Project Name: Smart Restaurant Bot Powered By

Watson Assistant

INDEX

INTRODUCTION

Project Summary:

Artificial intelligence is on its way to a faster human lifestyle in an efficient way. Virtual bots have become handy nowadays by supporting various domains for smooth lives. Chat bots are helping many sectors by providing services in the form of information agents by effectively accomplishing tasks.

LITERATURE SURVEY

Solution Required:

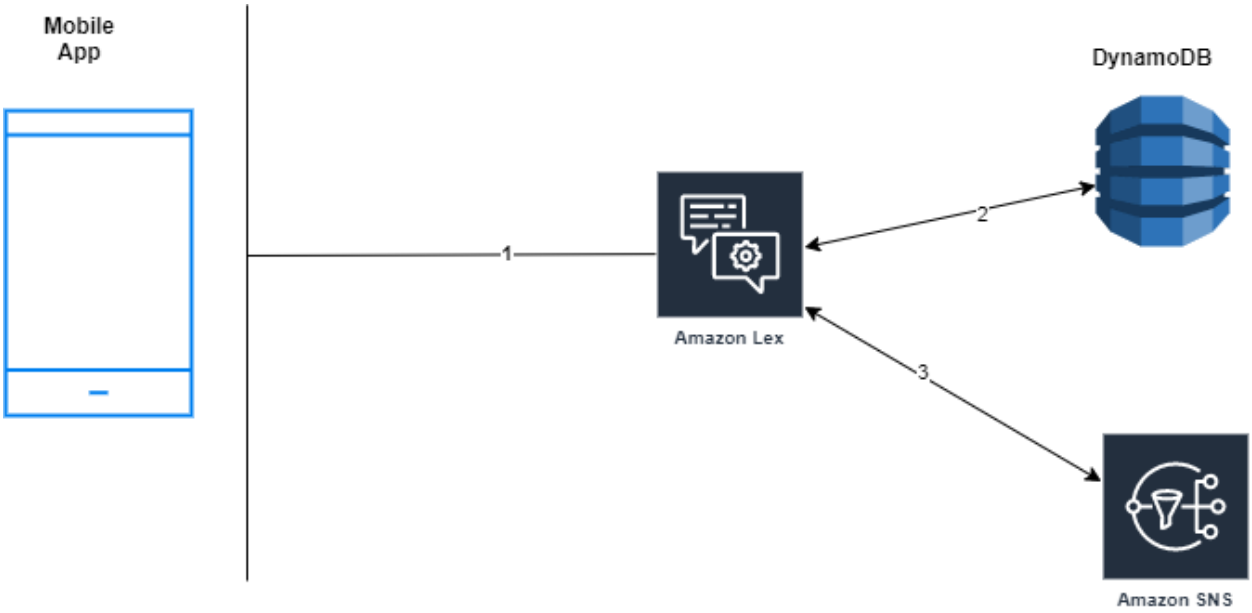
Develop an end to end mobile application capable of managing/placing orders, displaying recommendations, showing the menu, prompting the best deals, or collecting customer feedback using the Amazon Lex. The customer and the order details are stored in the Dynamo DB. Alert is sent when the order is confirmed using the SNS(Simple Notification Service).

Features

- Using chatbot we can manage users reservations and orders
- We can give food recommendations and display the menu to the users
- We can Promote best deals and offers on that day
- We will store the customer’s details and orders in the database
- Chat will send a notification to customers if the order is confirmed
- The chatbot is also useful in Follow up on customer feedback

