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CIS 233: ***Evaluation Criteria:***
Preliminary Investigation Report/Feasibility Study

Team Members: William Hurley, Alison Roy, Nichol Suchy, Alice Uhl

Category	Evaluation Criteria	Points	Score	Comments
Content:	❑ Covers all the requested points. ❑ Includes all required components/parts. ❑ Addresses proper audience. ❑ Has appropriate level of detail. ❑ Follows guidelines in text. ❑ Body of report contains all sections specified in the assignment document. ❑ Demonstrates that critical thinking skills were used to determine the true nature of the problem and scope of the project.	**60**		See edited doc that I will return to you
Format:	❑ Follows suggested format.	**10**		
Style:	❑ Uses a professional, easy to read, style with proper English grammar & NO spelling errors.	**10**		
Clarity:	❑ Makes all the points clearly from the reader's point of view.	**10**		
Layout & Neatness:	❑ Uses proper margins & spacing: **one inch** on left, right, top, & bottom. ❑ Uses consistent fonts with *no less than a **12 point font** minimum* (headings may be larger size if desired) **VERDANA OR ARIAL FONT ONLY PLEASE.** ❑ Includes a header or footer with document title and page numbers. ❑ Uses bullets and white space to good effect.	**10**		
Total Points		**100**	98	

Overall Comments:

Fabulous job! Looks professional and reads like a pro report. It is a pleasure to have such a group of students.

Edmonds Community College
CIS 233

Research Project #1 – Feasibility Study

(Preliminary Investigation Report)

Prepared February 4, 2016

Team Glitter Pigs: William Hurley, Alison Roy, Nichol Suchy, Alice Uhl

Memorandum

DATE: February 4, 2016

TO: Patrick Jay, Vice President and Manager

FROM: Team Glitter Pigs: William Hurley, Alison Roy, Nichol Suchy, and Alice Uhl

SUBJECT: Bank of Xanadu - Invoice Processing System - Feasibility Study

---

Thank you once again for your business; we appreciate the opportunity to offer our services to your company. As stipulated in the Memorandum of Understanding, we are presenting to you Deliverable 1: Preliminary Investigation Report-Feasibility Study, for your Invoice Processing System. Please review the attached report and feel free to reach out and ask any questions that may arise. We look forward to discussing the details of your Invoice Processing System in the management review meeting February 18, 2016, 6:00PM, at your Bellevue office.

Bank of Xanadu

Invoice Processing System
Feasibility Study

February 4, 2016

Glitter Pigs:
William Hurley, Alison Roy, Nichol Suchy, and Alice Uhl

Table of Contents

INTRODUCTION

The Glitter Pigs team (Nichol Suchy, Alice Uhl, William Hurley, and Alison Roy) completed a preliminary investigation at the Bank of Xanadu Bellevue Banking Center. This investigation was the result of a systems request submitted by Patrick Jay, Vice President/Manager of the Bellevue Banking Center. We have evaluated the company's existing invoice processing system and composed this preliminary investigation report outlining an automated solution to streamline the current process.

SYSTEMS REQUEST SUMMARY

The Bank of Xanadu has requested a new system to manage their contracts and invoices for outsourced programmers. The Glitter Pigs team will assess the feasibility of a new system to more efficiently enter, process, and validate these documents. As requested, the new system must be able to achieve these three (3) important functionalities:

- Verify whether each billable invoice is within their perspective contract start-end dates.
- Confirm that the hourly rates billed on each invoice matches the hourly rates on the corresponding contract.
- Calculate if there is enough funding on the contract to pay the contractor.

BACKGROUND

Nearly 40 years ago, three young entrepreneurs, each with banking experience, came together to form Swellvue Savings and Loan. Backed with a slogan of "No Boundaries", the company's supreme dedication to customer service has made them massively successful. Starting with three small branches in the Puget Sound, they soon spread statewide, then through the Northwest, and suddenly worldwide.

Now known as the Bank of Xanadu, the company claims a customer base of over ten million people worldwide. Corporate headquarters is in the Cayman Islands, while banking centers range from the U.S. to Australia, and many places in between. With their commitment to putting the customer first, the swift pace at which they are growing, and their clear recipe for success, it is no doubt that the Bank of Xanadu will accomplish their long term mission to grow themselves into the largest and most profitable banking organization in the world.

