

# Slots

## Slots and Slot Types

# What is a slot?



- Variable
- Parameter
- Wildcard



Conversational  
model

**alexa,**

wake word

**open**

launch

**piano facts**

skill (invocation) name

**describe a chord in the key of G**

Slot

Slot

Utterance

**how fast is allegro tempo**

Slot

Utterance

# Skill Language Model (VUI)



Intent Schema

Slot(s)

Sample Utterances

Lambda Code

# Intent Schema



```
{
  "intents": [
    {
      "intent": "ISeeIntent",
      "slots": [
        {
          "name": "Color",
          "type": "LIST_OF_COLORS"
        },
        {
          "name": "Animal",
          "type": "LIST_OF_ANIMALS"
        }
      ]
    }
  ],
}
```

# Custom Slot Values



**LIST\_OF\_ANIMALS**

bear

bird

duck

horse

frog

cat

dog

sheep

fish

# Sample Utterances



☐ ISeeIntent I see a {Color} {Animal}

☐ ISeeIntent My {Animal} is {Color}

# I see a red bird



## Lambda Request

```
14     type : IntentRequest ,
15     "requestId": "EdwRequestId.26a1e4e8-1b02-4
16     "locale": "en-US",
17     "timestamp": "2016-12-07T06:04:26Z",
18     "intent": {
19       "name": "ISeeIntent",
20       "slots": {
21         "Animal": {
22           "name": "Animal",
23           "value": "bird"
24         },
25         "Color": {
26           "name": "Color",
27           "value": "red"
28         }
29       }
30     }
```



# Custom Slot Types



AMAZON.NUMBER

AMAZON.US\_CITY

AMAZON.US\_STATE

AMAZON.US\_FIRST\_NAME

AMAZON.DATE

AMAZON.DURATION

AMAZON.TIME

# Built in Slot Types



## Intent Schema

The schema of user intents in JSON format. For more information, see [Intent Schema](#).

Also see [built-in slots](#) and [built-in intents](#).

```
1
2 {
3   "intents": [
4     {
5       "intent": "StateRequestIntent",
6       "slots": [
7         {
8           "name": "usstate",
9           "type": "AMAZON.US_STATE"
10        }
11      ]
12    },
```

## Custom Slot Types (Optional)

Custom slot types to be referenced by the Intent Schema and Sample Utterances

For general information about custom slots, see [Custom Slot Types](#).

Example: TOPPINGS - cheese | onions | ham (note: newlines displayed as | for brevity)

Add Slot Type

# Single word slot



ISeeIntent {Animal}

ISeeIntent I have a {Animal}

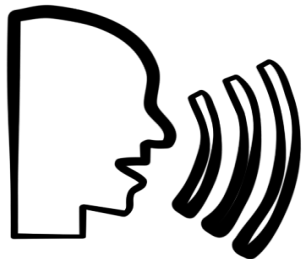
ISeeIntent I have an {Animal}

# LITERAL!?



ISeeIntent I have a {Animal}  
ISeeIntent I have an {Animal}

“I have a red hot **chili** pepper!”



Animal

= red hot **chilly** pepper



# How do I receive my slot?



```
if(event.request.intent.slots.Color.value) {  
    myColor = event.request.intent.slots.Color.value;  
    say = "you said " + myColor;  
}  
else {  
    say = "you must provide a color";  
}  
}
```

# LAB



# Add some slots to your skill



- Add to Intent Schema
- Add any Custom Slot Values
- Add to Sample Utterances

# Intent Schema



```
{ "intent": "StateRequestIntent",  
  "slots":  
  [  
    { "name" : "usstate",  
      "type" : "AMAZON.US_STATE"  
    }  
  ],  
},
```



# Sample Utterances



StateRequestIntent I live in {usstate}

StateRequestIntent I went to {usstate}