Design Template

Kelleher Solutions CRM

A Proposal CRM to American Video Game Company

Kelleher Solutions CRM

Alfred Kelleher

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Version 1.1

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A. INTRODUCTION

American Video Game Company is in need of a new, functional customer relationship management system (CRM), we at Kelleher Solutions would like to propose our CRM as an option. Below you will find an informed discussion detailing the requirements, methodologies, design and testing.

A.1. PURPOSE STATEMENT

The purpose of this document is to inform American Video Game Company about what our CRM at Kelleher Solutions offers. American Video Game Company is growing and we can help it grow more.

A.2. OVERVIEW OF THE PROBLEM

American Video Game Company is growing, for the last two years it has had a growth rate of 42%! That is great, however the current CRM is feeling strained and cannot keep up with this sustained growth. The current system at American Video Game Company is in disorder. Employee's are using different processes in different workplaces with outdated tools.

A.3. GOALS AND OBJECTIVES

Our goals are to help American Video Game Company by providing:

- Scalability with Increased Growth
- Improved Security
- Efficiency
- Uniformity
- Improved Cohesion between Employees and Clients
- Ease of Use

A.4. PREREQUISITES

Number	Prerequisite	Description	Completion Date
1	Collect Data	As we begin to migrate from AVGC's current CRM to the new and improved CRM at Kelleher Solutions, we'll need all the records, users, tickets, orders, and history.	3 Weeks
2	User OS and Browser Updates	Security is important and having AVGC ensure that their employee's systems are updated and secure means when they start using the CRM we offer, there will be fewer problems / security risks.	1 Week

A.5. SCOPE

These features are within our scope:

- Having an Active User Count of 1000
- Improved Contact Management
  - Including CRUD Operations for Roles, Users, Companies, and Leads
- Ticketing System That Tracks User Orders

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- OS and Browser Compatibility for Security
- Order Management for Tracking and Quoting an Order into a Sale

For what is not included in the scope are mobile apps, we run our CRM in the cloud and use browsers to interact with it. We also do not offer any direct user assistance should compatibility issues arise, it is up to American Video Game Company's IT department to assist them.

A.6. ENVIRONMENT

The CRM we offer is compatible with current mobile and desktop hardware devices, we host our CRM in the cloud and there is never any downtime.

Our list of supported operating systems and browsers:

- Windows
  - Windows 10
  - Windows 11
- MacOS
  - Big Sur
  - Monterey
  - Ventura
- Linux
  - Ubuntu 22.04 LTS
  - Fedora 37
- Browsers and Mobile Browsers
  - Chrome and Chromium
    - Latest (108.0.5359.95) and Extended Support Release
  - Firefox
    - Latest (107.0.1) and Extended Support Release
  - Safari 14+
  - Microsoft Edge
  - Internet Explorer 11
  - Brave
  - Vivaldi
  - Samsung Internet
- Mobile Operating Systems
  - iOS
    - Versions 13, 14, 15, and 16 Supported
  - Android
    - Versions 11, 12, and 13 Supported

American Video Game Company will have an active directory server firmly in our CRM. Users will need an active internet connection to be able to interact with the system. The CRM is built in Django and will use MySQL as its database.

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B. REQUIREMENTS

Kelleher Solutions has identified five critical requirements needed by American Video Game Company. A company growing at the rate of American Video Game Company needs these features for scalability and long term growth. The five key features we aim to help with are:

- Contact Management
- Users
- OS and Browser Support
- Ticketing System
- Order Management

B.1. BUSINESS REQUIREMENTS

Contact Management:

A contact management system is arguably the most important part of any business. Users will be categorized based on business and end-users. Our system at Kelleher Solutions will allow American Video Game Company to create, delete, update, and filter based on roles, the type of user, and their importance. Multiple entries and duplications will be allowed for cases that require it and partial entries will be allowed depending on the circumstance of the entry. We will also allow AVGC to add, update, delete leads as required.

Order Management:

Our system will track a quote and turn it into an order, thus completing a sale. Our dynamic system at Kelleher Solutions will be capable of taking orders, tracking orders, reordering, and partial ordering. This is achieved with the customer interface where users can make self-orders. In this portal, the user may view their order history and will have the option to reorder if they desire to.