PRELIMINARY INVESTIGATION FINDINGS

Problem Description

The Bank of Xanadu has acquired Utopia National Bank and decided to restructure their organization. This involved redeploying their in-house programmers and outsourcing all programming services to contractors. Without an established system to manage this new process, the Bellevue Accounting Group, led by Dave Spencer, put together a spreadsheet system to collect the necessary data from the contracts and invoices submitted by contracted programmers.

The spreadsheet system works, but Dave Spencer is the sole operator of this system. The current process is time consuming, as it requires all documents to be entered and verified manually. Mr. Spencer is the only person able to perform these functions, leaving the company without a failsafe plan if he is absent or on vacation. It is for these reasons the Bank of Xanadu wants an automated invoice processing system that can perform these tasks in a more efficient manner.

Project Stakeholders

- Dave Spencer, Head Accountant: Mr. Spencer spends the majority of his workflow interacting with the current system. Mr. Spencer is vested in the new system because it will affect his day-to-day operation at the Bank of Xanadu. Successful implementation of this new system will allow Mr. Spencer to focus on other priorities and duties held at the organization.
- Kyle Watts, Tamisha Spencer, and Misty Barber, Accountants: The Accounting Group will be using the new system. This will streamline their day-to-day processes.
- Lyle Newhart, Payables Group Manner: Mr. Newhart and his payables team will be receiving payment information in a more efficient way, thus allowing quicker turn-around time on payables.
- Anne Kasey, Sr. Vice President: The new system improves the efficiency at her office. As this is a pilot program, reports of high productivity to the corporate offices will be advantageous to her.

Project Scope

This project will include creating an automated invoice processing system that will contain all future contracts and invoices for outsourced vendors and their programmers. The system will store, process, validate, and accrue contract and invoice data for the Bellevue banking center and their satellite branches only, no other banking centers, branches, or bank data are included. The Accounting Group will receive training and be the only employees who have access to this system. All other Xanadu systems and how they connect to this invoice processing system is out of scope. Also out of scope are system security, applicable labor/contract laws, and legacy data including contracts and invoices.

Current Procedures

Contract Workflow

- Accounting receives contract(s) from Contract Group.
- Accounting verifies contract is well-formed.
  - If there are errors in the contract, an Exception Memo is written.
  - Contract is sent back to the Contract Group.
  - Contract Group resolves issues and returns contract to Accounting.
  - Cycle repeats until contract is well-formed.
- Information on contract entered in Excel spreadsheet.
- Contract stored in filing cabinet.

Invoice and Timesheet Workflow

- Accounting receives invoice and timesheet.
- Accounting verifies documents are well-formed.
  - If there are errors in either document, an Exception Memo is written and documents are sent back to the Contract Group.
  - Contract Group resolves issues and returns documents to Accounting.
  - Cycle repeats until documents are well-formed.
- Accounting compares invoice and timesheet to appropriate contract.
  - If documents are outside of the contractual agreement, an Exception Memo is written and documents are sent back to the Contract Group.
  - Contract Group resolves issues and returns documents to Accounting.
  - Cycle repeats until the documents fit the contract.
- Invoice and timesheet are entered in Excel spreadsheet.
- Accounting packages invoice and timesheet to send to Accounts Payable.

Current System Weaknesses and Strengths

Weaknesses

- The current system is too costly.
- Manual data entry takes too much time.
- The spreadsheets must be maintained, which is time consuming.
- Invoices and contracts are manually reviewed by employees, which can lead to user-error.

Strengths

- The spreadsheets are easy and quick to set-up.
- The system is intuitive to current users.
- Employees that manually review contracts are able to catch errors that may be unintuitive.
- The system completes the process as intended.

New System Requested Features

The automated invoice processing system will collect data from contracts and invoices manually entered by the Accounting Group. New invoice entries will be automatically validated against the database as they are entered to ensure accuracy. If there is any error, such as the invoice does not correspond to an existing contract, the invoice date is outside of the contract date range, the hourly rate is incorrect, or there are not enough funds left on the contract, the system will alert the user immediately preventing data entry errors and increasing efficiency. In addition, accruals are automatically calculated and reports can be generated in real time, reflecting the most up-to-date information.

Project Constraints

- The project must be completed within our forecasted budget.
- The System Requirements Document must be complete by March 17, 2016.
- The invoice processing system must automate the verification of invoice against contract.
- The invoice processing system must run independently of David Spencer.
- The Accounting Group must be able to learn and utilize the new system.

Project Feasibility

Operational

The advent of a new system at Bank of Xanadu will streamline their current operations for processing contract and invoice payables. The company's senior management supports the proposed system and the Accounting group will gladly utilize it after receiving proper training and learning of the benefits.

