

Amazon Connect Bootcamp

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accenture



Introduction






Have you ever interacted with an automated message when calling a hotline or customer service? This project consists of 10 labs where I share the process of automating a customer service line. My customer service line was created with contact flows on Amazon Connect. Throughout the project I also used these other AWS platforms for customization: Amazon Lex, Amazon S3, AWS Lambda, DynamoDB.

What is a contact flow and how does it work?

In simple terms, a contact flow defines how a customer experiences your contact center from start to finish.

LAB 1: SET GLOBAL PARAMETERS


Amazon Connect


delores  |  English  |  | 

Contact Flows and Flow Modules

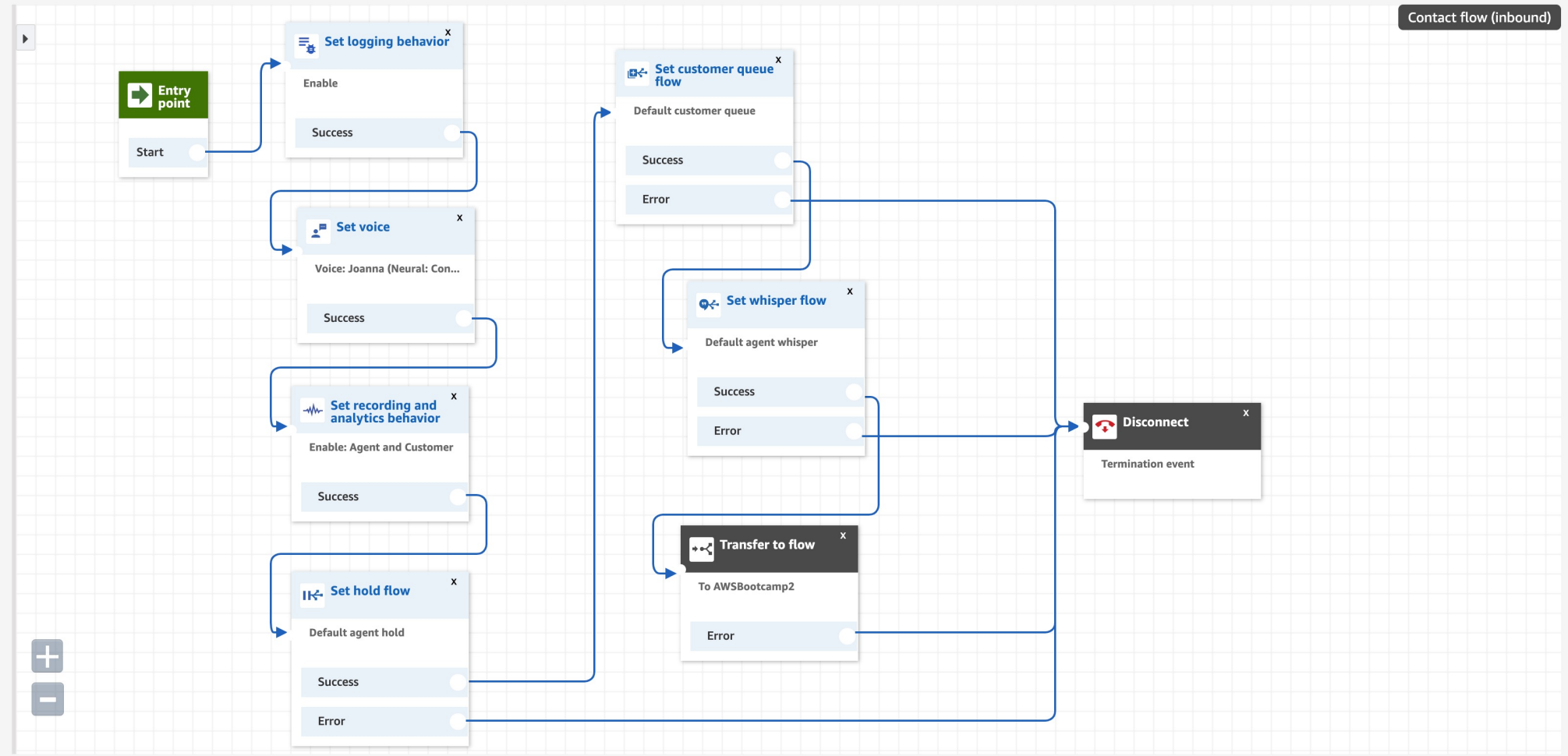
Contact flows

Modules

 Search by name

Create contact flow 

Name	Type	Description	Status
AWSBootcamp1	Contact flow	Set Global Parameters	Published
AWSBootcamp2	Contact flow	TOD Checks	Published
AWSBootcamp3	Contact flow	Customer Lookup	Published
AWSBootcamp4	Contact flow	Welcome Message	Published
AWSBootcamp5	Contact flow	Menu	Published
AWSBootcamp5.1	Contact flow	LEX	Published
AWSBootcamp6	Contact flow	Callback	Published
AWSBootcamp7	Contact flow	Case Playback	Published
AWSBootcamp8	Contact flow	Last Agent Routing	Published



