American Video Game Company

CRM Application Proposal

Business Vision Document/Business Requirements

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Contents

A. Introduction

American Video Game Company has expanded its business due to a 42% increase in sales within recent years and are in need of a new Customer Relationship Management System to maintain its current growth. The proposed CRM System is designed to improve the management of the activities and interactions with current and future customers for American Video Game Company.

A.1. Purpose Statement

This document provides details on our recommendation for a software solution that fits the needs American Video Game Company and comparisons of ideal software development methodology for the project. In addition, this document contains visuals of the proposed CRM system and a description of a testing plan.

A.2. Overview of THE PROBLEM

With an outdated CRM system, American Video Game Company has a difficult time keeping up with the growth of its consumer base. There are several disconnected services and processes within the current CRM system and is in need of improvement in integration between the features of the CRM system. In addition, the system needs to be able to still produce custom reports, update user information and contacts, be intuitive, and record accurate data.

A.3. Goals and Objectives

The purpose of this document is to offer a new CRM software solution to American Video Game Company that will not only meet current business needs, but to be scalable to grow to future needs as well.

The new CRM System will provide:

- Security and data integrity
- Reliability
- Optimized performance
- Scalability for business growth
- User-friendly and intuitive design

A.4. Prerequisites

Outlined below is the prerequisites for the project. There will be a requirements document outlined in this proposal which need to be approved by project management. Lastly, the budget of the project will need to be approved by all necessary parties to begin the project.

Number	Prerequisite	Description	Completion Date
1		Gather requirements to create a strong understanding of project needs and goals.	10/1/2019
2	1	Project leadership/management must approve the requirements outlined by this document.	10/10/2019

3	1, 2	This project must gain requirements and budget approval by all appropriate parties in order to begin the project.	11/1/2019

A.5. Scope

The scope of this project will address the following requirements as necessities for business operations and business growth:

1. General Requirements
    1.1. Record activity against individual users for auditing and process in an accurate manner without deleting critical information.
    1.2. Manipulation of data according to role-based permissions.
    1.3. Integrate with the current active directory server.
2. Contact Management
    2.1. Contacts are to be categorized by type and belong to groups to dictate workflow.
    2.2. Users can manage contact settings and create notes for inquiries and contacts.
3. Data Types
    3.1. Data types are stored properly from form fields.
    3.2. Data integrity and security is a priority for the application.
4. Reporting
    4.1. High-level Reporting, filters, and saved data.
    4.2. User access for specific departments or roles.
5. Sales Tracking
    5.1. Data must interact with a ticketing system, and show during audit trails.
    5.2. The system will have a two-way communication with MS Exchange.

These requirements are not part of the scope but may be added if deemed feasible with budget and timeline:

1. Data Types
    1.1. Crucial information is to be used, any additional information that is subjective may be added in later versions but not required for the scope.
2. Reporting
    2.1. Saving and reuse of filters so that individuals can tailor reporting is a low priority feature and may be added to later versions of the system.

A.6. Environment

The CRM System must be compatible with modern operating systems and browsers.

Browser Support

- latest Chrome and Chromium
- latest Firefox
- I.E. 9 and above
- Safari 6.0

Mobile & Tablet Support

- iOS7 Safari
- iOS7 Third Party Browsers (Chrome and Firefox)
- Android 4.0 Chrome

The CRM System must also integrate with the existing database and active directory server. The hardware, workstations and/or mobile devices of each user will be used to access the new system. While the workstations of each user may vary, this will be a cloud-based solution that allows for multiple support for hardware, software and Operating Systems.

B. Requirements

The requirements section outlines which business, user, functional and nonfunctional requirements will be covered with the new CRM System and how those requirements will be satisfied.

B.1. Business Requirements

The company has 2,000 users who will be using the system, with 500 of those users likely using the system concurrently during peak business hours. Because of company growth, this system must be able to scale with company expansion.

High-priority business requirements:

- Use an Active Directory and Access Control List to manage profiles and interact with specific features.
  - The system will have users categorized into specific user roles such as Administrator, System User, Customer/Contact, etc. which have personal profiles to edit and view specific information with.
- Tracking and audit trail with specified details on contact interactions
  - There will be a version control software installed to keep accurate data entries and have roll-back plans if needed. There will be a “generate report” feature that allows for custom filters to produce specific reports for the needed departments.
- “Hard Delete” and “Soft Delete” data.
  - Users will have the ability to “soft delete” data, which is then archived without deletion in the database. Admin Users will have the ability to “Hard Delete” data with a security box confirmation to delete certain data.
- Hosting
  - This CRM system will be a cloud-based solution with a high-reliability remote server that will be managed off-site. This means continuous support and maintenance for our cloud solution as well as fault tolerance to allow for data backups.
- Maintain historical records
  - Records will be stored to enable long-term reports and various charts can be derived from these reports to project company trends.