THEORETICAL ANALYSIS

Proposed Technical Architecture/Flow Chart



1. **TechnicalRequirements:**

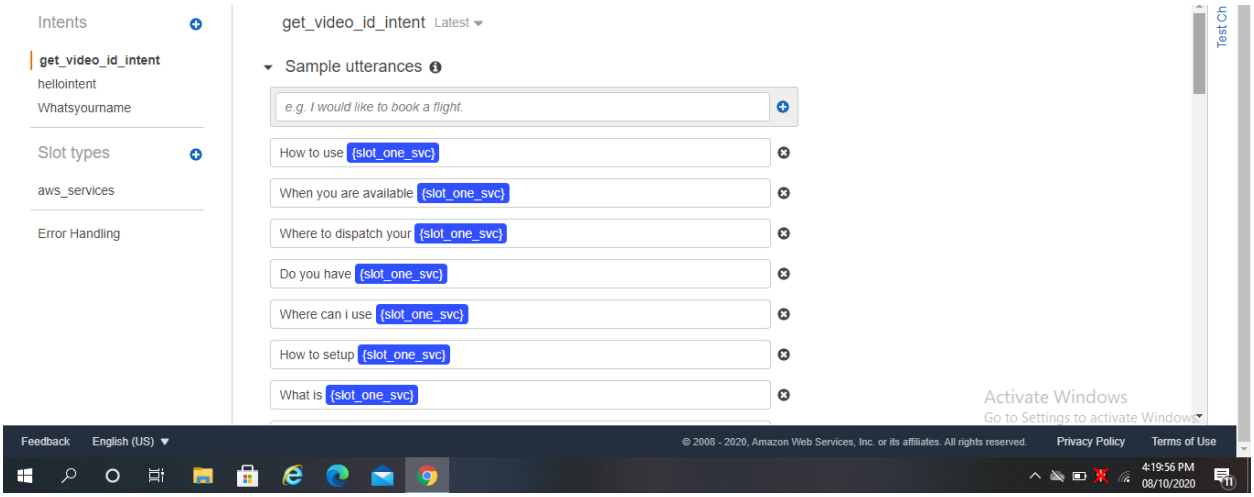
   AWS DynamoDB,AWS API Gateway,AWS Lambda,AWS SNS

