

Alarm.Chat Smarter Dealer Support

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Mentors: John Zhang and Kevin Mao



Information About Core



- Core has a very heavy call load
 - Circa-1000 calls per day (Excluding Sundays)
 - Average call handle time is 22 minutes
- Ticket force team
 - handles incoming tickets and emails
- Alarm.com formally had a support chat
 - When the company was DTC
 - Support took calls and did chats simultaneously



Product Description

- A support chat app that pairs dealers seeking support with representatives from CORE.
- Key Features:
 - **Partner Queue**
Pairing of dealers waiting to chat with CORE representatives
 - **CORE Messaging**
Peer to peer messaging between CORE representatives
 - **Chat History**
Persistence of messages in each chat
 - **Group Chats**
Ability to introduce new members into a chat

Milestones and Roadmap



Overview

Development

Product Demo

Mandatory

- Get one on one live chat working.
- Chat room that holds an arbitrary number of people.
- Able to close/open/see multiple chat windows at once.
- Queue of partners, next available support rep to chat.
- Chat persistence in history.
- User Interface Polish
- AI/Decision Tree Processing

Milestones and Roadmap



Overview

Development

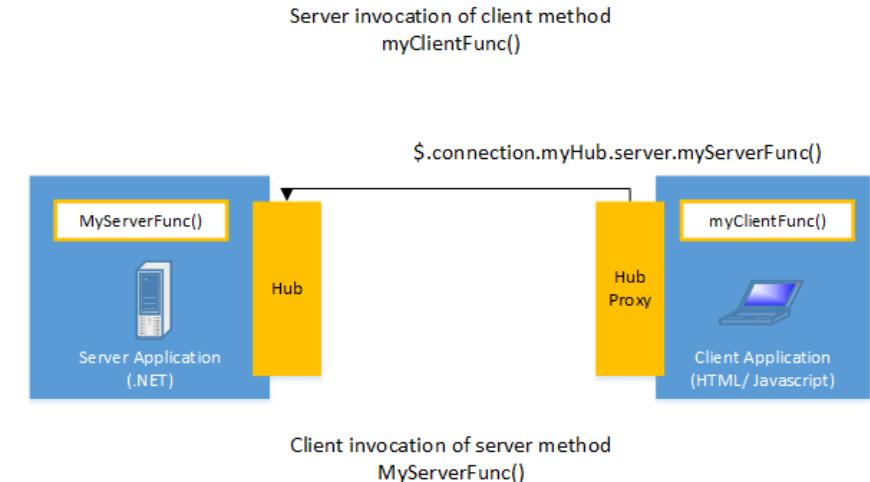
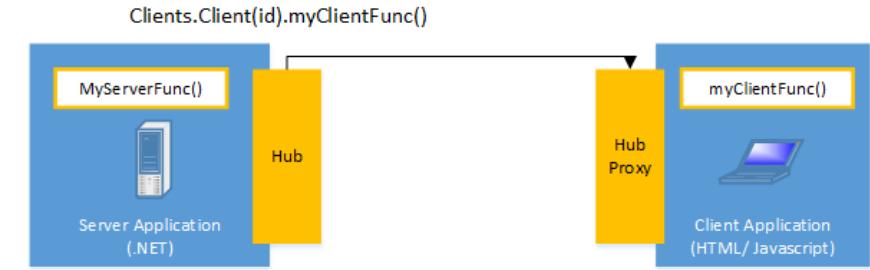
Product Demo

Mandatory

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Networking and SignalR

- Library for ASP.NET developers
- Enabled Real-Time Chat Functionality
- Remote procedure calls between the client application and a Hub on the server.