B.2. User Requirements

Users in this system will be organized by their associated business with the company. In addition, they must have data protection and consistent data types to optimize the database of clients.

User Requirements:

- Support over 2,000 users with at least 500 using the system during business hours.
  - System will be cloud-based and provide strong up-time with frequent backups during business hours in case of downtime.
- System compatibility with a variety of hardware and operating systems.
  - System will be mobile, tablet, laptop, and desktop friendly with support for all the latest Operating systems and web browsers.
  - System will also feature responsive web design for intuitive and elegant mobile support.
- Performance.
  - The software will be optimized with speed and efficiency in mind, as well as having downtime during off business hours for updates and optimization.
- Users will be able to manage profiles.
  - The new CRM System will have specific form fields and document attachment forms that will support these features. In addition, there will be a settings option to adjust any information that needs to be adjusted.
- Users can set contact preferences.
  - There will be check boxes that default to checked if not modified by the user in the settings menu.

B.3. Functional Requirements

The functional requirements below define *requirements the CRM System should do*.

- Email Management
  - The CRM will be linked to MS Exchange and Outlook. Each email will have a signature for specific roles passed management. Grouping users by email also allows users to see the company email addresses of other group members.
- Users can record customer sales
  - The CRM will allow users to upload documents, and information manually when making a sale.
- Reports and Data
  - Managerial Level employees will have permission to view specific revenue data.
- User validation
  - The CRM will have data fields that require specific format to reduce human error in inputting information.
  - Users will be validated with the CRM database to ensure no duplications occur.
- Email Lists
  - Contacts will get an email whenever profile is updated or security is of concern.

- ➢ There will also be marketing lists as a checkbox when user signs up to receive newsletters and email on discounts.

B.4. NonFunctional Requirements

The non-functional requirements below define *how the CRM System performs certain functions.*

- ❖ Users account security
  - ➢ Users are given a randomly generated password upon initial login, and must update their password immediately.
- ❖ Software compatibility
  - ➢ Users will have access to the CRM from multiple devices, including mobile without any problems logging into account.
- ❖ Privacy Auditing
  - ➢ Proper use, SLA agreements and privacy rights will be audited periodically.
- ❖ Contract management
  - ➢ The appropriate parties will be able to sign and approve contracts on the System.
- ❖ Audit trail
  - ➢ Any mistakes or errors in activities will be recorded on the audit trails.

C. SOFTWARE DEVELOPMENT METHODOLOGY

The waterfall methodology is a strong development method that is used in particular situations. A method that is more modern and widely-used is the Scrum methodology which is a subcategory of the Agile approach.

Below outlines the advantages and disadvantages of both methodologies. After outlining these methods, we have decided to take the waterfall approach as it proves to satisfy the process of implementing the new CRM System more closely.

C.1. Advantages of the Waterfall Method

Some of the advantages of the waterfall method include:

- simple and easy to understand
- each phase is completed before moving to the next phase
- provides a timeline structure and produces an effective product

C.2. DisAdvantages of the Waterfall Method

Some of the disadvantages of the waterfall method include:

- doesn’t allow for flexibility and many revisions
- high-risk due to a strict project structure
- needs well defined and communicated requirements

C.3. Advantages of Scrum

Some of the advantages of the agile method include:

- quick and efficient production of project deliveries
- adopts constant feedback from stakeholders and customers to guide project
- large projects can be divided into smaller portions known as sprints

C.4. DisAdvantages of Scrum

Some of the disadvantages of the agile method include:

- the end product may differentiate from the original product design
- documentation can be neglected
- can be stressful for management and team members due to sprint timelines

C.5. Best Suited

The best suited methodology for this project would be the waterfall methodology. While other methods provide some merit, the waterfall method is the best option for success for these reasons:

