

THE BUCK DOES NOT STOP HERE: DEVELOPING A FRAMEWORK FOR LIFE-LONG LEARNING AFTER GRADUATION

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ABSTRACT

This SME (small and medium-sized enterprise) focused case study is designed to support newly graduated accountants entering internal accounting positions. Working for SMEs, learners may face unique challenges in managing internal controls, risk management, data analytics, and enabling emerging technologies. For instance, some SMEs outsource various support functions. This budgetary decision can leave the internal organization technically void of critical strategic knowledge and skills and highly dependent upon outside members for this support. What if there were a better way? What if we prepared our undergraduates to meet these challenges with a life-long learning toolkit?

Keywords: Life-long learning, internal control, COBIT framework, risk management,

INTRODUCTION

So, what went wrong? SMEs in start-up and fast growth cycles may find themselves in desperate need of professional administrative assistance without the budget for full-time support. This was the case of a small construction company specializing in roofing installation in the early 2000's. The two owners of Roof Masters met during a sales call for an HOA request for roofing. One eventual owner arrived early and provided exceptional service which culminated in sending the bid, as promised. The other owner marveled at the stark contrast with competing sales representatives who arrived late, did not show or call, or simply neglected to send a bid. The pair talked about the challenges of receiving "good service" from many construction companies which led to the idea of going into business together. Soon after, the two built the second largest roofing company in Southern California. Fast forward a decade later and the company had gone public and back to private, struggled through the 2008 financial crisis, and eventually closed its doors after a bitter partnership feud ended in bankruptcy. So, what went wrong?

BACKGROUND

BEGINNINGS Roof Masters launched their business from one of the owner's garages with a pick-up truck, scheduling book, phone, and a few bundles of material. The advertisements it placed in residential home magazines quickly yielded a high rate of sales, appointments, and

closings. The owners hired their wives to run the back office by answering phones and handling other administrative tasks with care. The owners then split responsibilities as one ran the sales calls while the other ran the fabrication and installation of the product. The pair delivered on their customer promises 100% of the time which quickly enhanced their brand recognition. The owners also signed a significant exclusivity deal with a local supplier to offer the highest-quality roofing materials to be customized for each home with a lifetime guaranty. This product and service differentiation strengthened their quality reputation. After two years of hard work, the owners had built the company into a reputable force in the roofing industry. Hiring mostly family allowed the company to remain agile and instilled a sense of employee pride in the company's mission. However, the pressures of running a business eventually led to exhaustion and squabbles.

As the firm grew, the owners' inexperience prompted them to outsource support for strategic management, accounting, human resources, and information technology. Roof Masters contracted with Sutiva, a professional employer organization (PEO) based out of Indiana with remote offices in Orange County, to help the company build their administrative infrastructure. The CEO of Sutiva negotiated a deal at .5% of Roof Masters' sales plus fees for an exclusive payroll and human resource product that could be managed by a team of local HR representatives. The Roof Masters owners took comfort in having a qualified strategic partner to grow their company. As part of Sutiva's premier strategic package, a local part-time CFO would visit the company weekly to prepare financial statements, budgets, and hiring recommendations.

GREEDY BOOKKEEPER Rising tensions prompted the owners and their wives to hire non-family for the new roles. This caused a major shift in organizational structure as the new board was made up of two Sutiva executives, the company's CPA, and the two owners. The owners also held the roles of CEO and COO focusing on managing sales and operations, respectively. After navigating these high-level changes, the owners contacted friends to fill additional positions for the expansion. Based on guidance from Sutiva, the hiring included the following positions: sales manager, operations manager, bookkeeper, sales staff, installation staff, fabricators, and a receptionist. The CFO drafted organizational charts, job descriptions, and training materials for the transition.

One of Roof Masters' earliest hires was a full-charge bookkeeper to assist the CFO with data entry and financial reporting. With limited visits to the location, the CFO relied on the bookkeeper to record sales entries, manage cash receipts, and prepare deposits. The CEO took the prepared deposits to the bank daily and gave the receipts to the bookkeeper to record and file. The company managed its spending primarily through a business credit card which the bookkeeper reconciled monthly. Within months of hiring the bookkeeper, the CFO found several discrepancies in the reconciliations. With a clean background check, Sutiva and the owners had no reason to suspect the bookkeeper of fraud. However, a customer eventually tipped off the CEO that their bank refused to cash a check that had been modified to add the bookkeeper as payee. Further investigation revealed that the bookkeeper had tried to cover up this on-going fraud by altering invoices in the accounting software. After navigating the review and termination of the bookkeeper, the owners became increasingly concerned over the hiring process for the accounting function.

In conjunction with Sutiva's HR representative, the executives created a new upper-level accounting manager position. After several interviews, the company hired a recent accounting undergraduate who had previous full-charge bookkeeping experience. After a three-month

probation period, the candidates' strong performance as accounting manager exceeded expectations. In addition to maintaining the accounting function by using a basic accounting information system, the accounting manager also developed a manual sales approval and job costing system using handwritten contracts and job records to improve controls.

The accounting manager also developed a dashboard using Excel to help executives and managers quickly track weekly firm performance. The accounting manager undertook the cumbersome process of preparing these reports by gathering the following information from various sources:

- CRM (customer relationship management software): marketing performance, sales pipeline, and closing ratios.
- Giant whiteboard in operation manager's office: installation scheduling detail for revenue recognition timing and install pipeline determination.
- Handwritten fabrication records: for total materials costs used per job.
- Payroll timecards: for estimated labor hours used per job.
- Manilla job folders: job status notes made by sales and operations manager.
- Job cost summaries: manually prepared in Excel to calculate job cost variances.