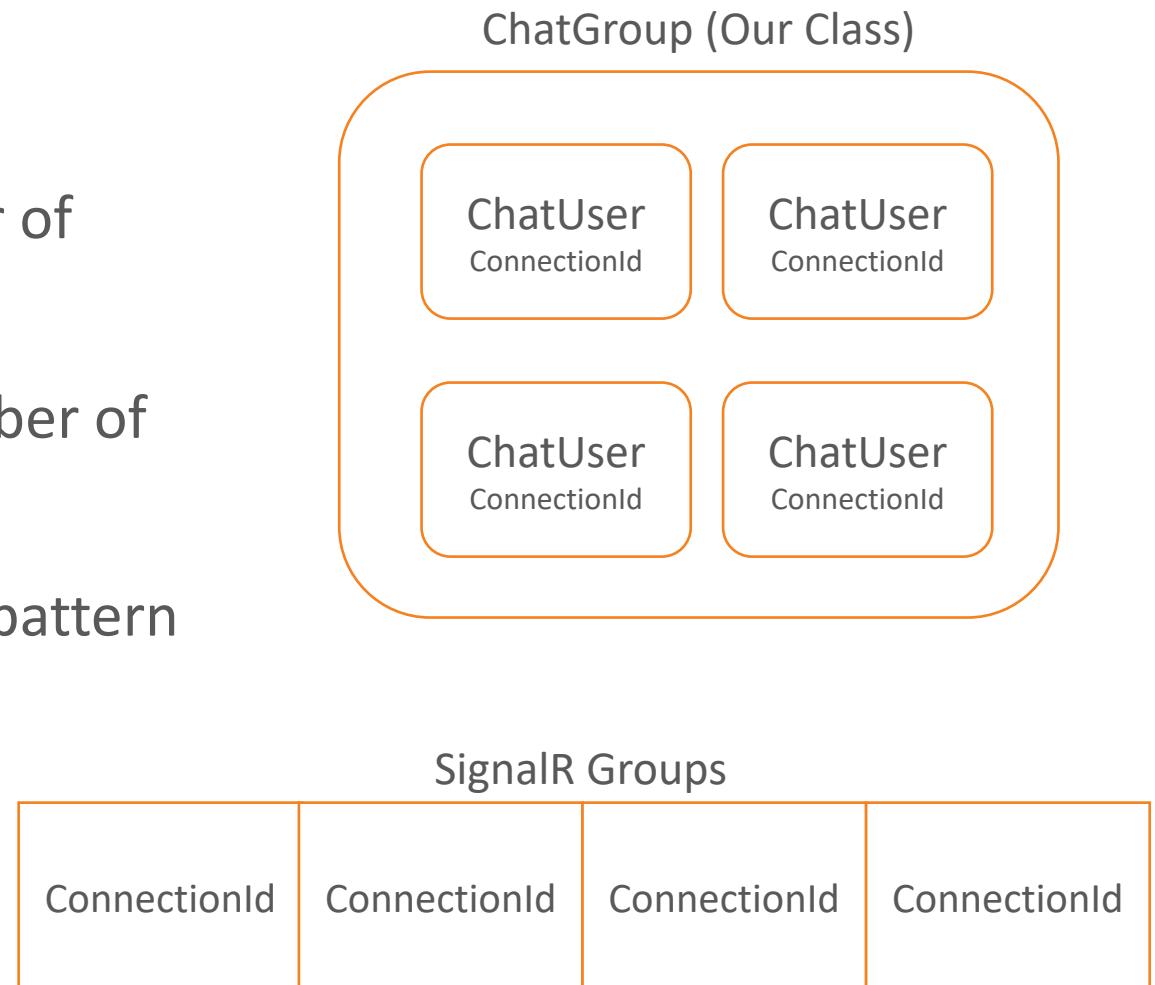


Networking and SignalR



- **SignalR Groups:**

- A group can have an arbitrary number of members.
- A member can be in an arbitrary number of groups.
- Follows the Publish-Subscribe design pattern



SQL and Databases

messageID	groupID	username	messageText	timeSent
1	233a5651b52d43a3bb263738ac25e54b	adcradkins	Here's a message	2019-07-22 15:42:45.310
2	04ae8a65660c442f8a8210fb7b6f245b	adcradkins	test	2019-07-22 15:58:50.843
3	8157755ba42e4234bbc038eb1d45e739	adcradkins	Hey hey	2019-07-22 16:00:42.350
4	8157755ba42e4234bbc038eb1d45e739	adcradkins	Display name test	2019-07-22 16:01:03.387
5	8157755ba42e4234bbc038eb1d45e739	adcradkins	test	2019-07-22 16:02:03.523
6	3fa7ee7ce13e4b2a9b03a3f4f1dd624a	adcradkins	test 1	2019-07-22 16:03:10.580
7	3fa7ee7ce13e4b2a9b03a3f4f1dd624a	Reece	test 2	2019-07-22 16:03:25.520
8	0cc942f2ebf5432abf5f790de4881d82	adcradkins	hello	2019-07-22 16:24:58.403
9	60284b1086df4fc93347d051e278377	adcradkins	test!	2019-07-22 18:06:04.140
10	c02a518631b94bad8e3b594c96b59649	adcradkins	hey	2019-07-22 18:08:55.910
11	df51c66b82c843deaa2a750c5e558753	adcradkins	ytyyy	2019-07-22 18:12:33.813
12	fdac05b9acfca81c920a021dd4f56d01	adcradkins	fxffd	2019-07-22 18:14:24.680
13	66409d9bc815466f9129f8eb79108626	adcradkins	grsdardgs	2019-07-22 18:14:30.473
14	c4ed731618da4dbba2fc083028090341	adcradkins	rr	2019-07-22 18:31:20.090
15	fa7b6448a2ae4f339638fc15337b57d4	adcradkins	dddd	2019-07-22 18:31:27.907
16	fa7b6448a2ae4f339638fc15337b57d4	Reece	test	2019-07-22 18:31:59.280
17	0b929a0c66534d83ac46930f63c76cb0	adcdsha...	fsdfs	2019-07-22 21:04:34.197
18	0b929a0c66534d83ac46930f63c76cb0	adcdsha...	fsdfssdfsdf	2019-07-22 21:04:38.203
19	0b929a0c66534d83ac46930f63c76cb0	adcdsha...	dfsdf	2019-07-22 21:04:38.803
20	0b929a0c66534d83ac46930f63c76cb0	adcdsha...	sdfsdf	2019-07-22 21:04:39.670