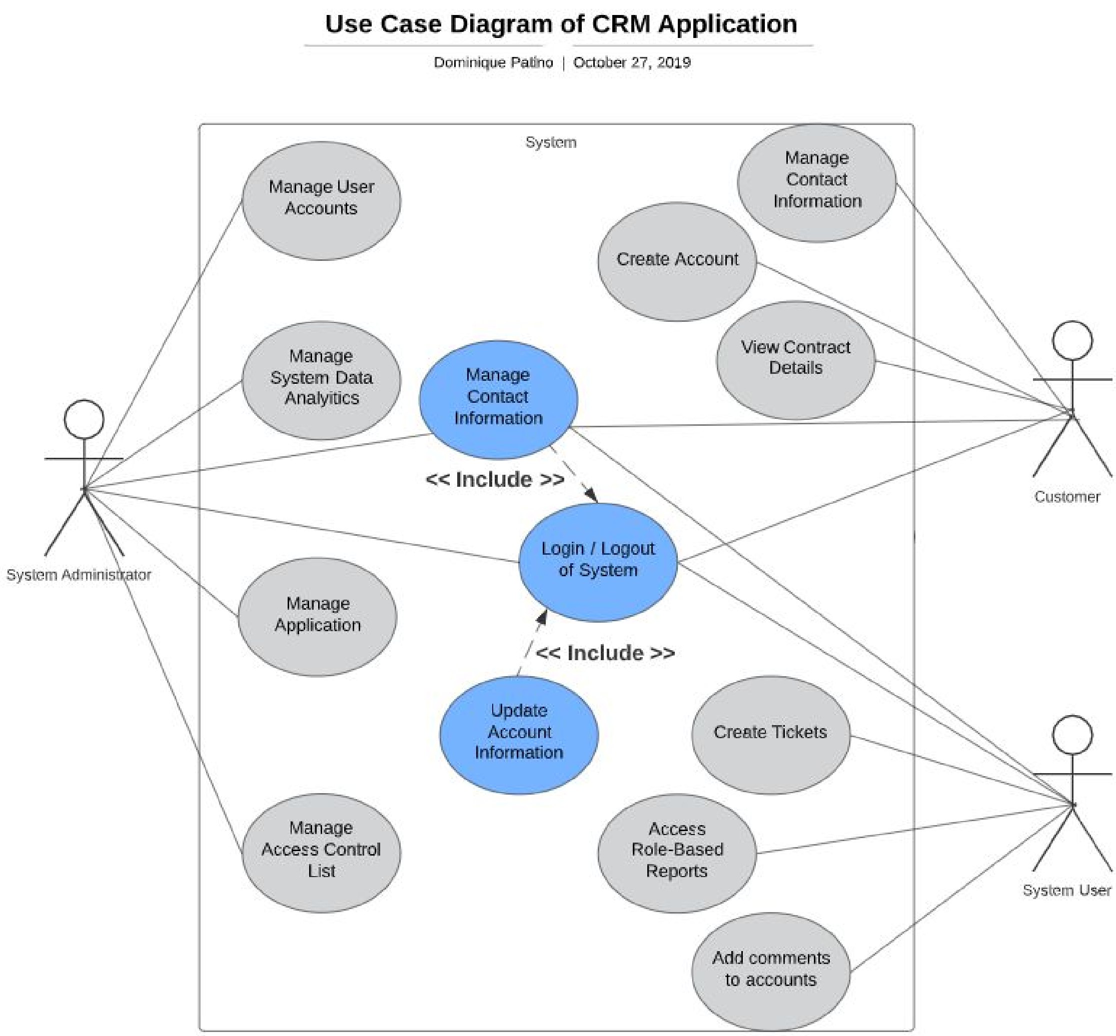
- the client has an existing architecture in place to upgrade
- the client provided detailed information on requirements for the new CRM System
- we provide a team of experts with strong relevant experience and who have worked with clients for years

D. Design

The proposed solution provides American Video Game Company with a tool to manage reporting, track sales, manage client contacts, and manage any system activities. Below are example diagrams that'll showcase how these requirements will be satisfied.

