

MICHIGAN STATE
UNIVERSITY

Alpha Presentation

Browser Sharing for Customer Support

The Capstone Experience

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From Students...
...to Professionals

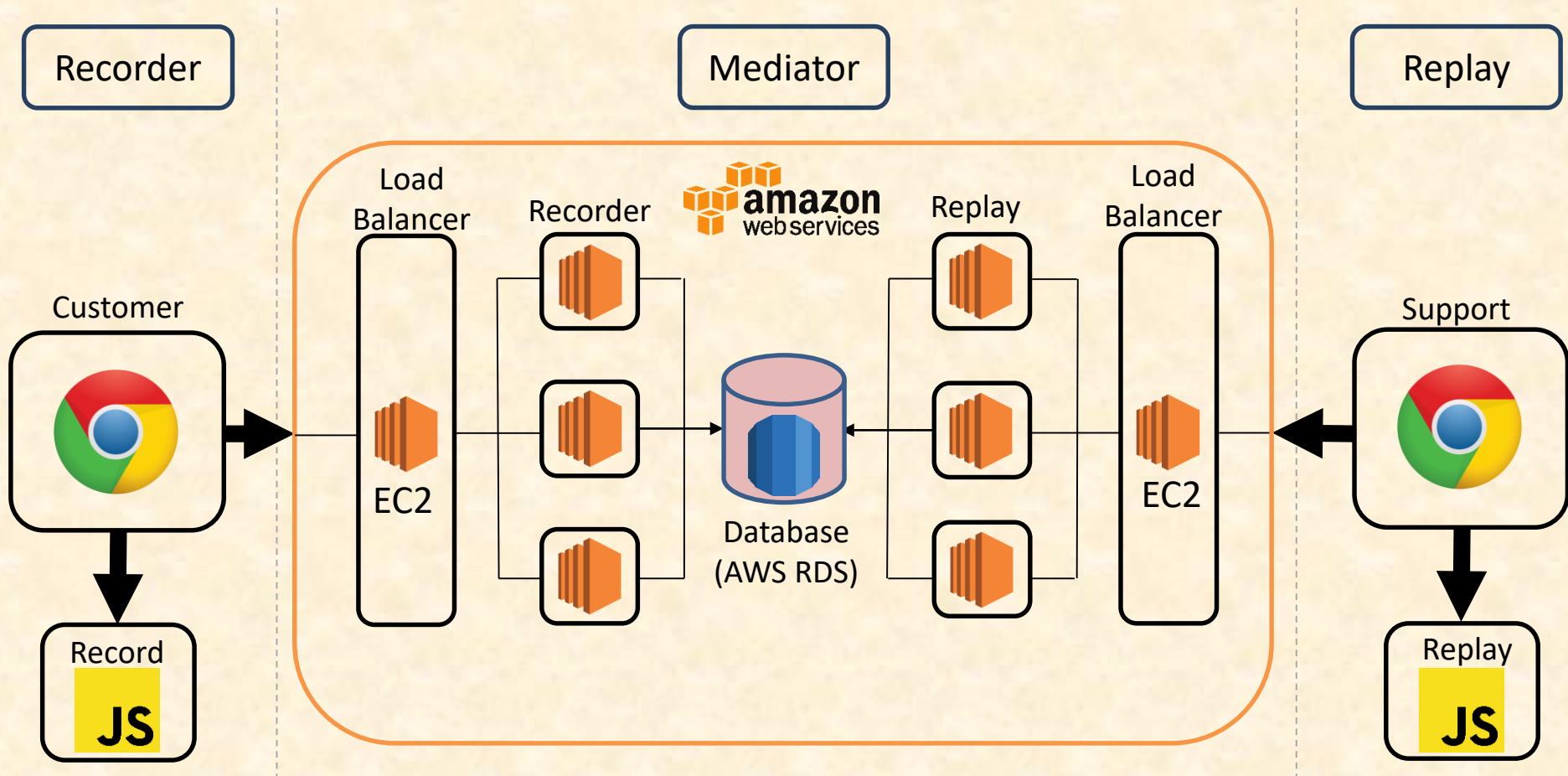
Department of Computer Science and Engineering
Michigan State University
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Project Overview