Primary Key

Table: Messages/Chat History



	username	groupID
1	adckmao	891c732aec5a4354b575351fce360fa0
2	1115zhang	2d958495eef24c099072134d3e7a45d
3	adctyao	2d958495eef24c099072134d3e7a45d
4	1115zhang	4890fd647c6742c786c8e77cbf59643b
5	adctyao	4890fd647c6742c786c8e77cbf59643b
6	adckmao	8afecec7eb7421398578e483dab290
7	adcycin	8afecec7eb7421398578e483dab290
8	adcradkins	25bfd1c05f774cce9af9cc8f3886a3ee
9	adcdshahriari	25bfd1c05f774cce9af9cc8f3886a3ee
10	adcycin	891c732aec5a4354b575351fce360fa0

Table: Group History

Stored Procedure:
GetAlarmChatMessages

```

=====+
-- Author:      <Reece Adkins>
-- Create date: <12 July 2019>
-- Description: <Retrieves messages sent to a specific group in Alarm.chat>
=====+
ALTER PROCEDURE [dbo].[spa_GetAlarmChatMessages]
    -- Add the parameters for the stored procedure here
    @groupchosen varchar(100)
AS
BEGIN
    -- SET NOCOUNT ON added to prevent extra result sets from
    -- interfering with SELECT statements.
    SET NOCOUNT ON;

    -- Procedure statements
    SELECT * FROM alarm_chat_messages WHERE groupID = @groupchosen ORDER BY timeSent ASC
END

```

Topics Covered

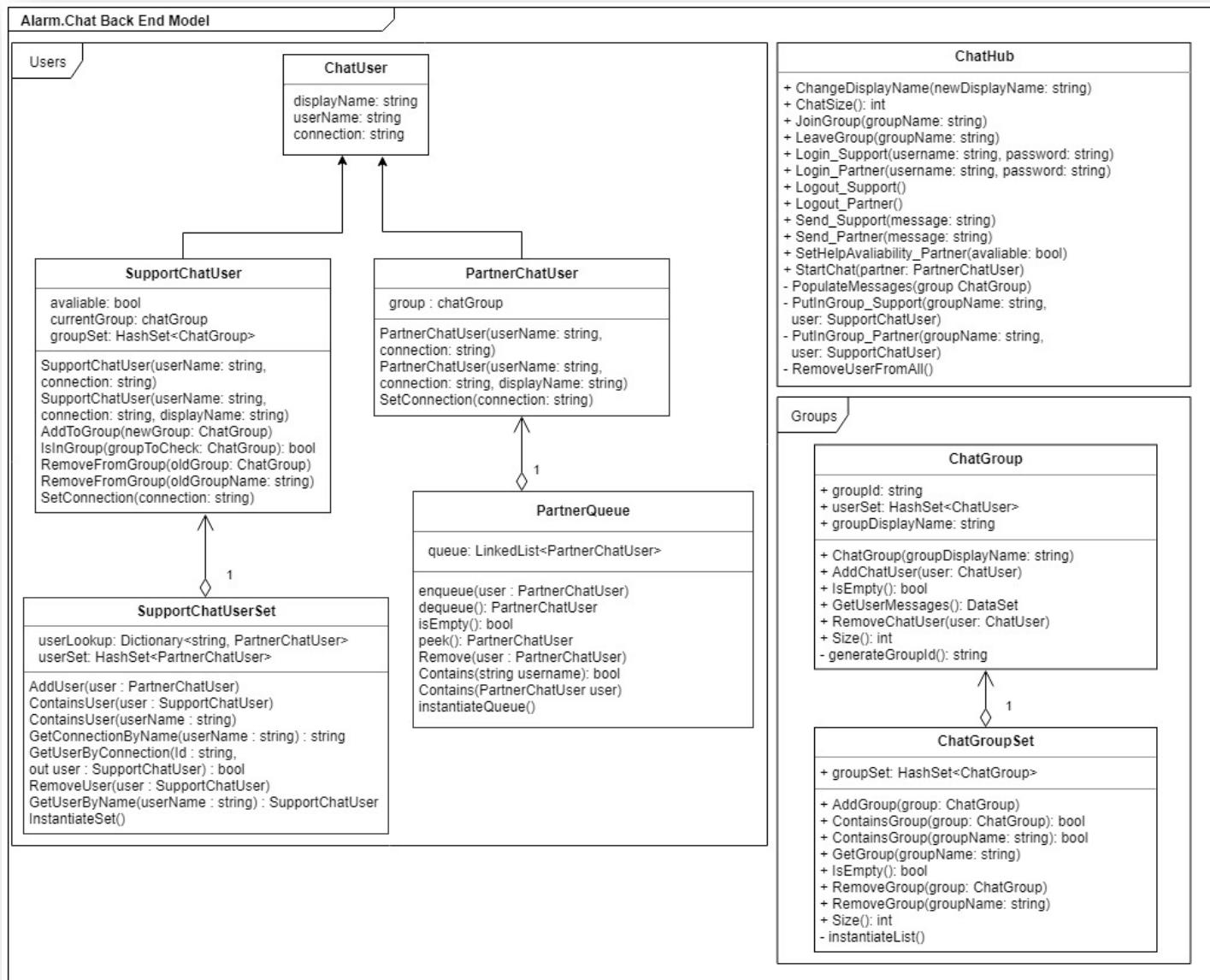
- ASP .NET
- C# Back-end
- HTML/CSS
- JavaScript and JQuery
- SQL Tables/Databases
- T-SQL and Stored Procedures
- Browser Cookies

