1.1 Team Structure

Namita SHAM

Sharmeen Banu Javid SALEHMOHAMED

1.2 Abstract

This case study's aim is to help us in understanding how the oracle AI can help to interact with citizen support. The paper first provides a brief overview of how AI can be used to implement online solutions, about AI models and different solution deployment. We have described all procedures required in accordance with every criteria of how to integrate an oracle AI chatbot to the mauritian citizen support. We have provided how to train and equip the AI chatbot with some data samples to make the chatbot to revert back with answers and help to assist the citizen.

1.3 Introduction

This case study's aims to showcast how Oracle AI can help to support citizen support to the Mauritian people.

This report aims to begin to address this, asking how artificial intelligence can be used to implement online service solutions, the technologies and platforms used, the types of benefits of the chosen technology and the High level architecture. We will depict also on how we can build AI models, the different components and processes used by the AI model, the identification of skills, utterances, intents, and entities of the model. The conversational flow definition where it would be categorized into two namely; task identification and the conversational patterns for tasks. The depiction of solution deployments such as solution deployment definition, options for customer service integration and challenges identified would be discussed. This paper attempts to help understand oracle chatbots platform and would be able to interact with citizens who have submitted requests for citizen support.

1.4 Body

1.4.1 How AI can be used to implement the online service solution

Oracle AI chatbots are a great way for chatbots to interact with citizens who have submitted requests for citizen support. They will be able to have assistance to transmit their requests, share concerns and ideas regarding different departments, Ministries,parastatals and local authorities across Mauritius through their online website, messaging applications or through phone calls. The chatbot will be able to simulate conversation like humans and with 24/7 customer support. We can maximize the use of AI through ERP with CRM, cloud computing to store and keep track of requests of ticketing systems.

1.4.2 Technologies & Platforms

The platform chosen is the Oracle based platform where we are going to be using digital assistance to build our models.

Why we chose this platform, simple: the assistant will help the user to access data and reports. Users will easily perform submissions.

1.4.3 Benefits of selected Technology

Oracle digital Assistance platform will benefits us in :
1. It will greet the user upon access to the CSU.mu website or mobile application.
2. Routes explicit user requests to the appropriate skill
3. Handles interruptions to the flow
4. Handles disambiguation
5. Handles requests to exit the skills
6. Deliver 24/7 automated customer service
7. Increase in customer engagement leading to increase in customer satisfaction.