2. **ProjectTeam:**

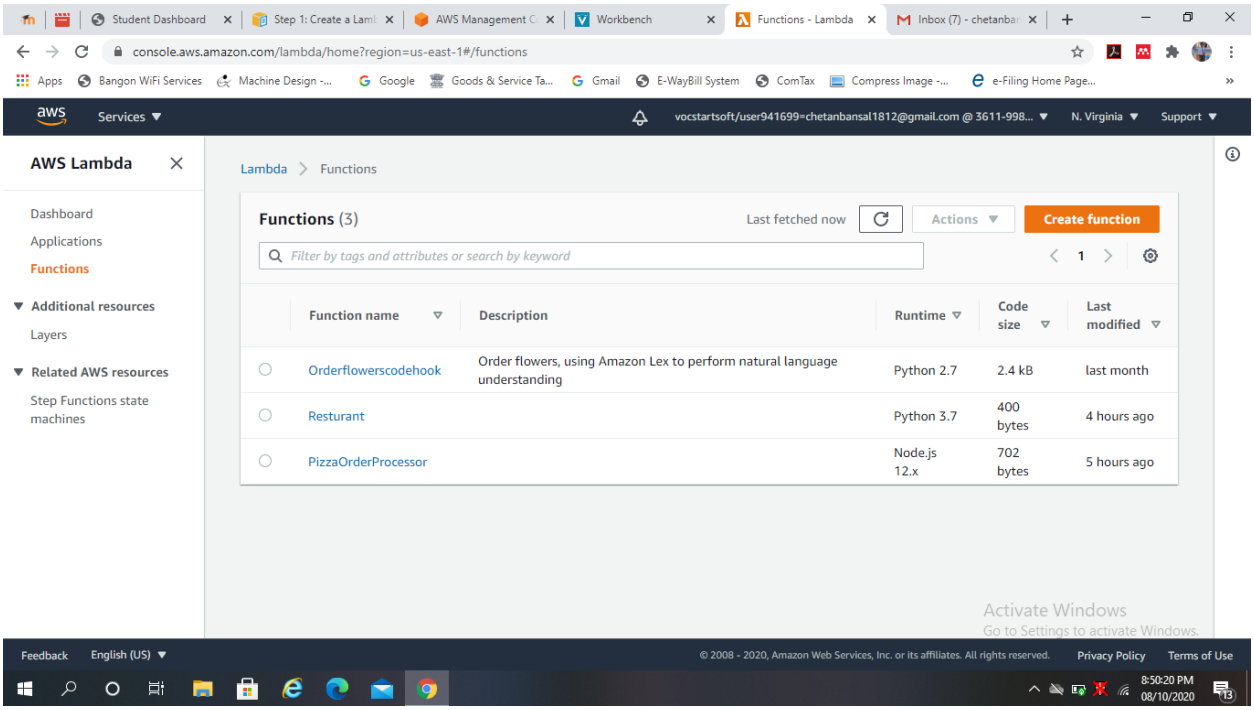
Chetan Bansal

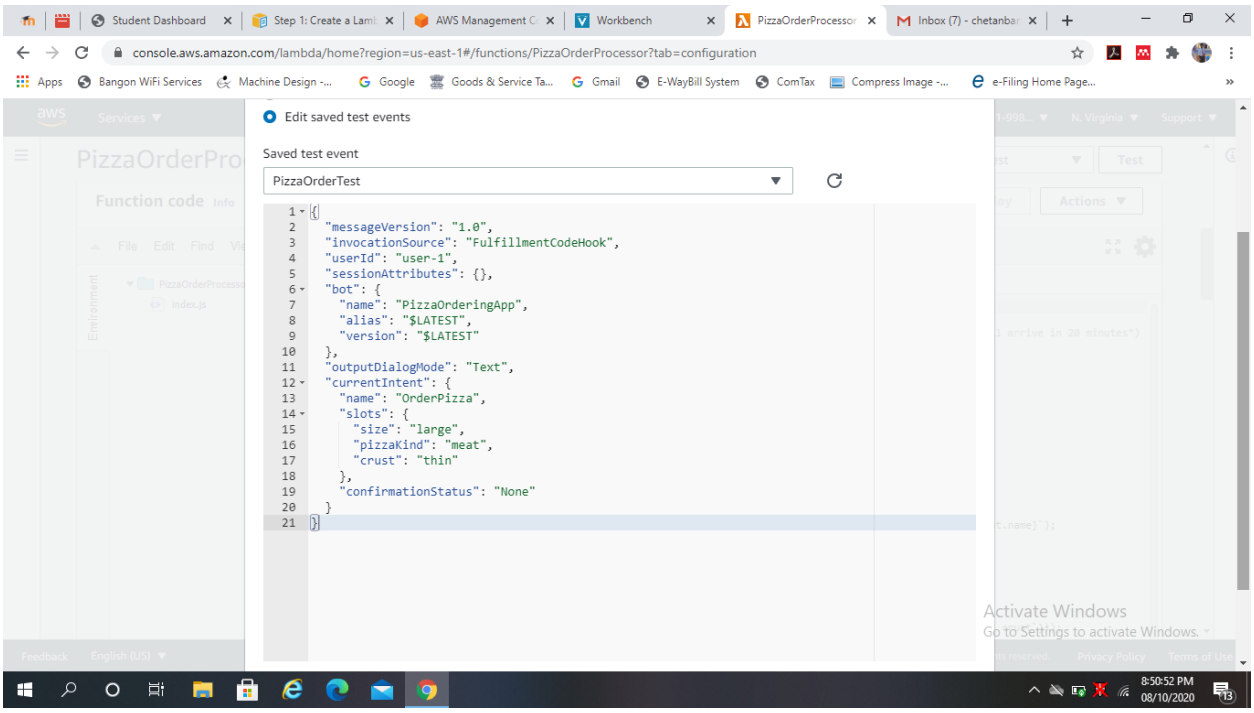
EXPERIMENTAL INVESTIGATIONS

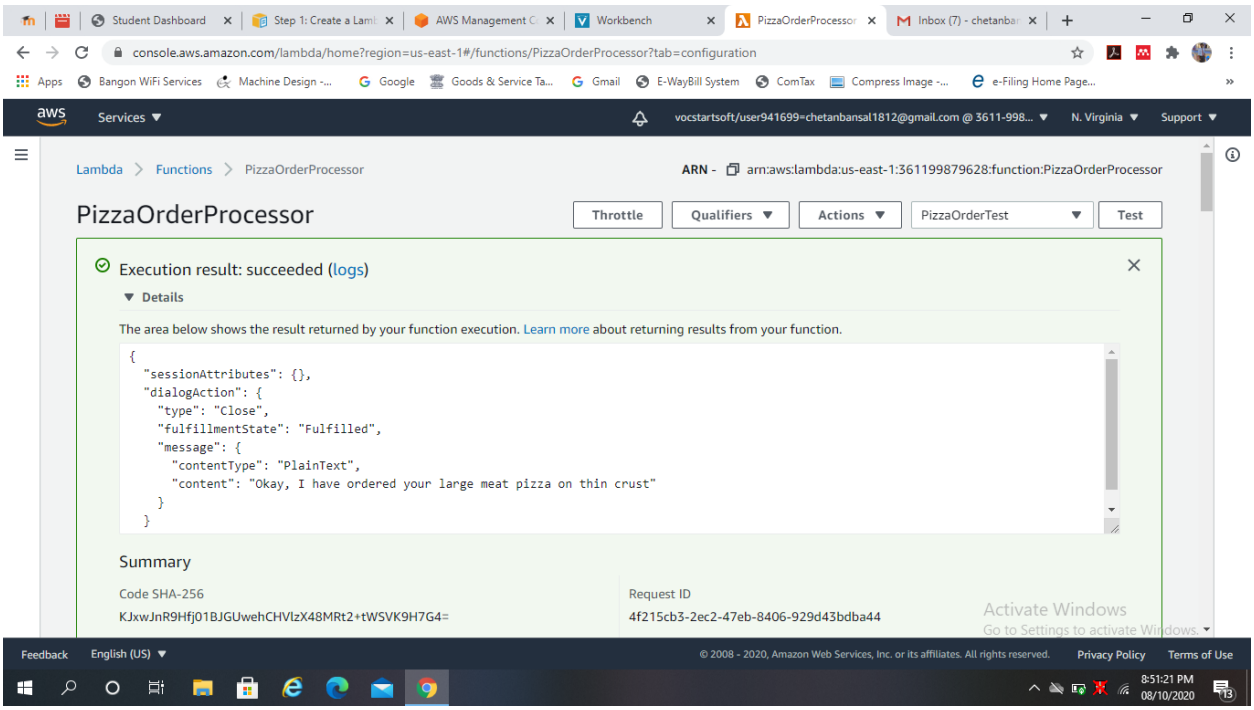
EXPLORE AWS LEXCLOUD SERVICES

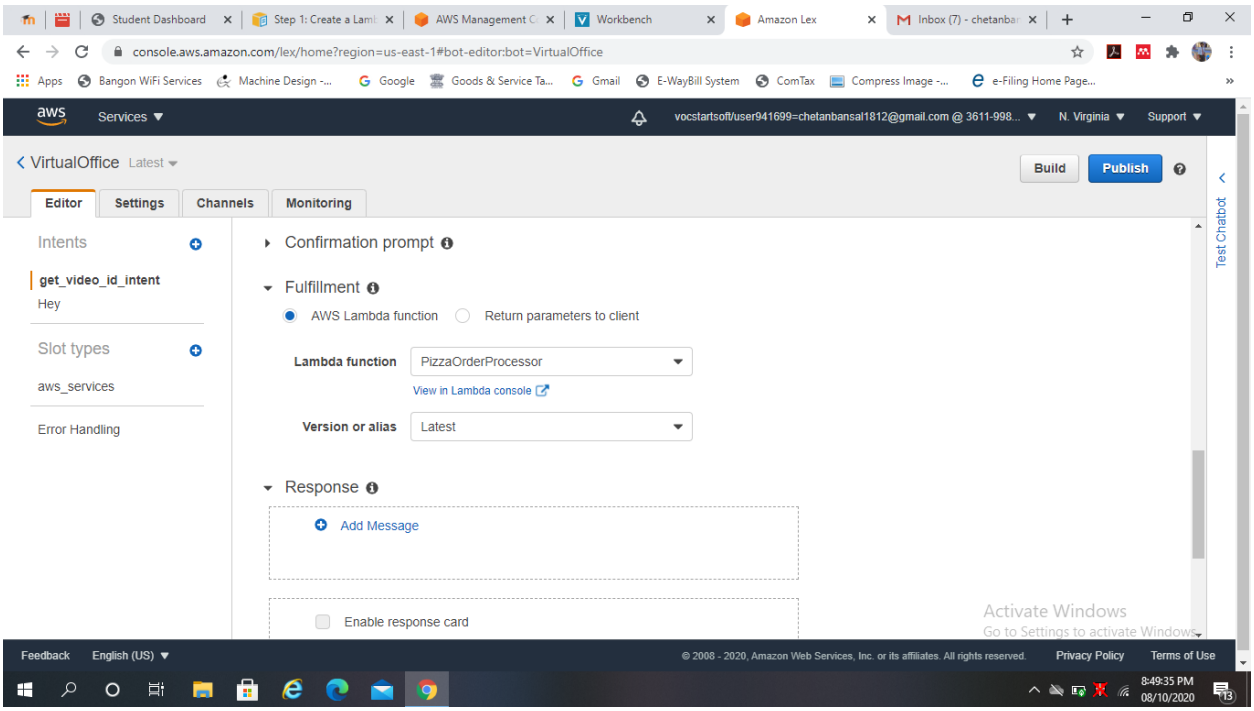


LAMBDA FUNCTION & INTEGRATE WITH CHATBOT

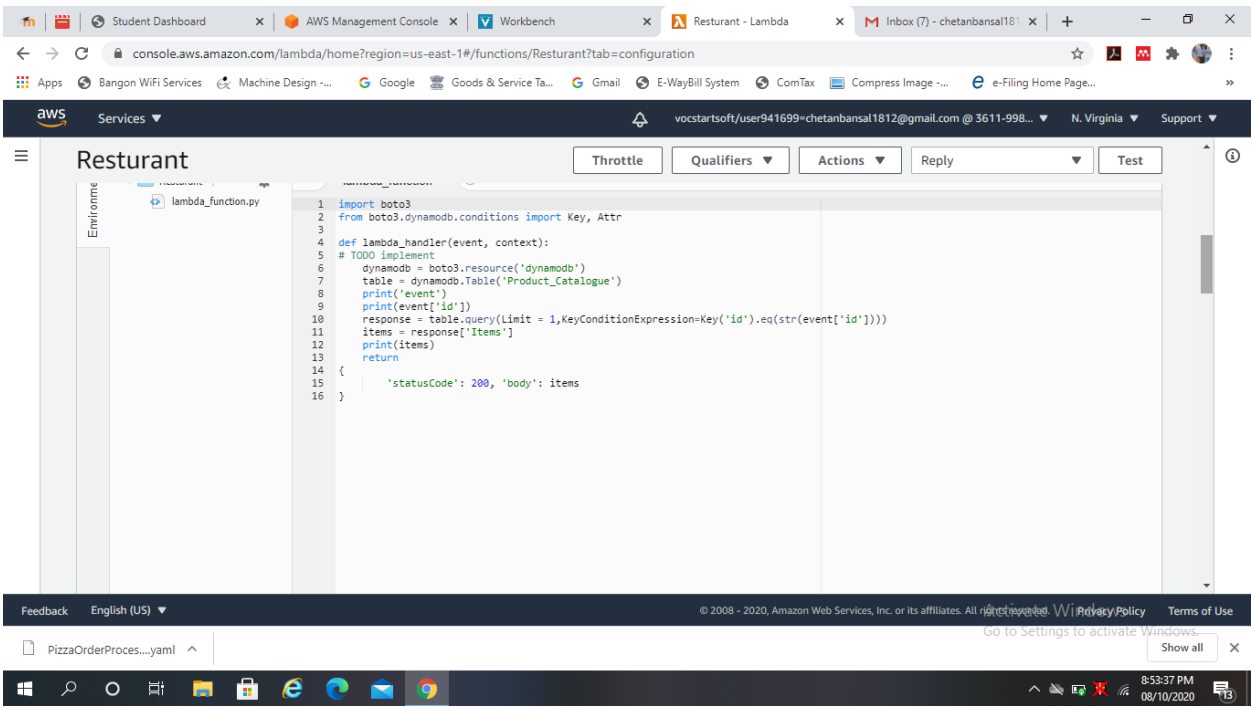


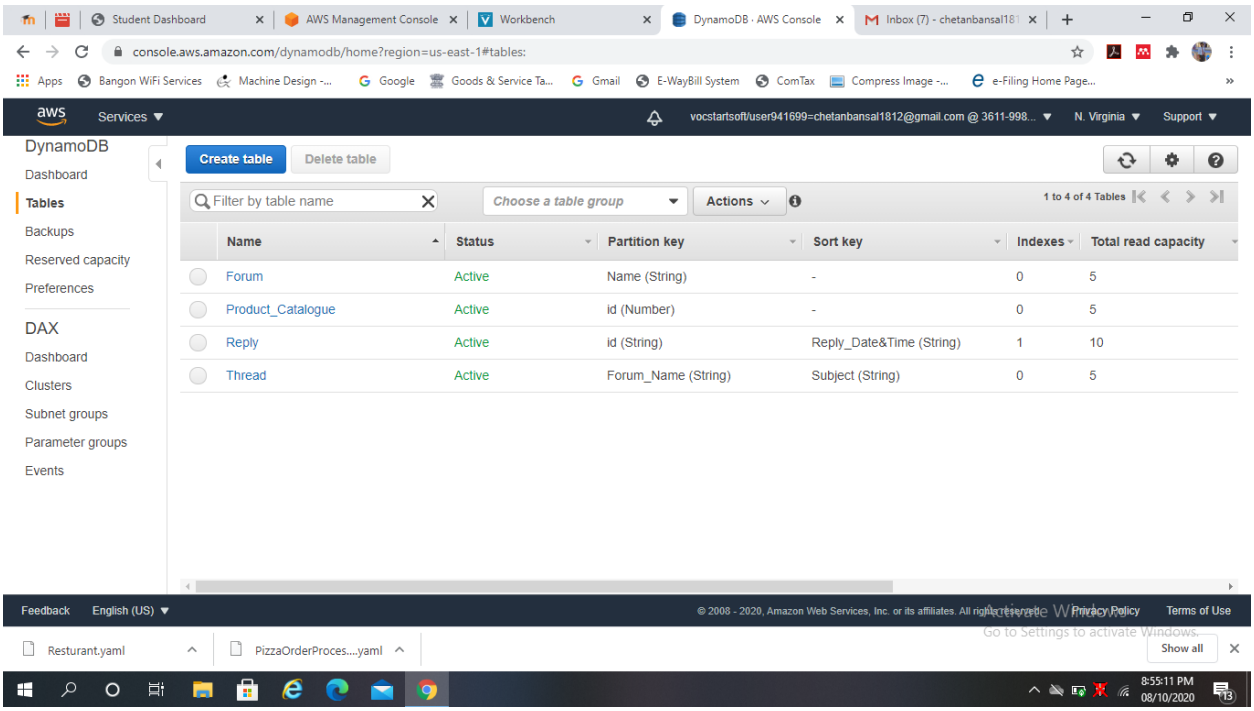