- Networking/SignalR
- Vue

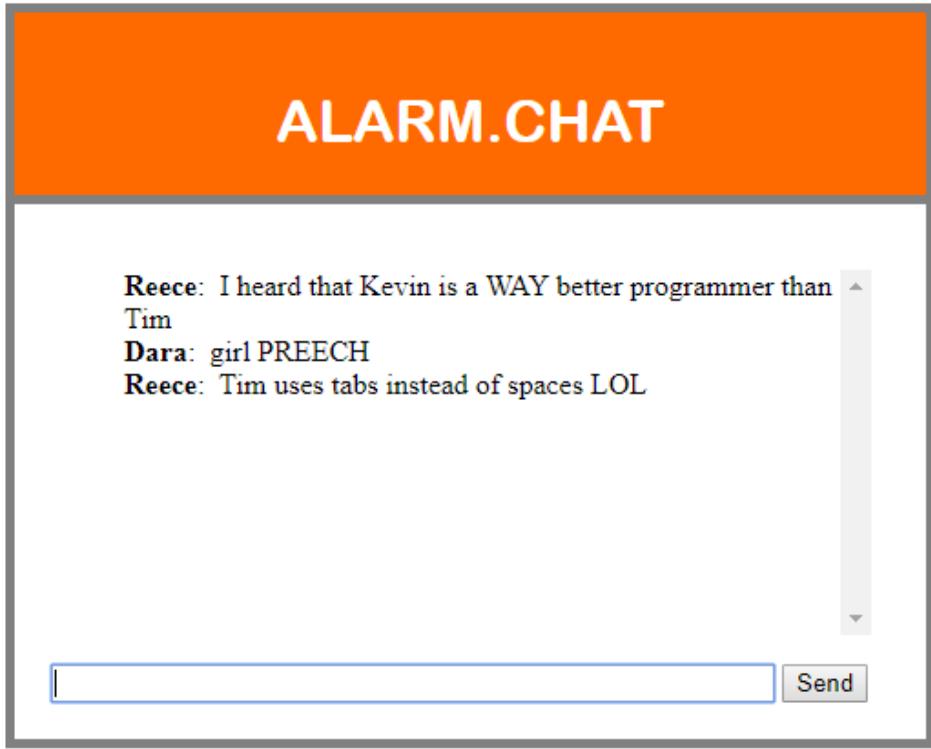


Kevin When Someone Misspells Available

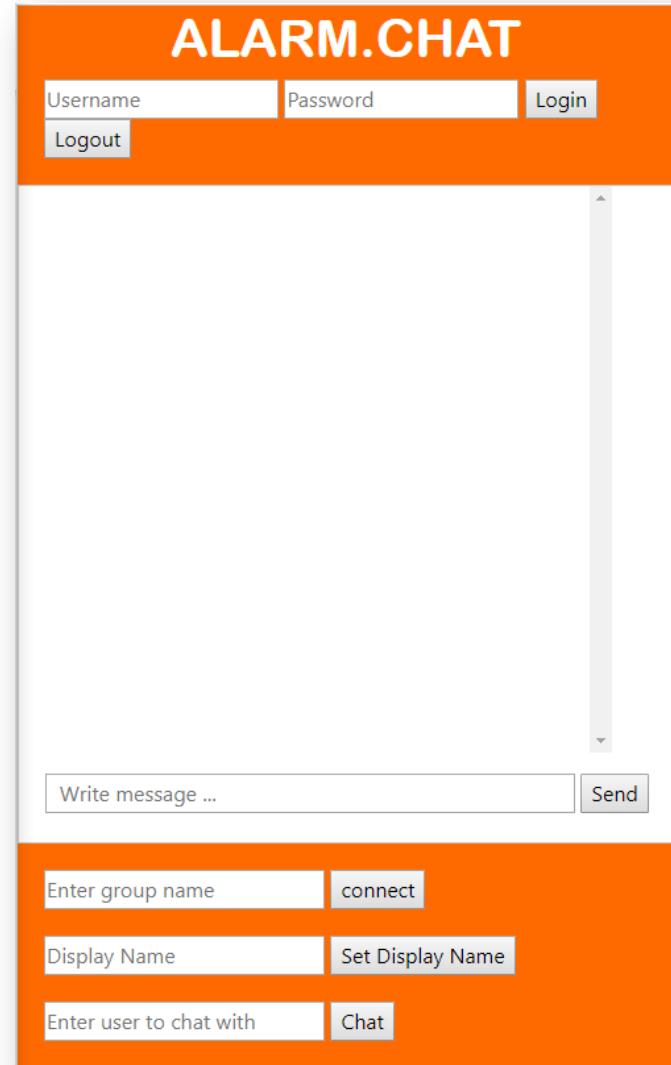
Model



User Interface Evolution



V1



V2

User Interface Evolution

The screenshot shows the Alarm.Chat V3 user interface. On the left is a sidebar with the following menu items:

- Login
- Connect Group
- Change Display Name
- Chat User
- Active Users
- kmao** (selected)
- Group Members
- adczhang**
- kmao**

