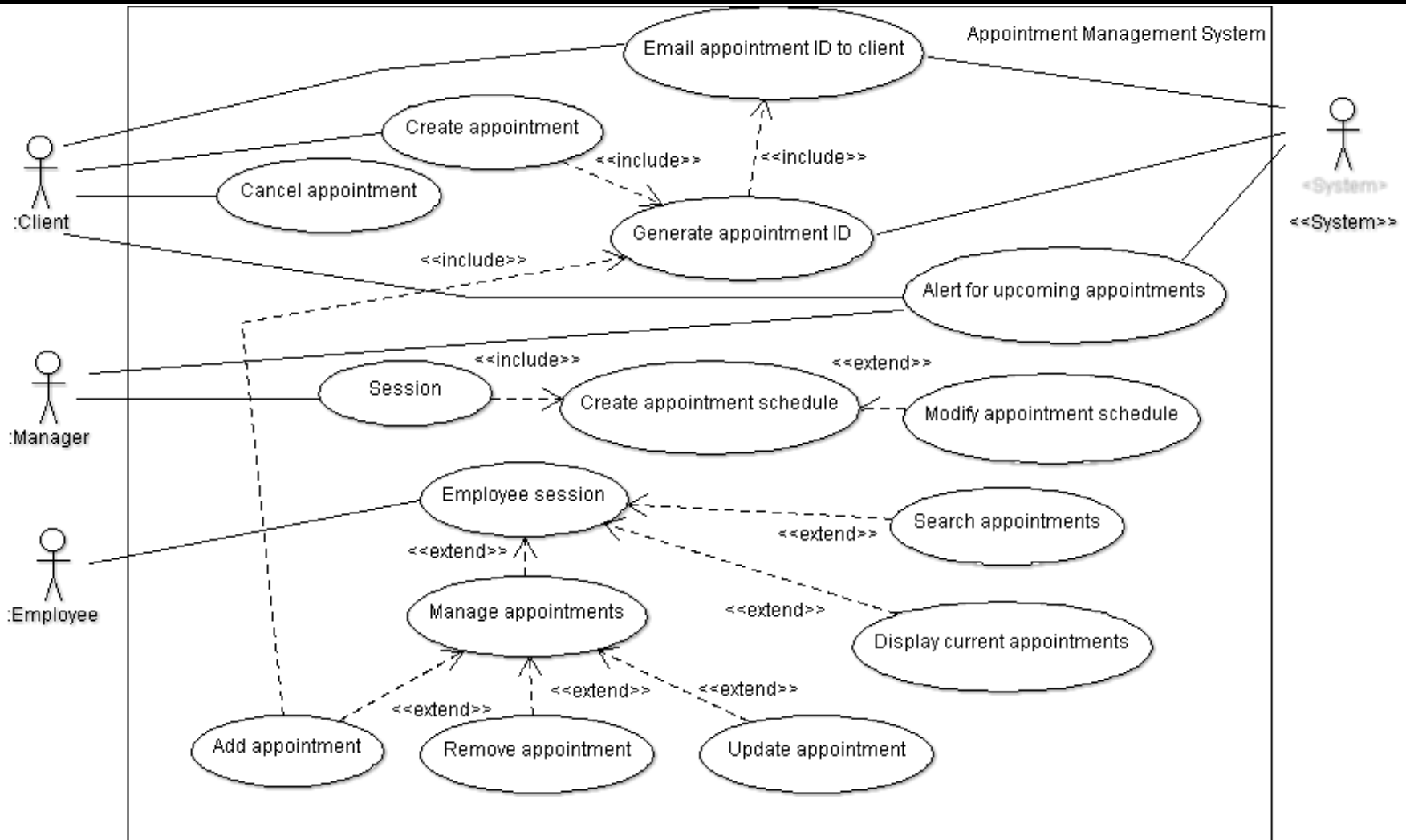
- Scanner beds
  - For employee use:
    - In keeping track of employee's personal sales
    - In keeping records of customer's personal purchases
- Server
  - Used co-location server
  - Apache Tomcat6
- DBMS
  - IBM TotalStorage

# Software Capabilities



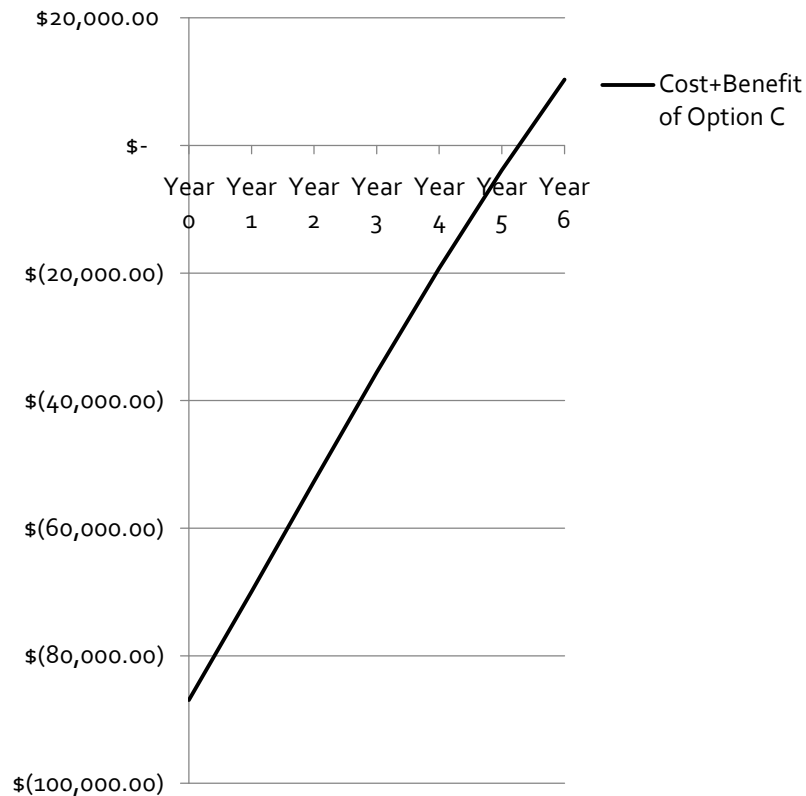


# Software Capabilities (cont.)



# Break-Even Analysis

## Payback Analysis of Option C



$$\begin{aligned} ROI &= \text{Net Present value} / \text{Estimated lifetime costs} \\ &= 10,347 / 105,103 \\ &= 9.84\% \text{ return on investment} \end{aligned}$$

**Break-even point =**

$$\begin{aligned} & \frac{|\text{Beginning of the year amount}|}{(\text{End of year amount} + |\text{Beginning of the year amount}|)} \\ &= (3,843) / (10,347 + 3,843) \\ &= .271 \end{aligned}$$

Payback period is 5.271 years.

# Questions?

