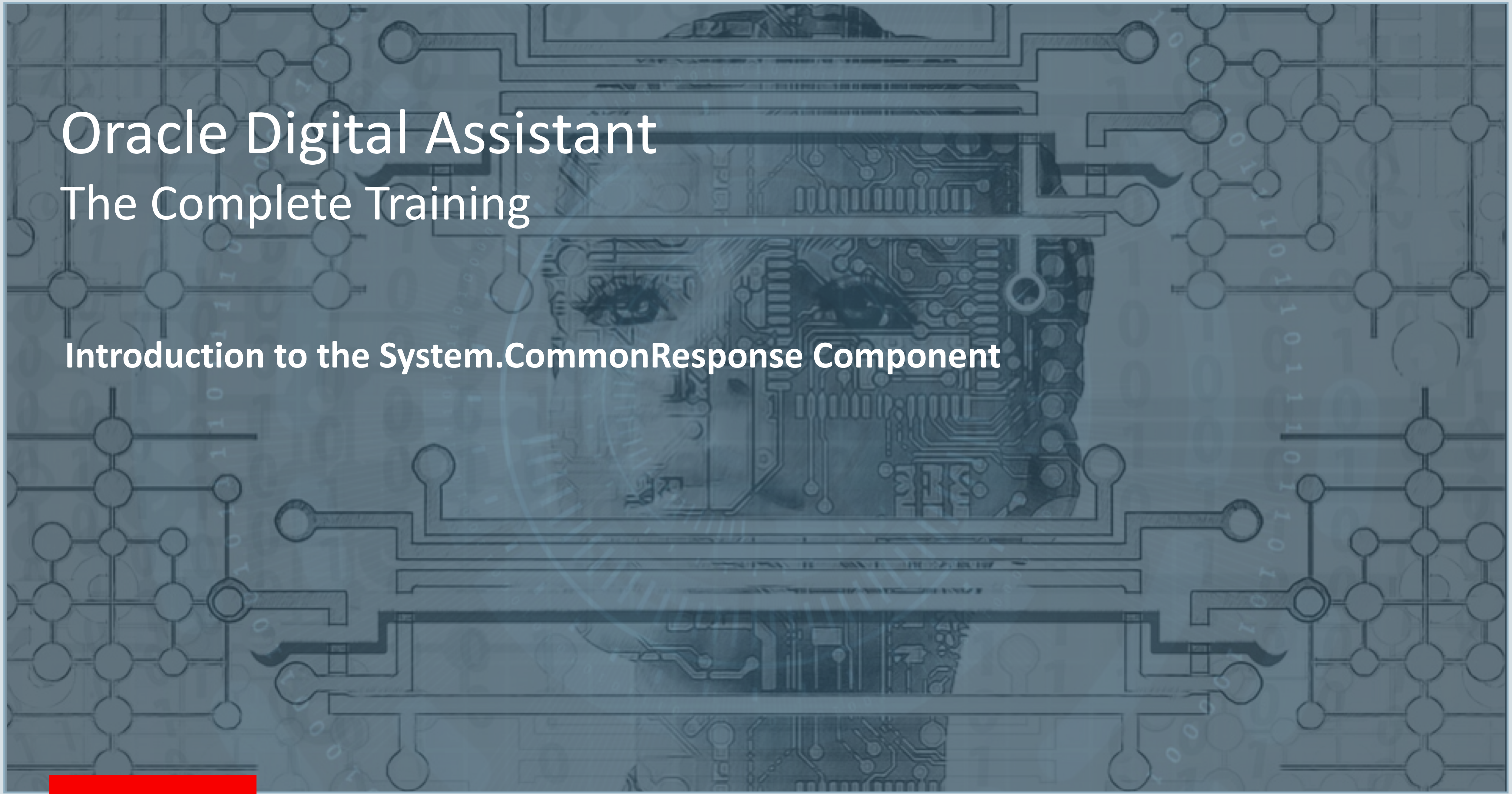


Oracle Digital Assistant

The Complete Training

Introduction to the System.CommonResponse Component

Image courtesy of pixabay.com

Safe Harbor Statement

Topic agenda

1. Building good conversational UI
2. Building an input text component
3. Displaying value and action lists
4. Creating a card layout
5. Displaying attachments
6. Choosing a location
7. Local & global actions
8. Composite responses

Topic agenda

There is **no excuse for bad** user interface **design** when building chatbots.

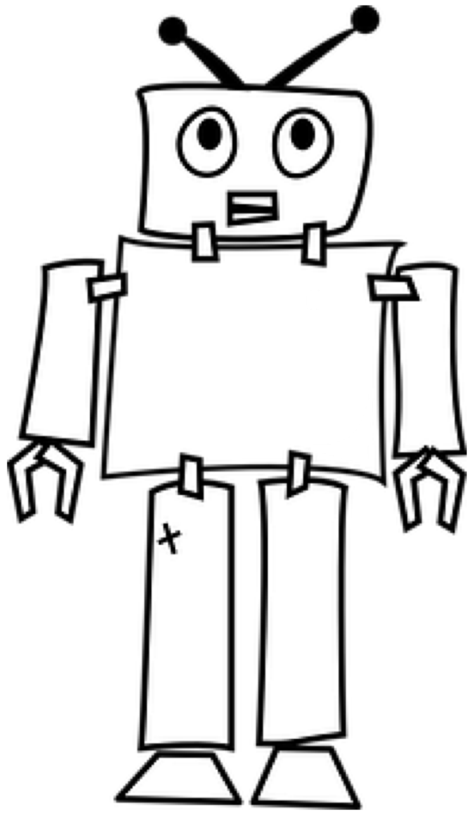
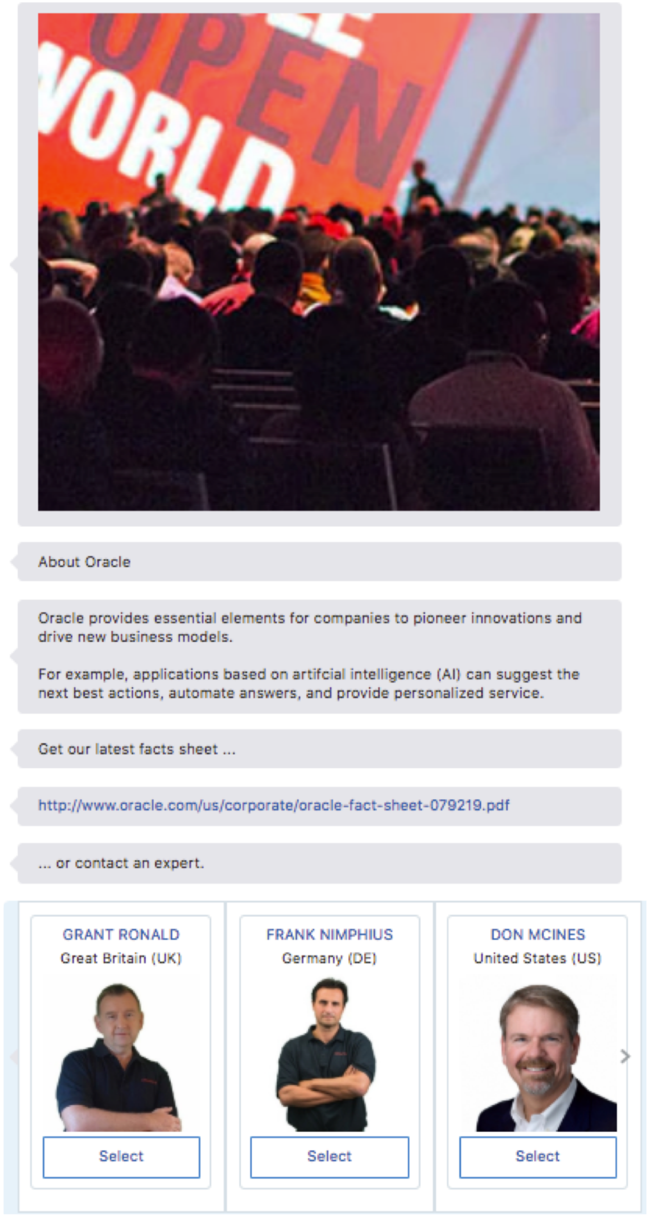