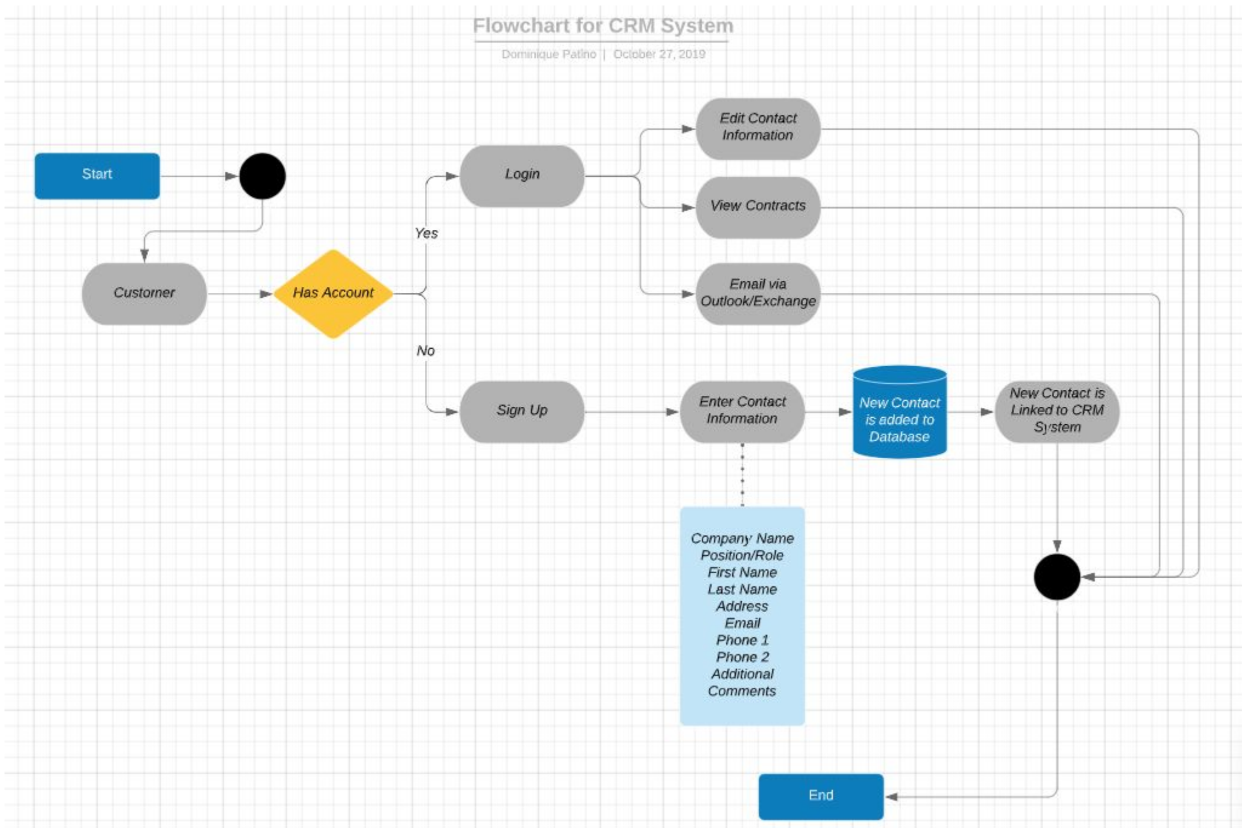
D.1. Use Case Diagram

The use case diagram of the CRM System Application illustrates the essential features for each user. Additional features will be added as needed.