The new system will benefit its users, the accounting group, in many facets. They will be able to easily search for important information and respond quickly to vendor and management inquiries. Automated verification of invoice information will save time and reduce errors that cause extra work and frustration. The new system will improve efficiency allowing the accounting group to work on other projects boosting employee morale and self-worth.

The project's potential risks are that the new system may be unintuitive because it is different from the old system, to which the company is accustomed. This can cause unforeseen costs and resources in training staff to use the system.

Technical

The company will have the technical resources and systems which are needed to complete this project successfully. The new system will utilize company computers and be able to handle all future processing of the contract and invoice payments. The hardware needed to store this data can be easily maintained and stored on company property. The proposed system will be technically feasible in regards to future contract and invoice processing.

Economic

Two cost-benefit analyses were run to determine if the projected benefits of the project outweigh its costs: Return on Investment (ROI) and Net Present Value (NPV).

Based on our calculations, we have deduced that the project will experience a positive Return on Investment at 92%. We additionally ascertain the project will be a profitability boon, as the Net Present Value sits at $3,608,543. These results illustrate the Bank of Xanadu as having the means with which to implement this project. For a thorough view of the ROI and NPV, refer to Table 1 and Table 2.

Return on Investment

Year	Costs	Cumulative Cost	Benefits	Cumulative Benefits
0	$ 2,000,000.00	$ 2,000,000.00	$ 1,500,000.00	$ 1,500,000.00
1	$ 400,000.00	$ 2,400,000.00	$ 1,425,000.00	$ 2,925,000.00
2	$ 420,000.00	$ 2,820,000.00	$ 1,353,750.00	$ 4,278,750.00
3	$ 441,000.00	$ 3,261,000.00	$ 1,286,062.50	$ 5,564,812.50
4	$ 463,050.00	$ 3,724,050.00	$ 1,221,759.38	$ 6,786,571.88
5	$ 486,202.50	$ 4,210,252.50	$ 1,160,671.41	$ 7,947,243.28
6	$ 510,512.63	$ 4,720,765.13	$ 1,102,637.84	$ 9,049,881.12
7	$ 536,038.26	$ 5,256,803.38	$ 1,047,505.94	$ 10,097,387.06
			ROI	**92%**

Table 1: Return on Investment (ROI)

Net Present Value

	Year 0	Year 1	Year 2	Year 3	Year 4
Benefits	$ 1,500,000	$ 1,425,000	$ 1,353,750	$ 1,286,063	$ 1,221,759
Factor	1.000	0.926	0.857	0.794	0.735
Present Value (Benefits)	$ 1,500,000	$ 1,319,550	$ 1,160,164	$ 1,021,134	$ 897,993
Costs	$ 2,000,000	$ 400,000	$ 420,000	$ 441,000	$ 463,050
Factor	1.000	0.926	0.857	0.794	0.735
Present Value (Costs)	$ 2,000,000	$ 370,400	$ 359,940	$ 350,154	$ 340,342

	Year 5	Year 6	Year 7		Total
Benefits	$ 1,160,671	$ 1,102,638	$ 1,047,506		$ 10,097,387
Factor	0.681	0.63	0.583		
Present Value (Benefits)	$ 790,417	$ 694,662	$ 610,696		$ 7,994,616
Costs	$ 486,203	$ 510,513	$ 536,038		$ 5,256,803
Factor	0.681	0.63	0.583		
Present Value (Costs)	$ 331,104	$ 321,623	$ 312,510		$ 4,386,073
				Net Present Value	**$ 3,608,543**

Table 2: Net Present Value (NPV)

Expected Benefits

Tangible

- Time savings from automating manual processes.
- Time savings from reduction in human error.
- Time and cost savings from workflow productivity gains.
- Roles in the accounting department can be relocated or focused on other important tasks.
- Software savings from other programs no longer needed.
- Time savings because errors on invoices are caught in a timelier manner.
- Time and cost savings from streamlined training for new employees in accounting department.

Intangible

- Improve vendor and contractor relations by streamlining processes.
- Increase service quality by establishing better control procedures.
- Grow the Bank of Xanadu's reputation as a green company by cutting paper waste with new system.
- Improve decision-making process by improving information accessibility speed.
- Automated system will allow reallocation of workforce to focus on core competencies.
- Uniform reporting standards if system implemented company-wide.

