

MICHIGAN STATE

U N I V E R S I T Y

Beta Presentation

Customer Service System with Chatbot

The Capstone Experience

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*From Students...
...to Professionals*

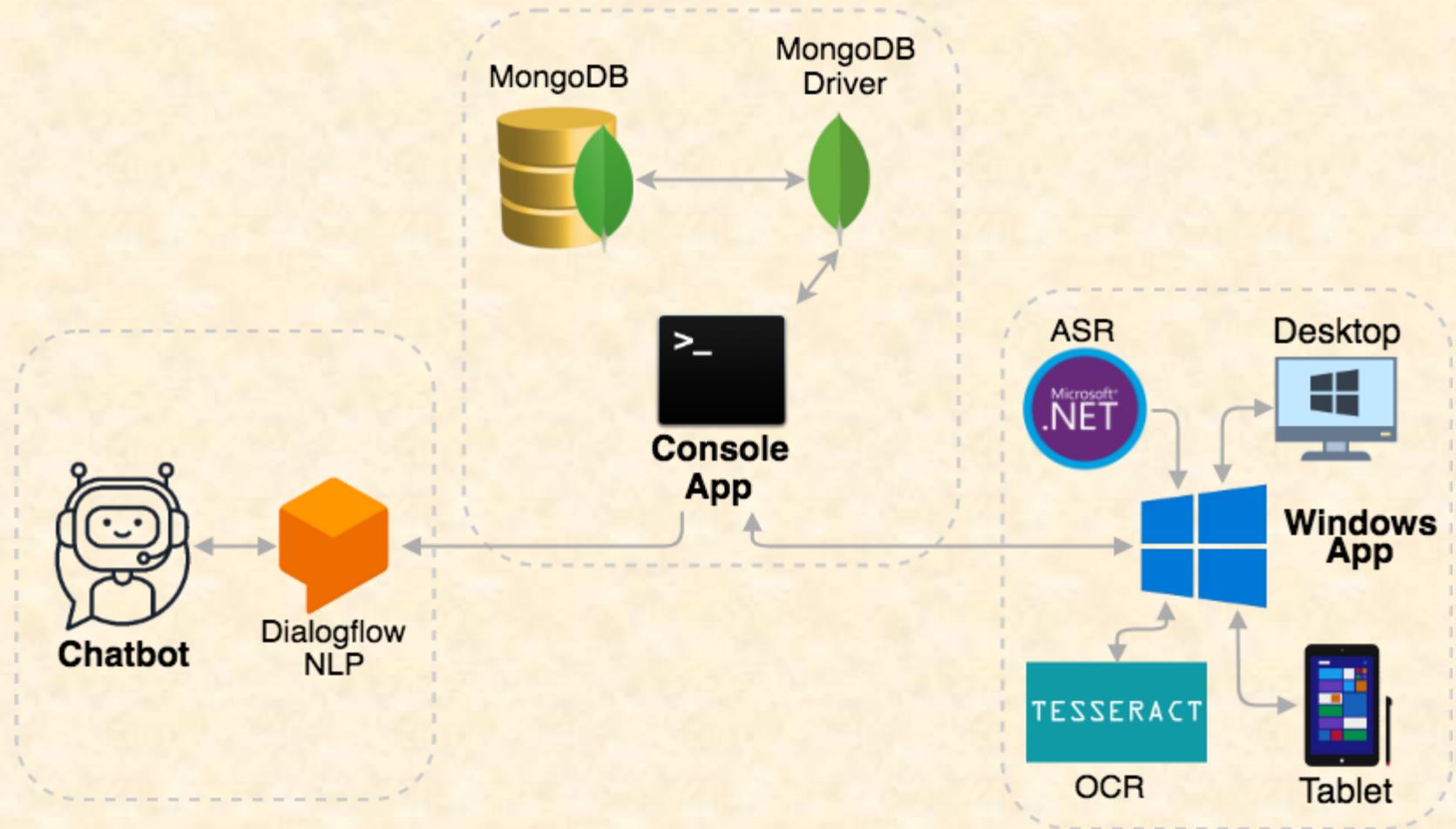
Department of Computer Science and Engineering
Michigan State University
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Project Overview

- Quick Reference Guides (QRGs)
- Platform by which employees digitize QRGs
- Easy searching and viewing
- Chatbot to answer general customer questions



System Architecture



QRG Manager Application: Home Screen

Quick Reference Guide Viewer

Hi, Amanda

Device	Model	Category
VERIFONE VX680 CASH ADVANCE	0300024 XEVA433	CASH ADVANCE
VERIFONE VX680 RETAIL	0300017 XEVA433	RETAIL
VERIFONE VX520 RETAIL	0300011 XEVA431	RETAIL
EQUINOX T4205 HOTEL	0300001 SPOSHL	HOTEL



QRG Manager Application: Edit Screen

Quick Reference Guide Viewer

Save

GATEPICKUP/SETTLEMENT

RB OR QD RESPONSE)
Terminal displays: RB XXXXX or QD
XXXXX MMDD
DO NOT DELETE BATCH OR CONTINUE
WITHOUT HELP DESK VERIFICATION
Call Help Desk

Note: Italicized steps are optional and may not be prompted for.