The main area displays a chat window titled "ALARM.CHAT". It shows the following messages:

- Alarm.com: adcchang is connected to the chat.
- Alarm.com: Joining group...
- adcchang has entered GroupA.
- kmao has entered GroupA.
- kmao
- Lunch in 5?
- adcchang
- Sure, meet me downstairs.

At the bottom is a message input field with the placeholder "Write message ..." and a "Send" button.

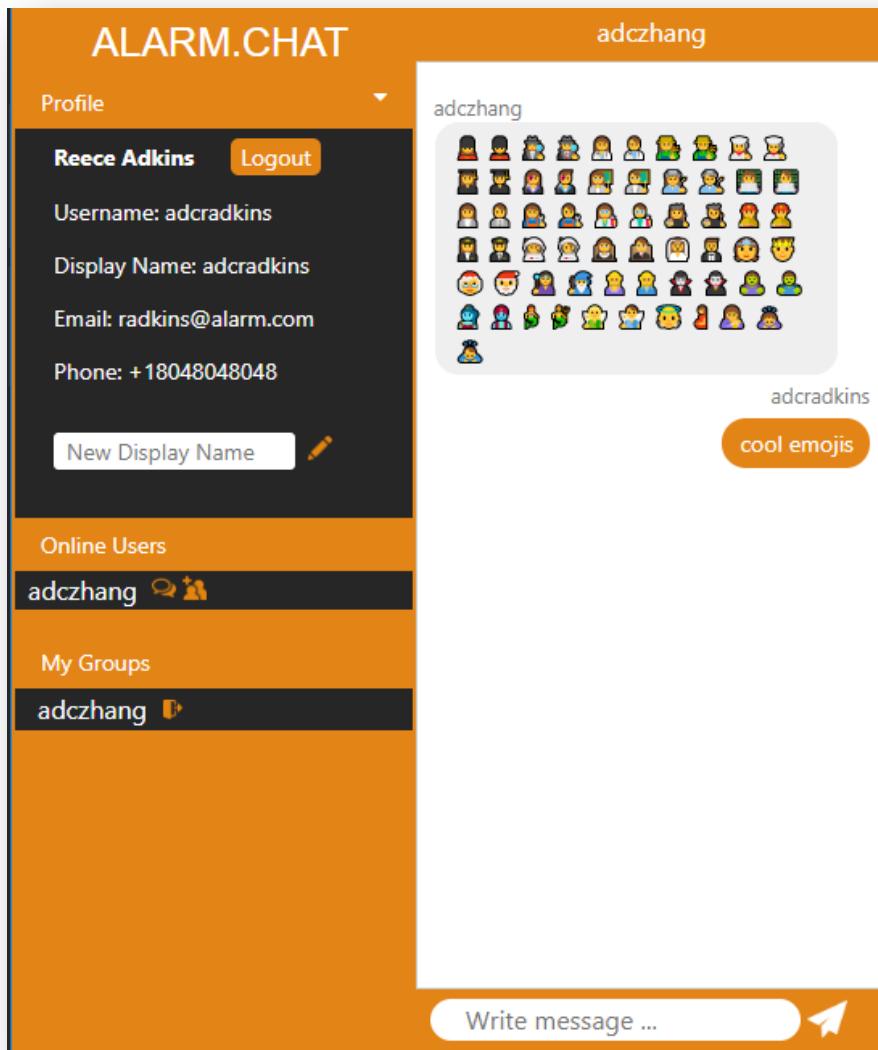
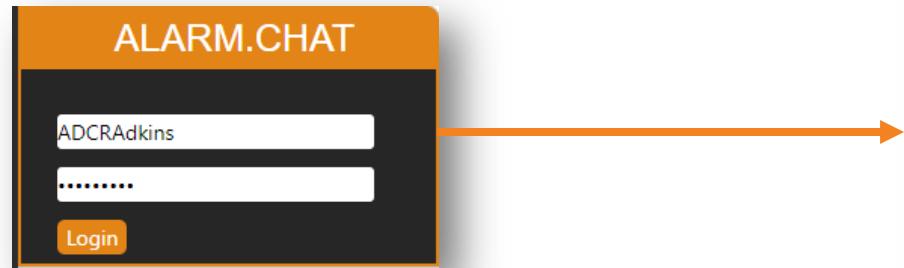