Time and Cost Estimates

On Monday, February 8, 2016, an analysis of the project will commence. This phase typically takes five weeks; as such, the Bank of Xanadu will receive the Systems Requirements Document by Thursday, March 17, 2016. The projected cost of this next phase is $34,560. For details, please see Table 3.

Cost Estimates

Hours Worked Per Week						
	wk 1	**wk 2**	**wk 3**	**wk 4**	**wk 5**	**Total**
W. Hurley	40	40	40	40	32	192
A. Roy	40	40	40	40	32	192
N. Suchy	40	40	40	40	32	192
A. Uhl	40	40	40	40	32	192
					5 Weeks' Total Team Hours	768
					Total Cost at $45.00 an hour	$ 34,560.00

Table 3: Cost Estimates

RECOMMENDATION FOR ACTION

The preliminary investigation has determined that the Bank of Xanadu's request for an automated invoice processing system is feasible. Based on the constraints, feasibility factors, expected benefits, and Bank of Xanadu's requested system features, the development of a new system is within the means of the organization's economic, technical, and operational capacities.

The company will see cost saving from system maintenance, staff, and administrative duties. Based on the calculations of the ROI and NPV, which measure at 92% and $3,608,543, respectively, the company can expect to see a positive return from investing in this project. Additionally, the operations of this new system will be beneficial to the Accounting department and management can expect to see increased workflow and productivity, which will provide cost saving to the organization. Further, the company possesses the technical competency and resources to fulfill the needs of the new system, avoiding costs for new equipment.

Overall, we have determined that a new automated invoice processing system is feasible for the organization. With this is in mind, we advise that the next steps be taken. Moving forward involves the creation of a logical model of the new system in a Systems Requirement Document, which will be prepared and delivered to Patrick Jay by March 17, 2016.

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APPENDIX

Correspondence

Bank of Xanadu

Corporate Headquarters: George Town, Cayman Islands

Major Banking Centers: Amsterdam • Atlanta • Auckland • Bellevue • Berlin • Dallas • Hong Kong • Johannesburg • Kuala Lumpur • London • Los Angeles • Mumbai • New York • Paris • Toronto • Santiago • Sao Paulo • Shanghai • Singapore • Sydney •Tokyo • Zurich

Information Systems Work Request

Date	1/25/15	Department	Accounting
Contact	Patrick Jay	Location	Bellevue, WA
Title	Vice President, & Manager	Email	pjammer@box.bank

Project Description (in brief):

The strategic direction and growth of the bank has put new emphasis on streamlining our internal procedures. Xanadu Bank is in the business of banking, and to remain profitable and competitive, focus has shifted toward concentration on our core competencies, outsourcing any functions and processes that are not part of these core business operations. Since this process began late last year, we have redeployed all in-house programming positions, resulting in the need to use outside contractors to provide the necessary programming services. This move will save our company over one 1 million dollars annually in employee administrative and benefit costs.

The major problem we face now is finding a suitable way to track these new programming expenses to the scope of service stipulated in their official contracts. While the accounting department has hastily thrown together a stop-gap solution using a spreadsheet application, it is taking an incredibly large amount of time to manually enter all the contractual information, receive and process the incoming programming invoices, prepare accurate accruals, respond to vendor inquiries, and generate accurate monthly financial reports.

The THREE most important functions the new system must perform are to determine whether each billable invoice falls within the contract time limitations (start & end dates), specifically if the work performed and billed on the invoice falls within the valid contract date range. It must also verify the hourly rate billed on the invoice matches the hourly rate stipulated on the contract. Finally, it must calculate whether there is enough funding left on the contract to pay the invoice.

In recent strategic planning sessions, the senior management has determined that there is a desperate need for a new, more automated process for managing contract payables. The ***objective*** of this project is to investigate and recommend a solution to control payments in accordance to contractual time and fee limitations throughout the company. Once approved, the winning team will design and implement the chosen solution for use within the Bank's various accounting departments.

Submitted by: _____ **Date** _____

Approved by: _____ **Date** _____

Bank of Xanadu is a fictitious enterprise, developed for use by CIS 233
Use of materials is solely intended for educational purposes.

Figure 1: Information Systems Work Request

Financial Feasibility Information

Date: January 18, 2016
To: CIS 233 Class
From: Dave Spencer – Accounting Group
Subject: Bank of Xanadu – Invoice Processing System - Feasibility Study

---

Here are the figures for your economic feasibility analysis. I know that you will conduct ROI and NPV analyses for this project. I look forward to seeing them in your Feasibility Report.

