Coug's Den Properties

Rental Software Project System Design Document

Milton V & Lauren Willar
PROJECT TEAM 5
12/6/2015

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Executive Overview

Coug's Den Properties is a growing rental agency in Pullman, Washington that owns and operates three apartment buildings in the greater Pullman area. Concerned that its current rental inventory and transaction systems would become insufficient to handle an ever-increasing volume of operations, management has requested an upgrade of its current management information processes to a singular rental asset and operations management tool.

The project's System Analysis Phase confirmed the current system is not scalable and identified a number inconsistent, fragmented processes that are constant sources of error and frustration for Coug's Den employees. During the System Requirements Phase, the compiled data was analyzed and used to establish the new system's requirements. Upon approval of these requirements, the project team moved to the System Design Phase.

During the System Design Phase, the team designed the human interfaces, database configuration, and selected the system's hardware and software. All user screens, reports and dialogs follow the general formatting guidelines that were identified during the previous phases, and were designed for ease of use and accuracy—which were specified as key requirements. Concurrent with the user interface design process was the database design process. Both the logical and physical database designs were based on the previous phase's data flow diagrams and entity relationship diagrams.

New hardware and software components were also selected during this time. The system will reside on a central server, which will be housed at the Coug's Den Properties home office, and automatically back up at an off-site location via the Internet.

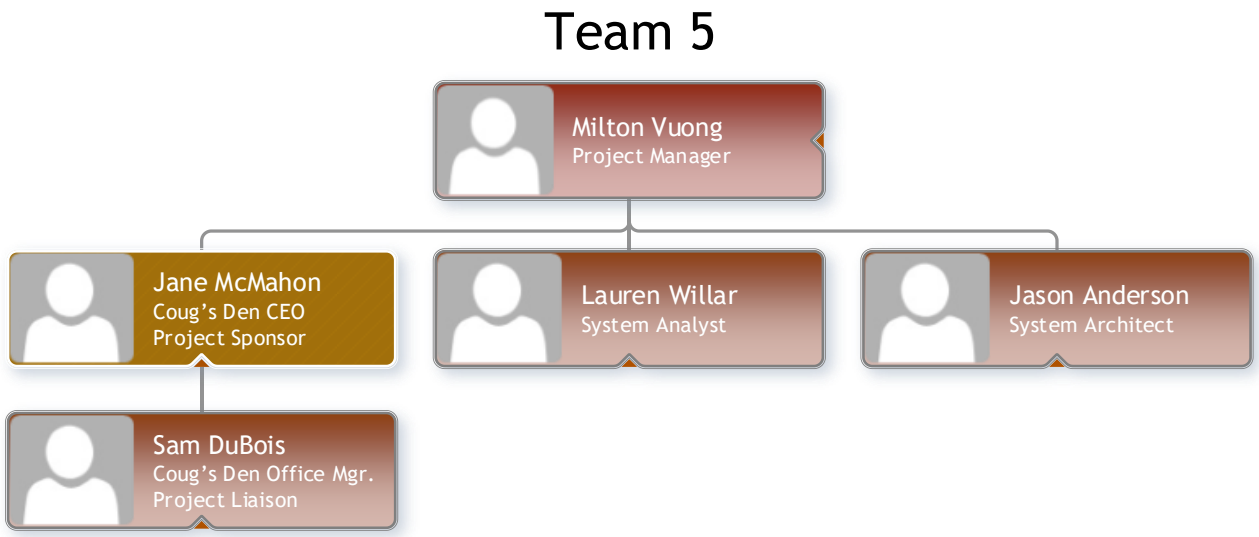
The new system was designed with (1) scalability, (2) ease-of-use and (3) error reduction in mind. The benefits of these goals are that the system:

- Provides users "one view of the truth" for well-informed, rapid decision-making.
- Reduces redundancies and mistakes, improving accuracy and processing times.
- Increases productivity, reducing both employee *and* customer frustrations.
- Improves customer service levels and identification new sales opportunities.

Throughout the course of the project, the team has been able to incorporate and consolidate fragmented data and processes and add functionality. System users will have a complete picture at the click of a button, including:

- Unit details (type, configuration, no. of bathrooms, and amenities)
- Current renter details (name, phone, unit, emergency contact, pets)
- Income by unit reporting
- Unit advertising and expenses tracking
- Tenant qualification and tracking
- Rental agreement repository
- Rent/late fee assignment, collection and enforcement tracking

Team Roles & Organization



ROLE	TEAM MEMBER	RESPONSIBILITY
Project Manager	Milton Vuong	Initiate, supervise and close down project
System Analyst	Lauren Willar	Analyze requirements; Design system; Train users
System Architect	Jason Anderson	Technical design; System functionality and validation; Develop user documentation
Project Sponsor	Jane McMahon	Initiate project; Provide feedback and resources
Project Liaison	Sam DuBois	Assist with project concept/design; Provide feedback and resource delivery; Train users

Stakeholders & End-Users

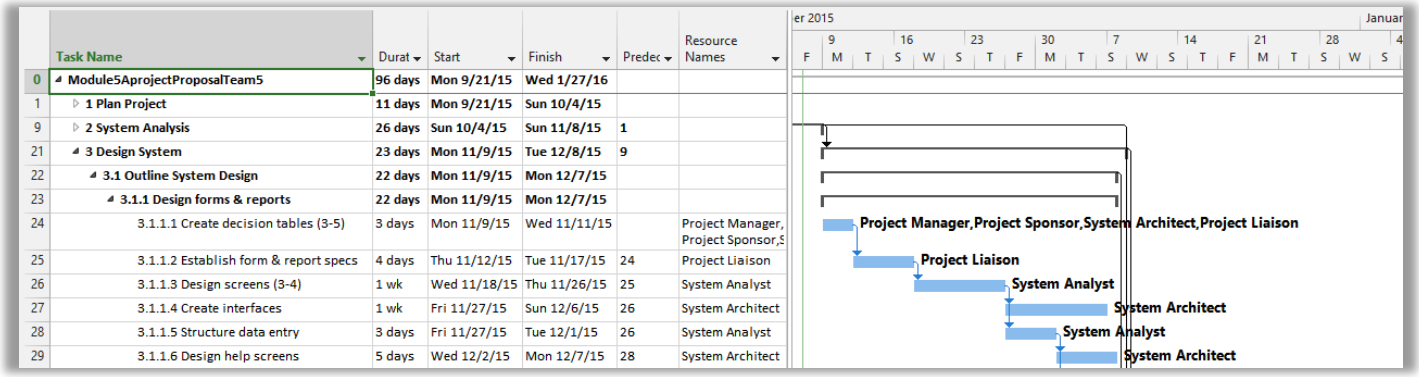
The following project **stakeholders** have been identified:

STAKEHOLDER	DOCUMENT	FORMAT	TEAM CONTACT	DATE DUE
Team Member	Project Status Report	Project Mgmt System	Lauren Jason	Monday each week
Programmer	Project Status Report	Project Mgmt System	Jason Lauren	Monday each week
Project Management	Project Status Report	Email/ Project Mgmt System	Lauren	First Tues of month
Coug's Den Management	Project Status Report	Email	Milton	First Weds of month
Trainer	Implementation Plan	Email, Hardcopy	Jason Lauren	Monday each week starting in Design Phase
Trainer	Training Materials	Email, Hardcopy	Lauren Jason	Monday each week starting in Design Phase
User	Implementation Plan	Email	Sam	Implementation Phase
User	Training Materials	Hardcopy	Sam	Implementation Phase

