

MICHIGAN STATE

UNIVERSITY

Alpha Presentation

Customer Service System with Chatbot

The Capstone Experience

Team Phoenix Group

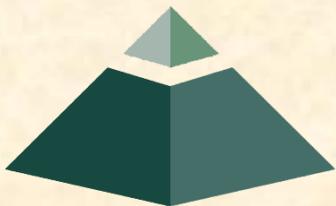
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*From Students...
...to Professionals*

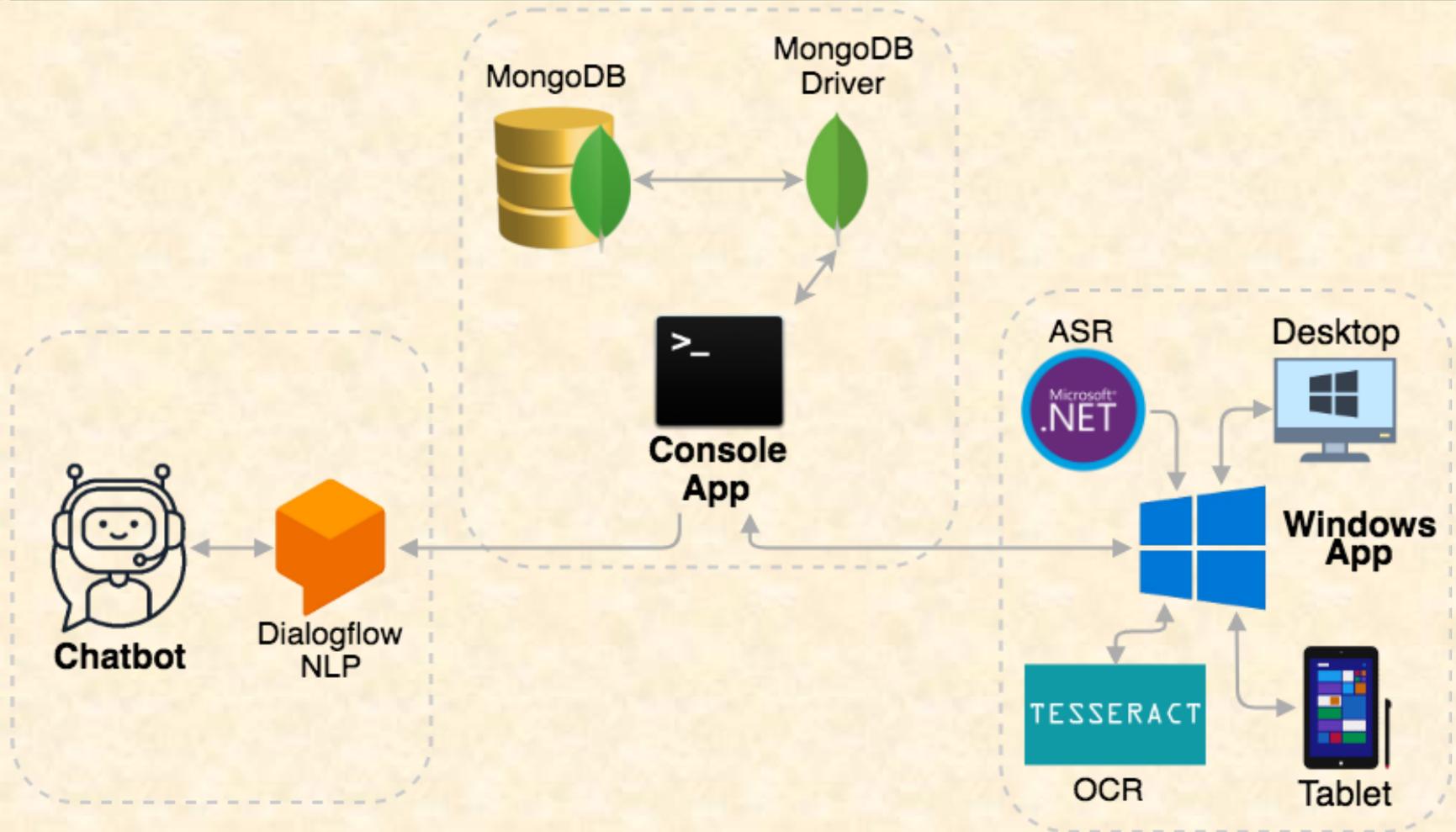
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Michigan State University
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Project Overview