The managers and owners met weekly to discuss the progress and plan for the rolling four weeks of installations as new contracts required special ordering, fabrication, installation, and completion. Instances of early errors in dashboard reporting arose due to miscommunications and an increased demand for timely information despite the lack of timely updates to the whiteboard. Newly hired operations and accounting clerks assisted the accounting manager in improving the process of gathering information

After discussions with the CFO about variances in variable costs, the accounting manager implemented monthly periodic inventory counts to monitor these levels against the reported usage on job cost records and standard usage per square foot of installation. Due to the lack of a thorough job cost module in the existing accounting information system, the accounting manager relied on the clerk to help maintain detailed job cost records in Excel.

Despite the challenges with navigating multiple sales, operations, and accounting systems, the accounting manager was able to provide monthly financial statements which clearly showed volatility in gross profit. This warranted a closer look into the work of the operations manager who had resisted the new systems by ignoring critical and time-sensitive requests for information. It was clear that something was amiss and, soon after these new control procedures were implemented, another major fraud was discovered.

BETRAYAL OF A FRIEND The owners worked hard to find trustworthy individuals for the sales manager and operations manager positions. Working under the guidance of Sutiva's HR representatives, the COO hired a close family friend to be the operations manager and oversee the fabrication and installation departments. This role required strong communication, management, and logistics skills. Over time, the new operations manager had forged close relationships with the installation crews. While the primary role of sales fell under the sales team, installers would regularly be approached to take on "side jobs" or small additions to the contracts. Protocol required the installers to contact the assigned sales representative to bid the work. Depending on the size of the work, customers typically complained about the high change order price for these minor additions and failed to sign the change order contracts. The fraud began as a group of opportunistic installers began colluding with the operations manager to

bypass the sales department and handle this work “on the side.”

Even while breaking installation sales records and improving efficiencies in the department, the operations manager was also stealing materials and labor by fabricating and installing the side deals on company time. In the end, through their job costing efforts, the accounting department detected over a hundred thousand dollars in theft. Sutiva HR representatives handled the formal investigation, and the operations manager was terminated once enough evidence was gathered. The fraud severely damaged company morale as no one had expected the owner’s close friend and nearly fifty percent of the installation staff to engage in such audacious behavior.

At the time of the discovery, the COO had been on leave after having major surgery. Learning of the betrayal while being unable to return to work, the executive had to act quickly. The accounting manager was promptly promoted to interim COO since they had learned the standards of preparing jobs for fabrication and installation while developing the inventory and costing systems. While in this role, additional checks and balances were developed and an operations manager and several installation crews were hired. In time, the owner returned from leave with a newly trained operations department and the accounting manager/interim COO was promoted to controller.

THE BOOM After recovering from the betrayal of the previous operations manager, the company’s effective marketing and continued high-quality service helped Roof Masters improve its revenue. This sales growth prompted the company to hire an extravagantly paid marketing consultant to improve the sales process and marketing ROI. As Roof Masters grew, it next addressed its critical need for updated computers, databases, and a secure network. The controller relied on information learned in a recent accounting information systems course to assist with interviewing IT consultants to help with these needs.

The owners, managers, and consultants held monthly strategic meetings geared toward further expansion efforts. Owners were forced to provide clear direction and mediate clashes between management and consultants regarding the prioritization of growth initiatives and handle conflict among managers competing for project resources. Despite these disruptions, the IT consultants implemented a shared network which allowed for some automation and remote file sharing. The sales and IT consultants also improved the website and implemented a bridge between the CRM and accounting information system to mitigate duplication of data entry. These overall improvements in infrastructure and processes helped the company create a value driven experience for customers which led to an acceleration of sales growth.

The accounting department continued to improve the manual systems of job costing and reporting. Each completed project was reviewed for cost variances and the managers were held accountable for discrepancies in their budgets by the CEO at the weekly meeting. These reports sparked heated discussions around the needs for improvement in the sales, installation, purchasing, and scheduling processes. Despite the assistance of the accounting clerk, as the company expanded the manual job costing process proved unsustainable-- resulting in longer workdays and reporting delays. The controller and IT consultants sought out potential solutions and recommended several rightsized ERP systems to bridge the sales, accounting, and operational data into one centralized database. However, the owners decided to pause the project and, instead, pressured the accounting manager to continue to deliver timely reports, despite these issues.

Roof Masters continued expanding by opening sales centers in three surrounding counties.

Sutiva executives noticed the continued sales growth at Roof Masters and offered additional expertise through pitching IPO or franchising strategies. The management team had concerns that the owners were acting hastily in considering either strategy and should instead first focus on solidifying team building and implementing process improvements and a reliable central database. However, Sutiva's lofty expansion forecasts demonstrated a clear path to early retirement and the owners worked with the company's legal team to determine the best path forward. Sutiva's executives negotiated higher fees over fancy dinners with the owners, and despite the warnings of the controller, plans were made to expand the company nationally. The part-time CFO relied heavily on the controller to prepare the company for the initial public offering to raise funds for expansion. External auditors were hired to inspect the accounting records and, with the accountants and legal team on board, the company embarked on a reverse merger to go public—thus, speeding up the process and saving costs on an IPO transaction.