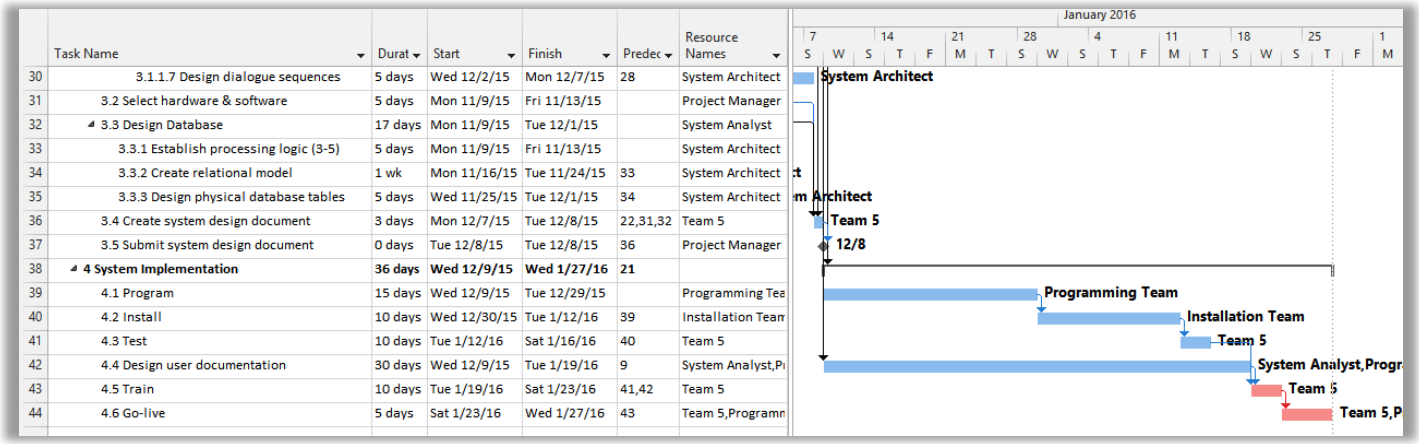
The following system **end-users** have been identified:

END-USER	ROLE	SYSTEM RELATIONSHIP
Jane McMahon	Coug's Den CEO	Super User
Sam DuBois	Office Manager, Supervisor	Super User, Trainer
Lindsey Armstrong	Bookkeeper	System User
John Fellowes	Administrative Assistant	System User
Kim Savard	Property Manager	System User
Sasha Wilson	Property Manager	System User
Mike Felder	Property Manager	System User

Timeline



	Task Name	Durat	Start	Finish	Predec	Resource Names
0	Module5AprojectProposalTeam5	96 days	Mon 9/21/15	Wed 1/27/16		
1	1 Plan Project	11 days	Mon 9/21/15	Sun 10/4/15		
9	2 System Analysis	26 days	Sun 10/4/15	Sun 11/8/15	1	
21	3 Design System	23 days	Mon 11/9/15	Tue 12/8/15	9	
22	3.1 Outline System Design	22 days	Mon 11/9/15	Mon 12/7/15		
23	3.1.1 Design forms & reports	22 days	Mon 11/9/15	Mon 12/7/15		
24	3.1.1.1 Create decision tables (3-5)	3 days	Mon 11/9/15	Wed 11/11/15		Project Manager, Project Sponsor,S
25	3.1.1.2 Establish form & report specs	4 days	Thu 11/12/15	Tue 11/17/15	24	Project Liaison
26	3.1.1.3 Design screens (3-4)	1 wk	Wed 11/18/15	Thu 11/26/15	25	System Analyst
27	3.1.1.4 Create interfaces	1 wk	Fri 11/27/15	Sun 12/6/15	26	System Architect
28	3.1.1.5 Structure data entry	3 days	Fri 11/27/15	Tue 12/1/15	26	System Analyst
29	3.1.1.6 Design help screens	5 days	Wed 12/2/15	Mon 12/7/15	28	System Architect



	Task Name	Durat	Start	Finish	Predec	Resource Names
30	3.1.1.7 Design dialogue sequences	5 days	Wed 12/2/15	Mon 12/7/15	28	System Architect
31	3.2 Select hardware & software	5 days	Mon 11/9/15	Fri 11/13/15		Project Manager
32	3.3 Design Database	17 days	Mon 11/9/15	Tue 12/1/15		System Analyst
33	3.3.1 Establish processing logic (3-5)	5 days	Mon 11/9/15	Fri 11/13/15		System Architect
34	3.3.2 Create relational model	1 wk	Mon 11/16/15	Tue 11/24/15	33	System Architect
35	3.3.3 Design physical database tables	5 days	Wed 11/25/15	Tue 12/1/15	34	System Architect
36	3.4 Create system design document	3 days	Mon 12/7/15	Tue 12/8/15	22,31,32	Team 5
37	3.5 Submit system design document	0 days	Tue 12/8/15	Tue 12/8/15	36	Project Manager
38	4 System Implementation	36 days	Wed 12/9/15	Wed 1/27/16	21	
39	4.1 Program	15 days	Wed 12/9/15	Tue 12/29/15		Programming Tea
40	4.2 Install	10 days	Wed 12/30/15	Tue 1/12/16	39	Installation Tean
41	4.3 Test	10 days	Tue 1/12/16	Sat 1/16/16	40	Team 5
42	4.4 Design user documentation	30 days	Wed 12/9/15	Tue 1/19/16	9	System Analyst,Pi
43	4.5 Train	10 days	Tue 1/19/16	Sat 1/23/16	41,42	Team 5
44	4.6 Go-live	5 days	Sat 1/23/16	Wed 1/27/16	43	Team 5,Programn

Project Description

The objective of this project is an asset and operation management tool that is (1) scalable, (2) easy to use, and (3) reduces user errors. The ultimate goals are to (1) provide the firm with the ability to easily incorporate additional assets into the system while maintaining fast data access, and (2) reduce user frustrations created by redundancies and errors. Realization of these goals will:

- Provide users "one view of the truth" for well-informed, rapid decision-making.
- Reduce redundancies and mistakes, improving accuracy and processing times.
- Increase productivity, reducing both employee *and* customer frustrations.
- Improve customer service levels and identification new sales opportunities.

The system must be scalable, allowing Coug's Den to serve an increased customer base. Incorporation of additional rental properties and effortless handling of increasing customer and transaction volumes (and fluctuating users) is a requirement.

The new system must integrate the all firm's rental assets and operation data into one, eliminating the fragmented data, redundant processes, and information disruptions that Coug's Den Properties is currently experiencing. Users should have fast, easy access to all unit, tenant, and income/expense

transaction data in a consolidated view, and be able to track the tenant qualification process and rental/late fee payments. Specifically, the system should include the following data/functionality:

- Unit details (type, configuration, no. of bathrooms, and amenities)
- Current renter details (name, phone, unit, emergency contact, pets)
- Income by unit reporting
- Unit advertising and expenses tracking
- Tenant qualification and tracking
- Rental agreement repository
- Rent/late fee assignment, collection and enforcement tracking

The system must also offer operational reporting—from a granular level to the business-as-a-whole—and provide improved unit reporting capabilities. Reports on unit profitability, advertising costs, occupancy levels, and unit configurations improve the understanding and identification of additional avenues of profit—ultimately improving the firm's efficiency and efficacy.