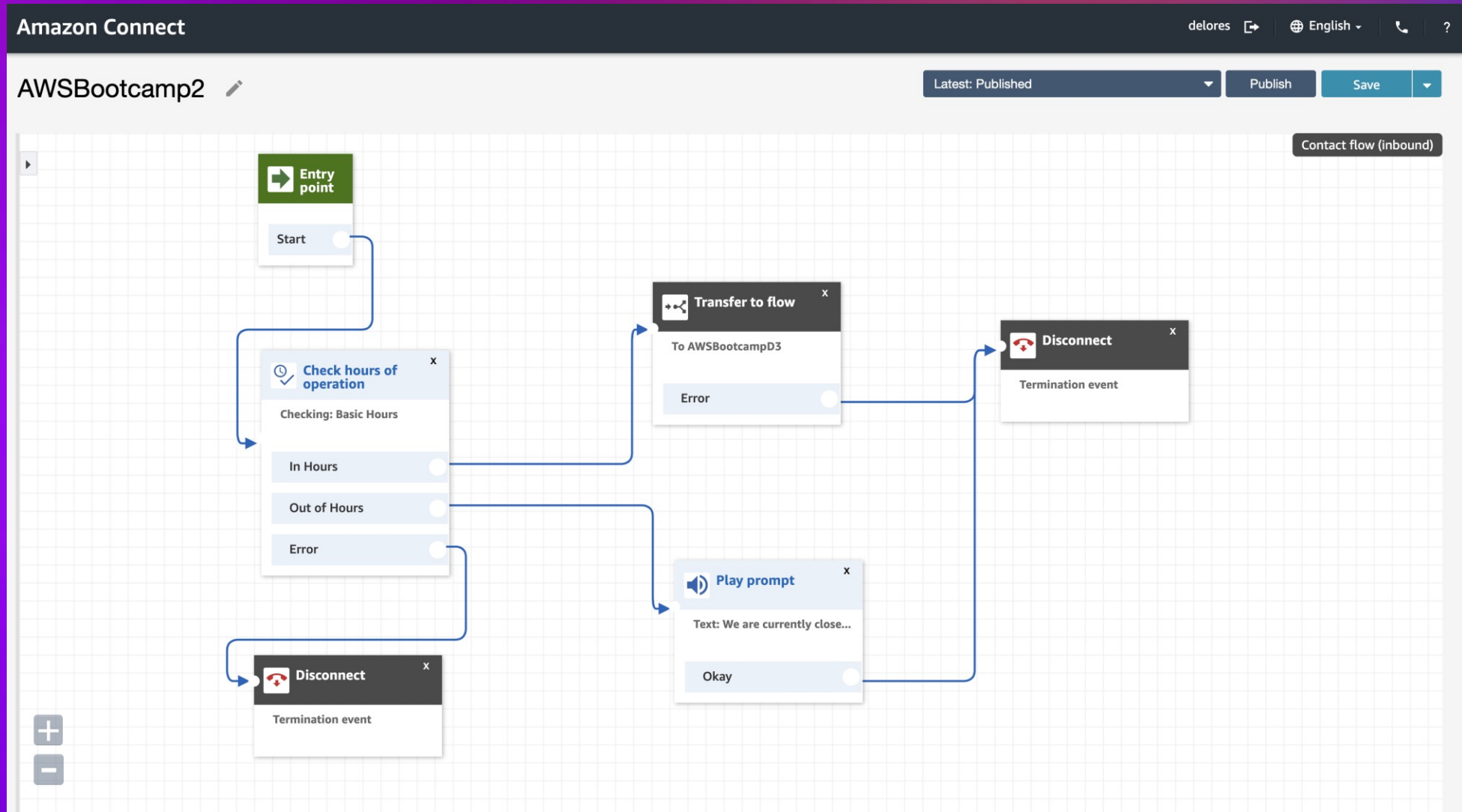
LAB 1: SUMMARY

Learning Points

- ❖ Interface Familiarization
- ❖ Creating Instances
- ❖ Setting Global Parameters

Notes: Lab 1 introduced the basics of a contact flow, such how to select the voice used for the voice bot, customer holds and queues, flow transfers, and termination events.