1.4.4 High Level Architecture
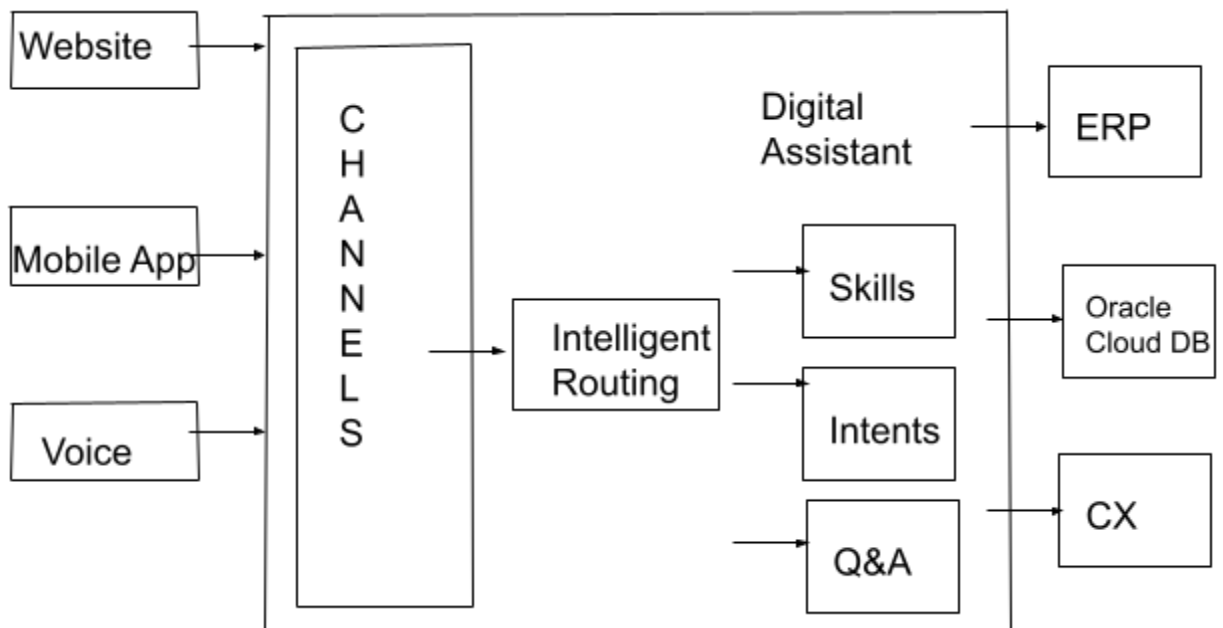
1.5 AI Model

1.5.1 Components and Process of Building the AI model

The 9 steps processes to building an AI model for citizen support :
1. Creating the digital assistant and creating a skill
2. Create the intents and utterances
3. Add entities and associate the intent for this skill creation that will help the skill to fulfill a task
4. Define the conversational flow of the skill through dialog flow
   Dialog Flow - Helps us to know how the skill in the chatbot replies according to the user input.
5. Validate, train and test the skill
6. Publish model and integrate citizen support with the digital assistant
7. Test the digital assistant on the citizen support platform
8. Create the greetings, age, custom component and the integration of the skills.
9. Digital Assistant user channel configuration - Exposing the Digital Assistance to users through the web channel on CSU.mu

1.5.2 Identifying the skills, utterances, intents and entities of the model

Skills identified: Keeping track of their inventory or their requests, submission of time cards, submission and handling of complaints and producing financial reports.

Utterances identified: Specification of how the customer may express their intents. For e.g the user wants to submit his/her requests or modify the requests or they wish to share his/her concerns. This can be done by clicking a generated list from the chatbot, by typing or by voicing it out to the chatbot.

Intents identified: Users will be able to perform these actions such as ; showMenu, SubmitRequests, ModifyRequests, CheckRequestsStatus, Shareconcerns, ShareIdeas, SubmitComplaint, TrackingOfRequests, Exit

Entities identified: Entities are keywords used by the user so as the system may generate a more accurate response. For e.g "I want to submit the complaint to the Prime minister's office" the entity here will be - Prime minister's office

INTENTS :

Intent	Related Utterances	Entities
Greeting	"Hello"	
	"Hi"	
	"Good morning"	
SubmitRequests	"Submit my request"	
	"Submit request"	
	"Submit the request"	
ModifyRequests	"Modify request"	
	"Modify my request"	
	"Modify the request"	
	"Request modification"	
	"Modification of request"	
CheckRequestsStatus	"Check my request status"	
	"Check status of my request"	
Shareconcerns	" I want to share concerns to the Ministry of Local Government and Disaster Risk Management. "	Ministry of Local Government and Disaster Risk Management.
	"Share concerns"	
ShareIdeas	"I want to share my ideas"	
	"Share my ideas"	
SubmitComplaint	"Submit my complaints"	
	"Submit the complaints to the department of Prime Minister's Office"	Prime Minister's Office
	"I want to submit some complaints to the department	Gender equality

	of gender equality"	
Exit	"close"	
	"exit"	

1.5.3 Model for training the intents

As we have 2 model trainer namely :

1. Trainer Ht
2. Trainer Tm

We are going to use trainer Ht because it uses pattern matching compared to trainer Tm which uses detection variations in user input. Trainer Ht is rule-based and faster to deploy as our model. But as we gather more sample of user input we can shift to trainer Tm