Resource Requirements

The project's resource requirements have been updated to the following:

Personnel

- Project Team: 5 individuals – 40 hours a week for the duration of project
- Coug's Den Properties Employees: 4 end-user employees
  - 40 hours for on-site UAT testing (2 weeks each, consecutively)
  - 1 hour each for system install (additional, non-working time)
  - 2 hours for test feedback (additional, non-working time)
- All end-user employees: 2 hours for training/Q&A session
- Software Programmer: 2 individuals - 40 hours for the duration of project

Equipment

- Desktop/laptops computers: End-user systems capable of running proposed system
- Video conferencing equipment for project update meetings and feedback

Software

- Microsoft Office Suite
- Microsoft Project
- Microsoft Visio
- Microsoft Visual Basic
- GoToMeeting
- Communication Services: E-mail and/or instant messaging, video conferencing

System Requirements

BUSINESS OBJECTIVE

The business objective of this project is an asset and operation management tool that is (1) scalable, (2) easy to use, and (3) reduces user errors.

REQUIREMENTS & CONSTRAINTS

After an extensive System Analysis Phase, the project team determined the system upgrade has the following requirements and constraints.

Requirements:

- Easy to use and update property, unit, renter and income data
- Provides users access to accurate, up-to-date information
- Displays overview of each property (including address, units, amenities, on- and off-site manager information)
- Provide individual unit details (including type, configuration, no. of bathrooms, unit amenities, current renter)
- Link renter data to unit data (renter name, property/unit, lease details, payment/late fee data)
- Include payment/late fee and income/expense tracking and reporting capabilities (including unit P&L reporting)
- Contain tenant qualification and rental agreement tracking

Constraints:

- System development cannot exceed $20,000
- New hardware costs cannot exceed $5,000
- Ongoing/recurring costs cannot exceed $15,000/year
- Implementation downtime (non-working time of entire agency) cannot exceed 48 hours

ALTERNATIVE SOLUTIONS

Based on the information compiled and analyzed, the project team recommended that Coug's Den Properties' management information processes be moved to a centralized integrated platform. Three project solutions—a low-end solution, a mid-range solution, and a high-end solution—were evaluated during this process.

The low-end solution (Alternative A) is a web-based "off-the-shelf" property management software service. It is a low cost online solution requiring minimal setup and is very easy to use. It includes a document repository for leases, unit income/expense tracking and reporting, and even includes online tenant screening and application capabilities. While this solution meets all known constraints, it has

very limited customization and violates the requirements that involve property, unit and renter data integration and tracking.

The mid-range solution (Alternative B) is a combination of the web-based "off-the-shelf" property management service and a custom-built property management database system. This is a balanced solution includes the use of the easy-to-use online service for the document repository, unit income/expense tracking and reporting, and online tenant screening and application requirements, and requires a centralized on-site proprietary database for the property, unit and renter data integration and tracking requirements. This solution will require some, although minimal, develop and hardware/software costs. Unfortunately, it lacks integration between the two systems so redundant data entry will remain and multiple logins will be required; therefore, the project team does not recommend this option.

The high-end solution (Alternative C) is a propriety system designed to the exact specifications that Coug's Den requires. Because this is a completely custom system all requirements relating to property, unit, tenant and income/expense data, speed and ease of use, and scalability can be accommodated. While the desired functionality will result in on-going costs that exceed the on-going/recurring cost constraint, this is the most flexible, comprehensive approach and is the solution recommended by the project team.

Alternative Solution Comparison

Criteria	A	B	C
Platform	Cloud-based	Cloud-based & Custom	Custom
Requirements			
Easy to use and update property, unit, renter and income data	Income & tenant process only	Moderate (Requires multiple systems)	Yes
Provides access to accurate, up-to-date information	Income & tenant process only	Yes	Yes
Display overview of each property	No	Yes	Yes
Provide individual unit details	No	Yes	Yes
Link renter data to unit data	No	No	Yes
Include payment/late fee, income/expenses tracking and reporting	Yes	Yes	Yes
Tenant qualification and rental agreement tracking	Qualification & App process only	Yes	Yes
Constraints			
Cost of development (<$20,001)	None	$8,000	$17,500
Cost of hardware/software (<$5,001)	None	$2,000	$3,000
Ongoing/recurring costs (<$15,001/yr)	$500/year	$5,000/yr	$18,500/yr
Implementation downtime (<48 hours)	12 hours	24 hours	48 hours

Business Case/Justification

A fragmented data information management system is restricting the firm's ability to expand its operations and grow. Data silos are limiting access to, and delaying the flow of, information. As the

agency grows, the volume of data will continue grow as will the time spent managing that data. Eventually, the firm will become so overloaded that cross-referencing and accessing simple one-dimensional data will become impossible, and the need for multi-dimensional access to information—that the current system lacks—will become an emergency. Implementation of a single, tailored information management system will not only improve access to current information, it will also limit data errors and increase employee productivity and morale. This system's "one view of the truth" will offer users easy, fast access to the information they need to do their jobs and allow them to make well-informed, rapid decisions.

While the possibility of "adoption resistance" can never be eliminated, the proposed system's speed and ease of access and improved data accuracy will ultimately reduce employee frustrations, interruptions and delays, and improve customer relations. Data fragmentation and process redundancies increase the probability of errors and create version control issues that frustrate users and reduce employee morale. A reduction in process redundancies dramatically cuts the time needed to find the information, and reduces the turn-around time needed to provide information to internal and external customers. The elimination of both process and data redundancies reduces data entry and version errors, in turn, reducing mistakes made on the basis of bad information and improving the accuracy of information being provided to internal and external customers. Overall customer satisfaction—a competitive necessity—will improve with the increased service levels and reduction in bad information.

Improved reporting and cross-functional data access ("one view of the truth") will lead to better identification of new sales opportunities. Property managers who can see the complete picture "at-a-glance" are better equipped to offer solutions a renter may not even know they have, such as a larger (more expensive) unit that just became available or the option to rent a parking garage. Additionally, a reduction in late rent notifications will increase rent/late fee collections, which is directly attributable to an up-to-date tracking system.

Improved income and expense reporting will aid management's long-term planning and decision-making. The ability to identify units and/or properties that are less profitable and drill-down further into why gives management the opportunity to develop a specific plan in-line with the agency's long-term goals and financial strategy.

Improved reporting will also help with short-term financial planning and controls. Managers who can compare near-real-time data with budgets have the ability to make rapid, informed short-term financial decisions that correct issues as they occur and set the firm back on course.