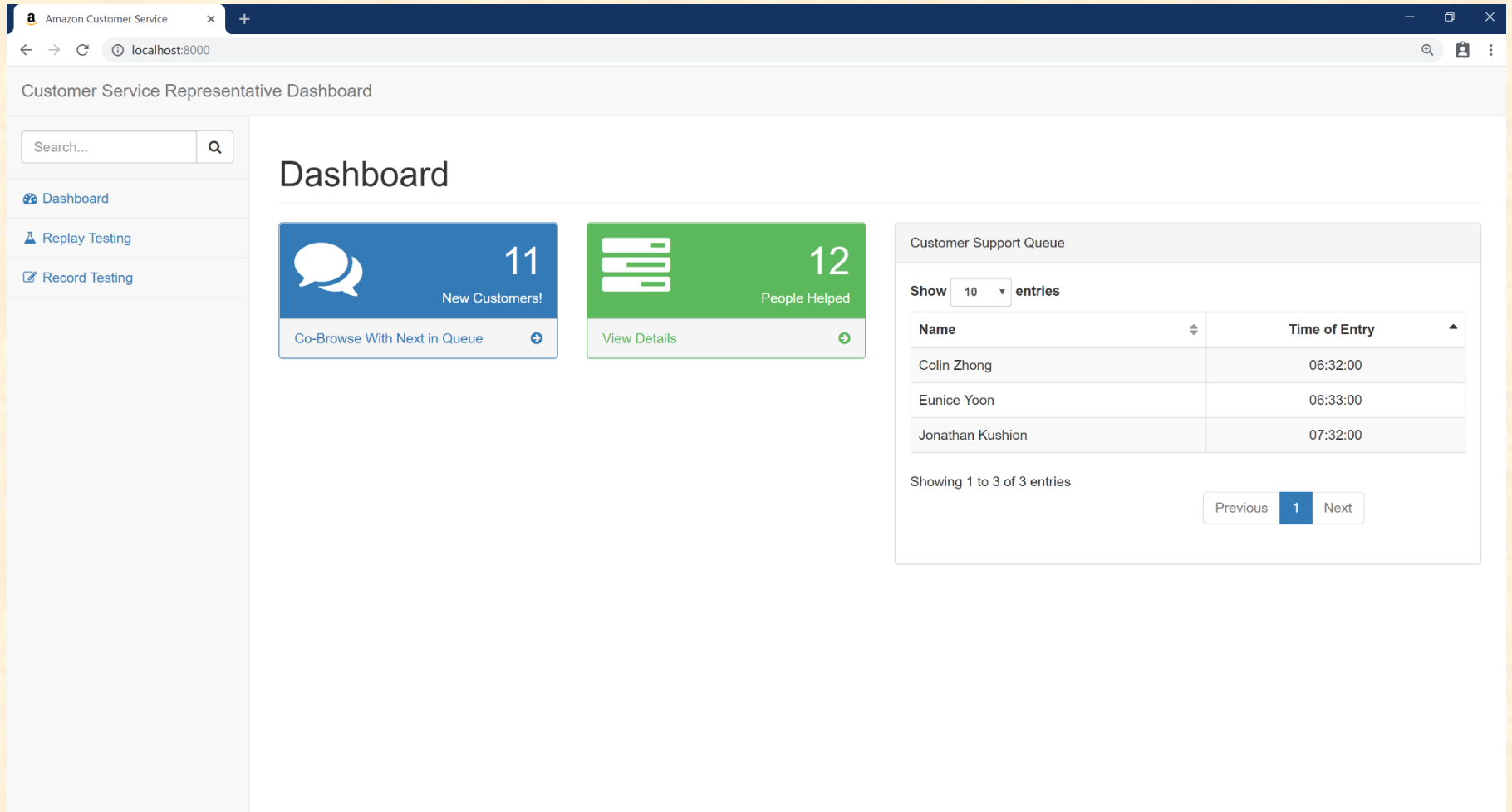
- Browser sharing between customer and support representative with no installation required.
- The representative sees exactly what the customer sees.
- Any action taken on the customer side is recorded then replayed on representative side.
- Private customer credentials are masked.



System Architecture



Support Representative Dashboard



The screenshot displays the Amazon Customer Service Representative Dashboard in a web browser. The browser's address bar shows 'localhost:8000'. The dashboard has a left sidebar with a search bar and three menu items: 'Dashboard', 'Replay Testing', and 'Record Testing'. The main content area is titled 'Dashboard' and features two large summary cards. The first card, in blue, shows '11 New Customers!' with a speech bubble icon and a 'Co-Browse With Next in Queue' button. The second card, in green, shows '12 People Helped' with a server rack icon and a 'View Details' button. To the right of these cards is a 'Customer Support Queue' section. It includes a 'Show 10 entries' dropdown and a table with two columns: 'Name' and 'Time of Entry'. The table lists three entries: Colin Zhong (06:32:00), Eunice Yoon (06:33:00), and Jonathan Kushion (07:32:00). Below the table, it says 'Showing 1 to 3 of 3 entries' and has 'Previous', '1', and 'Next' navigation buttons.

Amazon Customer Service

localhost:8000

Customer Service Representative Dashboard


Search...

Dashboard

Replay Testing

Record Testing


Dashboard



11

New Customers!

Co-Browse With Next in Queue



12

People Helped

View Details

Customer Support Queue

Show 10 entries

Name	Time of Entry
Colin Zhong	06:32:00
Eunice Yoon	06:33:00
Jonathan Kushion	07:32:00

Showing 1 to 3 of 3 entries

Previous 1 Next



HTML Element Testing

Amazon Customer Service x amazon mission statement - Google x +

localhost:8000/recordTesting.html

Customer Service Representative Dashboard

Search... Q

Dashboard

Replay Testing

Record Testing

Forms

Basic Form Elements

Text Input

Another input

Example block-level help text here.