CONCLUSION

THE BUST Less than a year after the decision to go public, the 2008 financial crisis emerged, and Roof Masters was hemorrhaging funds on increased professional fees and failing operations in two of the four counties. The legal team helped the company sell off the public shell and revert to being a private firm. Employees, friends, and family lost much of their investment in the company as legal, accounting, and other fees mounted as revenue fell. The organization consequently underwent a major reorganization and the CEO and COO returned to work as sales and operations managers with significant pay cuts. With long-term leases signed at the new locations, the company was forced to sustain hefty expenses during the recovery phase. Crippled by these high fixed costs, the company terminated contracts with Sutiva which meant letting go of their long-term CFO. The owners also abruptly cancelled contracts with the marketing and IT consultants. Furthermore, employee morale was so badly damaged for remaining employees due to their failed personal investments in the IPO that half of the sales representatives left to start a competing company. The controller also resigned due to the rising tensions among the owners and burnout due to the massive loss of human capital. The company once near the peak of the roofing industry eventually dissolved in bankruptcy despite the efforts of Roof Master's experts. So, what went wrong?

CASE ASSIGNMENT

1. **MAKE THE CONNECTION** How do the course and weekly learning objectives posted in the syllabus and module overviews of this AIS course relate to this case? (Hint: course learning objectives are summarized on the first page of the syllabus for you).
2. **INTERNAL CONTROLS** Based on your understanding of the COSO internal control and risk frameworks, what are the top five risks for Roof Masters and why?
3. **COBIT** Based on your understanding of the COBIT framework, what are the top five information system and security concerns for Roof Masters and why?
4. **DATA MANAGEMENT** Based on your understanding of Data Management, what are the top five reasons for Roof Masters to implement an ERP and why?
5. **BUSINESS INTELLIGENCE AND EMERGING TECHNOLOGIES** Based on your

understanding of business intelligence and emerging technologies, how might the deployment of these technologies improve decision-making and overall operational efficiencies for Roof Masters?

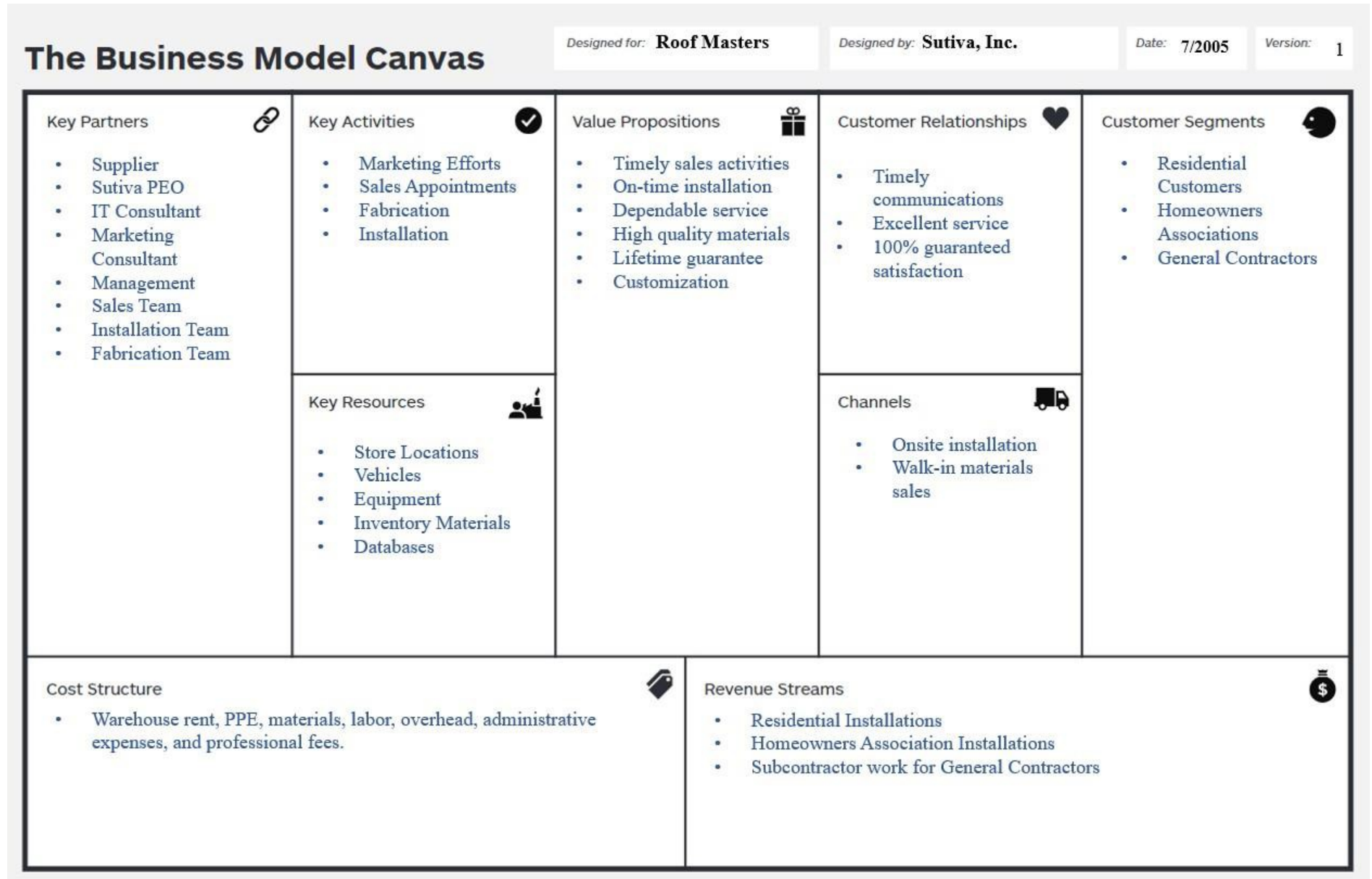
6. **BUSINESS PROCESSES** Based on your understanding of BPMN and business process, what are the top five process improvement recommendations for Roof Masters and why?