LAB 2: TIME OF DAY CHECKS



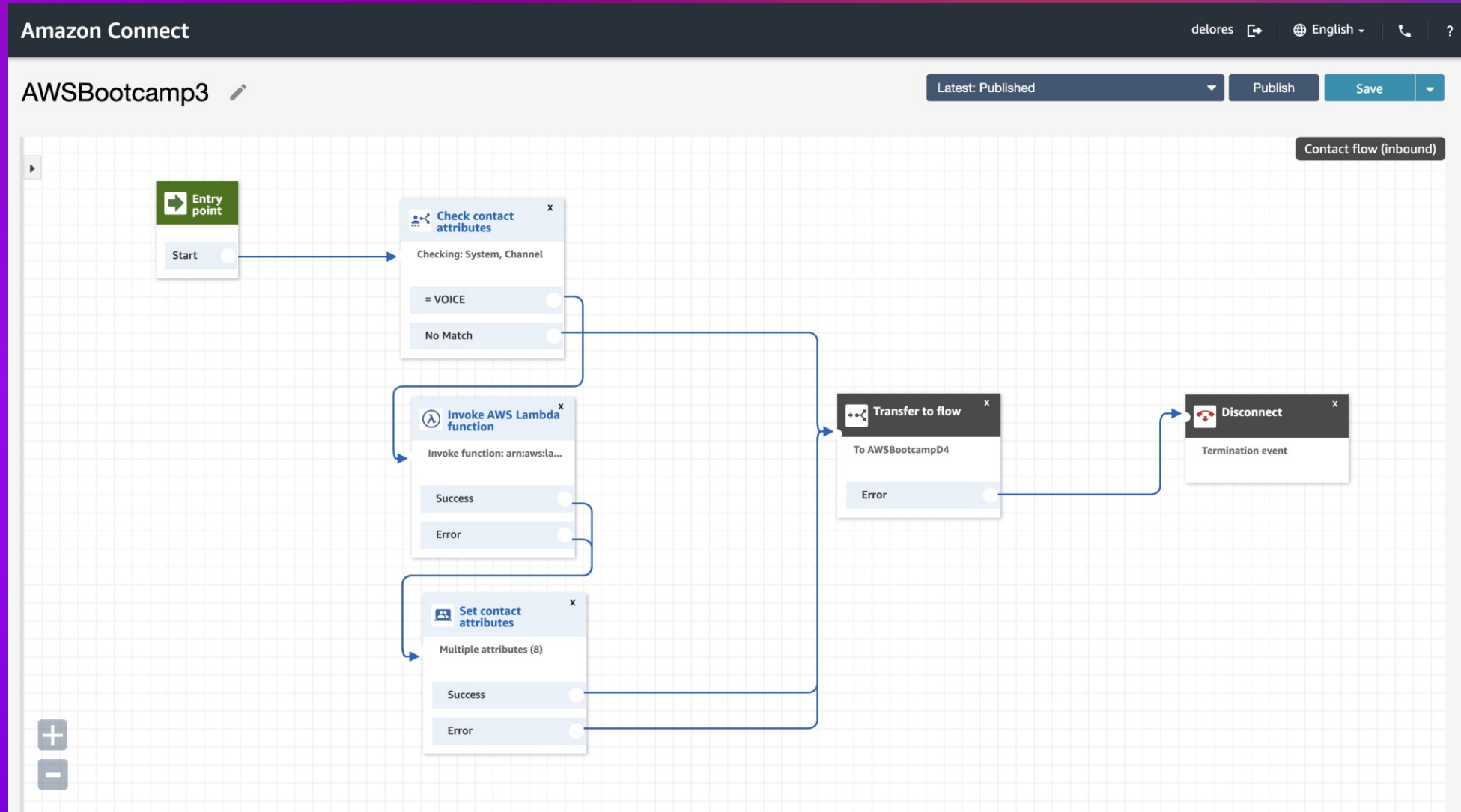
LAB 2: SUMMARY

Learning Points

- ❖ Time of Day Checks
- ❖ Interaction between transfer and disconnect
- ❖ Application of Prompts

Notes: In this lab, we set the hours of operation. The advantages of the node-based architectures can be clearly seen in this lab, as it allows for simple visualization and adjustment. I personally feel that this interface is both intuitive and useful for businesses of all scales. Overall, this lab was fun and easy to play with.

LAB 3: CUSTOMER LOOKUP



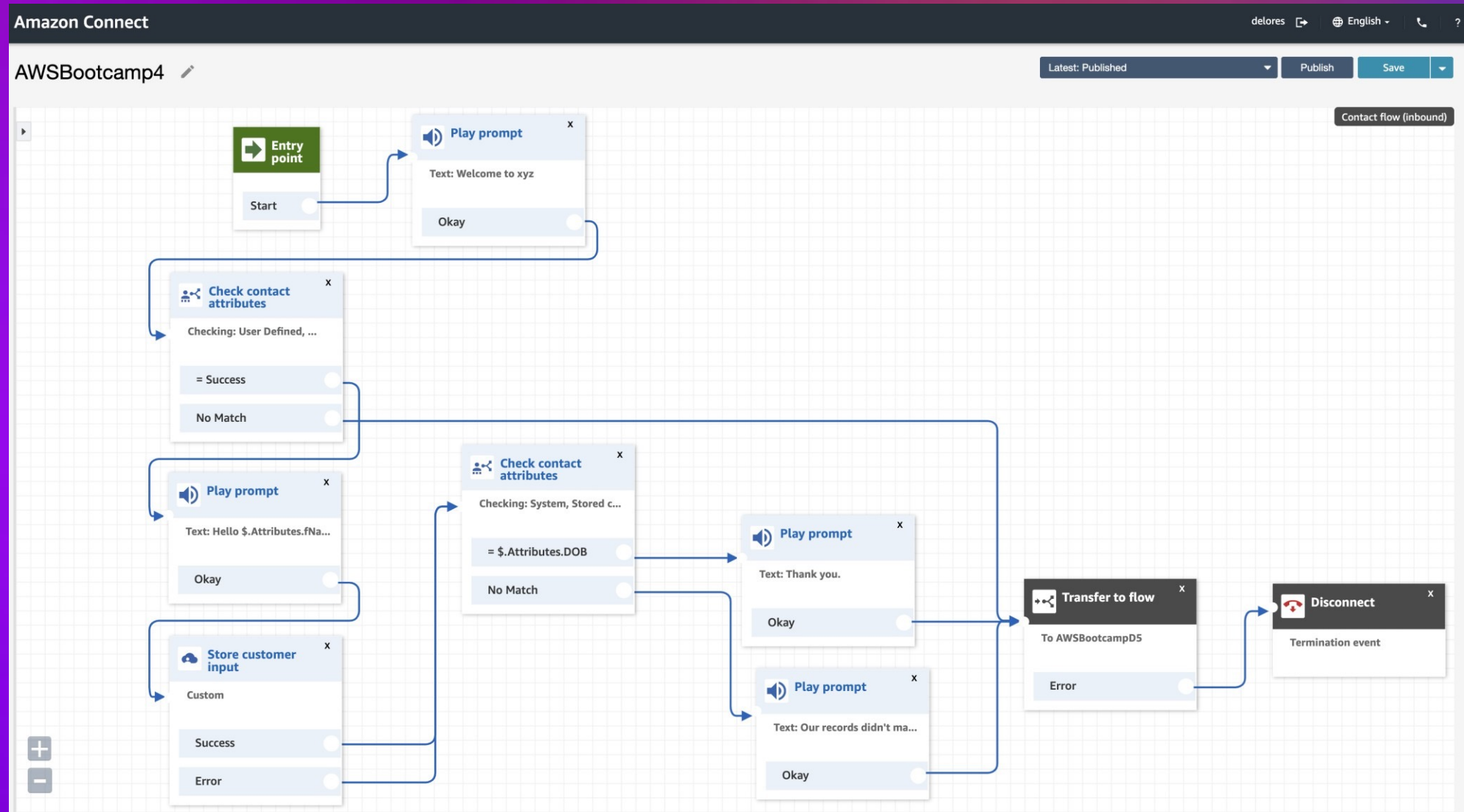
LAB 3: SUMMARY

Learning Points

- ❖ Customer Lookup Contact Flow
- ❖ Creating IAM with policies
- ❖ Creating Lambda function

Notes: Lab 3 builds upon the ideas and knowledge explored with Lab 2. During this lab I was intrigued by the lambda function and its ability to modify and collect customer data to perform a customer lookup contact flow. While simple tasks such as time of day checks can be accomplished with simple nodes, AWS API's such as AWS Lambda and Amazon DynamoDB are used for more complicated tasks such as customer lookup. In a real-world scenario customer details will be maintained in a system of record or CRM, but for this lab I utilized DynamoDB. Javascript was incorporated with the inclusion of the Lambda function.