Your instructor showed me what your class did in Lab 2. I am an accountant, and it is comforting for me to see that the Systems Analysts on the project know how to compute ROI and NPV correctly.

As I look at your Lab 2, I see an importance difference between that exercise and my situation. According to my analysis, benefits from the new systems will actually be realized in Year zero – the same period as the development of thesystem. This will happen because the programmers were outsource *before* the new system development was even started.

The figures that I came up with are shown below.

I sure am glad that you folks are on this project. All those spreadsheets that I have had to use are just wearing…me…out. I can't wait to see your replacement system.

DEVELOPMENT COST: $2,000,000 (year zero)
POST-DEVELOPMENT YEARLY COSTS

- The cost is $400,000 for year one
- This is followed by a *compound* **increase** of 5% annually thereafter

BENEFITS

- This project will see a benefit of $1,500,000 during the development year (year zero)
- Year one will see that benefit **decrease** by 5%
- Thereafter, that 5% decrease will compound annually for the life span of the system

NPV ADJUSTMENT FACTOR
8%

SYSTEM LIFE SPAN
7 years

Financial Feasibility Information_v3.docx 1 1/18/2016 9:11 PM

Figure 2: Financial Feasibility Information

Source Documents

Bank of Xanadu

Corporate Headquarters: **George Town, Cayman Islands**
Major Banking Centers: **Amsterdam • Atlanta • Auckland • Bellevue • Berlin • Dallas • Hong Kong • Johannesburg • Kuala Lumpur • London • Los Angeles • Mumbai • New York • Paris • Toronto • Santiago • Sao Paulo • Shanghai • Singapore • Sydney •Tokyo • Zurich**

CORPORATE HEADQUARTERS: *George Town, Grand Cayman*

Chief Executive Officer (CEO)
Patrick Dollarene
Chief Financial Officer (CFO)
Sanjay Rupeedaal
Chief Information Officer (CIO)
Isabella Realney
Chief Operations Officer (COO)
Hyacinth Randall

Executive Vice President (EVP)
Carmelita Pesolera
Senior Vice President (SVP)
Richard Poundstone
Vice President (VP)
Dieter Markstein
Assistant Vice President (AVP)
Keiko Yennokai

(Sample)
BRANCH OFFICES

Bellevue, WA
Sr. Vice President
Anne Casey
Executive Secretary:
Beth Rice

Contract Group
Manager: Scott Sorenson
Rob Watt
Sam Esposito
Mark Martin
David Hart
Jagreet Kaur
Anthony Lewis

Accounting Group
Vice President/Manager:
Patrick Jay
Dave Spencer
Kyle Watts
Tamisha Spencer
Misty Barber

Payables Group
Manager: Lyle Newhart
Dawn Hill
Mark Martin
Ho Lee
Bill Loos
Lane Conway
John Wallace

Pine Valley, NY
Sr. Vice President
Leonard Chou
Executive Secretary:
Jan Lawrence

Contract Group
Manager: Cara DeSoto
Annie D'Ogie
Joyce Donahue
Ray Ortiz
John Ackerman
S. Nelson-Leang
Tuan Tran

Accounting Group
Manager: Roy Brown
Shelly Grant
Tom Leman
Pilita Basto
E Osei-Shearman

Payables Group
Manager: Robert Stacy
Amy Hawkins
Leslie Hall
Waylon White
Susan Cooper
Ed Eowpun'
Tereasa Skelly

Berlin, Germany
Sr. Vice President
Louisa Gartner
Executive Secretary:
Darth Weitmeier

Contract Group
Manager: Joachim Mohr
Karl Meister
Steffi Freund
Paula Grossman
Gerhard Arnott
Tobias Stein
D Voigtsberger

Accounting Group
Manager: Franz Neuman
Karin Kratz
Stephan Niebur
Dieter Janssen
Astrid Gutentag

Payables Group
Manager: Astrid Dorftier
Gunther Merckel
Hans Meistersohn
Rudi Schertz
Walter Lehmann
Martin Edelmann
Gert Fromme

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Figure 3: Bank Organization Chart

Bank of Xanadu

Date: January 11, 2015

From: Dave Spencer, Accountant
Financial Controller's Division
Corporate General Accounting #3707

To: Rob Watt, Buyer
Technology Acquisition Management #3411

Classification: Internal

Subject: CONTRACTOR INVOICE PROBLEMS

Vendor:

I am unable to process the attached invoice(s) for the following reason(s):

()	No Contract on File
()	Dollar Amount Exceeds Contract Fee by $
()	Invoice Period Outside of Contract Dates
()	No Time Sheet
()	No Invoice/Time Sheet Approval
()	Time Sheet & Invoice Discrepancy
()	Billed Rate Different from Contract Rate
()	Other:

Please provide the necessary information and return to me in unit #3707. Thanks you for your assistance in resolving these problems. If you have any questions, please call me at XanaduNet 785-1223.