B.2. USER REQUIREMENTS

Users:

Under the current system, on average 2000 users will access it and about 500 of these users will be accessing it all at once during peak times. The Kelleher Solutions CRM easily covers that, we will scale up-to 3000 users to access the system while also allowing a concurrent 1000 active users. Our CRM is modern and efficient, implementing some of the best tactics for a growing user base.

B.3. FUNCTIONAL REQUIREMENTS

OS and Browser Support:

The current system supports the following operating systems and browsers:

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

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

Our product at Kelleher Solutions will allow support for:

- Support for Latest Operating Systems
  - Windows
    - Windows 10
    - Windows 11
  - MacOS
    - Big Sur
    - Monterey
    - Ventura
  - Linux
    - Ubuntu 22.04 LTS
    - Fedora 37
- Browsers and Mobile Browsers
  - Chrome and Chromium
    - Latest (108.0.5359.95) and Extended Support Release
  - Firefox
    - Latest (107.0.1) and Extended Support Release
  - Safari 14+
  - Microsoft Edge
  - Internet Explorer 11
  - Brave
  - Samsung Internet
- Mobile Operating Systems
  - iOS
    - Versions 13, 14, 15, and 16 Supported
  - Android
    - Versions 11, 12, and 13 Supported
- Latest Mobile and Tablet Devices Supported

By supporting the most recent versions of operating systems and browsers we can eliminate security threats before they even begin and avoid bugs. Kelleher Solutions will always recommend the latest version of software.

B.4. NONFUNCTIONAL REQUIREMENTS

Ticketing System:

The Kelleher Solutions CRM Ticketing System aims to address the problems we've noted at American Video Game Company. Our software will track who called, the reason for the call, at day and time, and follow up instructions. We are able to manage this due to our robust system. By providing a ticketing system, tracking user interactions allows an audit system to be implemented.

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C. SOFTWARE DEVELOPMENT METHODOLOGY

In this section we, at Kelleher Solutions, will cover the differences between the waterfall method and the agile method. Despite knowing that American Video Game Company uses the waterfall method for their projects, we believe it is important to be considerate of other methodologies.
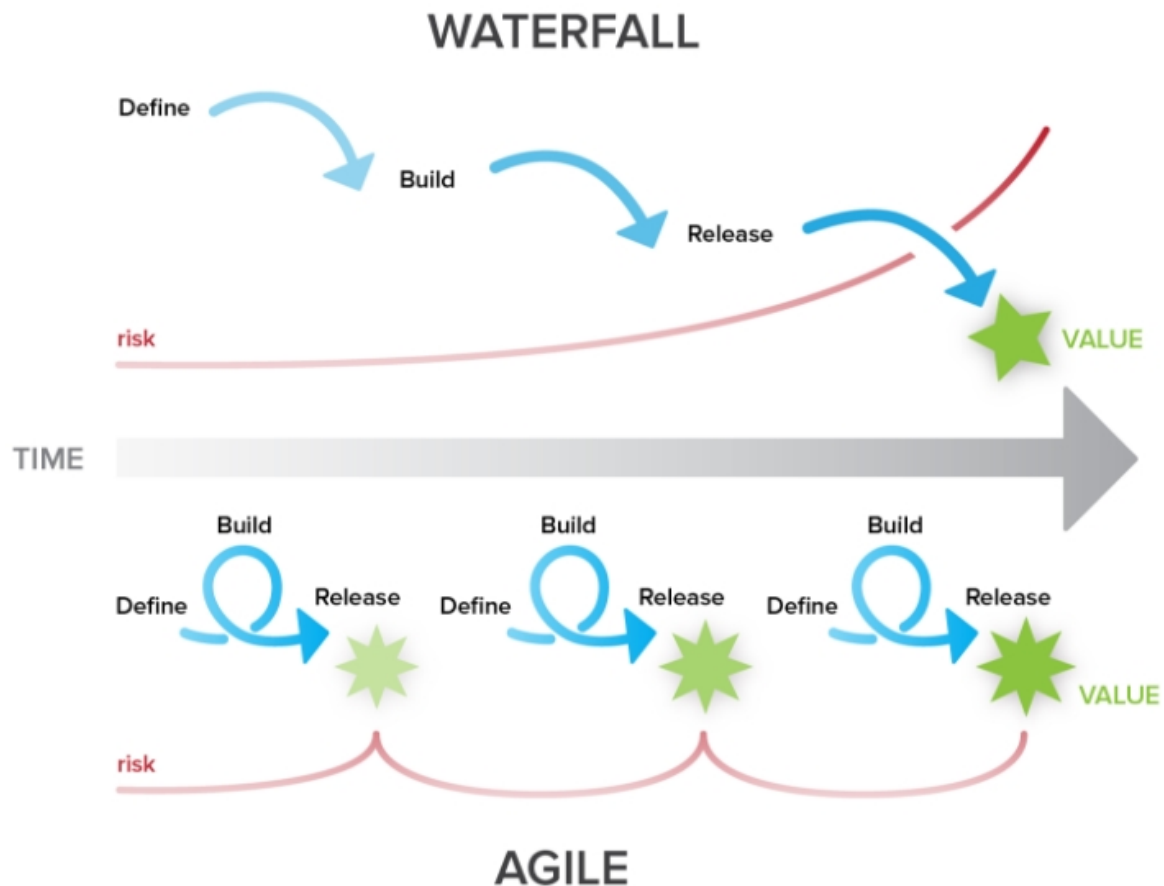
A visual difference of Waterfall and Agile methodologies.

