Agenda: Create lambda function used for Lex bot validation and fulfilment

We need to do following:
1. Create a lambda function that can fulfil Lex responses
2. Create Lex chat bot

Reference docs:
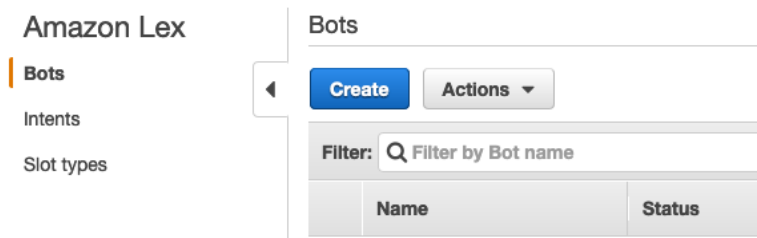You can open these docs for further information
Create an Amazon Lex Bot (Console) - https://docs.aws.amazon.com/lex/latest/dg/gs-bp-create-bot.html
Create a Lambda Function (Console) - https://docs.aws.amazon.com/lex/latest/dg/gs-bp-create-lambda-function.html

Steps:

Navigate to Lex

1. Create a new chatbot

2. Enter the bot name HR_Portal
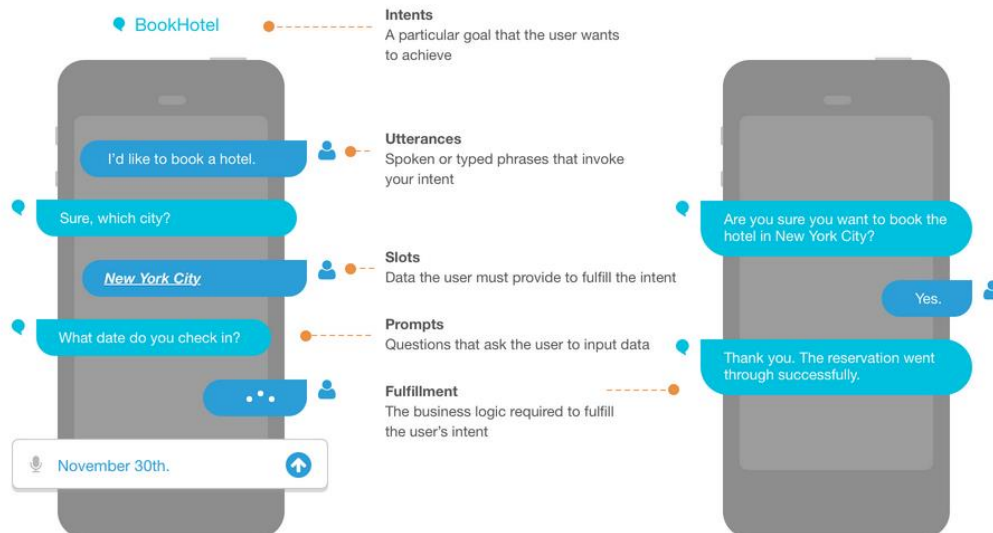
3. Create intent

Create intent   ✕

    Give a unique name for the new intent

    DoSomething

                                        Previous   Add

4. Create
    1. Utterances
    2. Slots
    3. Fulfillment Lambda

DoSomething Latest ▾

▾ Sample utterances ❶

    e.g. I would like to book a flight.   ⊕

    hey its {Name}   ✕

    hey   ✕

▸ Lambda initialization and validation ❶

▾ Slots ❶

Priority	Required	Name	Slot type	Version	Prompt	Settings
		e.g. Location	e.g. AMAZON.US_... ▾		e.g. What city?	⊕
1.	☑	Name	AMAZON.US_FIRS... ▾	Built-in ▾	who is this?	⚙ ✕

▸ Confirmation prompt ❶

▾ Fulfillment ❶

    ● AWS Lambda function   ○ Return parameters to client

    Lambda function   hr_portal-hook   ▾
                       View in Lambda console ⧉

    Version or alias   Latest   ▾

4. Create a new lambda function with 2.7 python as Runtime language and Create new role

Basic information

Function name
Enter a name that describes the purpose of your function.

`hr_portal_hook`

Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime Info
Choose the language to use to write your function.

`Node.js 10.x`   ▼

Permissions Info
Lambda will create an execution role with permission to upload logs to Amazon CloudWatch Logs. You can configure and modify permissions further when you add triggers.

▼ Choose or create an execution role

Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the **IAM console**.
○ Create a new role with basic Lambda permissions
○ Use an existing role
● Create a new role from AWS policy templates

ⓘ Role creation might take a few minutes. The new role will be scoped to the current function. To use it with other functions, you can modify it in the IAM console.
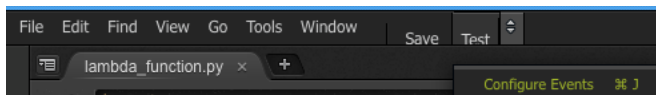
Role name
Enter a name for your new role.

`hr_portal_hook_role`

Use only letters, numbers, hyphens, or underscores with no spaces.

Policy templates - *optional* Info
Choose one or more policy templates.

                                                                                ▼

Cancel   **Create function**

5. Copy code from Lab1.py in Lambda editor

6. Configure sample test event to test the code


```
{
  "messageVersion": "1.0",
  "invocationSource": "DialogCodeHook",
  "userId": "test_user",
  "sessionAttributes": {},
  "bot": {
    "name": "HR_Bot",
    "alias": "$LATEST",
    "version": "$LATEST"
  },
  "outputDialogMode": "Text",
  "currentIntent": {
    "name": "DoSomething",
    "slots": {
      "Name": "Srinivas"
    },
    "confirmationStatus": "None"
  }
}
```

Configure test event   ✕

A function can have up to 10 test events. The events are persisted so you can switch to another computer or web browser and test your function with the same events.

○ Create new test event
● Edit saved test events

Saved test event

| DoSomething | ▼ | ↻ |

```
 1 ▾ {
 2      "messageVersion": "1.0",
 3      "invocationSource": "DialogCodeHook",
 4      "userId": "test_user",
 5      "sessionAttributes": {},
 6 ▾    "bot": {
 7        "name": "HR_Bot",
 8        "alias": "$LATEST",
 9        "version": "$LATEST"
10      },
11      "outputDialogMode": "Text",
12 ▾    "currentIntent": {
13        "name": "DoSomething",
14 ▾      "slots": {
15          "Name": "sam"
16        },
17        "confirmationStatus": "None"
18      }
19 }
```

Delete   Cancel   **Save**

Add more prompts and corresponding utterances to the slot, remember to BUILD again

Name settings   ✕

Prompts

e.g. What is your destination?	⊕
whats you name?	✕
who is this?	✕

Maximum number of retries

| 2 |

Corresponding utterances

| e.g. I would like to go to {toCity} | ⊕ |
| my name is {Name} | ✕ |

Cancel   Save

Test your bot and ask me questions☺

Ref: https://docs.aws.amazon.com/lex/latest/dg/lambda-input-response-format.html