COST-BENEFIT ANALYSIS

Cost and Benefit Worksheets

Tangible Benefits - Annual	YEAR 1 TO 5
Operational Costs Reduction	$ 25,000.00
Operational Error Reduction	$ 11,000.00
Improved Worker Efficiency	$ 5,000.00
Increase Worker Flexibility	$ 1,000.00
Increase Revenue Opportunity	$ 5,000.00
Total Annual Benefits	**$ 47,000.00**

Tangible Costs - One-Time	YEAR 0
Data Migration	$ 500.00
Solution Development and Deployment	$ 9,500.00
Hardware and Equipment	$ 3,000.00
Employee Training	$ 7,500.00
Total One-Time Costs	**$ 20,500.00**

Tangible Costs - Annual	YEAR 1 TO 5
Utilities	$ 1,000.00
System Support	$ 10,000.00
System Maintenance	$ 7,500.00
Total Annual Costs	**$ 18,500.00**

Cost-Benefit Analysis Worksheet

Discount rate used: 10%

BENEFITS	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Net Economic Benefit	$ -	$ 47,000.00	$ 47,000.00	$ 47,000.00	$ 47,000.00	$ 47,000.00	
Discount Rate		0.9091	0.8264	0.7513	0.6830	0.6209	
PV of Benefits		$ 42,727.27	$ 38,842.98	$ 35,311.80	$ 32,101.63	$ 29,183.30	
NPV of Benefits	$ -	$ 42,727.27	$ 81,570.25	$ 116,882.04	$ 148,983.68	$ 178,166.98	**$ 178,166.98**

COSTS	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
One-Time Costs	$ (20,500.00)						
Recurring Costs	$ -	$ (18,500.00)	$ (18,500.00)	$ (18,500.00)	$ (18,500.00)	$ (18,500.00)	
Discount Rate		0.9091	0.8264	0.7513	0.6830	0.6209	
PV of Recurring Costs	$ -	$ (16,818.18)	$ (15,289.26)	$ (13,899.32)	$ (12,635.75)	$ (11,487.04)	
NPV of All Costs	$ (20,500.00)	$ (37,318.18)	$ (52,607.44)	$ (66,506.76)	$ (79,142.51)	$ (90,629.56)	**$ (90,629.56)**

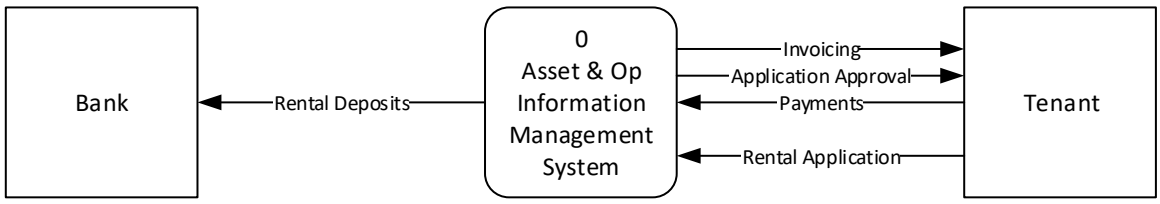
OVERALL NPV	**$ 87,537.42**
OVERALL ROI	**0.97**

BREAK-EVEN ANALYSIS						
Yearly NPV Cash Flow	$ (20,500.00)	$ 25,909.09	$ 23,553.72	$ 21,412.47	$ 19,465.88	$ 17,696.26
Overall NPV Cash Flow	$ (20,500.00)	$ 5,409.09	$ 28,962.81	$ 50,375.28	$ 69,841.17	$ 87,537.42
Break-Even In Years	**0.79**					

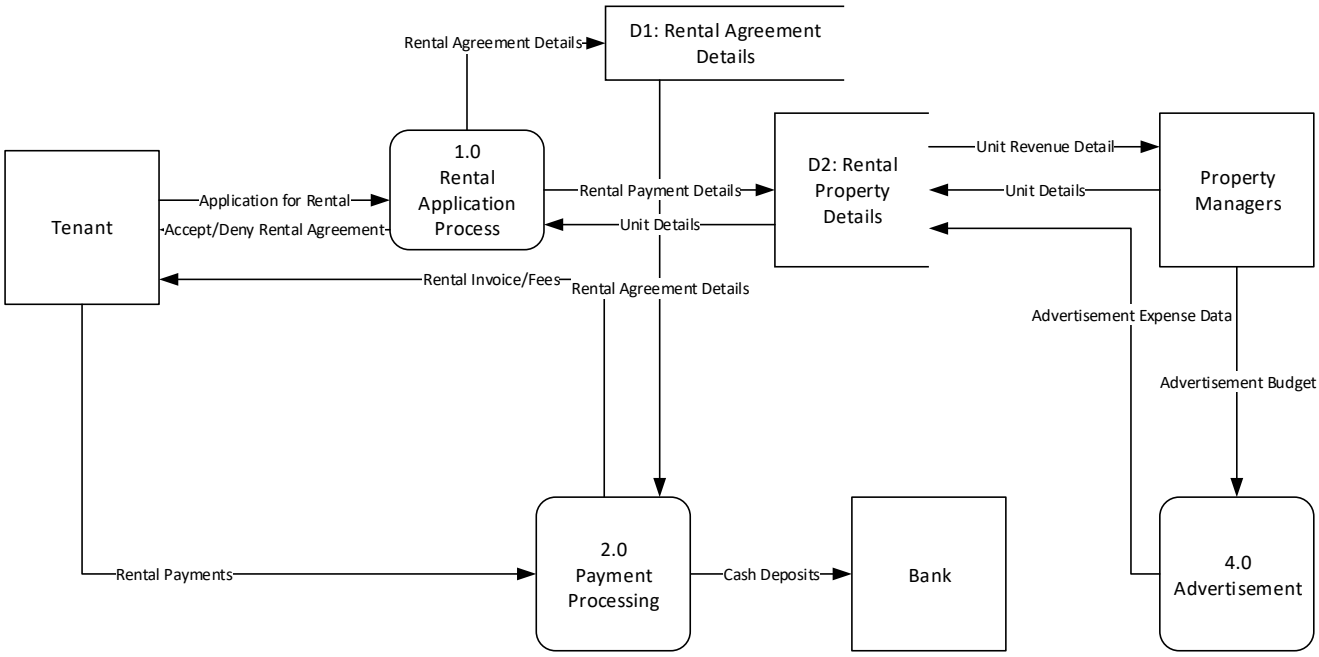
Proposed System

This proposed proprietary system will be deployed on a centralized platform. This structure requires minimal storage capacity, provides fast retrieval speeds, and offers substantial capacity for growth—even while being accessed and updated by multiple users at one time.