Source(Ganttpro, 2016)

C.1. ADVANTAGES OF THE WATERFALL METHOD

- Clearly Defined Goals and Objectives for the Project
- Manageable Scope Creep
- Stakeholders Know What They Will Get
- Good for Short Projects that are Well Defined
- Predefined Timeline (The beginning and end of the project are outlined from the start)

C.2. DISADVANTAGES OF THE WATERFALL METHOD

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- Sudden Changes are Difficult to Fix / Implement
- Users Cannot Access Project Until Completion
- Difficult to Regress to Previous Versions
- Not Great for Large Projects
- Fixed Budget

C.3. ADVANTAGES OF THE AGILE METHOD

- Agile is Adaptive and Flexible
- Works Well if Sudden Changes are Needed
- Self Directed and Doesn't Follow a Plan
- Customers are Involved Right from the Beginning

C.4. DISADVANTAGES OF THE AGILE METHOD

- Agile has no Timeline, Deadlines are Pushed as Needed
- No Defined Budget, Can Lead to Scope Creep and Crippling Costs
- Difficult to Measure Progress

C.5. BEST SUITED

Knowing that we know the differences between waterfall and agile methodologies, Kelleher Solutions whole heartily recommends that American Video Game Company continues implementing the waterfall method in their projects. With sales being up 42% over the course of two years, it is clear that the waterfall method is working best for you. The waterfall method is linear by nature so projects that have clearly defined end goals tend to work best with this methodology, and subsequently American Video Game Company is a company that, well, makes video games. Video games are clear in what they are, have established release dates, and involve stakeholders who will know what to expect at the end. Therefore, again, we recommend that American Video Game Company sticks with the waterfall methodology for their projects.

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D. DESIGN

Due to sales being up 42% for the past two years, American Video Game Company needs a new CRM to keep up with such success. The CRM we've designed for AVGC should provide the company a tool good enough to take care of contact management, order management, track sales and manage client contacts and contracts, allow users set roles and filters, and allow self-orders.