7. BUILD A LIFE-LONG LEARNING TOOLKIT

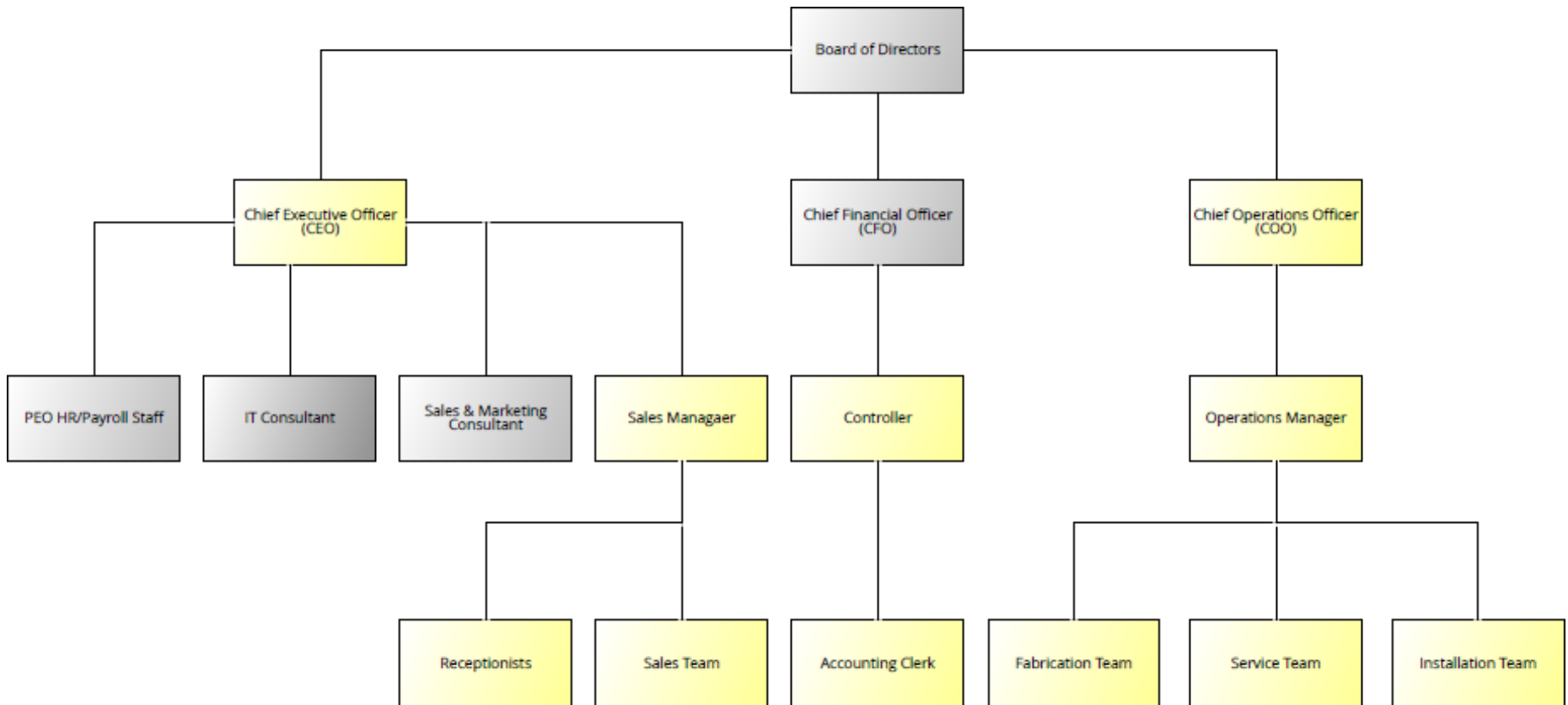
- a. Reflect on the key aspects of the case and your personal learning journey in this course.
- b. Based on the professional organizations introduced in class (AICPA, CalCPA, IMA, IIA, ISACA, AAA, COSO) consider what resources are available.
- c. Compile a list of five quality websites that offer CPE for accountants and foster lifelong learning.
- d. What certifications would you recommend for the Roof Masters controller and why?