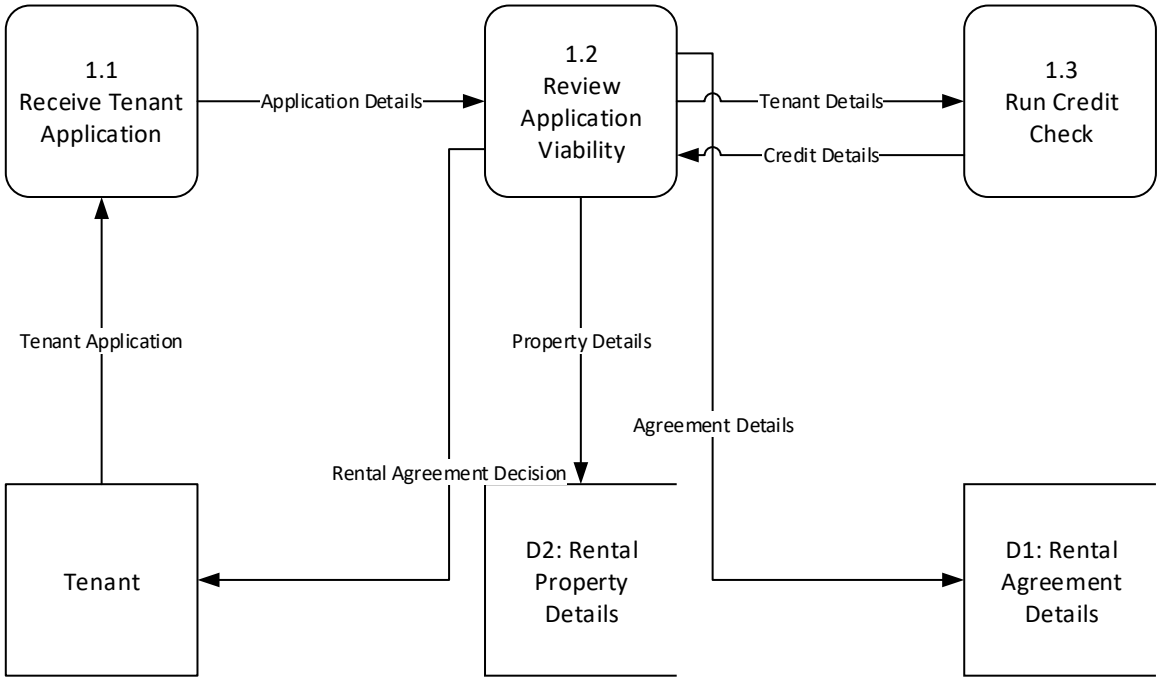
CONTEXT DIAGRAM



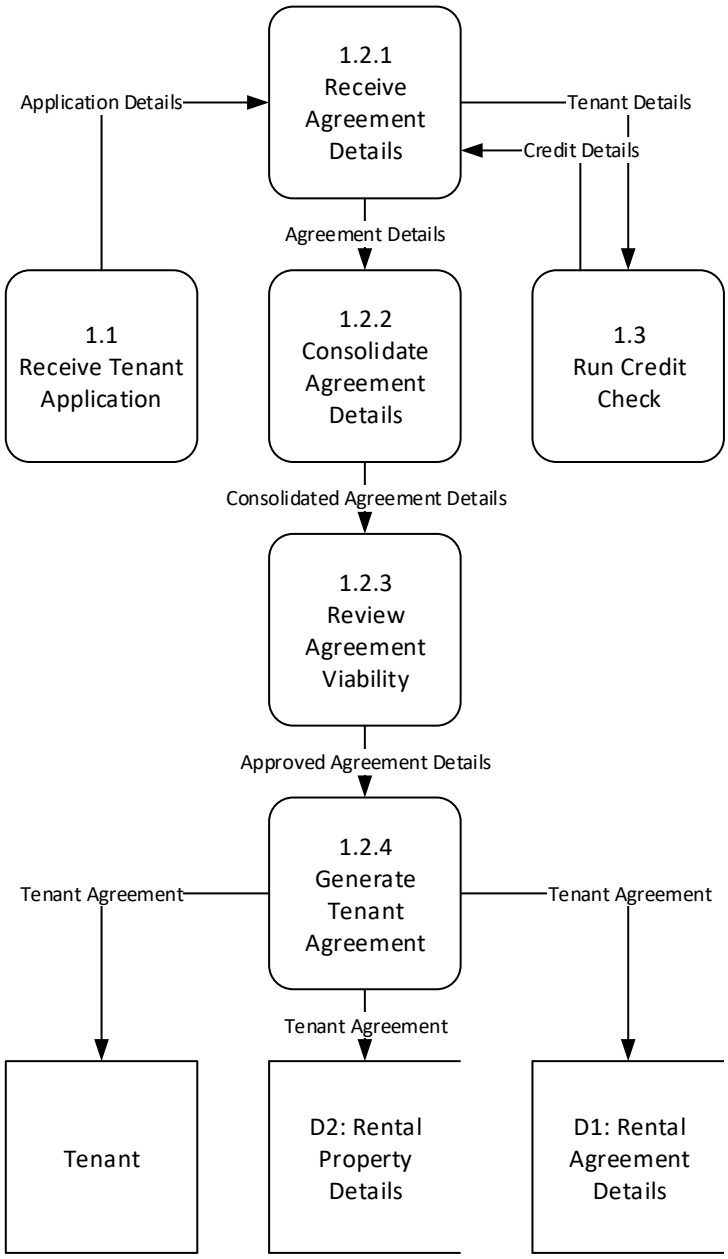
LEVEL-0 DIAGRAM



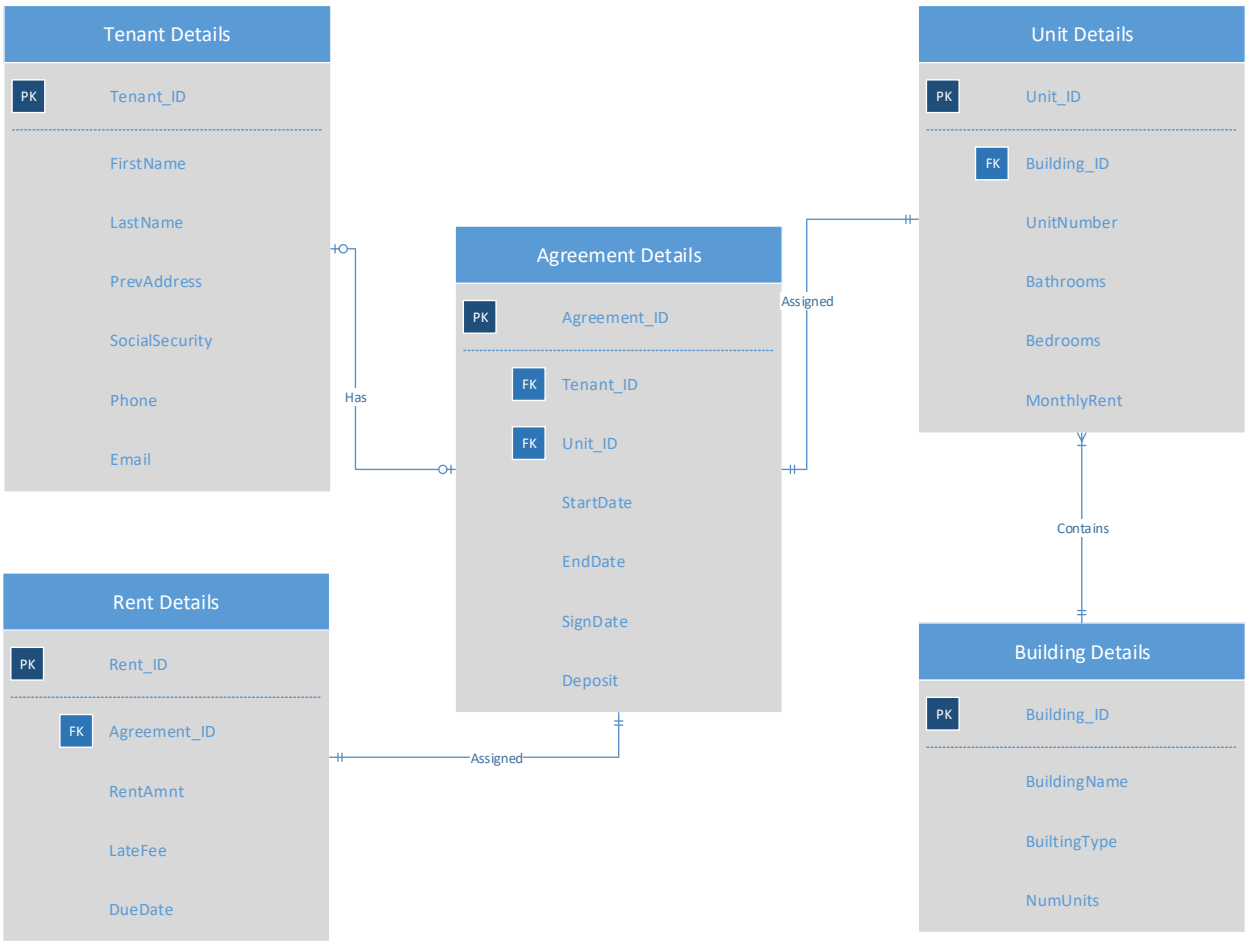
LEVEL-1 DIAGRAM


1.1
Receive Tenant Application
Application Details
1.2
Review Application Viability
Tenant Details
Credit Details
1.3
Run Credit Check
Tenant Application
Property Details
Agreement Details
Rental Agreement Decision
Tenant
D2: Rental Property Details
D1: Rental Agreement Details

LEVEL-2 DIAGRAM



E-R DIAGRAM


Tenant Details
PK
Tenant_ID
FirstName
LastName
PrevAddress
SocialSecurity
Phone
Email
Has
Agreement Details
PK
Agreement_ID
FK
Tenant_ID
FK
Unit_ID
StartDate
EndDate
SignDate
Deposit
Assigned
Unit Details
PK
Unit_ID
FK
Building_ID
UnitNumber
Bathrooms
Bedrooms
MonthlyRent
Contains
Building Details
PK
Building_ID
BuildingName
BuiltingType
NumUnits
Rent Details
PK
Rent_ID
FK
Agreement_ID
RentAmnt
LateFee
DueDate
Assigned

DECISION TABLES