D.1. STORYBOARD OF THE APPLICATION

Below is a storyboard of the application, a visual walkthrough of the features. The storyboard shows how the user will progress and navigate the CRM. They are first presented with a login page where they'll have to choose between logging in, signing up, and password reset. After logging in, the CRM will report the current browser and OS the user is using, should they be up-to-date they'll move onto the main page (dashboard). From the dashboard the user can create, update, delete, and assign new roles, filters, and leads. They can also access the customer interface and view the ticketing system.
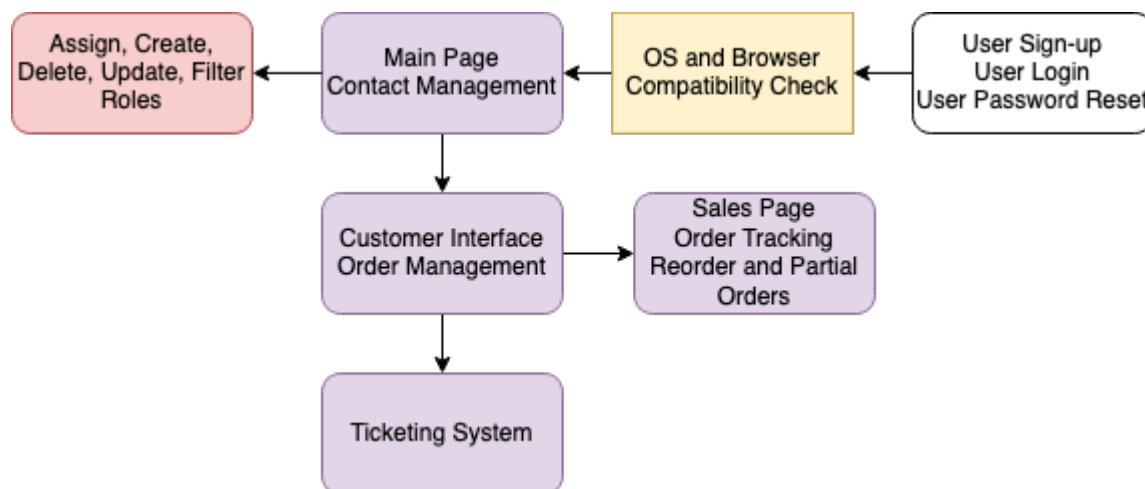

Figure 1: Storyboard

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D.2. GUI

Below is a mockup GUI showing the application.

As mentioned in the flowchart, the first thing the user will see when accessing the CRM is the login page. Here they can login, sign-up, or view the about page. If they forgot their password, they can reset it in the login panel.
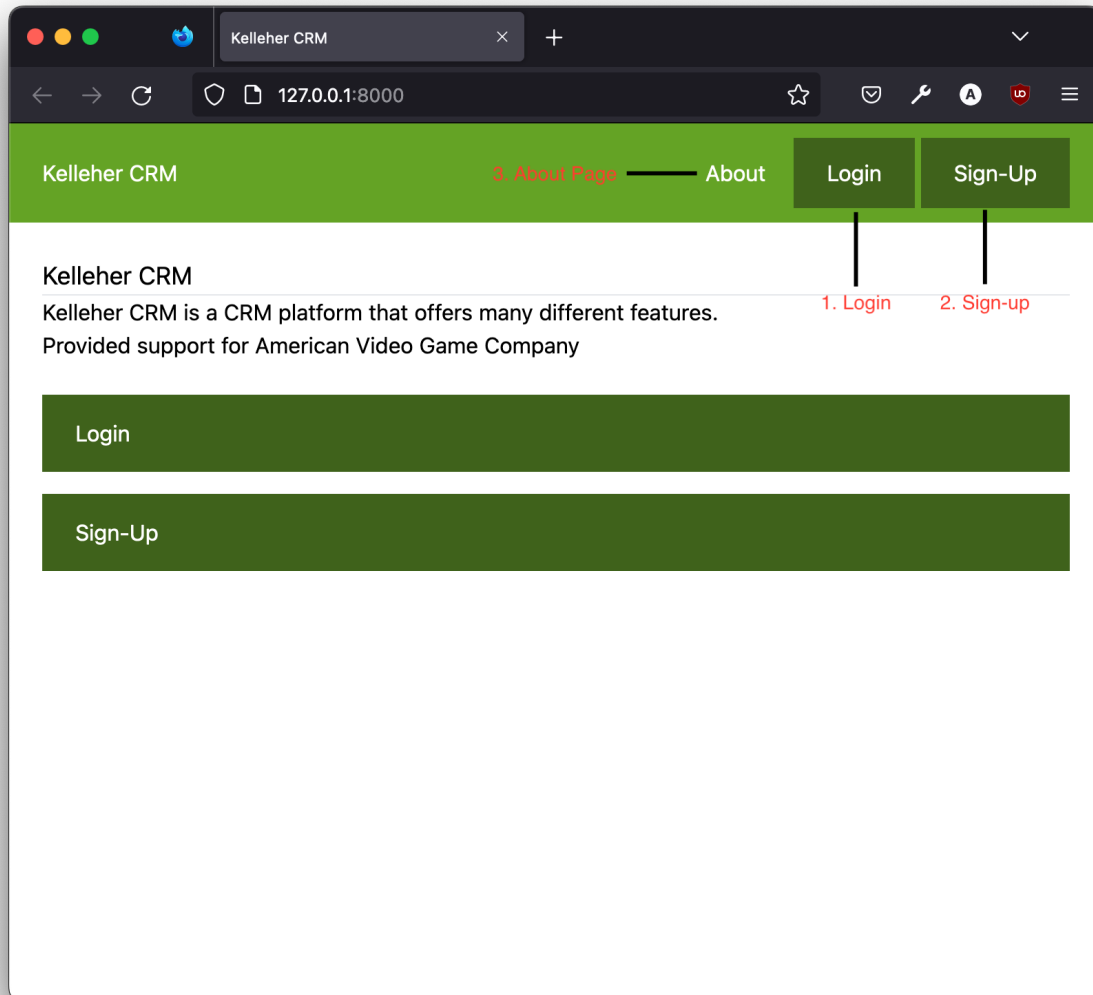