Note: Printing the customer receipt, is an option on all transactions.

Note: The Idle prompt screen will include transaction options: Check-in, Check-out, Adjust, Sale, Check-in Offline, and Check-out Offline.

TERMINAL MESSAGES

AMOUNT DUE/BALANCE DUE: A partial authorization has occurred. Ask customer for another form of payment for the remaining balance of the sale. Select CONTINUE to print the receipt. Pressing CANCEL will not void the transaction.

AUS (ADDRESS VERIFICATION SERVICE): Checks if the street address and ZIP code entered match the customer's billing address. If a mismatch error occurs, you can select YES to capture transaction or NO to void the transaction.

CALL: Call Voice Authorization Center. If approved, proceed with Offline Entry.

CARD SWIPE ERROR: Magnetic stripe did not read. Swipe card again or manually key-in account number.

GD (NUMBER): Good batch. Batch transmission accepted.

HOLD/CALL OR PICK UP CARD: Hold the card. Use Code 10 procedure. Call the Voice Authorization Center.

MANUAL ENTRY NOT ALLOWED: Current transaction won't allow manual entry. Debit cards may not be manually keyed-in.

PLEASE TRY AGAIN - CE, LC: A communication error has occurred. Check line connections, call Help Desk.

OD (NUMBER) OR RB (NUMBER): Quit Duplicating or Rejected Batch. Call Help Desk.

RECORD NOT FOUND: Invoice number is not found in terminal batch.

SETTLE FAILED, RETRY: Settlement failed, call help desk.

V CODE: Verification Code A 3-4 digit non embossed number found on card signature panel or near embossed account number on front. V code may be prompted for on a manually-entered transaction.

QUICK REFERENCE

Bank Name _____

Bank Phone _____

Help Desk Phone _____

V Number _____

Voice Authorization Phone _____

Merchant Number ID _____

Other _____

0300001
V001812

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Manufacturer

EQUINOX

Terminal Type

T4205

Application Type

HOTEL

Product Number

0300001

Version

SPOSHTL

Comments

2 / 2

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QRG Manager Application: Administration Screen

Quick Reference Guide Viewer

← Search user... 🔍

User	Add QRG	Edit QRG	Admin
James Abbot		✍	
Fatema Alsaleh		✍	👤
Lauren Anderson	+		
Jackson Avery	+		👤
Olivia Baker		✍	👤
Dan Bell			
Mary Bunch			
Jonny Dowdall			👤
Bob Dyksen	+	✍	👤
Wayne Dyksen	+	✍	👤
Emily Enbody			
Charles Erickson			
Sarah Fillwock			
James Finch		✍	👤
James Mariani	+		
Erin Owen		✍	

Lauren Anderson

- 👤 Administrator
- + Add QRG
- ✍ Modify/Remove QRG

Delete User



Customer Service Chatbot

The screenshot displays the website for The Phoenix Group, an Ingram Micro Company. The header includes the company logo and navigation links: SEARCH PRODUCTS, BROWSE PRODUCTS, OUR SERVICES, ABOUT, LOGIN, and TPG CANADA. The main content area features a large image of a warehouse with the text "WELCOME TO THE PHOENIX GROUP" and "RISING TO NEW LEVELS IN POS DEPLOYMENT". Below this, there are two buttons: "BROWSE PRODUCTS" and "OUR SERVICES". On the right side, a chatbot interface is overlaid, titled "Phoenixbot" and powered by Dialogflow. The chatbot's message reads: "Hello! This is the Phoenix Chatbot. Please ask me questions about our company, our products, the brands we work with, ordering, shipping, and more." A user input field contains the text "what brands do you work with", and the chatbot's response is: "We work with VeriFone, Equinox, Ingenico, Magtek, RDM, Techtrex, PAX and Dejavoov among others. See our Browse Products page to get the full list". At the bottom of the chatbot interface, there is a text input field with the placeholder "Ask a question!".



What's left to do?

- QRG Manager App
 - Stress testing
 - UI enhancement
- Chatbot
 - Intent recognition
 - UI enhancement



Questions?

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