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



System Architecture

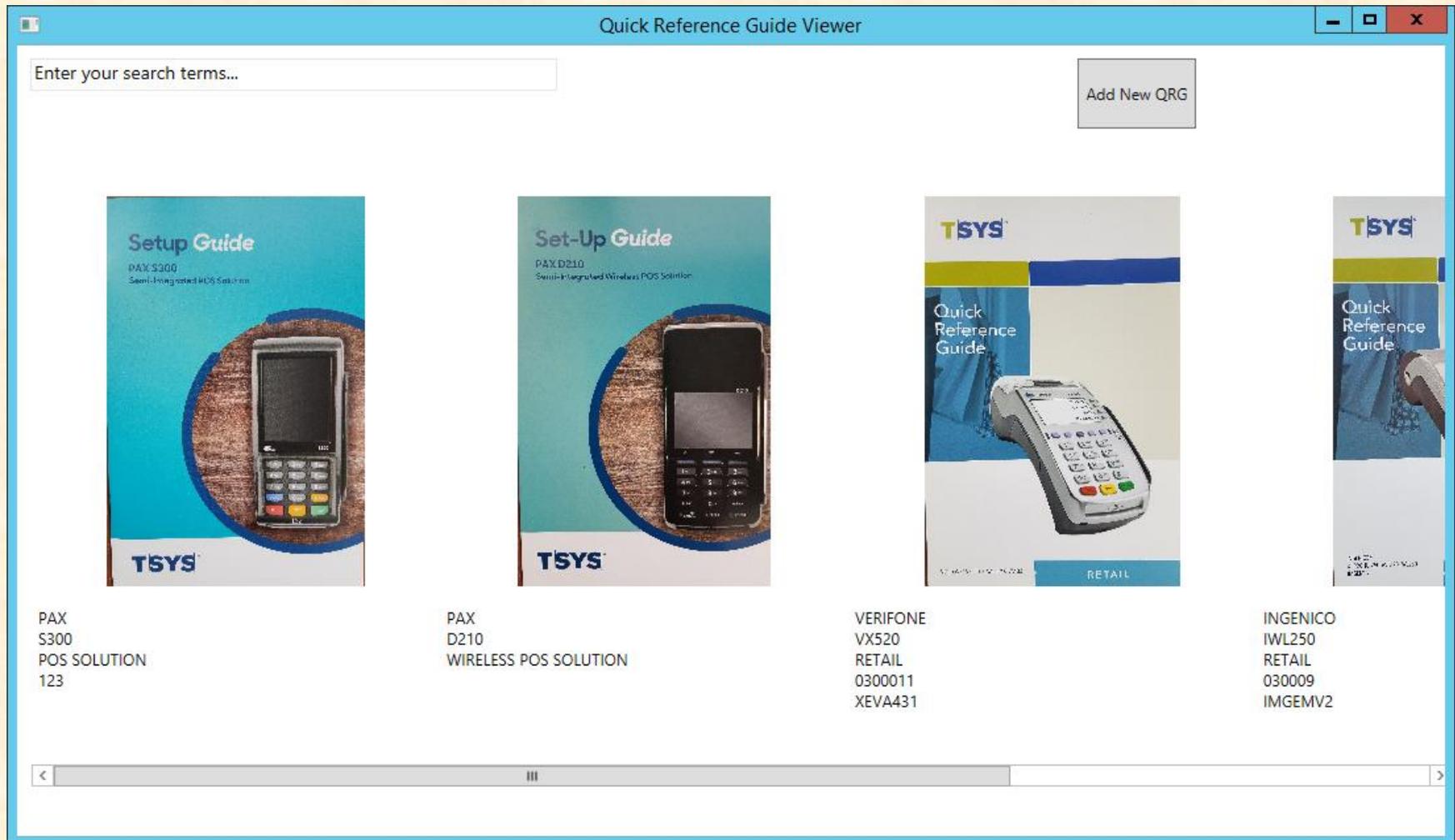


QRG Viewer Application: Home Screen

Quick Reference Guide Viewer

Enter your search terms...

Add New QRG



The screenshot displays the 'Quick Reference Guide Viewer' application interface. At the top, there is a search bar with the placeholder text 'Enter your search terms...' and a button labeled 'Add New QRG'. Below the search bar, four QRG cards are displayed in a row. Each card features a cover image of a POS terminal and associated text. The first card is for 'PAX S300 POS SOLUTION' with a 'Setup Guide' cover. The second card is for 'PAX D210 WIRELESS POS SOLUTION' with a 'Set-Up Guide' cover. The third card is for 'VERIFONE VX520 RETAIL' with a 'Quick Reference Guide' cover. The fourth card is for 'INGENICO IWL250 RETAIL' with a 'Quick Reference Guide' cover. At the bottom of the screen, there is a horizontal scrollbar.