Image courtesy of pixabay.com

Building compelling chatbot user interfaces

- Guide and assist users in making a choice or providing input
- Display a UI that is pleasing to the eye
  - Lists, Card Layouts, Images, Buttons or a combination of them
- Optimize bot responses for the messaging channel that is used



About Oracle

Oracle provides essential elements for companies to pioneer innovations and drive new business models.

For example, applications based on artifcial intelligence (AI) can suggest the next best actions, automate answers, and provide personalized service.

Get our latest facts sheet ...

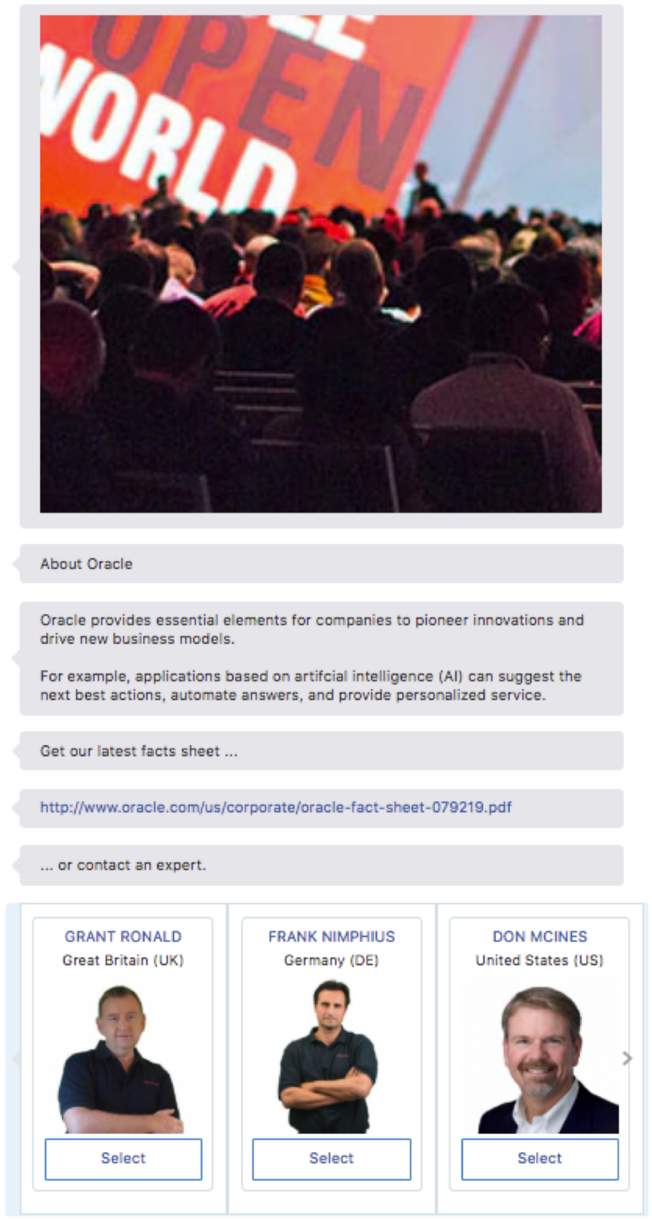
http://www.oracle.com/us/corporate/oracle-fact-sheet-079219.pdf

... or contact an expert.

GRANT RONALD Great Britain (UK)	FRANK NIMPHIUS Germany (DE)	DON MCINES United States (US)
Select	Select	Select

Common response component

- The 'Clark Kent' among the system components
  - Can build simple and complex bot UI
  - Support for composite bag entities and iterators
  - Renders text, list, cards, location and attachment UI
- Aligns with Conversational Message Model (CMM)
- For many use cases, avoids the need for custom components



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Get our latest facts sheet ...

http://www.oracle.com/us/corporate/oracle-fact-sheet-079219.pdf

... or contact an expert.