Text Input with Placeholder

Enter text

Static Control

email@example.com

Text area

Our vision is to be earth's most customer-centric company; to build a place where people can come to find and discover anything they might want to buy online.

Checkboxes

☒ Checkbox 1

☒ Checkbox 2

☐ Checkbox 3

Inline Checkboxes ☐ 1 ☒ 2 ☐ 3

Radio Buttons

Disabled Form States

Disabled input

Disabled input

Disabled select menu

Disabled select

☐ Disabled Checkbox

Disabled Button

Form Validation States

Input with success

Succeeded

Input with warning

Warned

Input with error

Error

Need Assistance



Masking Personal Information

The screenshot shows the Amazon 'Your Addresses' page. At the top, there's a navigation bar with the Amazon logo, a search bar, and links for 'Browsing History', 'TeamAmazon.com', 'Today's Deals', 'Gift Cards', 'Whole Foods', 'Registry', 'Sell', and 'Help'. A banner at the top reads 'SEE SOMETHING NEW, EVERY DAY. TAKE A LOOK' with various product icons. Below the navigation bar, the page title is 'Your Account > Your Addresses'. A green notification box says '✓ Address saved'. The main section is titled 'Your Addresses' and contains a large dashed box with a plus sign and the text 'Add Address'. To the right of this box is a card for a saved address. The card displays 'Hello Yes' followed by a masked address '***** United States *****' and a link 'Add delivery instructions'. At the bottom of the card are links for 'Edit', 'Delete', and 'Set as Default'. Below the 'Add Address' box, there's a 'Related' section with links for '1-Click Settings', 'Fresh address book', and 'Change address on an open order'. At the very bottom, there's a section for 'Your recently viewed items and featured recommendations' with the text 'Inspired by your browsing history'.

Your Account > Your Addresses

✓ Address saved

Your Addresses

Hello Yes

United States

[Add delivery instructions](#)

[Edit](#) | [Delete](#) | [Set as Default](#)

Related

- [1-Click Settings](#)
- [Fresh address book](#)
- [Change address on an open order](#)

Your recently viewed items and featured recommendations
Inspired by your browsing history

Page 1 of 7



Masking Personal Information

The screenshot shows the Amazon 'Your Addresses' page. A green callout box highlights a specific address entry, showing the masked personal information. The address entry in the main list is as follows:

Hello Yes

United States

Add delivery instructions

Below the address entry are the links: [Edit](#) | [Delete](#) | [Set as Default](#)

The callout box provides a detailed view of the masked information, showing the full name, address, and city/state/zip area, all masked with asterisks. The callout also includes the same action links: [Edit](#) | [Delete](#) | [Set as Default](#).

The main page also shows a 'Your Account > Your Addresses' breadcrumb, a confirmation message 'Address saved', and a 'Related' section with links to '1-Click Settings', 'Fresh address book', and 'Change address on an open order'.

Button Injection

Amazon.com: Alexa Voice Remote

SEE SOMETHING NEW, EVERY DAY. TAKE A LOOK

amazon Amazon Devices

Shop women-run businesses

Deliver to East Lansing 48824 Your Amazon.com Today's Deals Gift Cards Whole Foods Registry Sell Help

Amazon Devices & Accessories > Amazon Device Accessories > Controllers & Remote Controls

Alexa Voice Remote for Amazon Echo
by Amazon
★★★★☆ 2,416 customer reviews | 1000+ answered questions

List Price: \$29.99
With Deal: **\$19.99** ✓prime
FREE Shipping on orders over \$25—or get FREE Two-Day Shipping with Amazon Prime
You Save: \$10.00 (33%)

In Stock.
Want it Wednesday, Feb. 20? Order within 3 hrs 18 mins and choose Two-Day Shipping at checkout. Details
Ships from and sold by Amazon Digital Services LLC. Gift-wrap available.

- Official remote for Echo Plus, Echo (1st and 2nd generation), Echo Dot (1st, 2nd and 3rd generation), Echo Show (1st and 2nd generation) and Echo Spot. (Not compatible with Amazon Tap)
- Connects to Echo products via Bluetooth
- Includes an integrated microphone for when you are too far away or it's too noisy for Echo to hear you
- Dedicated buttons for volume up, volume down, play/pause, previous, and next
- Remote works with one Echo at a time

Used & new (2) from \$13.62 & FREE shipping on orders over \$25.00. Details

Roll over image to zoom in

Qty: 1

Add to Cart

Buy Now

Deliver to East Lansing 48824

Add to List

Other Sellers on Amazon

Used & new (2) from \$13.62 & FREE shipping on orders over \$25.00. Details

Frequently bought together

Need Assistance?

Total price: **\$41.97**

What's left to do?

- Chat box implementation.
- Optimization
 - Record
 - Replay
 - Data transmission
- Possibly implement stretch goal.

Questions?

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