Attachment included.

DATE	ACTION

Figure 4: Exception Memo

APPENDIX A

AGREEMENT TO PROVIDE PERSONNEL BETWEEN
Bank of Xanadu (BANK) and:

DAN VAN RITZ, INC. (CONTRACTOR)

I. All work and/or services provided under this Appendix shall be performed in accordance with the provisions of this Appendix and Master Agreement: #90-3167

Project/Services Number 16358.000 Charge Unit #: 3620

Bank Project Manager/Phone: Peter Townsend 206-675-2696

II. Scope of Services:

A. PROVIDE AN OVERVIEW OF THE PROJECT:
Support product development projects, as well as acquisition preparation for Demand Deposit Systems.

(See attached sheet for continuation of Scope of Services) RITZ0415

III. Fee Schedule: Total fee shall not exceed $ 52,000.00

Name of Individual	Generic Job Level	Hourly Rate	Start Date	End Date
Dan Van Ritz	CSE	$65.00	12/16/14	4/15/15

A NEW APPENDIX A MUST BE EXECUTED TO AUTHORIZE [illegible]MENT BEYOND THE AMOUNT NOTED ABOVE IN III. FEE SCHEDULE, OR TO AUTHORIZE WORK BEYOND THE COMPLETION DATE NOTED ABOVE

Agreed and Accepted:
DAN VAN RITZ, INC (Contractor)
Signature: Dan Van Ritz
Vendor Officer: DAN VAN RITZ
Title: President
Date: 12/15/14

Send Invoices to:
Bank of Xanadu
General Accounting #3707
P.O. Box 37000
Bellevue, WA 98002
Attn: Dave Spencer

Agreed and Accepted:
BANK OF XANADU (Bank)
Signature: Maryanne Kerrigan
Name: Maryanne Kerrigan
Title: Vice President
Date: 12/14/14
Countersigned: Charles Skeateas
Name: Charles Skeateas
Title: Vice President
Date: 12/15/14

Bryce Hazen
Bryce Hazen, Senior Vice President

Page 1 of 2

Figure 5: Contract Sample, page 1

AGREEMENT TO PROVIDE PERSONNEL BETWEEN
Bank of Xanadu (BANK) and:

DAN VAN RITZ, INC. (CONTRACTOR)

II. Scope of Services Continued:

B. LIST THE SPECIFIC TASKS TO BE PERFORMED:

Complete systems design specification
Analyze and code in C# (C sharp)
Perform unit, system, and integration testing
Provide installation support

C. LIST THE DELIVERABLES EXPECTED TO BE PRODUCED:

Detailed design specifications
Code
Test specifications
Unit testing, system testing
Conversion specifications
Installation specifications

D. LIST THE SPECIFIC TECHNICAL EXPERTISE REQUIRED (HARDWARE, OPERATING SYSTEMS, PROGRAMMING LANGUAGES, ETC.)

IBM 30XX, TSO/ISPF, OS JCL, VSAM
Ability to analyze and code in C# (C sharp)
Design, coding, and testing skills
Accounting systems background required, banking preferred.
Deposit systems/prior acquisition experience a plus
Prior Bank of Xanadu experience a plus
Strong communications and documentation skills
Team player with good interpersonal skills

E. LIST THE PERFORMANCE STANDARDS THAT WILL BE USED TO DETERMINE QUALITY OF WORK (E.G. SDP, DOCUMENTATION STANDARDS, TESTING STANDARDS, ETC.)

Adherence to project standards
Code reviews
SDP
Test plans and test result reviews

Page 2 of 2

Figure 6: Contract Sample, page 2

Dan Van Ritz Consulting, Inc
5820 Stoneridge Road Suite 100
Issaquah, WA 98506
425-555-1212

INVOICE

INVOICE #100154

DATE: JANUARY 16, 2015

TO:
Bank of Xanadu
General Accounting #3707
P.O. Box 37000
Bellevue, WA 98002

FOR:
Master Agreement #90-3167
Charge Unit #3620

PERIOD:	1/1/15 – 1/15/15	TERMS:	ON RECEIPT
HOURS	**DESCRIPTION**	**RATE**	**AMOUNT**
88	Computer Programming/Consulting Services	$65.00	$5,720.00
	RITZ0415		
		TOTAL	$5,720.00

Make all checks payable to Dan Van Ritz Consulting, Inc

Thank you for your business!