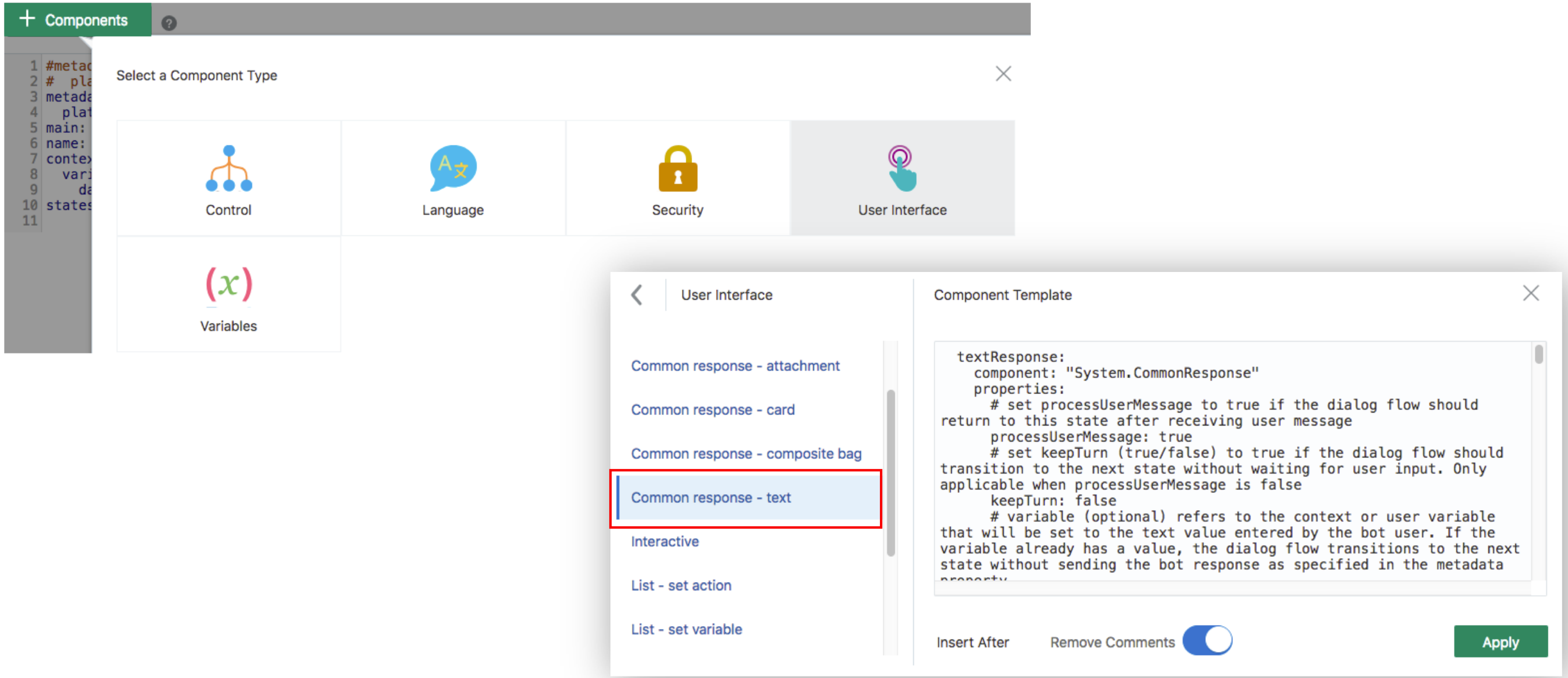
GRANT RONALD
Great Britain (UK)
Select

FRANK NIMPHIUS
Germany (DE)
Select

DON MCINES
United States (US)
Select

Topic agenda

Creating a text response using the component templates



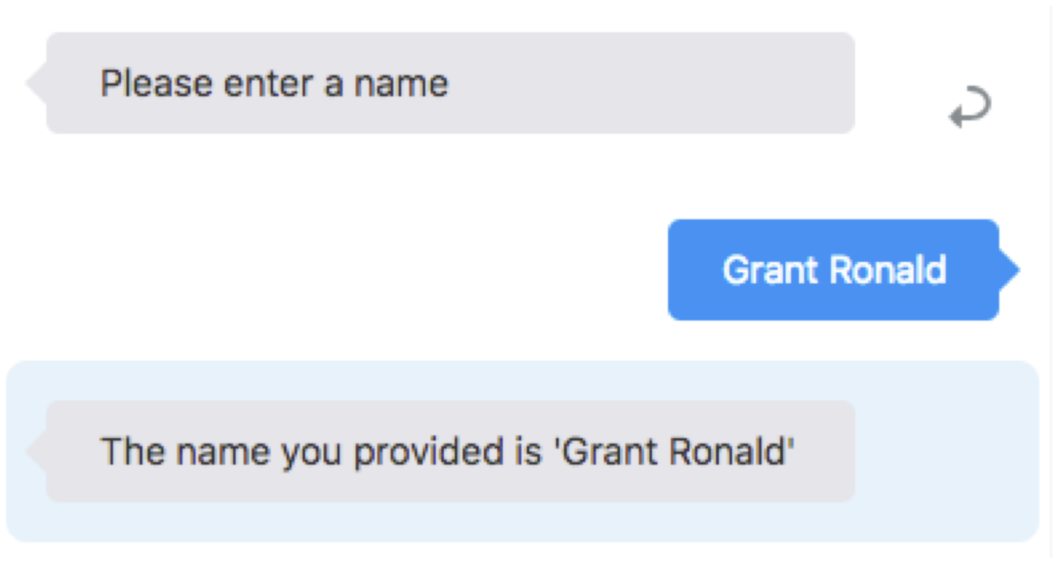
```
#metad
#  pla
metada
   plat
main:
name:
contex
   vari
      da
states
```

```
  textResponse:
    component: "System.CommonResponse"
    properties:
      # set processUserMessage to true if the dialog flow should
return to this state after receiving user message
      processUserMessage: true
      # set keepTurn (true/false) to true if the dialog flow should
transition to the next state without waiting for user input. Only
applicable when processUserMessage is false
      keepTurn: false
      # variable (optional) refers to the context or user variable
that will be set to the text value entered by the bot user. If the
variable already has a value, the dialog flow transitions to the next
state without sending the bot response as specified in the metadata
```

Displaying text input prompts

```
getName:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    keepTurn: false
    variable: "person"
    nlpResultVariable:
    metadata:
      responseItems:
      - type: "text"
        text: "Please enter a name"
  transitions:
    next: "printName"


printName:
  component: "System.Output"
  properties:
    text: "The name you provided is '${person.value}'"
    keepTurn: false
  transitions:
    return: "done"
```


Please enter a name

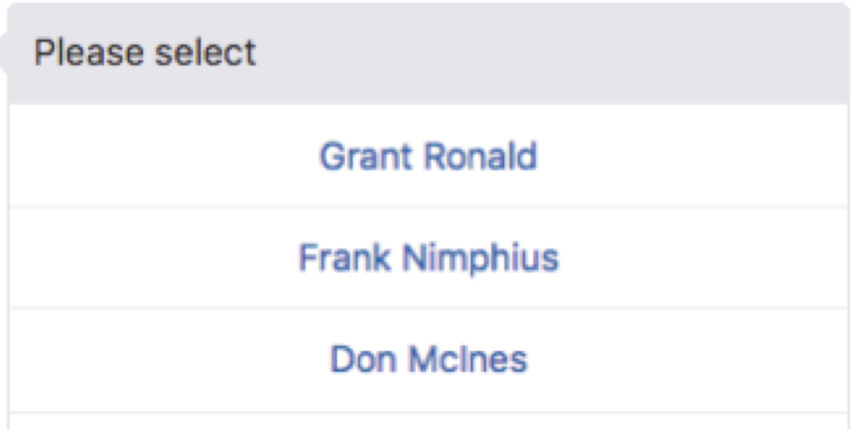
Grant Ronald

The name you provided is 'Grant Ronald'

Topic agenda

About list-of-values

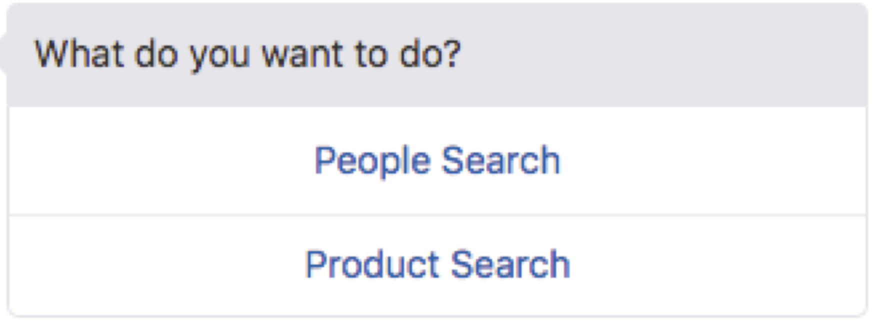
- Value list
  - Displays a single-select list of values
  - Updates one or many context variables
- Action lists
  - Displays a list of actions
    - Commonly used to build select menus
  - Selecting a list item triggers a transition action
    - Action strings can be freely chosen
- Hybrid list
  - Combines value and action lists