Edit saved test events
Saved test event
PizzaOrderTest
{
"messageVersion": "1.0",
"invocationSource": "FulfillmentCodeHook",
"userId": "user-1",
"sessionAttributes": {},
"bot": {
"name": "PizzaOrderingApp",
"alias": "$LATEST",
"version": "$LATEST"
},
"outputDialogMode": "Text",
"currentIntent": {
"name": "OrderPizza",
"slots": {
"size": "large",
"pizzaKind": "meat",
"crust": "thin"
},
"confirmationStatus": "None"
}
}


Lambda > Functions > PizzaOrderProcessor
ARN - arn:aws:lambda:us-east-1:361199879628:function:PizzaOrderProcessor
PizzaOrderProcessor
Throttle
Qualifiers
Actions
PizzaOrderTest
Test
Execution result: succeeded (logs)
Details
The area below shows the result returned by your function execution. Learn more about returning results from your function.
{
"sessionAttributes": {},
"dialogAction": {
"type": "Close",
"fulfillmentState": "Fulfilled",
"message": {
"contentType": "PlainText",
"content": "Okay, I have ordered your large meat pizza on thin crust"
}
}
Summary
Code SHA-256
KJxwJnR9Hfj01BJGUwehCHVlzX48MRt2+tWSVK9H7G4=
Request ID
4f215cb3-2ec2-47eb-8406-929d43bdba44