LAB 4: WELCOME MESSAGE



LAB 4: SUMMARY

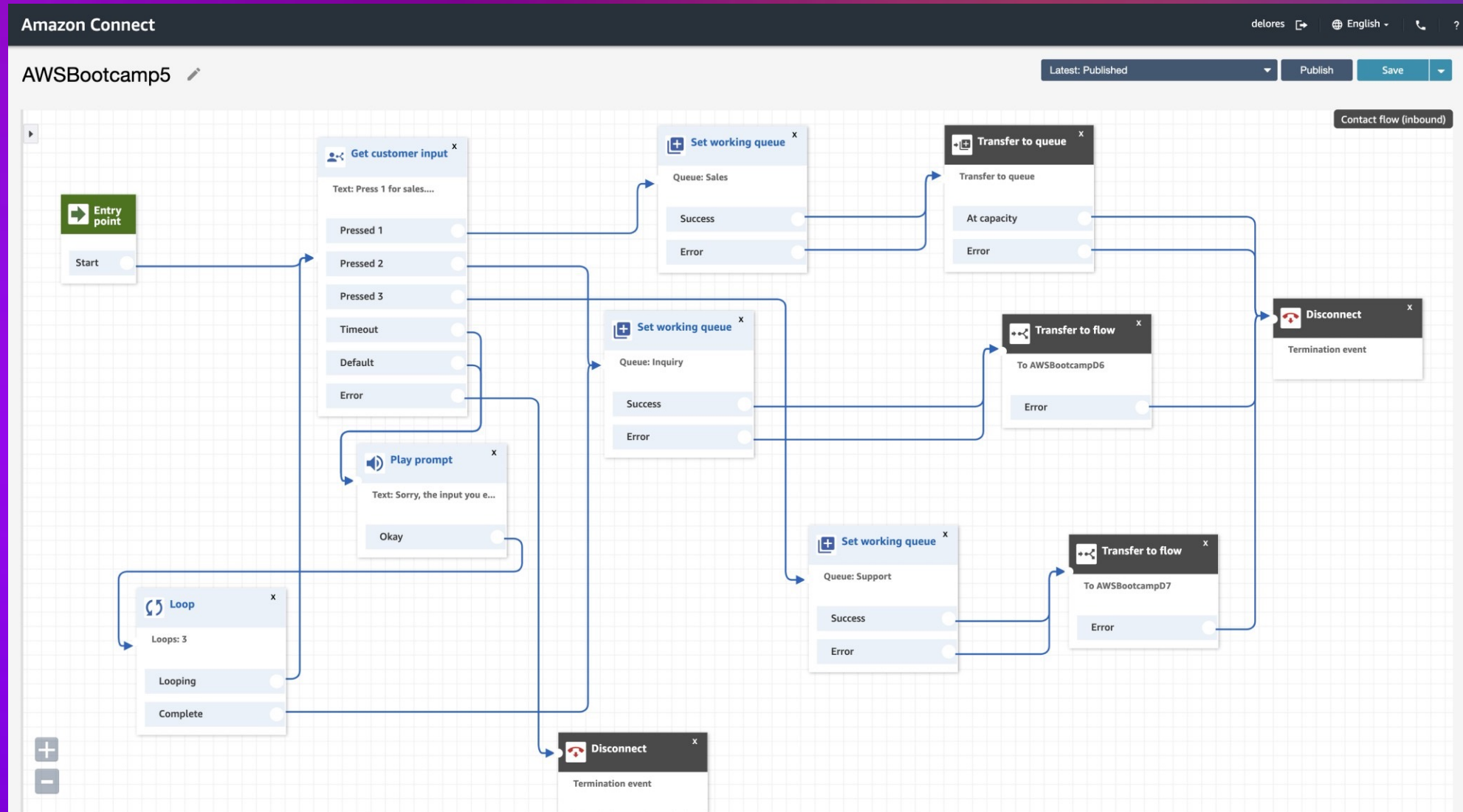
Learning Points

- ❖ Message Contact Flow
- ❖ Customizing prompts
- ❖ Data matching from customer's input with database

Notes: While in the previous lesson we have defined the start and the end of the flow, this lab takes customer input into account. This lab introduces the ways that customer input is stored as data during a call, whether you are paring a bill online or calling a restaurant for takeout.

The point of this lab is to store and further modify customer details. The message prompts may also be modified based on customer input in some cases. In addition, database matching and analysis could be employed to associate the customer input with a pre-established customer profile stored in the database.