Please select

Grant Ronald

Frank Nimphius

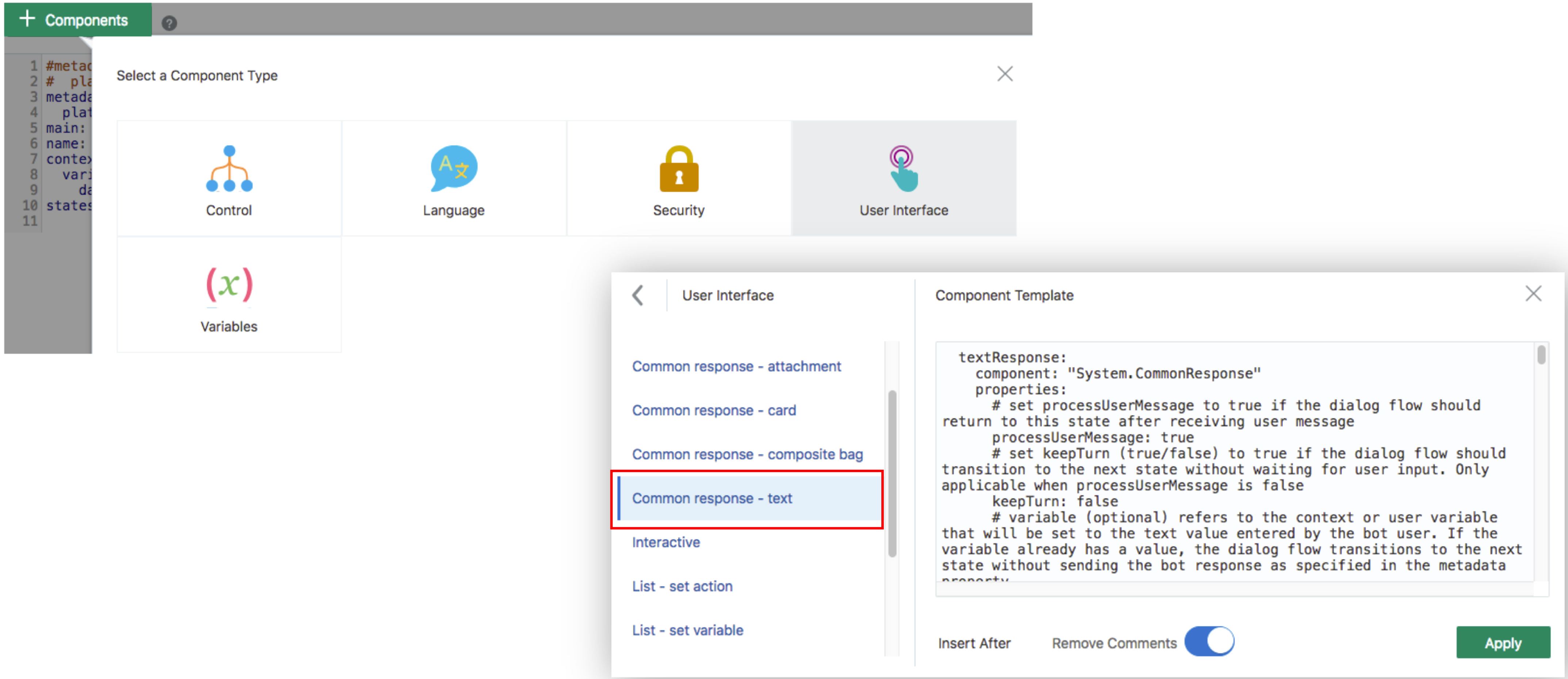
Don McInes


What do you want to do?

People Search

Product Search

Building list-of-values

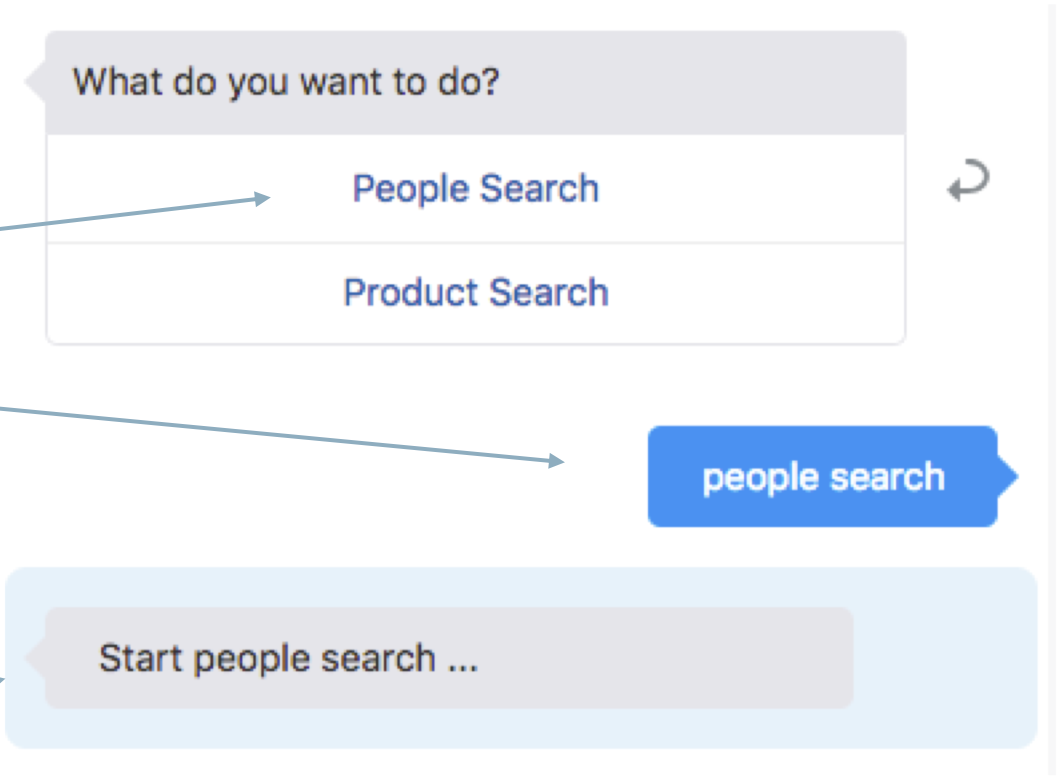


```
#metad
#   pla
metada
  plat
main:
name:
contex
  vari
    da
states
```

```
  textResponse:
    component: "System.CommonResponse"
    properties:
      # set processUserMessage to true if the dialog flow should
return to this state after receiving user message
      processUserMessage: true
      # set keepTurn (true/false) to true if the dialog flow should
transition to the next state without waiting for user input. Only
applicable when processUserMessage is false
      keepTurn: false
      # variable (optional) refers to the context or user variable
that will be set to the text value entered by the bot user. If the
variable already has a value, the dialog flow transitions to the next
state without sending the bot response as specified in the metadata
```