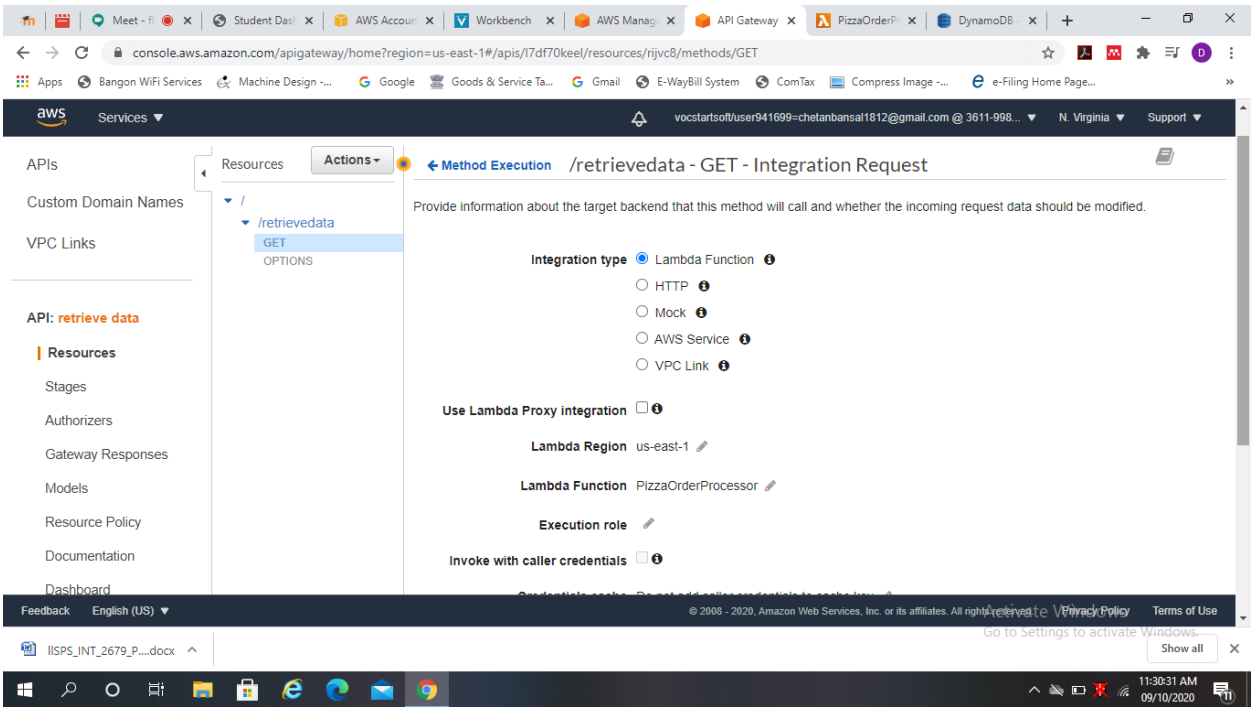


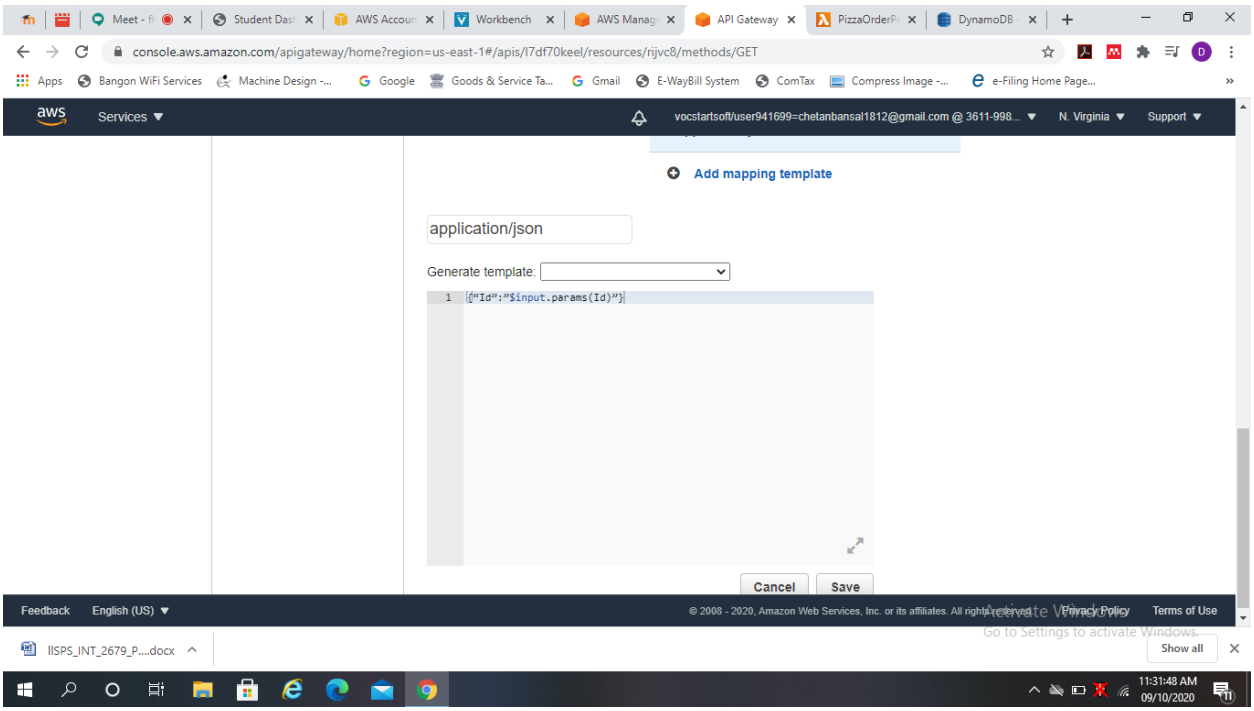
INTEGRATE LAMBDA FUNCTION WITH DYNAMO DB