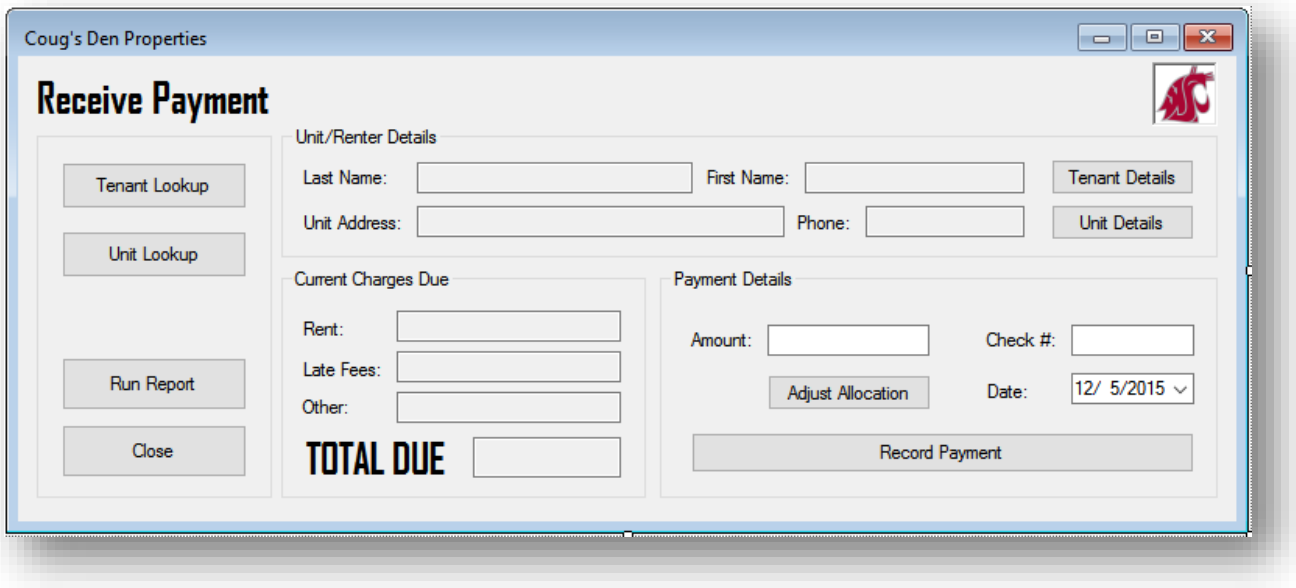
TENANT QUALIFICATION PROCESS									
Condition / Action	**Rules**								
	1	2	3	5	6	7	8	9	10
Applicant Type (Non-Resident Co-Signer, Tenant)	NRCS	T	NRCS	NRCS	T	NRCS	T	-	NRCS
Combined Gross Monthly Income 2X Rent	YES	YES	NO	YES	YES	NO	NO	YES	YES
Criminal Record (No Felonies, Felonies)	NF	NF	NF	F	F	F	-	NF	F
# of Residences in last 5 yrs (0 TO ≥ 4)	1	1	-	1-3	1	-	Not 1	Not 1	0 or ≥4
Require 2 positive references				X	X		X	X	
Require co-signer w/CGMI ≥2X rent							X		
Require first and last rent					X		X	X	
Obtain supervisor approval				X	X		X	X	
Deny applicant/co-signer			X			X			X
Approve applicant	X	X							

PAYMENT COLLECTION PROCESS			
Condition / Action	**Rules**		
	1	2	3
Payment Status (Late, Not Late)	L	NL	NL
Balance (Balance Due, No Balance)	-	BD	NB
Add payment to deposit slip	X	X	X
Add late fee	X		
Generate unit statement	X	X	
Deposit payment in bank	X	X	X