LAB 5: MENU



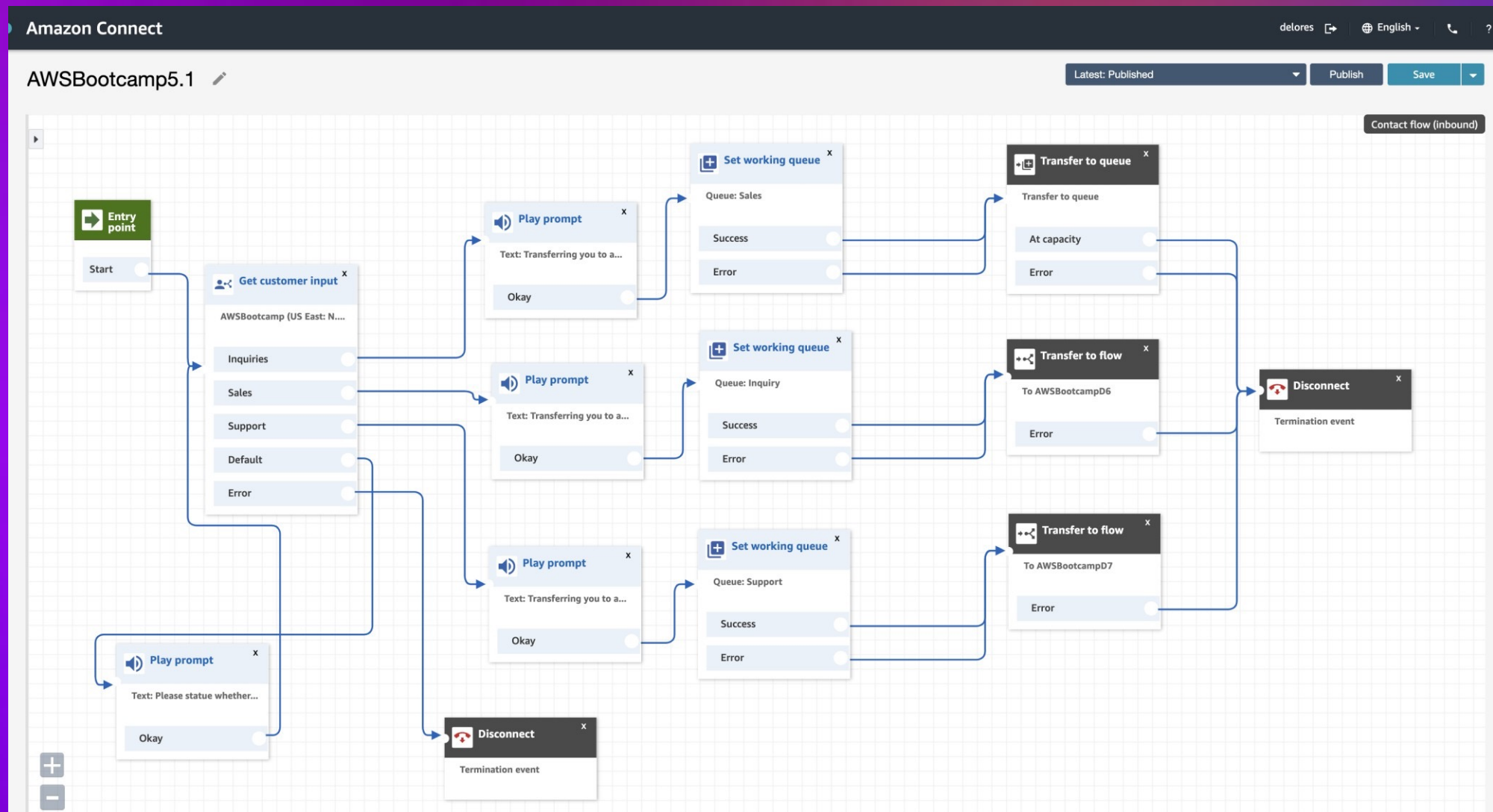
LAB 5: SUMMARY

Learning Points

- ❖ Menu Contact Flow
- ❖ Customizing menu options
- ❖ Setting up queues

Notes: The function of a menu contact flow is to provides customers with multiple service options. The subsequent service option is chosen based on the customer's input. The first step to creating this flow is building a menu, which is an array of options that the customer can choose from. The menu I created allows the customer to choose from a list of options for services that they may require. The options in this menu include sales, inquiries, and customer support. This feature is easily customizable and can be made to fit any company or service. Looping of the menu options can also be incorporated in the event that the customer timed out making the initial selection. Based on the customer's input, they will be transferred into a queue for the selected service until a service agent can attend to them.