APPENDIX

Business Canvas Model



Organizational Chart during High-Growth Stage

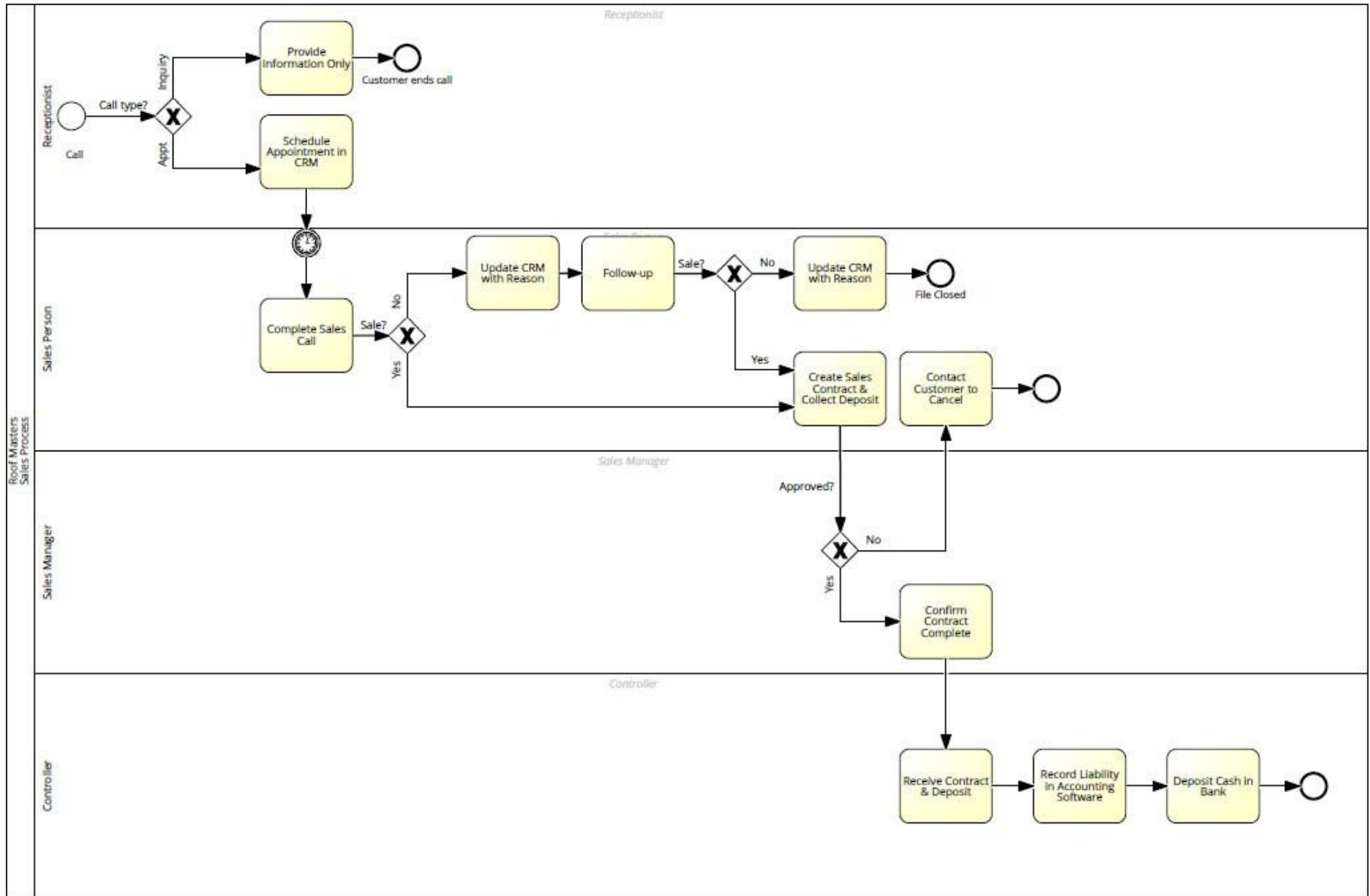


Financial Data

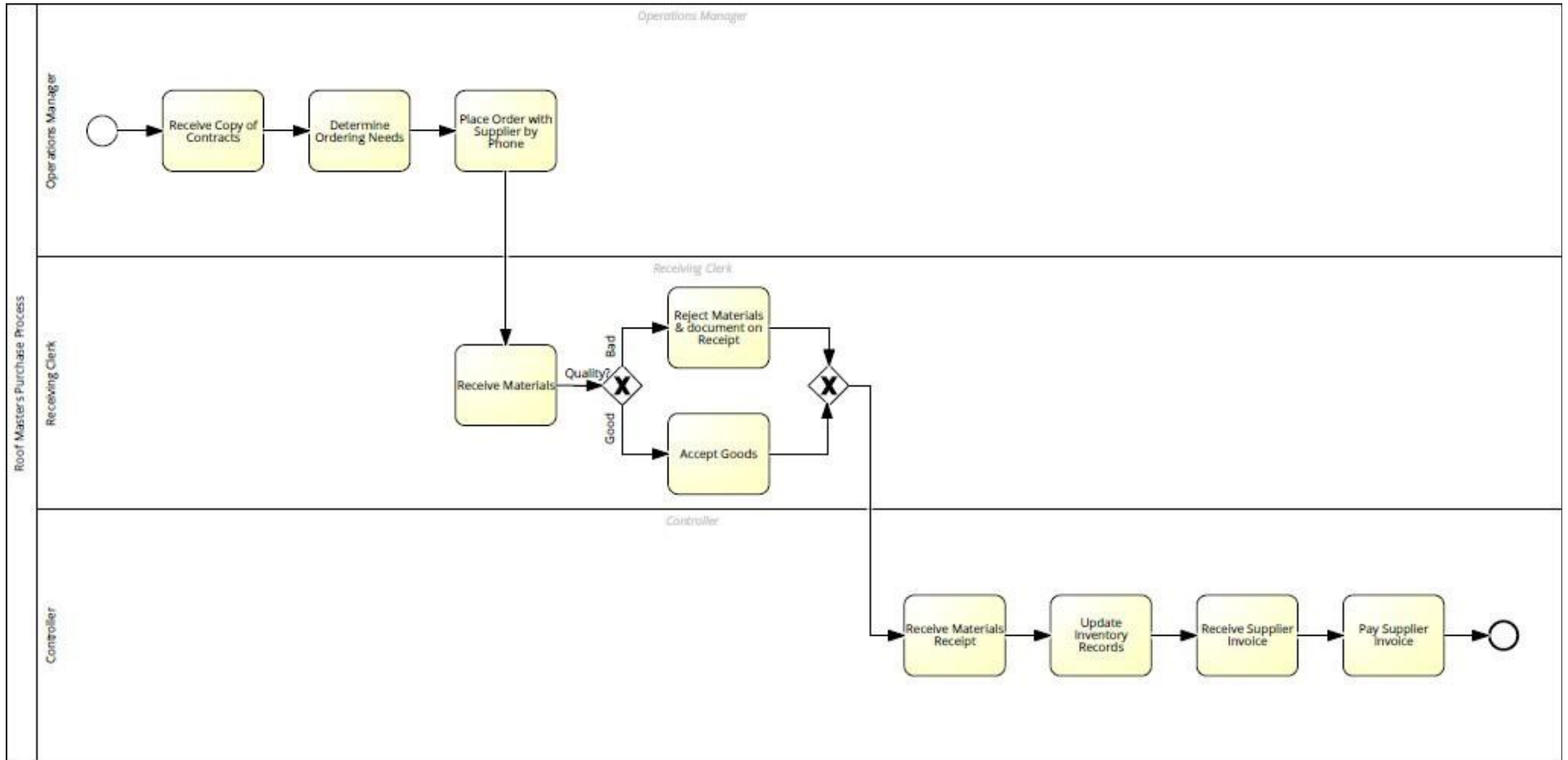
2006	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Sales	\$ 403,568	\$ 425,001	\$ 432,503	\$ 427,350	\$ 426,535	\$ 487,253	\$ 489,345	\$ 507,223	\$ 425,321	\$ 438,261	\$ 526,123	\$ 578,231
Variable Costs	209,855	221,001	224,902	222,222	234,594	267,989	269,140	263,756	221,167	227,896	273,584	300,680
Contribution Margin	193,713	204,000	207,601	205,128	191,941	219,264	220,205	243,467	204,154	210,365	252,539	277,551
Fixed Costs	179,350	179,350	178,623	181,265	186,264	187,215	188,245	184,631	182,899	204,124	208,126	210,246
Operating Income	<u>\$ 14,363</u>	<u>\$ 24,650</u>	<u>\$ 28,978</u>	\$ 23,863	\$ 5,677	\$ 32,049	\$ 31,960	<u>\$ 58,836</u>	<u>\$ 21,255</u>	<u>\$ 6,241</u>	<u>\$ 44,413</u>	\$ 67,305
2007	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Sales	\$ 578,231	\$ 592,624	\$ 601,320	\$ 594,782	\$ 627,789	\$ 681,351	\$ 725,135	\$ 765,128	\$ 814,344	\$ 701,211	\$ 571,546	\$ 443,512
Variable Costs	300,680	308,164	312,686	309,287	326,450	354,303	377,070	397,867	423,459	364,630	297,204	230,626