Figure 7: Invoice

TIME SHEET

PERIOD OF: 1/1/2015 – 1/15/2015

DAN VAN RITZ CONSULTING, INC.
5820 Stoneridge Road Suite 100
ISSAQUAH, WA 98506
425-555-1212

CONTRACTOR NAME: Dan Van Ritz	**TITLE:** Programmer/Consultant
CLIENT COMPANY: Bank Of Xanadu	**SUPERVISOR:** Peter Townsend

CALENDAR DAY	HOURS WORKED	CALENDAR DAY	HOURS WORKED
1	8	16	
2	8	17	
3		18	
4		19	
5	8	20	
6	8	21	
7	8	22	
8	8	23	
9	8	24	
10		25	
11		26	
12	8	27	
13	8	28	
14	8	29	
15	8	30	
		31	
TOTAL HOURS:	88		

EMPLOYEE SIGNATURE: *Dan Van Ritz*	**DATE:** 1/15/2015
SUPERVISOR SIGNATURE: *Peter Townsend*	**DATE:** 1/16/2015

Figure 8: Time Sheet

Bank of Xanadu

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Date: Friday, 11/30/14
To: Bank of Xanadu Bellevue Employees
From: Anne Casey, Sr. Vice President
Subject: MAJOR ANNOUNCEMENT

This will give you advance notice of a story that will be reported in tomorrow's newspapers. At a press conference today, the Bank of Xanadu board of directors announced that the company would immediately acquire Utopia National Bank, including their corporate headquarters and all 550 of their branch offices, for a sum of $20.1 billion dollars. This acquisition will greatly increase our global influence in Europe, Africa, and the Asian marketplace. This opportunity will expand our operations into eight new international cities, including Madrid, Copenhagen, Rome, Cairo, Bangkok, Taipei, Manila, and Seoul, and add over 400 domestic branches – primarily in America's heartland. We are excited about this acquisition, and welcome Utopia into the Xanadu fold.

During our recent strategic planning meetings, we examined external opportunities and internal constraints of our business. We identified several fast-growing areas of banking that might represent new opportunities for Xanadu. We found that bringing Utopia into our business model would present the best opportunity for us to expand not only our global exposure, but also to expand our customer base and increase the available services that we can offer our customers. While Utopia will provide us a wider array of banking opportunities, we will need to streamline both business process models into one seamless operation in order to maintain economic profitability.

As a result, we decided to consolidate operating and networking systems into one global system. We have successfully recovered from the sub-prime mortgage fiasco that resulted in damaging losses for Xanadu, and particularly disastrous losses for Utopia. With losses in the billions of dollars, Utopia has continued to struggle unsuccessfully to operate as a financially profitable organization. This has allowed Xanadu to execute a quick-and-dirty hostile takeover of their organization. With this said, we must now focus on our core competencies in order to maintain financial profitability. After much strategic planning, we have decided to outsource all computer system programming and consulting duties that we once held in-house to outside contractors. We project that this will result in substantial annual cost savings in employee administrative and benefit expenses.

To address this constraint, we have decided to temporarily reorganize our IT resources and assign higher priority to internal projects that will streamline our procedures. As Xanadu employees, you know that our company always has looked ahead to the challenges and opportunities of the future. Our long-term mission is to grow ourselves into the largest and most profitable banking organization in the world – one that is essentially "too-big-to-fail". Our corporate values and the high-quality services we provide are the cornerstone of our success. In a market where many banks and thrifts have failed, we have been able to stave off serious financial distress and with the acquisition of Utopia, believe we have positioned ourselves to sustain our recovery, and continue to grow our product and services worldwide. Our financial analysts and advisors have much work to do to complete the acquisition of Utopia. We will scrutinize all internal procedures and external market opportunities. If all goes as planned, we expect to see increased profits within the next two to three operating quarters. Thank you all for your hard work and dedication.