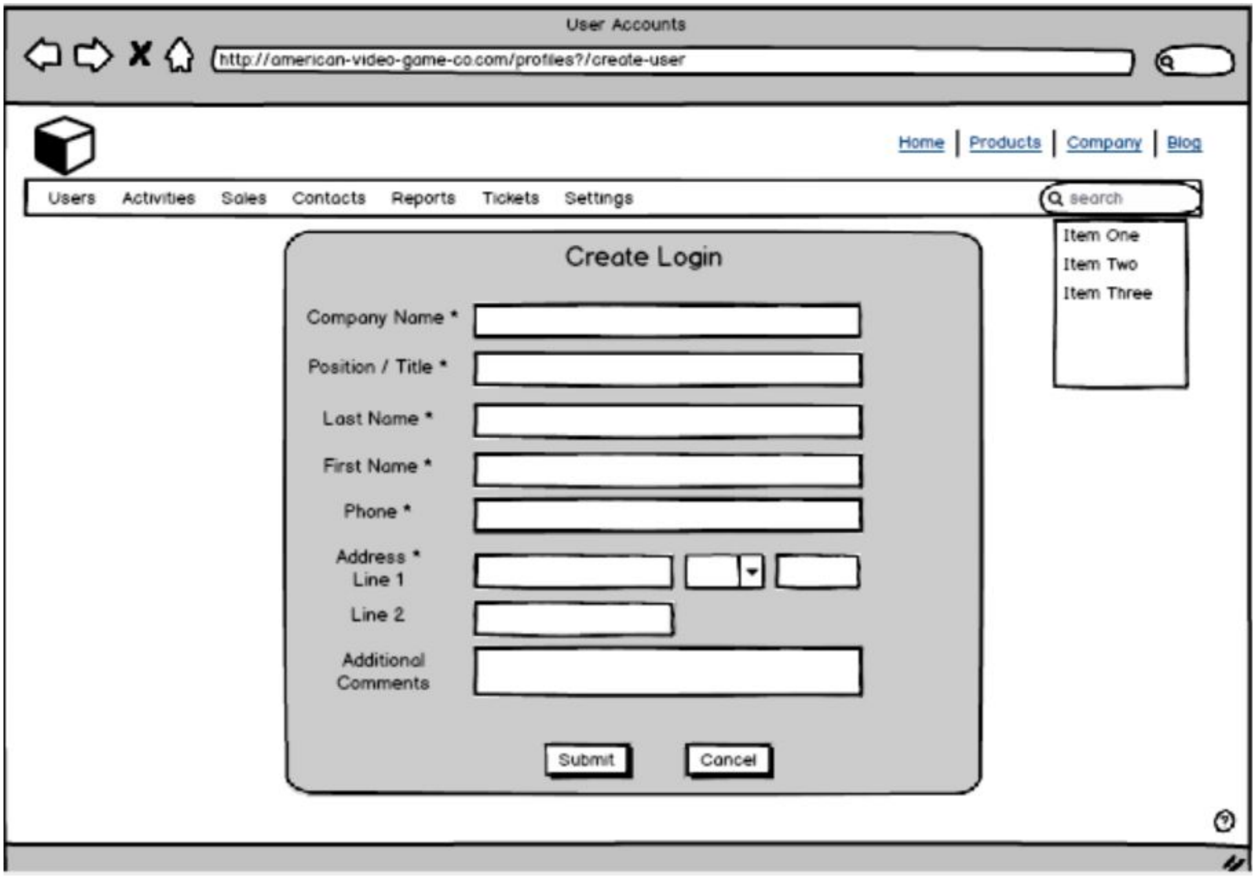
D.2. Flowchart

The flowchart below shows the customer account login or sign up path and what the main functions are for each path.



D.3. GUI

Below is a simple GUI of the "create user account" page and the form it provides to input user information.



E. Testing

Testing is an important step to verifying that the proposed CRM System has fully satisfied function and non-functional requirements. Below are three testing criteria for the proposed CRM solution.

E.1. Testing

The first test will be creating a new user account. The second test is to delete a user. The third test is for the reporting requirement.

E.1.1. CREATE A NEW USER ACCOUNT

Requirement to be tested

Create a new user account
Preconditions: Conditions that must be present before test case can successfully run The original architecture and database must be intact in order for the user to be added to the system. The proper APIs must be installed as well as a user interface is a must to add information to the account.
Steps: The steps the tester must execute to test the feature. 1. Create a test user with fake information. 2. Input test user information into the form fields. 3. Submit the form and query the database to find test user information. 4. Next, login to test user account from the login page. 5. Verify all information is in the correct placements on profile.
Expected results: Expected results and any side effects such as updating a database, writing to a file, etc. The test user account should have all information entered in the correct fields with the correct data type. *Side effects to monitor:* ● Duplicate user data in database ● Data types are all in the proper format.
Pass/Fail: Mark whether the test case passed or failed. The results can be compiled and used to determine if the application is ready for delivery/release. Pass.

E.1.2. DELETE USER

Requirement to be tested Delete a user account.
Preconditions: Conditions that must be present before test case can successfully run User must have an account created in the new CRM. The user must be verified in the database and all information must be correct on user profile.
Steps: The steps the tester must execute to test the feature. 1. Log in to test user’s profile. 2. Locate the settings button, click on accounts and click the ‘delete account’ button. 3. Confirm deletion in the pop-up box. 4. Query test user from the database and verify information is deleted. 5. Run audit logs and verify the user is not accounted for.
Expected results: Expected results and any side effects such as updating a database, writing to a file, etc. The expected result is to call the delete user function and find the user erased from the database. *Side effects to monitor:* ● Verify the userID is the proper user. ● The function may not be linked to the ‘delete account’ button.

Pass/Fail: Mark whether the test case passed or failed. The results can be compiled and used to determine if the application is ready for delivery/release.

Pass.

E.1.3. GENERATE REPORTS

Requirement to be tested

The CRM system properly produces custom reports that the business needs.

Preconditions: Conditions that must be present before test case can successfully run

Data integrity must be tested and verified.

Analytical data must be accurate and up-to-date.

User Interface must have an option to query specific data to populate into a report.

Steps: The steps the tester must execute to test the feature.

1. Select the data fields to be used in the report.
2. Click the ‘generate report’ button/
3. Verify the generated report has the proper fields.
4. Reset the report parameters and try a new combination of data queries.
5. Repeat steps 2, 3 and 4 as needed.

Expected results: Expected results and any side effects such as updating a database, writing to a file, etc.

The generated report pulls the required information and is able to be printed or saved as a file.

Side effects to monitor:

- Report has inaccurate data
- Report may have a bug where a specific combination of information isn’t accessible.
- Data types are in the correct format and uniform throughout the database.

Pass/Fail: Mark whether the test case passed or failed. The results can be compiled and used to determine if the application is ready for delivery/release. Pass