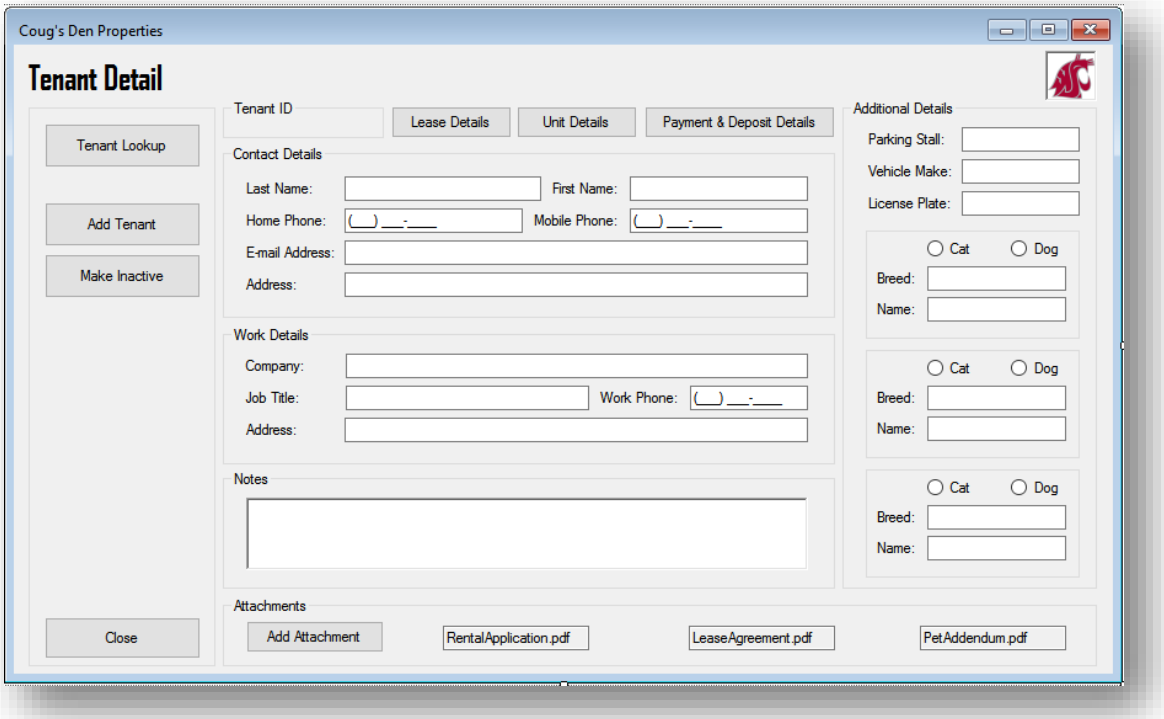
EXPENSE REQUEST PROCESS										
Condition / Action	**Rules**									
	1	2	3	4	5	6	7	8	9	10
Amount	≤$500	>$500	≤$500	>$500	≤$100	>$100	≤$500	≤$500	>$500	-
Requestor (Property Manager, Maintenance, Mgmt)	PM	PM	Main.	Main.	Main or PM	Main. or PM	PM	Main.	Main. or PM	Mgmt
Expense Type (Maintenance, Advertising, Upgrades)	Main.	Main.	Main.	Main.	Adv.	Adv.	Upgrade	Upgrade	Upgrade	-
Enter payment into tracking system	X	X	X	X	X	X	X	X	X	X
Assign expense to unit	X	X	X	X	X	X	X	X	X	X
Queue for Supervisor approval		X		X		X	X		X	
Queue for Director approval		X							X	
Queue for payment	X	X	X	X	X	X	X	X	X	X
Add to pending request report		X		X		X	X		X	
Add to expense report	X		X		X			X		X

SCREEN PROTOTYPES

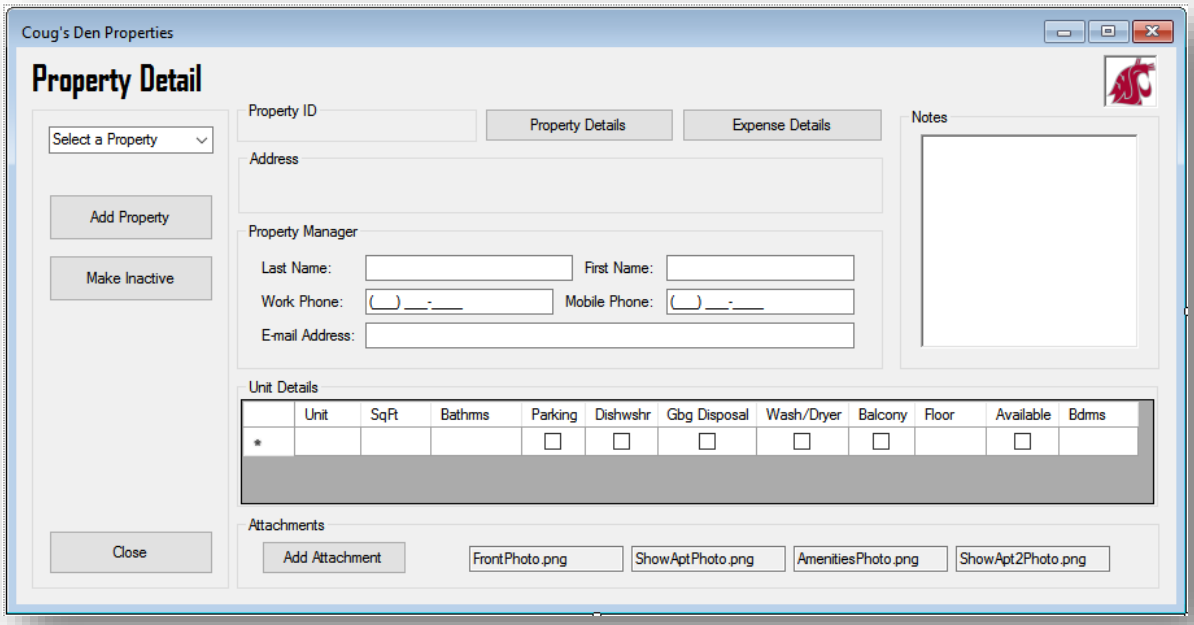
Payment Screen



Tenant Detail Screen

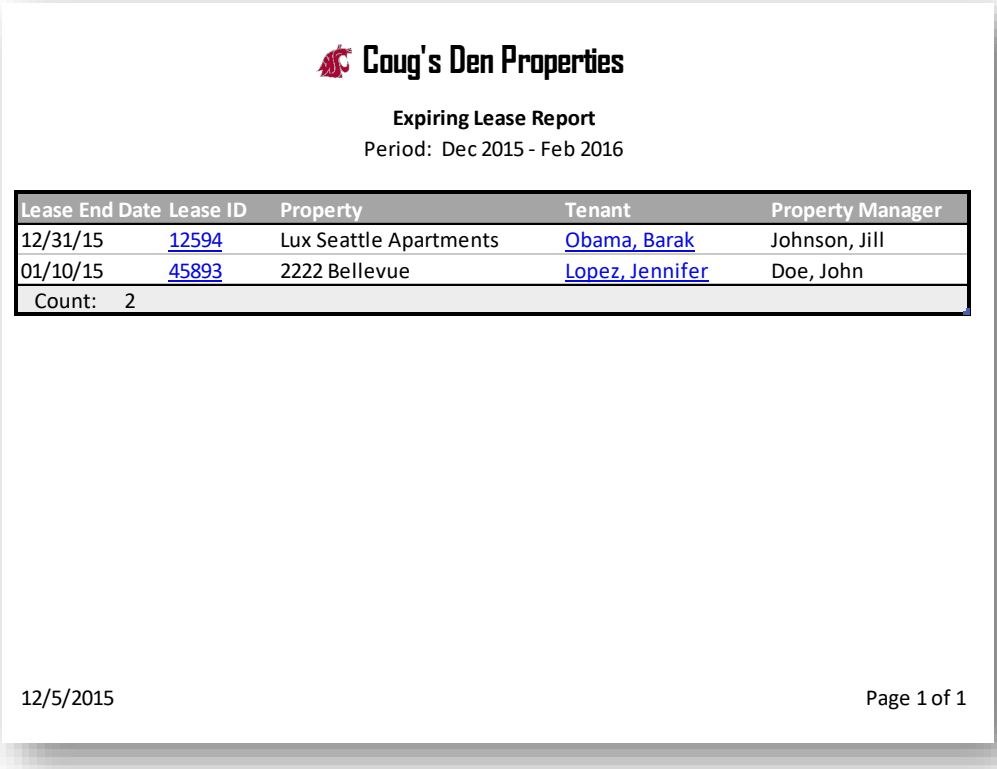


Property Detail Screen



REPORT PROTOTYPES

Expiring Lease Report



Coug's Den Properties

Expiring Lease Report

Period: Dec 2015 - Feb 2016

Lease End Date	Lease ID	Property	Tenant	Property Manager
12/31/15	12594	Lux Seattle Apartments	Obama, Barak	Johnson, Jill
01/10/15	45893	2222 Bellevue	Lopez, Jennifer	Doe, John
Count: 2				