Action lists

```
displayMenu:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    keepTurn: false
    metadata:
      responseItems:
      - type: "text"
        text: "What do you want to do?"
        actions:
        - label: "People Search"
          type: "postback"
          keyword: "people, people search"
          payload:
            action: "peopleSearch"
        - label: "Product Search"
          type: "postback"
          keyword: "product, product search"
          payload:
            action: "productSearch"
  transitions:
    actions:
      peopleSearch: "searchPeople"
      productSearch: "searchProduct"
```

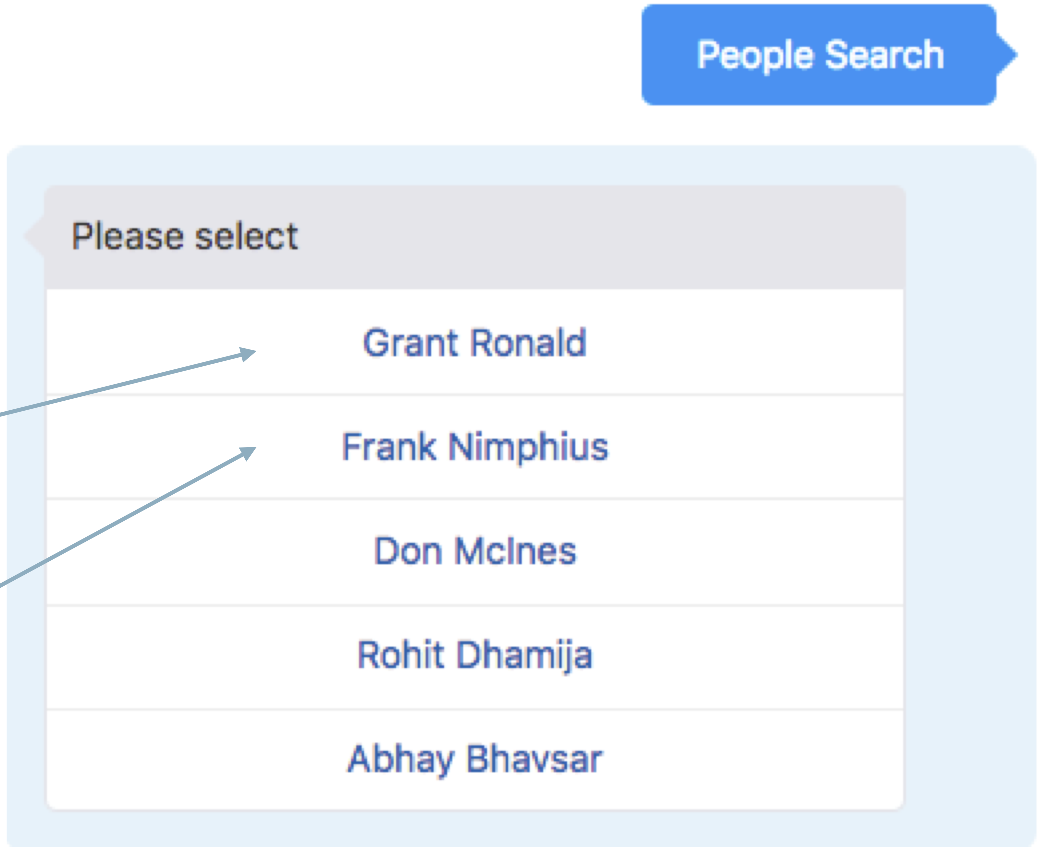


What do you want to do?

Start people search ...

Static list-of-values

```
searchPeople:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    keepTurn: false
    variable:
    nlpResultVariable:
    metadata:
      responseItems:
      - type: "text"
        text: "Please select"
        actions:
        - label: "Grant Ronald"
          type: "postback"
          keyword: "Grant, Grant Ronald"
          payload:
            variables:
              person: "Grant Ronald"
              location: "Great Britain (UK)"
        - label: "Frank Nimphius"
          type: "postback"
          keyword: "Frank, Frank Nimphius"
```


People Search

Please select

Grant Ronald

Frank Nimphius

Don McInes

Rohit Dhamija

Abhay Bhavsar

Use the component **variable** and **nlpResultVariable** properties **to implement entity slotting and entity validation**