Device	Model	Solution	QRG ID
PAX	S300	POS SOLUTION	123
PAX	D210	WIRELESS POS SOLUTION	
VERIFONE	VX520	RETAIL	0300011 XEVA431
INGENICO	IWL250	RETAIL	030009 IMGEMV2

QRG Viewer Application: View Screen

The screenshot displays the 'Quick Reference Guide Viewer' application window. The window title is 'Quick Reference Guide Viewer' and it has standard Windows window controls (minimize, maximize, close). At the top, there are 'Home' and 'Edit' buttons. The main content area is a scrollable list of transaction types, each with a blue header and a list of steps:

- REVERSAL (FULL/PARTIAL)**
 - Reversals may only be processed on sales within the current batch.
 - Press the purple **DOWN ARROW** key until Reversal displays
 - Select **REVERSAL**
 - Select **FULL** (full amount reversed) or **PARTIAL** (partial amount reversed)
 - Select retrieval method: **INV#** (invoice #) or **AMT** (amount)
 - Enter retrieval information, and press **ENTER**
 - Transaction displays on screen; select **YES** (reverses trans), **NO** (returns to last screen), or **NEXT** (scrolls to next trans)
 - If **No** or **Next**, follow prompts.
 - If **partial reversal**, enter the dollar amount to be reversed and press **ENTER**
 - Terminal dials out, receipt prints
- DEBIT RE-ENTER**
 - Press the purple **DOWN ARROW** key until Offline displays
 - Select **OFFLINE**
 - Enter transaction amount and press **ENTER**
 - Select **YES**
 - Swipe customer card or manually enter account number and press **ENTER**
 - Select **DEBIT**
 - Select type: **SALE** or **REFUND**
 - Enter network ID (three digits), and press **ENTER**
 - Enter settlement date (MMDD), and press **ENTER**
 - Enter original transaction date (MMDDYY), and press **ENTER**
 - Enter original time (HHMMSS)
- CREDIT OFFLINE ENTRY**
 - Press the purple **DOWN ARROW** key until Offline displays
 - Select **OFFLINE**
 - Enter sale amount and press **ENTER**
 - Enter tip amount and press **ENTER**, or press **ENTER** to bypass.
 - Select **YES**
 - Swipe customer card, insert customer card, or manually enter account number and press **ENTER**
 - Select **CREDIT**
 - Enter expiration date (MMYY) and press **ENTER**
 - Imprint the card and press **ENTER**
 - Enter transaction ID (15 characters), and press **ENTER**
 - Enter approval code (six digits), and press **ENTER**
 - Receipt prints
- AUTHORIZATION ONLY**
 - Press the purple **DOWN ARROW** key
 - Select **AUTH ONLY**
 - Enter sale amount and press **ENTER**
 - Select **YES**
 - Swipe customer card, insert customer card, or manually enter account number and press **ENTER**
 - Select the desired language
 - Select **CREDIT**
 - Enter expiration date (MMYY) and press **ENTER**
 - Imprint the card and press **ENTER**
 - Terminal dials out
 - Remove the card
 - Receipt prints

On the right side of the application, there are several input fields for metadata:

- Manufacturer: VERIFONE
- Terminal Type: VX520
- Application Type: RETAIL
- Product Number: 0300011
- Version: XEVA431
- Comments: (empty text box)

At the bottom right, there are 'Previous' and 'Next' buttons.

Customer Service Chatbot

The screenshot displays the homepage of The Phoenix Group, an Ingram Micro Company. The website features a navigation menu with links for 'SEARCH PRODUCTS', 'BROWSE PRODUCTS', 'OUR SERVICES', 'ABOUT', 'LOGIN', and 'TPG CANADA'. The main content area is a large image of a warehouse with the text 'WELCOME TO THE PHOENIX GROUP' and 'RISING TO NEW LEVELS IN POS DELIVERY'. Below this, there are two buttons: 'BROWSE PRODUCTS' and 'OUR SERVICES'. On the right side, there is a chatbot interface titled 'Phoenix-Chatbot' powered by Dialogflow. The chatbot has received the message 'Hello' and responded with 'Good day! This is the Phoenix Chatbot. How can I help you?'. The user has entered 'I would like to place an order', and the chatbot has responded with 'There are a few ways to order: Call, 866-559-7672; Fax, 636-329-1710; Email, orders@phoenixgrouppos.com. After you have a TPG Customer ID, you can place an order through our TPG Elite online portal'. At the bottom of the page, there are logos for VeriFone (A division of Hewlett-Packard), ingenico GROUP, EQUINOX PAYMENTS, and a logo for DAY.

What's left to do?

- QRG Viewer App
 - Integrate image transfer
 - User privileges, login and signup
 - Searching by voice
 - Handle multiple users interfacing with the app
- Chatbot
 - Connect to MongoDB database
 - Integrate with company website
 - User testing and refining NLP responses



Questions?

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