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Vacancy Report

Coug's Den Properties

Unit Vacancy Report

Days Vacant	Unit ID	Sq Ft	Bedrooms	Bathrooms	Monthly Rent	Property	Property Manager
2	75	500	0	1	$ 1,200.00	Posh Greenwood Apartments	Smith. Sam
8	16	1200	3	2	$ 3,500.00	2222 Bellevue	Doe, John
10	56	1000	2	1.5	$ 2,200.00	Posh Greenwood Apartments	Smith. Sam
10	1	750	1	1	$ 1,500.00	Lux Seattle Apartments	Johnson, Jill
11	44	550	1	1	$ 1,550.00	2222 Bellevue	Doe, John
11	58	1100	2	2	$ 2,750.00	2222 Bellevue	Doe, John
42	12	1500	3	2.5	$ 2,500.00	Lux Seattle Apartments	Johnson, Jill
55	5	750	1	1	$ 2,000.00	2222 Bellevue	Doe, John
Avg # of days: 19				Potential Monthly Income	$ 17,200.00		

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Expense Report

Coug's Den Properties

Expense Report

Period: Oct - Dec 2015

Unit ID	Expense Account	Description	Date	Amount
12	201	Rent.com Ad	10/02/15	$ 500.00
	500	New washer/dryer	09/08/15	$ 1,500.00
12			Subtotal	$ 2,000.00

Unit ID	Expense Account	Description	Date	Amount
15	501	Replace lightbulbs	12/05/15	$ 1,500.00
	509	Carpet Cleaning	12/05/15	$ 500.00
	511	Paint Supplies	12/01/15	$ 150.00
15			Subtotal	$ 2,150.00

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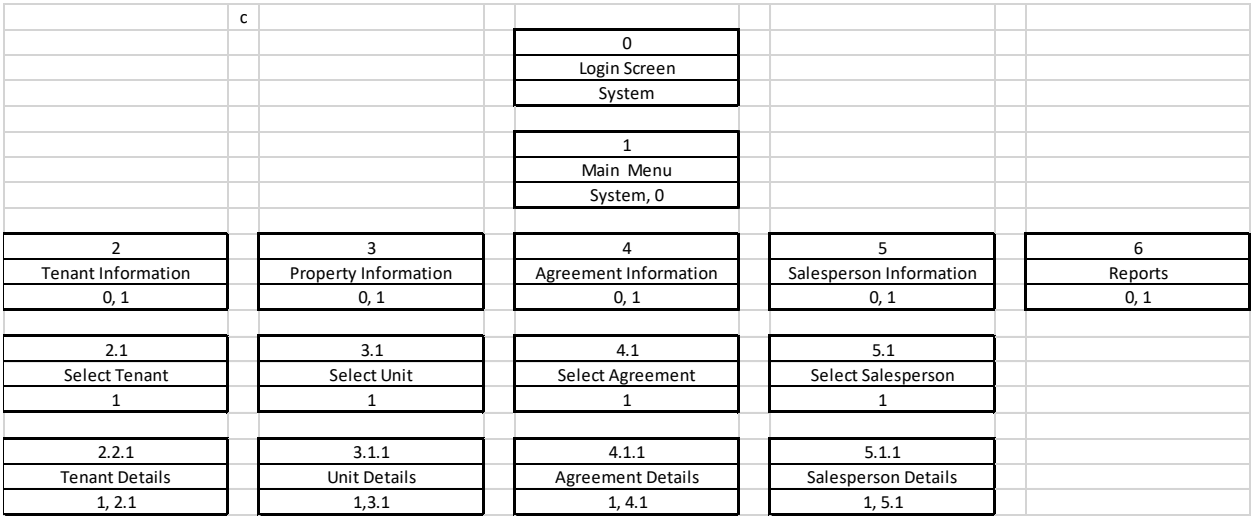
Project Dictionary

DATA STORES

Entity	Attribute	Type	Size	Key	Description
Tenant Details	Tenant_ID	Auto Number	10	Primary	Tenant identification number
	FirstName	Text	25		Tenant first name
	LastName	Text	25		Tenant last name
	PrevAddress	Text	50		Tenant address
	SocialSecurity	Number	9		Tenant social security number
	Phone	Number	10		Tenant telephone number
	Email	Text	50		Tenant email
Rent Details	Rent_ID	Auto Number	10	Primary	Rent identification number
	Agreement_ID	Auto Number	10	Foreign	Agreement identification number
	RentAmnt	Currency	10		Rent amount
	LateFee	Currency	10		Late fee amount
	DueDate	Date	8		Payment due date
Agreement Details	Agreement_ID	Auto Number	10	Primary	Agreement identification number
	Tenant_ID	Auto Number	10	Foreign	Tenant identification number
	Unit_ID	Auto Number	10	Foreign	Unit identification number
	StartDate	Date	8		Agreement start date
	EndDate	Date	8		Agreement end date
	SignDate	Date	8		Agreement signature date
	Deposit	Currency	10		Agreement deposit
Unit Details	Unit_ID	Auto Number	10	Primary	Unit identification number
	Building_ID	Auto Number	10	Foreign	Building identification number
	UnitNumber	Number	5		Unit number
	Bathrooms	Number	2		Unit bathroom counts
	Bedrooms	Number	2		Unit bedrooms counts
	MonthlyRent	Currency	10		Unit rent amount
Building Details	Building_ID	Auto Number	10	Primary	Building identification number
	BuildingName	Text	25		Building name
	BuildingType	Text	25		Building type
	NumUnits	Number	5		Number of units in the building

DIALOG DATAGRAM



REPOSITORY

To manage the project efficiently, a group project folder was established and shared with all team members. All project documentation was collected and updated within this folder. The documents currently residing in the repository include a baseline project plan, team organizational chart, project proposal, project timeline, status updates, collected Coug's Den forms and reports, cost-benefit analysis, JAD session forms and notes, current and proposed data flow diagrams, and entity relationship diagrams.

Hardware and Software

The hardware requirements of this management system will include some standard components. A physical server computer located on premise will house the database in which data will be stored. It will be connected to the office network and internet via the existing routers and modems. This server will be licensed with Windows Server to allow access from remote users with desktops or laptops. The server will host the proposed proprietary software to be developed. A client access version of the software will be installed on all remote devices to provide access to the central database.