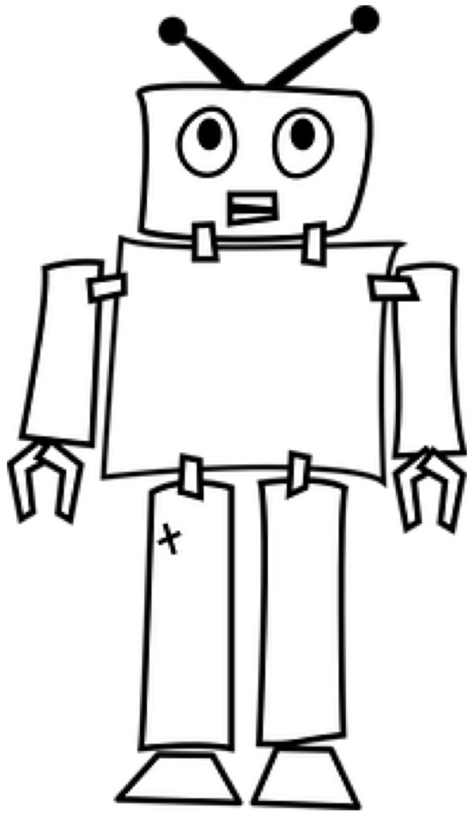


Image courtesy of pixabay.com

About data arrays

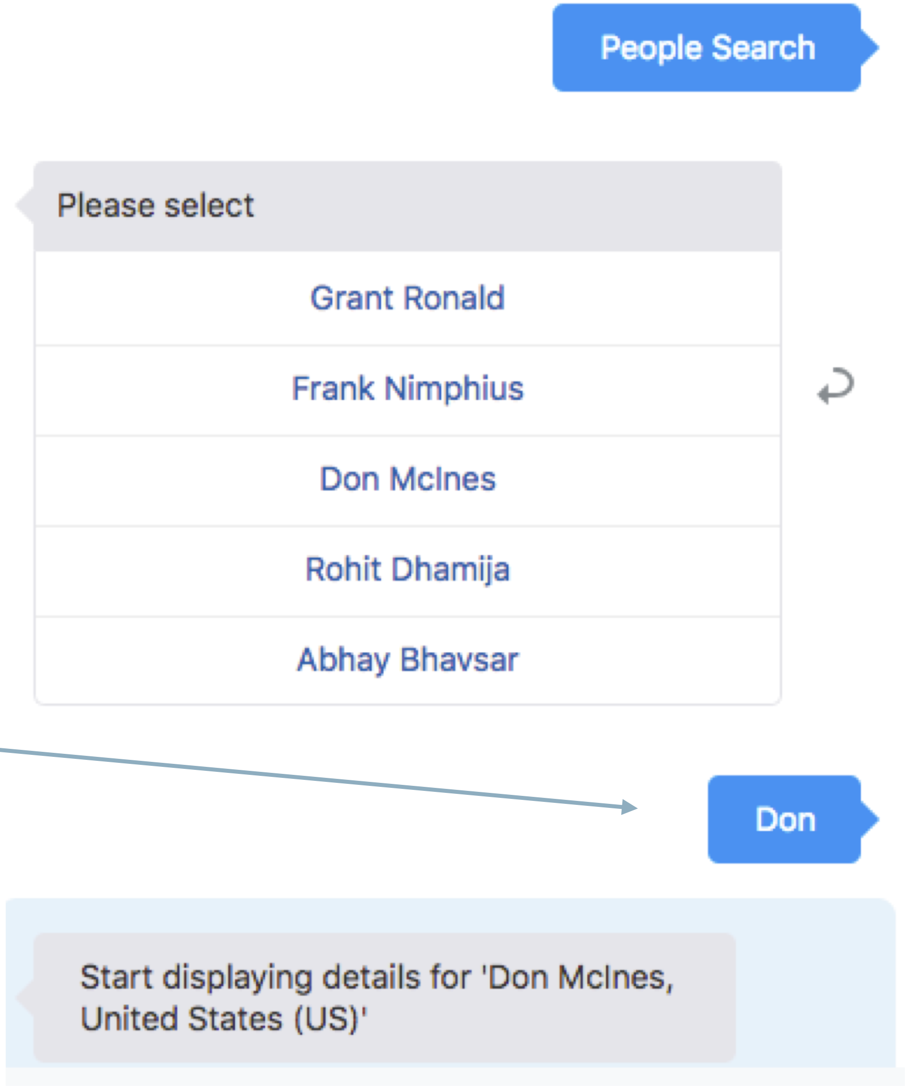
- Oracle Digital Assistant does not provide a map or array type for context variables
- Arrays are defined in context variables of type "string"
  - Created using Apache FreeMarker expressions in System.SetVariable
  - Created using custom components that write to the variable

```
variables:
  personArray: "string"


setPeople:
  component: "System.SetVariable"
  properties:
    variable: "personArray"
    value:
    - name: "Grant Ronald"
      location: "Great Britain (UK)"
      image: "https://people.oracle.com/apex/oracle/images/scaled/grant.ronald@oracle.com"
      mail: "grant.ronald@oracle.com"
    - name: "Frank Nimphius"
      location: "Germany (DE)"
      image: "https://people.oracle.com/apex/oracle/images/scaled/frank.nimphius@oracle.com"
      mail: "frank.nimphius@oracle.com"
    - name: "Don McInes"
      location: "United States (US)"
      image: "https://people.oracle.com/apex/oracle/images/scaled/don.mcinnes@oracle.com"
      mail: "don.mcinnes@oracle.com"
    - name: "Rohit Dhamija"
      location: "India (IN)"
      image: "https://people.oracle.com/apex/oracle/images/scaled/rohit.dhamija@oracle.com"
      mail: "rohit.dhamija@oracle.com"
    - name: "Abhay Bhavsar"
      location: "India (IN)"
      image: "https://people.oracle.com/apex/oracle/images/scaled/abhay.bhavsar@oracle.com"
      mail: "abhay.bhavsar@oracle.com"
  transitions:
    next: "displayMenu"
```

Dynamic list-of-values

```
searchPeople:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    keepTurn: false
    variable:
    nlpResultVariable:
    metadata:
      responseItems:
      - type: "text"
        text: "Please select"
        actions:
        - label: "${personArray.name}"
          type: "postback"
          keyword: "${personArray.name?replace(' ',',')}"
          payload:
            variables:
              person: "${personArray.name}"
              location: "${personArray.location}"
          iteratorVariable: "personArray"
  transitions:
    next: "printPersonDetails"
```

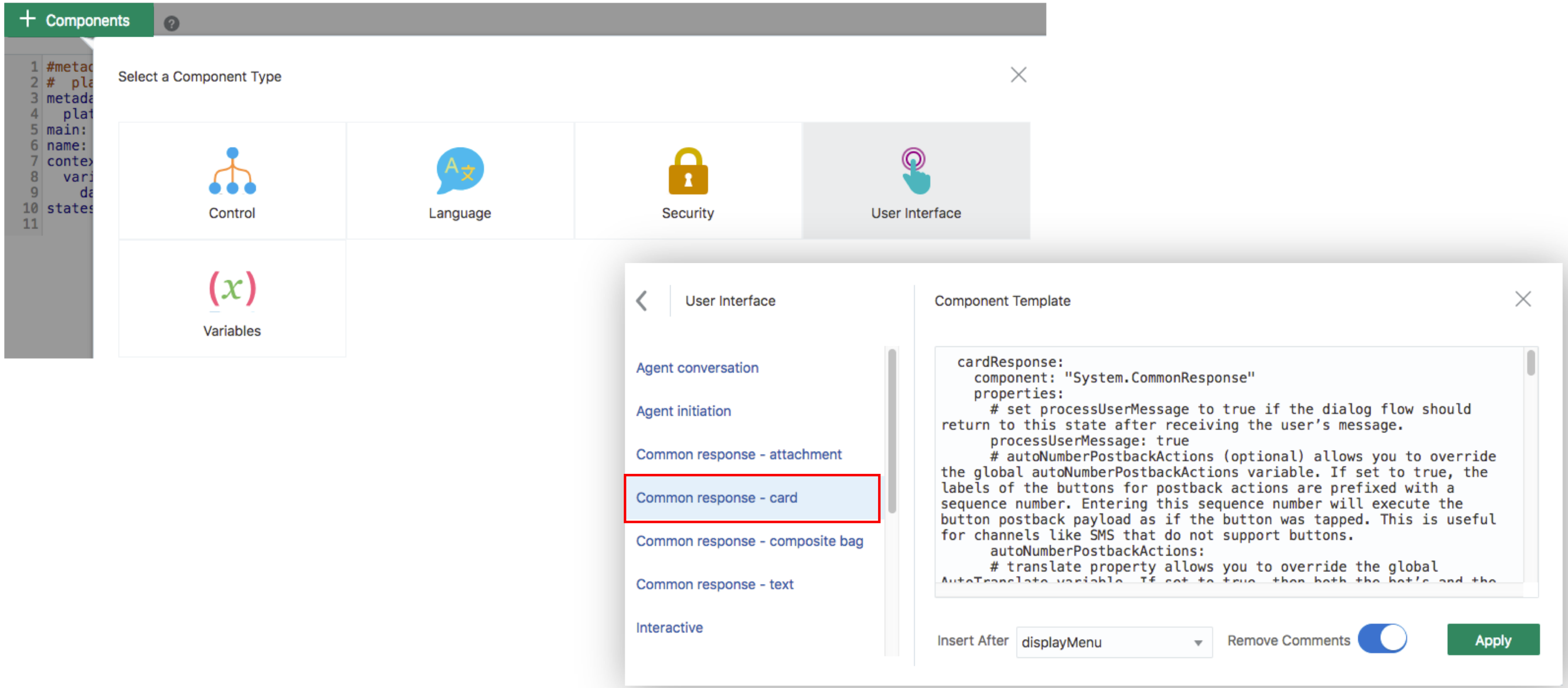


Start displaying details for 'Don McInes, United States (US)'