LAB 6: LEX



LAB 6: SUMMARY

Learning Point

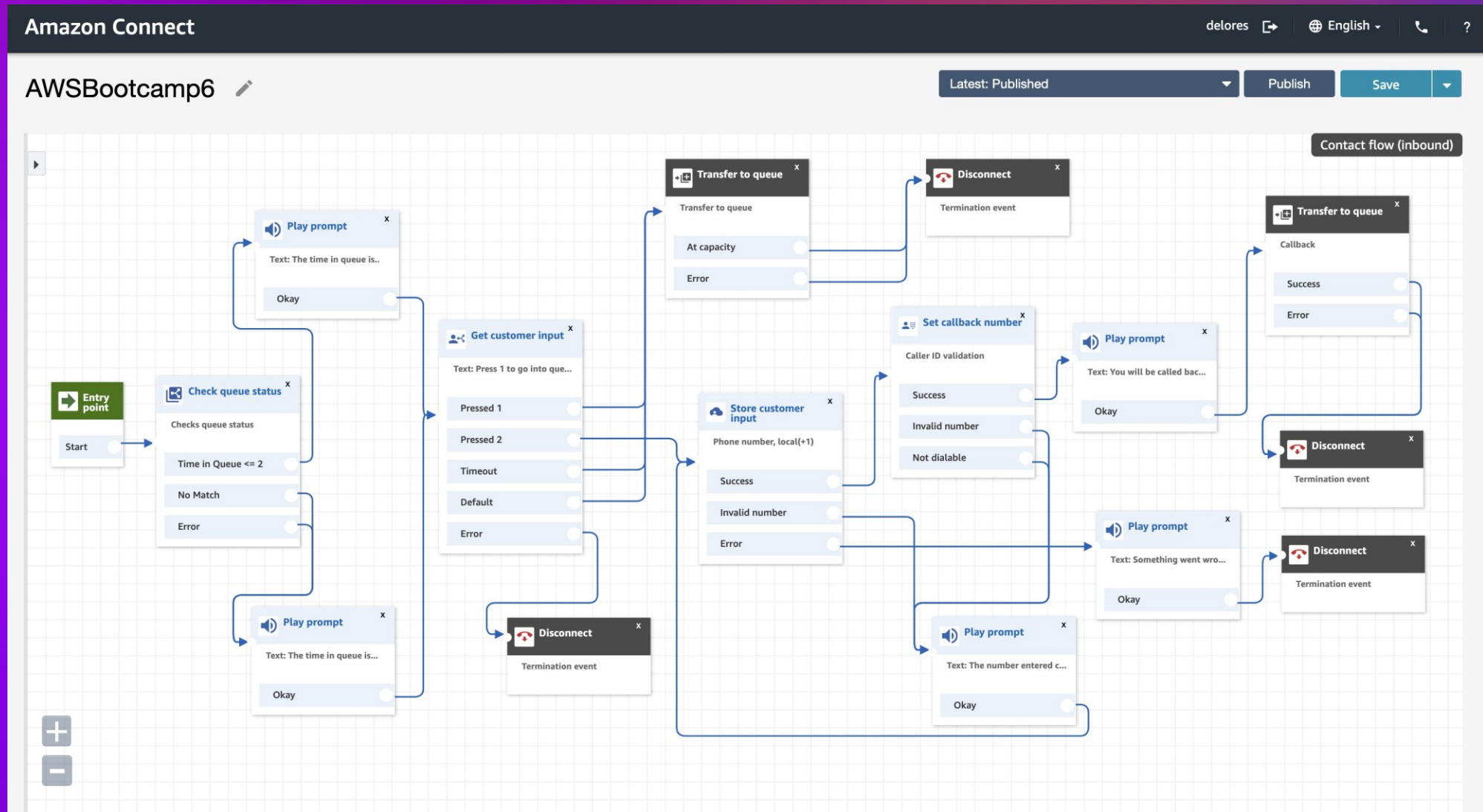
- ❖ Establishing Amazon Lex

Notes: Labs 6, 7 and 8 are all tightly intertwined with one another. After establishing a service menu in lab 5, lab 6 builds upon it and uses Amazon Lex to further automate the process. This shows that there are multiple methods to set up a menu flow.

What is Amazon Lex?

Amazon Lex is a fully managed conversational Artificial Intelligence (AI) that can act as a chatbot. It allows us to easily automate the chatbot process by defining keywords that can be associated with a selected service.