V3

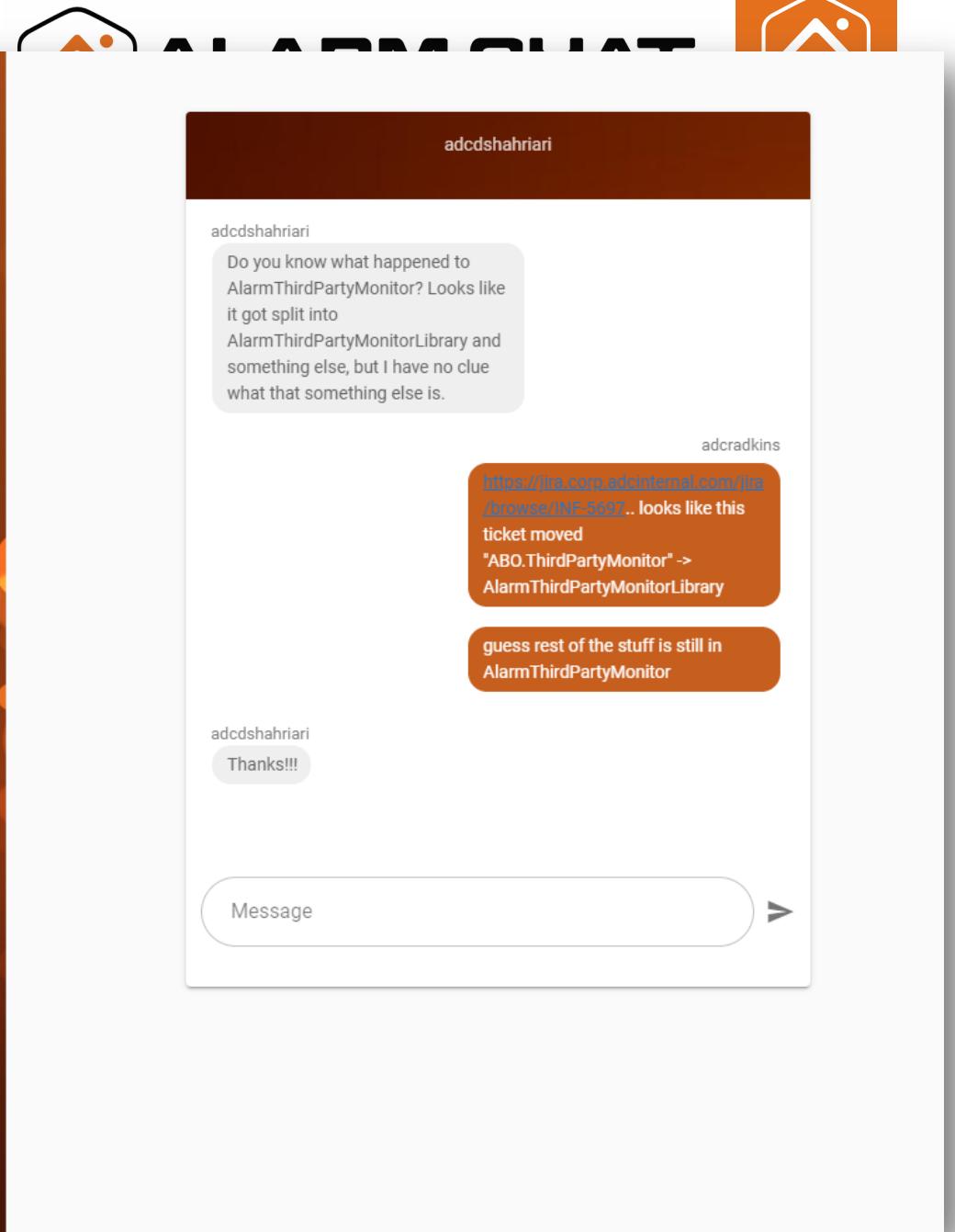
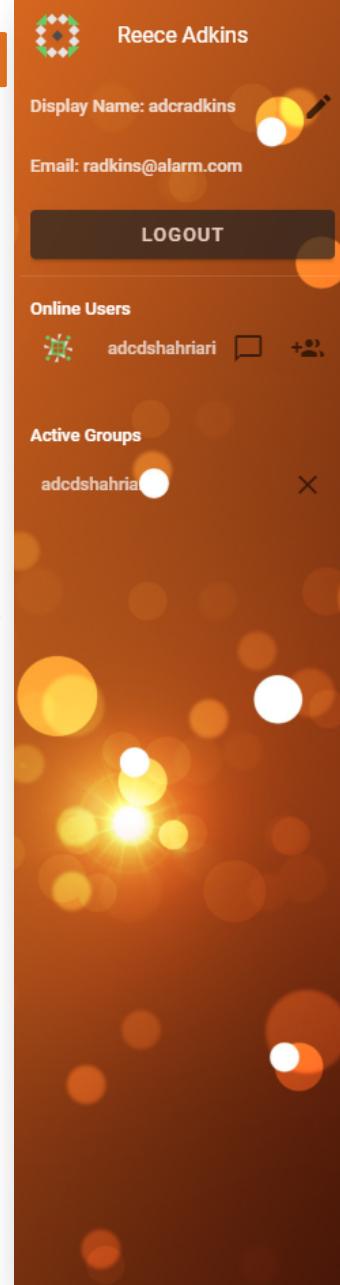
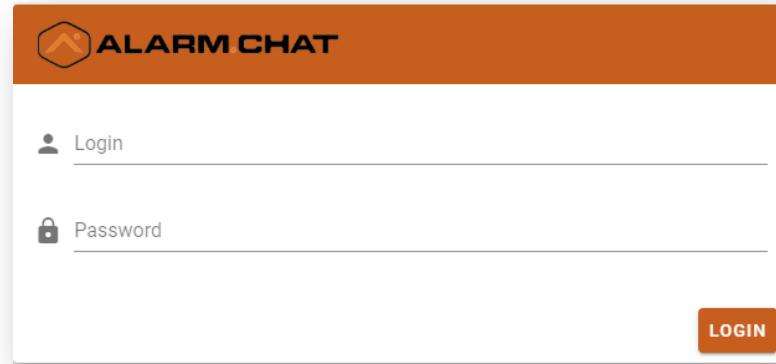