Contribution Margin	277,551	284,460	288,634	285,495	301,339	327,048	348,065	367,261	390,885	336,581	274,342	212,886
Fixed Costs	261,426	265,123	263,125	282,461	286,431	281,343	282,414	281,231	301,313	300,145	301,311	284,586
Operating Income	<u>\$ 16,125</u>	<u>\$ 19,337</u>	<u>\$ 25,509</u>	<u>\$ 3,034</u>	\$ 14,908	\$ 45,705	\$ 65,651	<u>\$ 86,030</u>	\$ 89,572	<u>\$ 36,436</u>	<u>\$ (26,969)</u>	<u>\$ (71,700)</u>
2008	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Sales	\$ 403,568	\$ 365,281	\$ 351,423	\$ 302,456	\$ 318,465	\$ 330,211	\$ 321,456	\$ 303,123	\$ 325,131	\$ 318,246	\$ 312,513	\$ 330,132
Variable Costs	209,855	189,946	182,740	157,277	165,602	171,710	167,157	157,624	169,068	165,488	162,507	171,669
Contribution Margin	193,713	175,335	168,683	145,179	152,863	158,501	154,299	145,499	156,063	152,758	150,006	158,463
Fixed Costs	235,464	225,416	215,314	212,485	213,872	214,654	215,345	216,247	212,465	202,132	200,135	200,143
Operating Income	<u>\$ (41,751)</u>	<u>\$ (50,081)</u>	<u>\$ (46,631)</u>	<u>\$ (67,306)</u>	<u>\$ (61,009)</u>	<u>\$ (56,153)</u>	<u>\$ (61,046)</u>	<u>\$ (70,748)</u>	<u>\$ (56,402)</u>	<u>\$ (49,374)</u>	<u>\$ (50,129)</u>	<u>\$ (41,680)</u>