Figure 3: Login Page

Here we can see the main page (dashboard) after logging in. Here the user can access the various functions of the CRM, such as, leads, users, companies, the ticketing system, orders, roles, filters, and categories. In the navigation bar the user may log out if they wish.
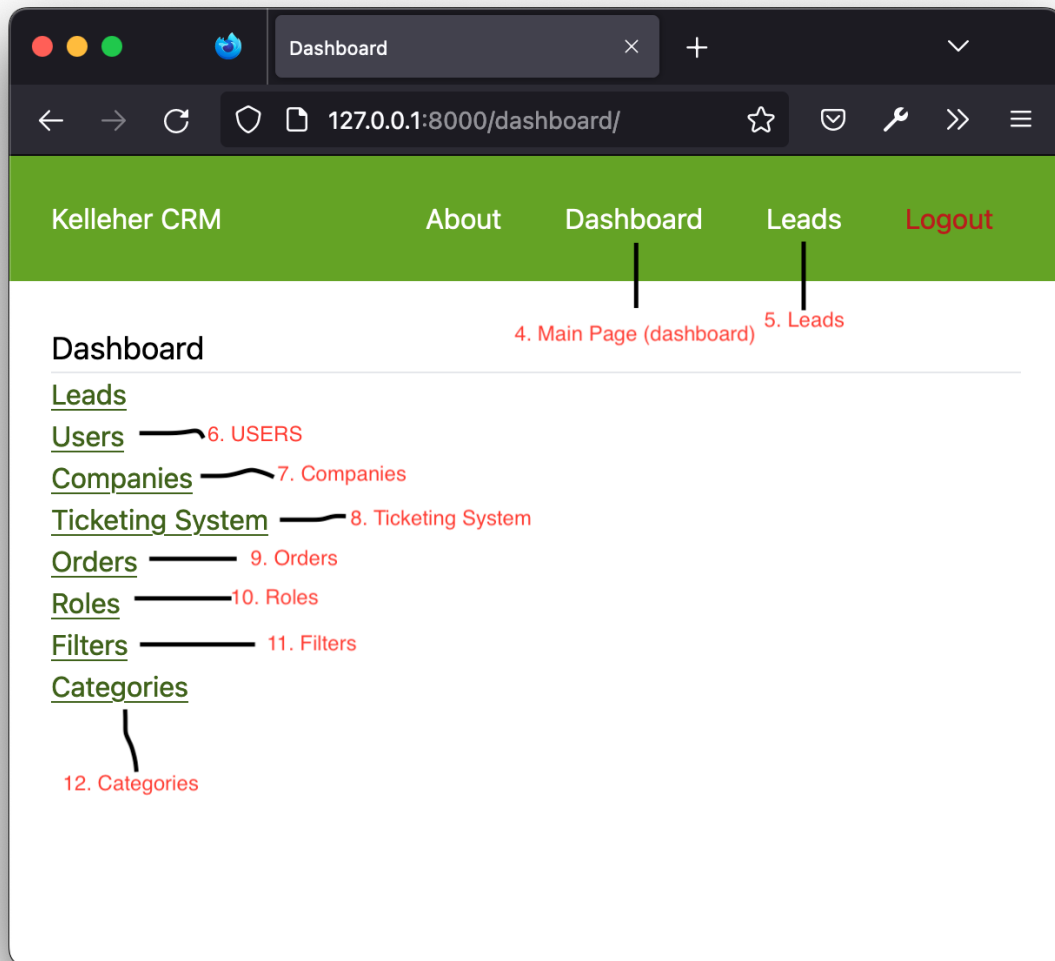