LAB 7: CALLBACK



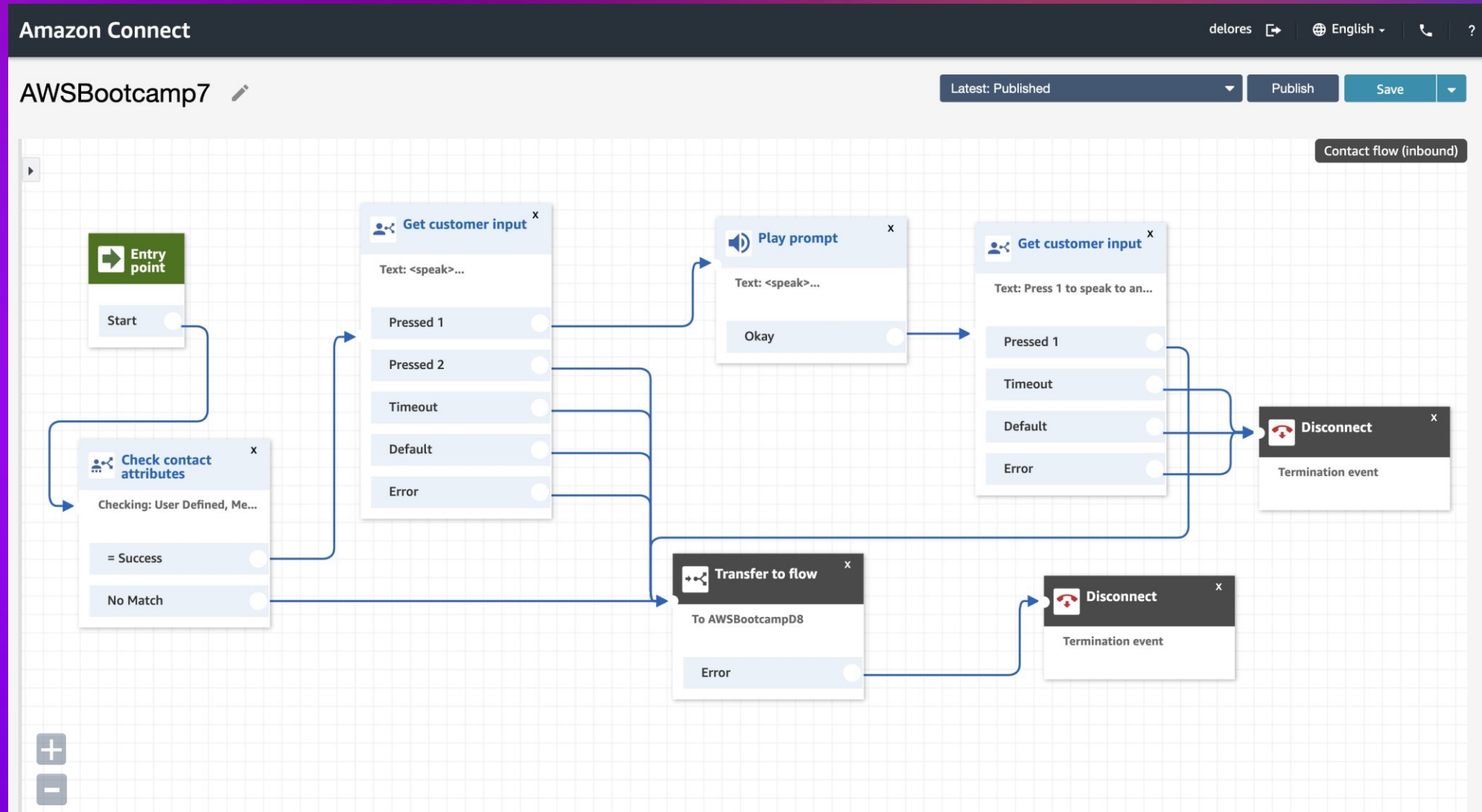
LAB 7: SUMMARY

Learning Point

❖ Callback Contact Flow

Notes: Lab 7 focuses on establishing a callback contact flow. For instance, if a queue is taking too long, the customer can either opt for a callback when the call traffic is low or continue waiting in the queue. If the customer has chosen a callback, they will be asked to type in a valid phone number. Upon validation of the number, they will be transferred into a callback queue.

LAB 8: CASE PLAYBACK



LAB 8: SUMMARY

Learning Point

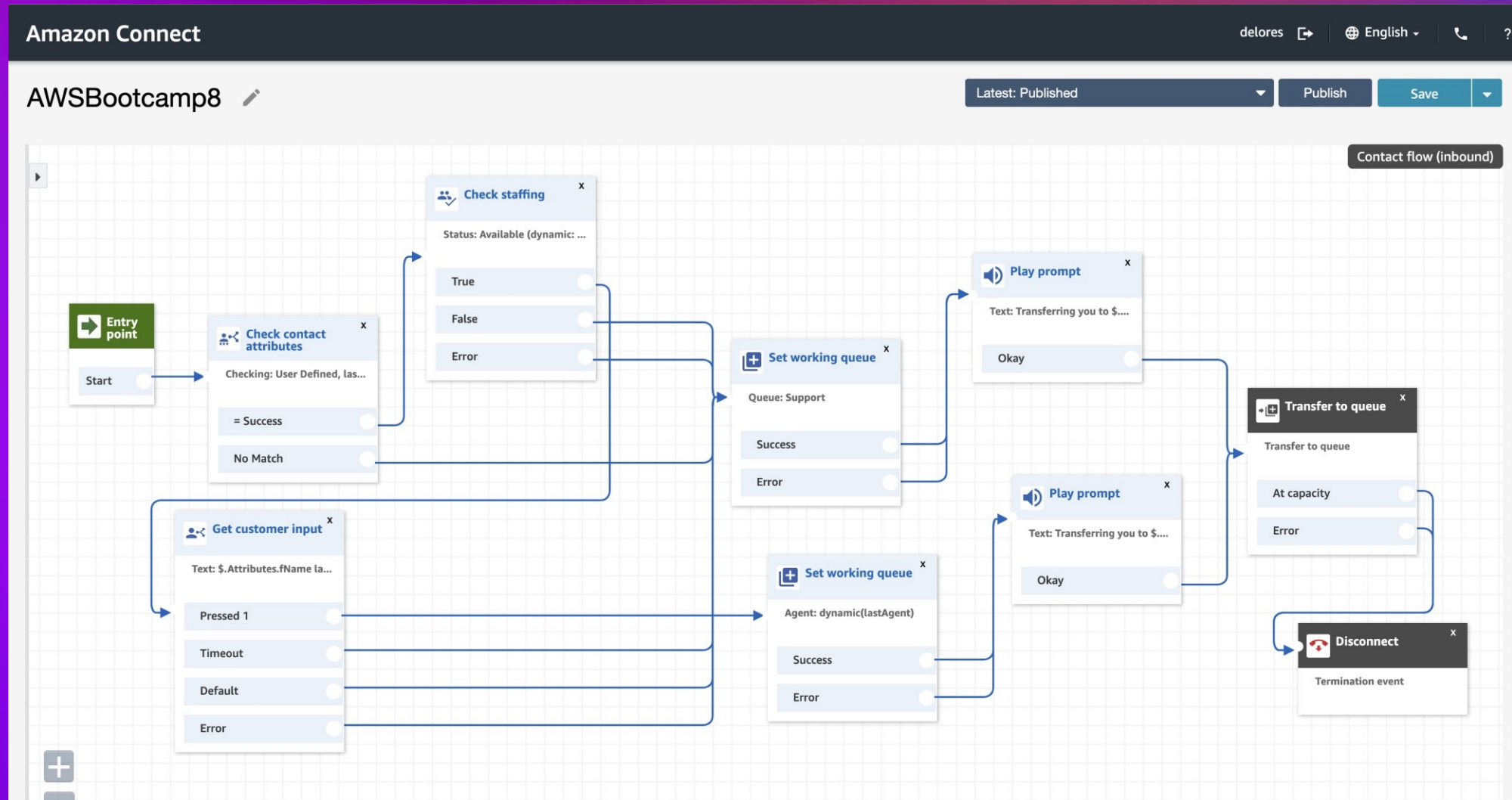
- ❖ Case Playback Contact Flow

Notes: Lab 8 involved setting up a case playback contact flow.

What is a case playback flow?

Case playback means that upon the customer's input of the case ID they can track the progress of their case, for example a return or refund request. Alternatively, they can request to speak to a service agent to create a new case.