Topic agenda

ORACLE

Building card layouts using the component templates



```
#metad
#   pla
metada
  plat
main:
name:
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    da
states
```
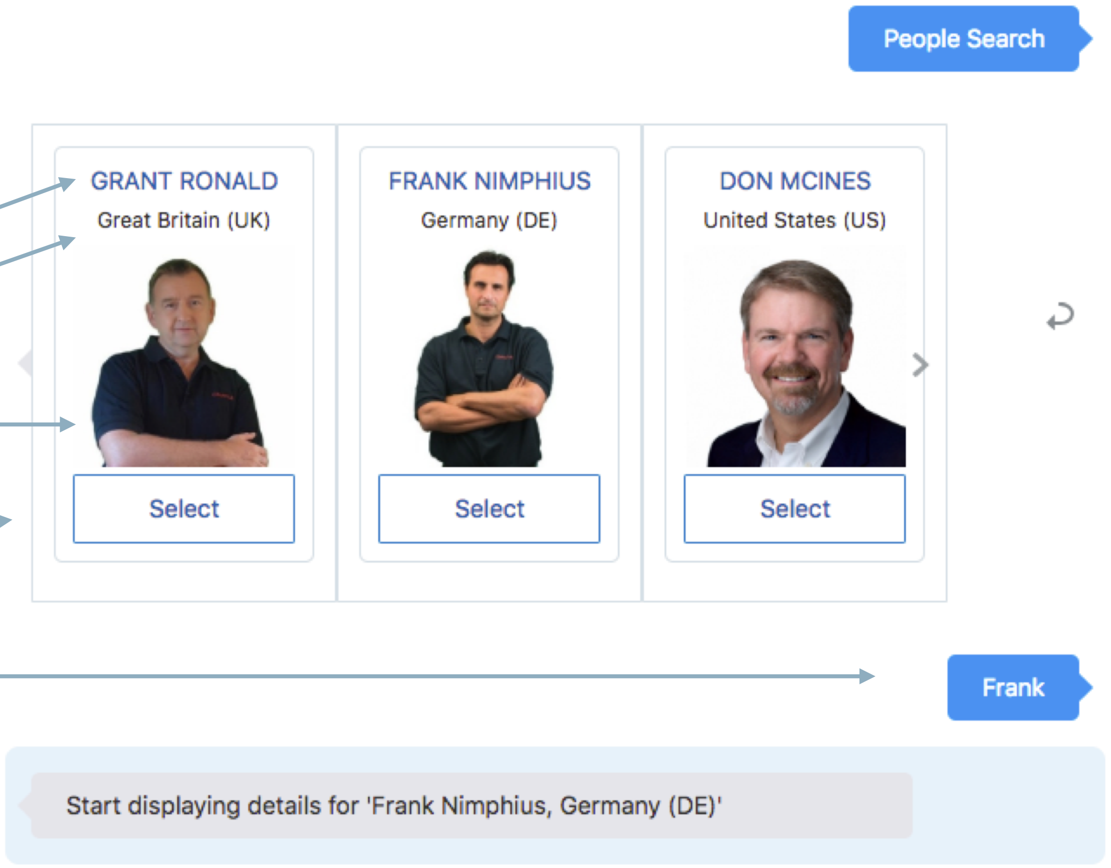

```
  cardResponse:
    component: "System.CommonResponse"
    properties:
      # set processUserMessage to true if the dialog flow should
return to this state after receiving the user's message.
      processUserMessage: true
      # autoNumberPostbackActions (optional) allows you to override
the global autoNumberPostbackActions variable. If set to true, the
labels of the buttons for postback actions are prefixed with a
sequence number. Entering this sequence number will execute the
button postback payload as if the button was tapped. This is useful
for channels like SMS that do not support buttons.
      autoNumberPostbackActions:
      # translate property allows you to override the global
AutoTranslate variable. If set to true, then both the bot's and the
```

Card layout definition

```
searchPeople:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    autoNumberPostbackActions:
    metadata:
      responseItems:
      - type: "cards"
        cardLayout: "horizontal"
        cards:
        - title: "${personArray.name?upper_case}"
          description: "${personArray.location}"
          imageUrl: "${personArray.image}"
          iteratorVariable: "personArray"
          rangeStart:
          rangeSize:
          actions:
          - label: "Select"
            type: "postback"
            keyword: "${personArray.name?replace(' ',',')}"
            payload:
              variables:
                person: "${personArray.name}"
                location: "${personArray.location}"
  transitions:
    next: "printPersonDetails"
```



Start displaying details for 'Frank Nimphius, Germany (DE)'

Messengers are limited in the number of cards that can be viewed at one time. Use the **rangeStart** and **rangeSize** properties **to implement page ranging**