Figure 3: Dashboard

This is the leads page where American Video Game Company can view, add, delete, and update leads. Leads are individuals or companies that have shown a buying interest with AVGC but are not actively in business with you. Leads are categorized by priority. Leads can be added, deleted, or updated as the user wishes. The user can change the status of a lead and set its category based on urgency.
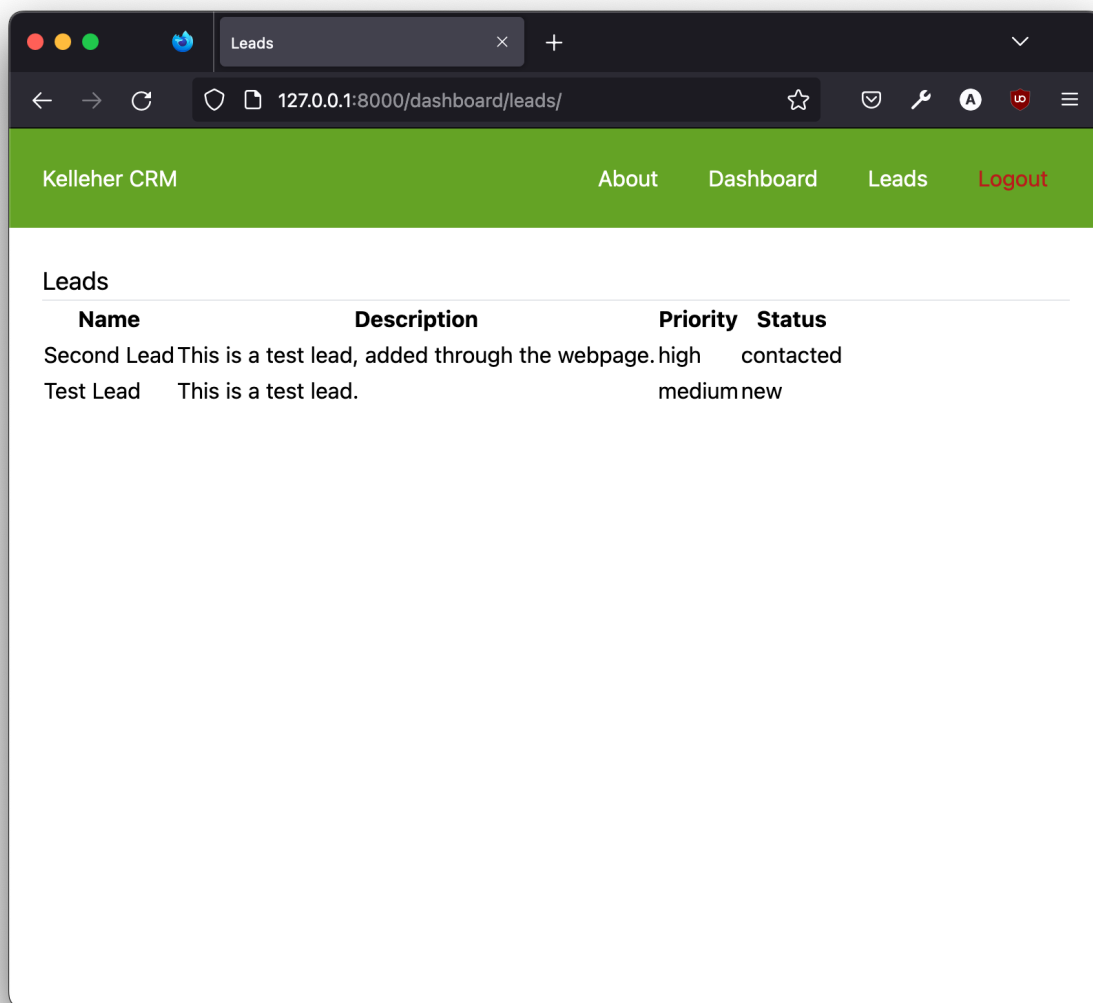