Figure 9: Company Memo

Research Project #1 – Background and Problem Information

Company Background

Bank of Xanadu is a large global enterprise that offers a variety of products and services to a customer base of over 10 million people worldwide. They have over 100,000 employees worldwide. Corporate headquarters is located in exotic and tropical George Town, Cayman Islands, although the company originally started in Bellevue, Washington. With 22 major banking centers worldwide, there are currently over 2000 additional branch offices located in both the United States and 15 countries across the globe.

Major banking centers located in the U.S. include Bellevue, Los Angeles, Dallas, Atlanta, and New York. Overseas banking centers are located in The Netherlands, Germany, Australia, South Africa, Singapore, China, Great Britain, India, France, Canada, Chile, Brazil, Switzerland, Japan, and New Zealand. The corporate headquarters employs about 500 people and each of the major banking centers has between 500 and 1000 employees apiece. In addition to the major banking centers, smaller satellite branches employ anywhere from 25 to 50 employees each.

Three young entrepreneurs, who previously worked for large banking conglomerates, founded the original company in 1978. They believed that by combining their successes and their expertise in the banking industry, they could eventually grow their little thrift into an internationally recognized banking enterprise. Originally, there were just three small branches in the Puget Sound area of Washington State. It was one of the first to implement a policy of putting the customer first, no matter what. The company slogan, "No Boundaries", truly describes the personality of the company and its founders.

A tried-and-true methodology that assured quality and exceptional customer service is what made the company successful. What were once three small branches soon grew into a statewide operation. It was not long before they had expanded across the entire Northwest and down into California. After more than a decade and over a dozen merger/acquisitions, what was once called Swellvue Savings & Loan had grown into the Bank of Xanadu and had become a truly global brand. Growth continued at breakneck speed, and by 2007, they had morphed into the gigantic worldwide banking behemoth they continue to be today.

In early 2000, the board of directors decided to move corporate headquarters to George Town Cayman Islands, where the bank could enjoy all the tax benefits of offshore operations. Because of no direct taxation, the islands have become a thriving center for financial operations. More than 68,000 companies have registered in the Cayman Islands including almost 500 banks. Each of the bank's domestic major banking centers is strategically located throughout the United States. Many smaller branch operations have spread out from these larger centers or "hubs". While most

Figure 10: Background Information, page 1

remain in close proximity to their "parent" center, some may lie as far as 1500 miles away.

In the U.S., each of the smaller local branches reports directly to one of the major banking centers, which in turn reports directly to the corporate office. Worldwide, each of the international banking centers functions as a pseudo-independent entity within its respective country, but still reports directly to the corporate offices as well. Each major banking center has its own administrative, accounting, and human resources functions, which they provide to their respective branches. The corporate office provides a similar structure that reaches out to the U.S. and international banking centers.

Major banking centers employ a wide variety of job descriptions, including contract, accounting, loan, and retail branch personnel. Each banking center also has traditionally had an internal IT staff of 15 to 20, comprised of programmers, analysts, network support staff, and help-desk personnel. The internal IT staff maintains corporate systems and supports database development and programming. Major banking centers process their own expenses, including those for payroll, utilities, real estate, and technology assets, just to name a few. The corporate office usually handles expenses just for its own operations, although it oversees operations for the entire enterprise worldwide.

The Problem

Over the years, as the bank has continued to grow, it has always had a policy of having all its workers hired directly as employees of the company. Recently, having survived the economic downturn and now stronger and bigger than ever, senior management has decided to further streamline operations and focus more closely on the bank's core competencies. Outsourcing all non-essential business functions not directly related to the business functionality of banking would allow them to save millions of dollars annually in terms of human resource overhead.

Because of this shift in corporate vision, the bank redeployed almost 100 of the company's contract programmers and certain business analysts working in the U.S. Outside contractors working under very specific contractual terms will handle all future programming. Currently, the bank does not have an automated system to handle these contractual payments, and has delegated the task of managing such payments to the accounting group at each major U.S. banking center.

Thus, to assess this problem, and in order to recommend appropriate solutions, the bank has assembled a dedicated team of IT professionals to work on this mission. They chose the Bellevue banking center for this pilot project, as it was the original headquarters and senior management is closer to employees at that location. Xanadu has chosen all of you to be on this very special development project. You have already been assigned to teams to work together to plan, investigate, analyze, recommend, design, and implement a solution to Bank of Xanadu's problem.

Figure 11: Background Information, page 2

Assumptions

- Additional costs and resources are available to train staff and perform administrative duties.
- Implementation of the new system removes the need to purchase Microsoft Excel.
- Positive numbers in the ROI and NPV are sufficient to determine financial feasibility.

Issues

None at this time.