When the bug you just worked on for
an hour was a misspell of available

User Interface Evolution

**ALARM.CHAT****V4**

User Interface Evolution



V5

User Interface Evolution



ALARM.CHAT



V6 (Final) – Will Be Shown
During Product Demo

User Interface Evolution



Partner UI

This screenshot shows the Partner UI chat interface. It features a top navigation bar with a "Login" button and a dropdown menu set to "Login". The main area displays a conversation between two users: "adcdshahriari" and "adcradkins". The messages are as follows:

- adcdshahriari: Alarm.com: adcdshahriari, please wait to chat...
- adcdshahriari: Alarm.com: Joining group...
- adcdshahriari: Alarm.com: adcdshahriari has entered 186260.
- adcradkins: adcradkins
- adcradkins: Hi Dara, I'm Reece from Alarm.com.
- adcdshahriari: What can I help you with?
- adcdshahriari: I have a name change request.

At the bottom, there is a text input field with "Write message ..." placeholder text and a "Send" button.

Support Rep UI

This screenshot shows the Support Rep UI chat interface. It features a top navigation bar with a "Chat With Dealer" button and a dropdown menu set to "Login". The main area displays a conversation between two users: "adcradkins" and "adcdshahriari". The messages are as follows:

- adcradkins: Alarm.com: adcradkins is connected to the chat.
- adcradkins: Alarm.com: Joining group...
- adcradkins: Alarm.com: adcradkins has entered 186260.
- adcradkins: adcdshahriari has entered 186260.
- adcdshahriari: adcradkins
- adcdshahriari: Hi Dara, I'm Reece from Alarm.com.
- adcdshahriari: What can I help you with?
- adcdshahriari: I have a name change request.