Figure 3: Leads View

GUI Control Mapping			
ID	Control	Property	Data Source
1	Login	Where the user can login and reset their password	Internal Variable
2	Sign-up	New users can sign up (new accounts will be added to the database)	Internal Variable
3	About	The about page is where the user can read the mission statement of AVGC	Internal Variable
4	Dashboard	The dashboard is the main control area for American Video Game Company	Internal Variable
5	Leads	Shows all the leads available to AVGC, here users can add, update, and delete leads or filter them by category, priority (default), status, or company	Internal Variable
6	Users	Links to the users control panel (admins only)	Internal Variable
7	Companies	Here the user can view companies that have done business with AVGC	Internal Variable
8	Ticketing System	Similar to the companies view and includes individuals, here the user can filter based on order history, everything is tracked	Internal Variable
9	Orders	The order view is where customers can view their own order history, make orders, and make a reorder	Internal Variable
10	Roles	Roles is a view page that filters companies and individuals by roles	Internal Variable
11	Filters	Filters is also a view page but filters companies and individuals by their filter	Internal Variable
12	Categories	Categories does the same as roles and filters, it is a view page that searches through individuals and companies based on categorization	Internal Variable

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E.   TESTING

Kelleher Solutions CRM will implement three test case scenarios in the following:

- User Browser and Device Compatibility
- Order Management
- Leads' System Functionality

Testing needs to be done to ensure the integrity of the CRM and verify potential problems before they arise. By testing the browser and OS compatibility, we can eliminate any security threats outdated software may contain. Testing the order management system functionality is important

E.1.1.   USER BROWSER AND DEVICE COMPATIBILITY TEST - TEST 1

USER BROWSER AND DEVICE COMPATIBILITY TEST

Requirement to be tested
The user will attempt to access the CRM using whatever device they have. The backend code will alert the user if their device is incompatible. If the user has up-to-date devices or browsers, they'll be able to access the CRM without problems.
Preconditions: Conditions that must be present before test case can successfully run At least two devices must be present, a mobile phone, and a laptop/desktop computer. If the user's device / browser is incompatible, they'll get a message telling them to upgrade or contact IT.
Steps: The steps the tester must execute to test the feature. 1.   The tester will collect a mobile device and a desktop computer to access the CRM. 2.   Tester will attempt to login to the CRM. 3.   Tester user will try to access the dashboard. 4.   Tester will sign out after a successful login.
Expected results: Expected results and any side effects such as updating a database, writing to a file, etc. Tester should be able to access the main page (dashboard) of the CRM without problems.

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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, most users keep their devices up-to and use industry standards in computing and the tester is no different in this case.

E.1.2. ORDER MANAGEMENT - TEST 2

Requirement to be tested

The order management system is one of the most important features of a CRM. Testing will focus on this aspect of the system to ensure continued success for AVGC. American Video Game Company has a customer portal already. We will integrate this system to allow for a more robust order management.

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

Existing customer portal to be tightly intertwined with the Kelleher Solution CRM.

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

1.   The tester will login to the sales portal that already exists for AVGC.
2.   Tester will find a video game and make an order.
3.   Tester will sign-out of the AVGC sales portal.
4.   Tester will login to the CRM and access the main page (dashboard).
5.   Tester will filter by most recent order and verify that AVGC's sales portal is successfully integrated with the CRM.

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

The sale should appear in the Order Management System.

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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, the tester was able to view the sale being tracked in the CRM.

E.1.3. LEAD SYSTEM FUNCTIONALITY - TEST 3

LEAD SYSTEM FUNCTIONALITY

Requirement to be tested

The lead system in a CRM is one of the most important features and can mean the difference between earning the business of a company / individual or losing their business.

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

Approved user to test lead functionality, they will sign in to the crm, access the leads page, add a new lead, categorize the lead, update the lead, and then delete the lead.

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

1.   The Tester will sign in to Kelleher CRM.
2.   Tester will access the leads page from the dashboard.
3.   Tester will create a lead with medium priority.
4.   Tester will categorize their leads.
5.   Tester will update that lead.
6.   Tester will then delete that lead.

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

The Tester will achieve success in adding, updating, deleting, and changing the lead which also directly affects the database in real time. Depending on concurrent user count, it should be fine.

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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.

The Tester was able to add, update, delete, and categorize their lead. Pass.

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