LAB 9: LAST AGENT ROUTING



LAB 9: SUMMARY

Learning Point

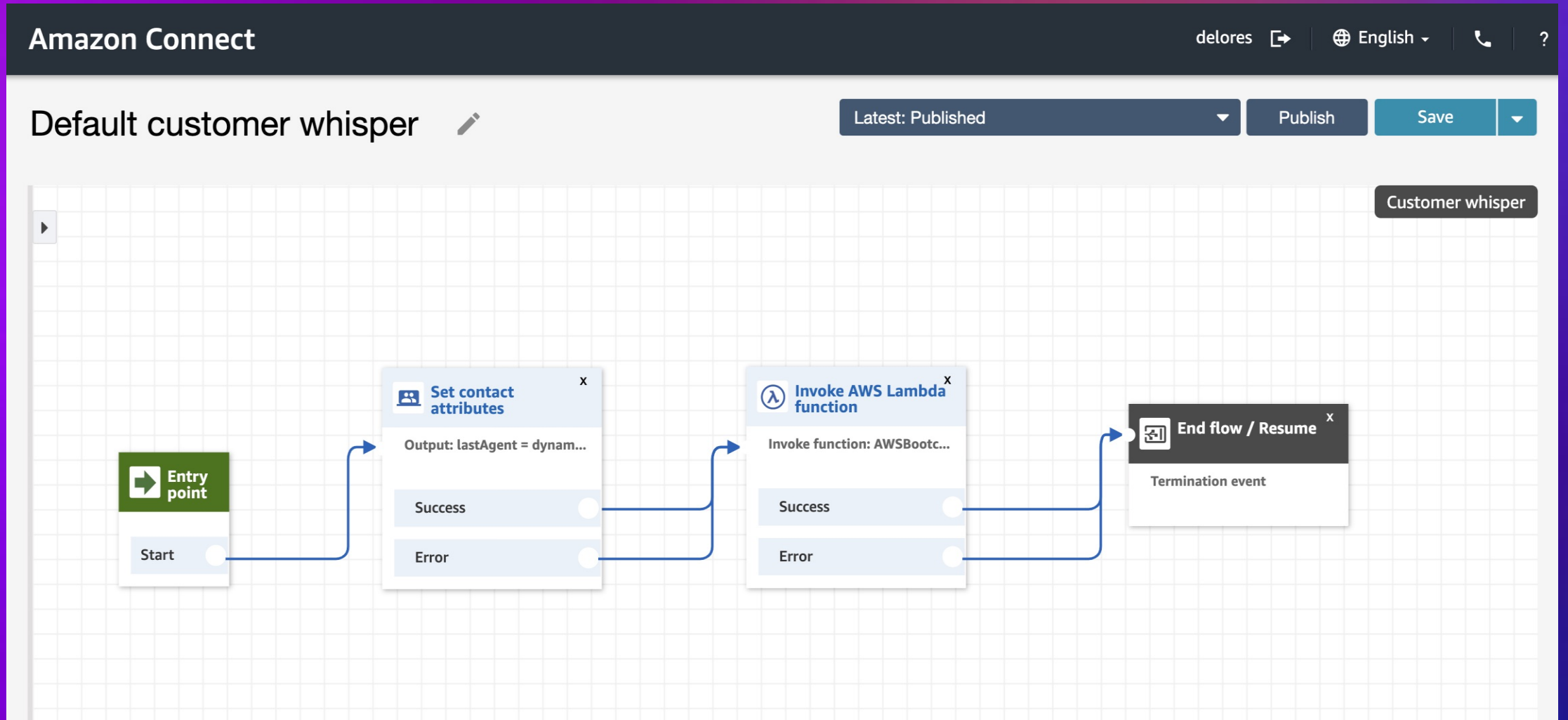
❖ Last Agent Routing Contact Flow

Notes: Labs 9 and 10 brought the bootcamp to a close seamlessly. We learned how to connect to a service agent through case playback in Lab 8. Then, we go a step further in Lab 9 to create a last agent routing contact flow.

What is a last agent routing contact flow?

When using a last agent routing contact flow, the customer can speak with the last service agent attending to them. This is not a commonly offered service, but in my opinion it should be offered by every customer service hotline. Since certain cases can be complicated, it would be much easier if the same customer service agent was assigned to the same case to avoid confusion and minimize miscommunication.

DEFAULT CUSTOMER WHISPER



LAB 10: APIs / LAMBDA FUNCTIONS

The screenshot displays the AWS Management Console interface, split into two main sections: Lambda Functions and DynamoDB Tables.

Top Section: Lambda Functions

The header shows "Functions (5)" with a refresh button and a "Create function" button. Below the header is a search bar and a table of functions.

<input type="checkbox"/>	Function name	Description	Package type	Runtime	Code size	Last modified
<input type="checkbox"/>	AWSBootcampLastAgentUpdate	-	Zip	Python 3.8	1.2 kB	1 day ago
<input type="checkbox"/>	AWSBootcamp	-	Zip	Python 3.8	299.0 byte	4 days ago
<input type="checkbox"/>	AWSBootcampLastOutboundAPI	-	Zip	Python 3.8	1.0 kB	9 minutes ago
<input type="checkbox"/>	AWSBootcampUpdateContactAttributes	-	Zip	Python 3.8	356.0 byte	9 minutes ago
<input type="checkbox"/>	AWSBootcampListUser	-	Zip	Python 3.8	875.0 byte	9 minutes ago

Bottom Section: DynamoDB Tables

The header shows "Tables (1)" with a refresh button, an "Actions" dropdown, a "Delete" button, and a "Create table" button. Below the header is a search bar and a table of tables.

<input type="checkbox"/>	Name	Status	Partition key	Sort key	Indexes	Read capacity mode
<input type="checkbox"/>	AWSBootCamp	Active	phoneNumber(String) (String)	-	0	Provisioned with auto scaling (1)

LAB 10: SUMMARY

Learning Points

- ❖ Setting up APIs
- ❖ Contact Flow verification

Notes: Lab 10 develops our contact flow to be deployable and market-ready.

By introducing Amazon Connect APIs, lab 10 allows us to properly allocate and process knowledge gained from our custom flow across different software platforms. Through the APIs, information is not only able to flow seamlessly across the platforms but all customer input and details are also properly stored.