At the bottom, there is a text input field with "Write message ..." placeholder text and a "Send" button.

V5.5

Our top unadded features

- Queue working with Vue UI

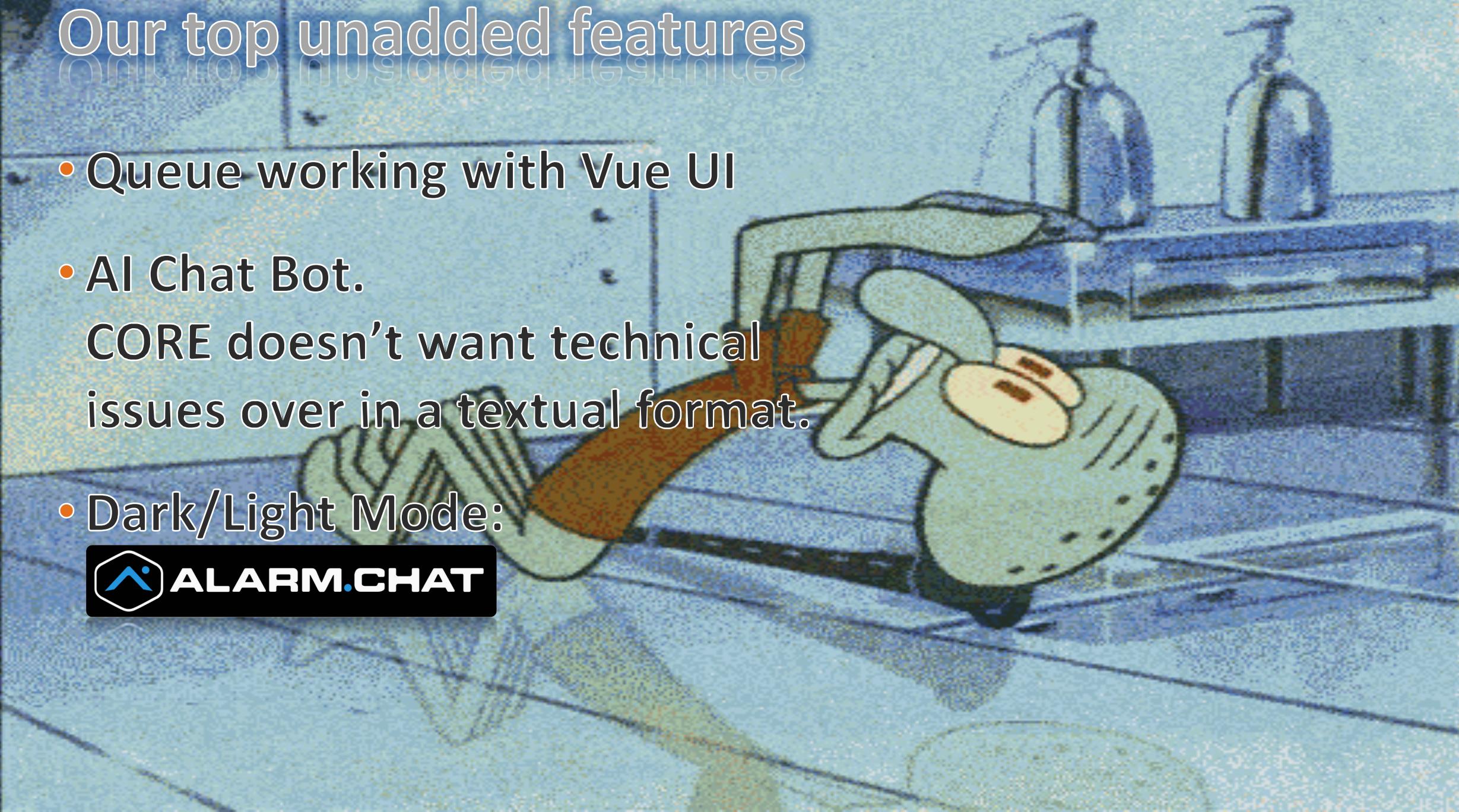
- AI Chat Bot.

CORE doesn't want technical issues over in a textual format.

- Dark/Light Mode:



ALARM.CHAT



Contributors of ALARM.CHAT

- **Reece Adkins and Dara Shahriari**, Creators
- **John Zhang and Kevin Mao**, Project Mentors
- **Tim Yao**, Vue Advisor
- **Jordan Hill (JordanHillMotion.com)**, Created and Animated Logo
- **Ryan Frazier and Christopher Bohne**, Informants about CORE



ALARM.CHAT



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Development

Product Demo



John & Kevin Code Reviewing

Alarm.Chat.Merch