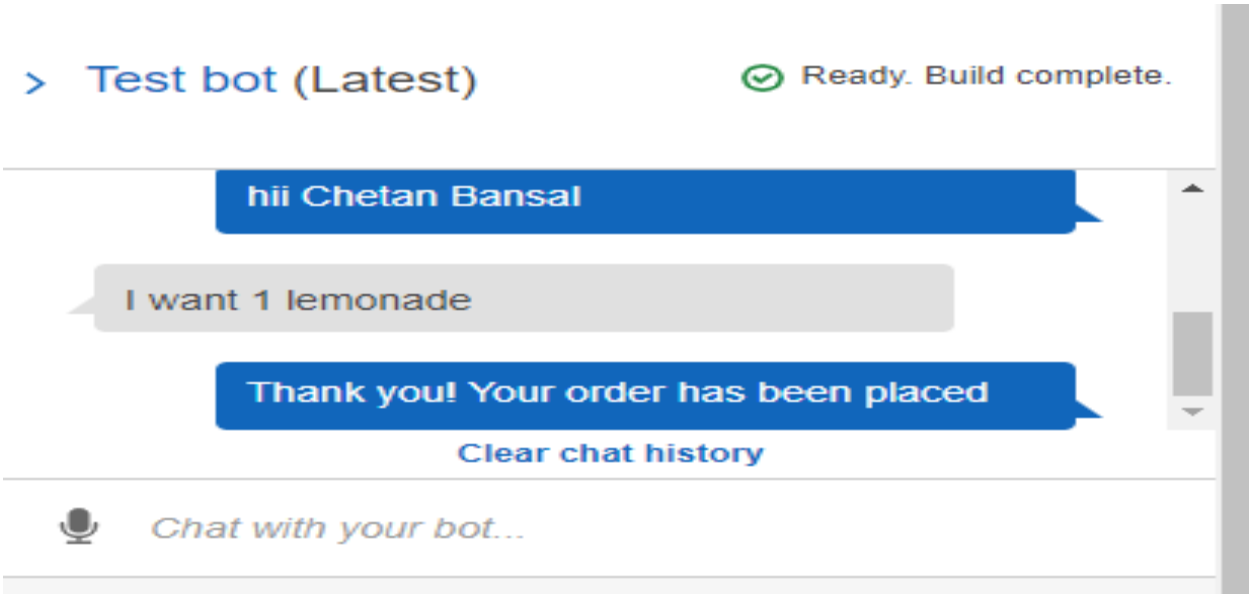




INTEGRATE AWS LEX MOBILE HUB




console.aws.amazon.com/apigateway/home?region=us-east-1#/apis/l7df70keel/resources/rijvc8/methods/GET
Services
Add mapping template
application/json
Generate template:
{"Id":"$input.params(Id)"}
Cancel
Save
Feedback
English (US)
Privacy Policy
Terms of Use
IISPS_INT_2679_P....docx
Show all
11:31:48 AM
09/10/2020


Test bot (Latest)
Ready. Build complete.
hii Chetan Bansal
I want 1 lemonade
Thank you! Your order has been placed
Clear chat history
Chat with your bot...

APPLICATION

- Mange reservations and orders
- **Promote Deals & Offers**
- **Present your menu in a better way.**
- **Food recommendations**
- **Follow up on Feedback**
- **Easier delivery and take way.**
- **POS System on Chat.**

CONCLUSION

1. The Chat bot created give the recommendations and display the menu to the users and promote best deals and offers on that day.

2. It stores the customer's details and orders in the database.

3. It will send a notification to customers if the order is confirmed.

4. The research has potential for real-life applications, such as supporting timely recognition of the right moment to start Advance Care Planning.