Workflow Diagrams

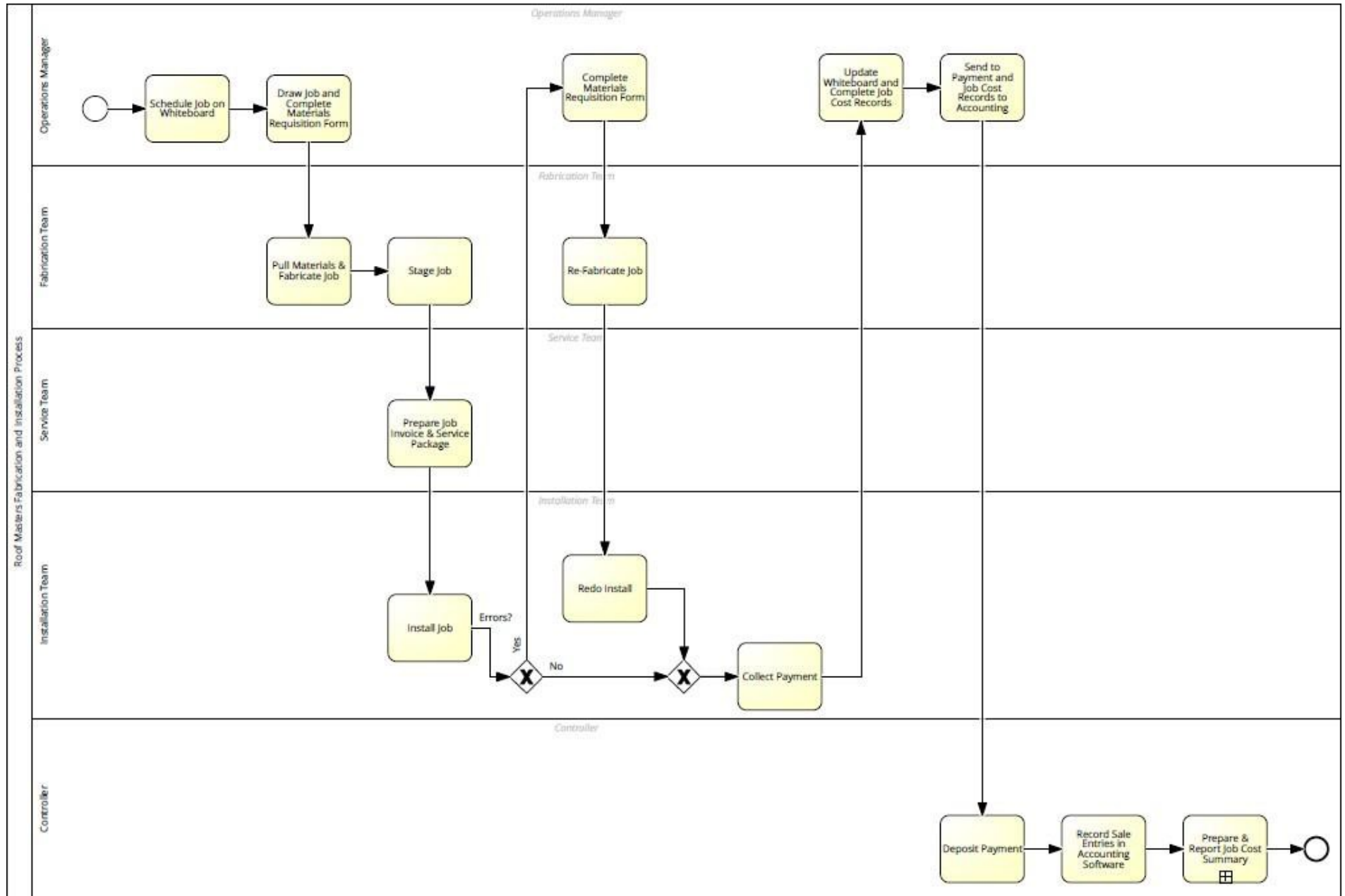
Job Contract Process



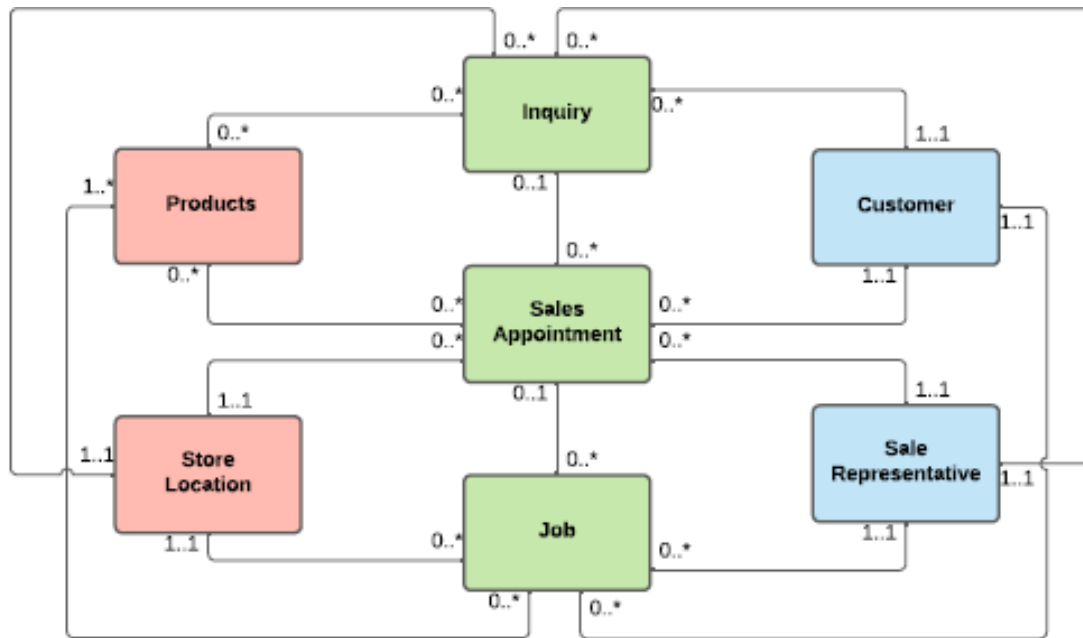
Purchase Process



Fabrication and Installation Process



CRM UML



Products: Product ID (PK), Product Description

Store Location: Store ID (PK), Street Address, City, Zip Code, Phone

Inquiry: Inquiry # (PK), Inquiry Date, Inquiry Notes, Customer (FK), Sales Rep ID (FK), Store ID (FK), Status (FK)

Sales Appointment: Appt # (PK), Appt Date, Appt Notes, Customer (FK), Sales Rep ID (FK), Store ID (FK), Status (FK)

Job: Job # (PK), Sales Date, Sales Notes, Customer (FK), Sales Rep ID (FK), Store ID (FK), Status (FK)

Customer: Customer ID (PK), Name, Street Address, City, Zip Code, Phone

Sales Representative: Sales Rep ID (PK), Name

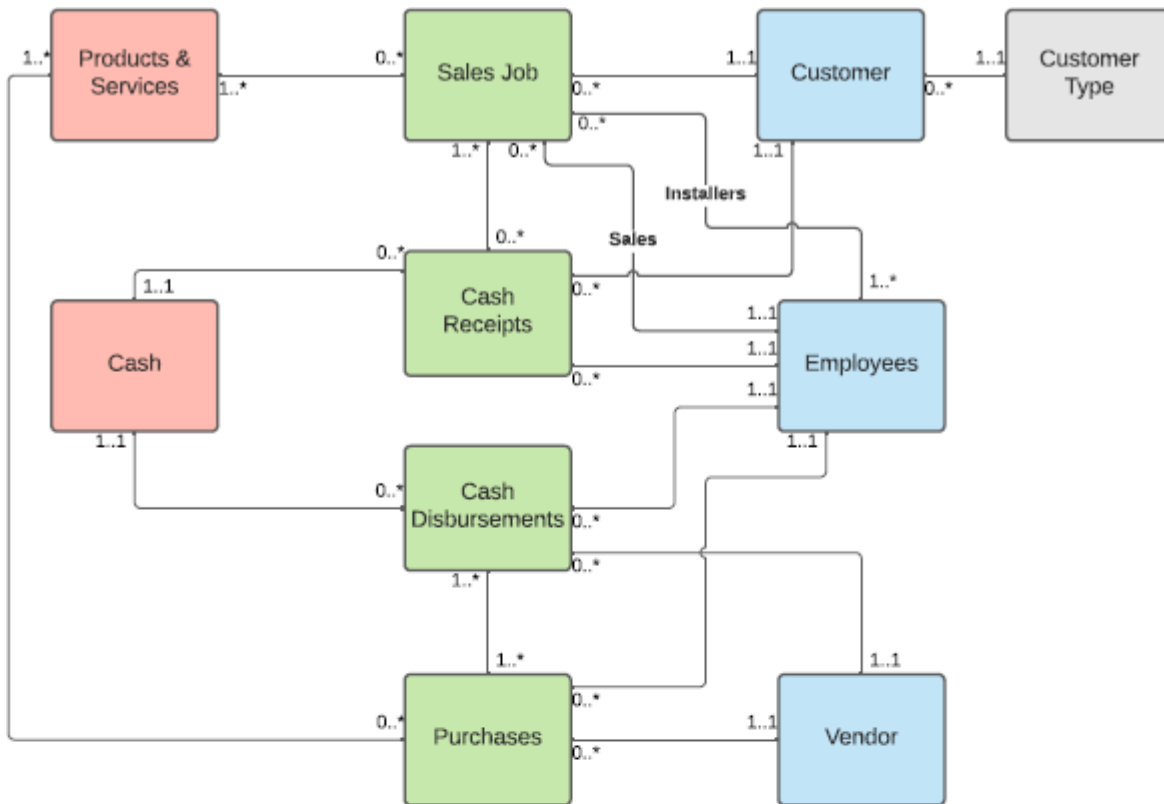
Status: Status Type (PK)

Inquiry-Products: Inquiry # + Product ID (PK), Qty., Amount

Sales-Products: Appt # + Product ID (PK), Qty., Amount

Job-Products: Job # + Product ID (PK), Qty., Amount

Accounting Information System UML



Products & Services: Item # (PK), Item Desc., QOH, Reorder Point

Cash: Bank Acct # (PK), Bank Name, Bank Address

Sales Job: Invoice # (PK), Date

Cash Receipts: Cash Receipt # (PK), Date, Amt.

Cash Disbursements: Check # (PK), Date, Amt.

Purchases: PO # (PK), Date

Customer: Customer # (PK), Name, Address, Phone

Employees: Employee # (PK), Name, Address, Pay Rate, Pay Type

Vendor: Vendor # (PK), Name, Address, Phone

Customer Type: Type ID (PK)

Purchases-Product & Services: Item # + PO # (PK), Qty. , Amt.

Sales Job-Products & Services: Invoice # + Item # (PK), Qty., Amt.

Sales Job-Cash Receipts: Invoice # + Cash Receipt # (PK)

Purchases- Cash Disbursement: PO # + Check # (PK)