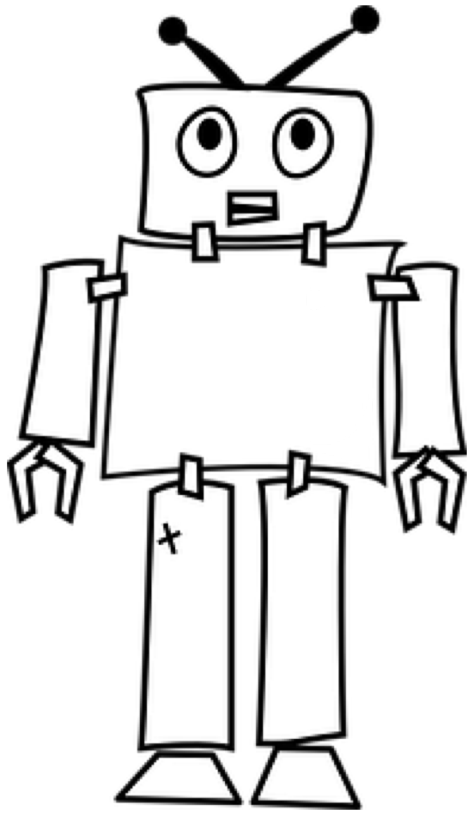
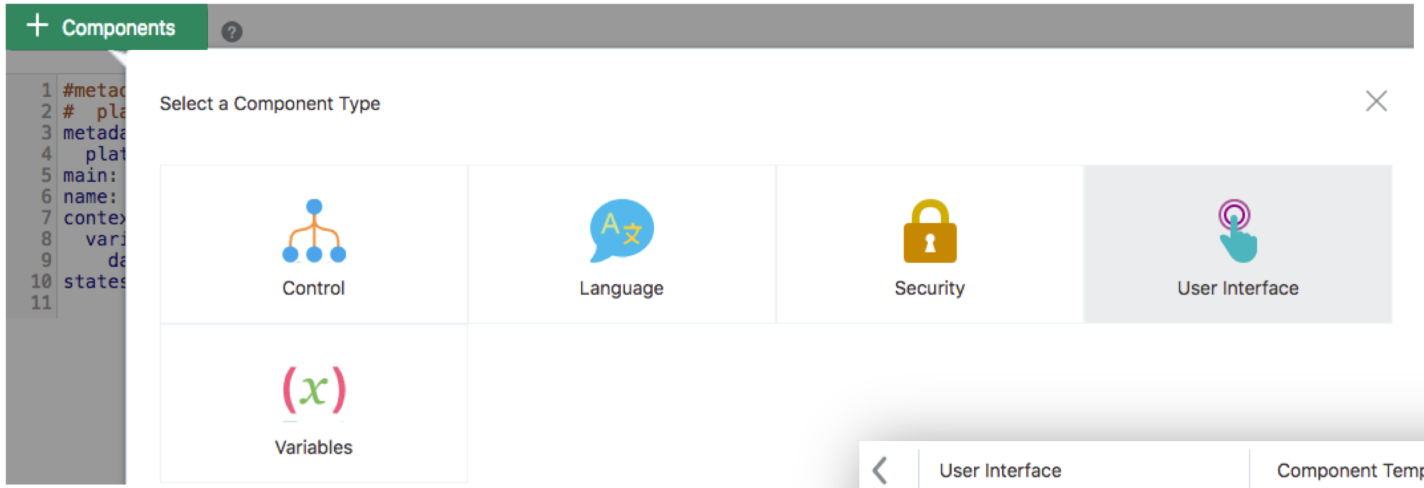


Image courtesy of pixabay.com

Topic agenda

Creating attachments using the component templates



```
#metac
#  pla
metada
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main:
name:
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    da
states
```
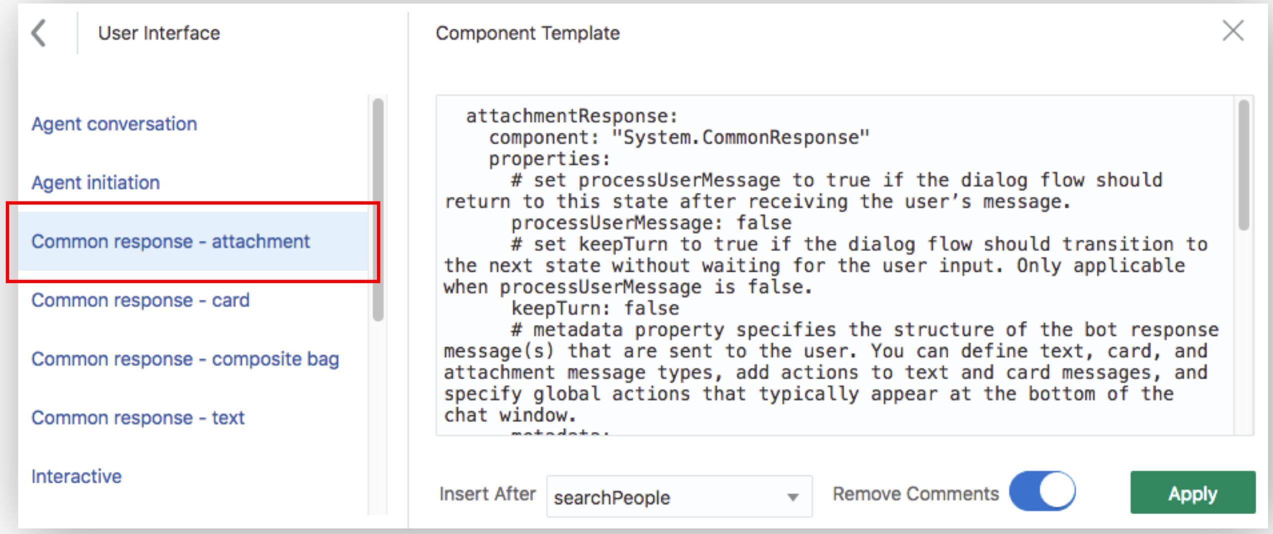



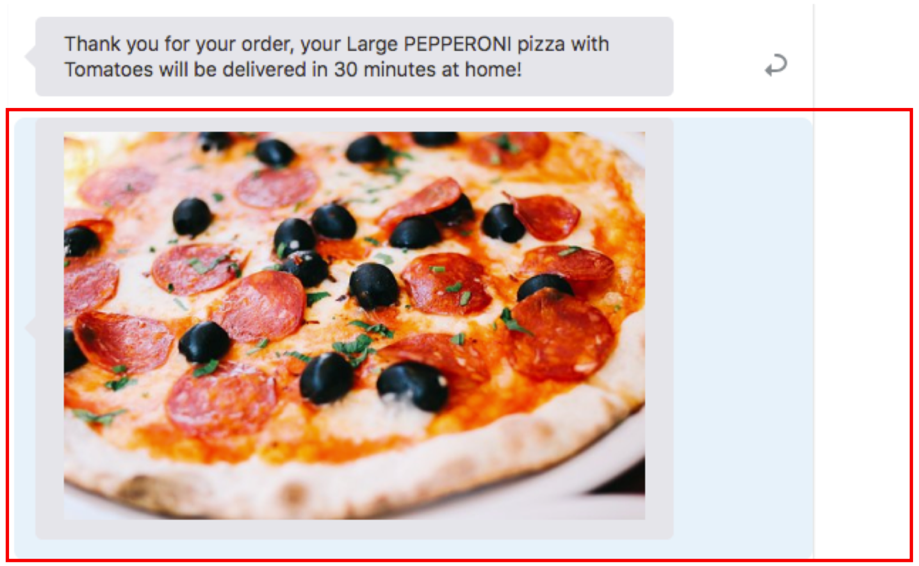
```
  attachmentResponse:
    component: "System.CommonResponse"
    properties:
      # set processUserMessage to true if the dialog flow should
return to this state after receiving the user's message.
      processUserMessage: false
      # set keepTurn to true if the dialog flow should transition to
the next state without waiting for the user input. Only applicable
when processUserMessage is false.
      keepTurn: false
      # metadata property specifies the structure of the bot response
message(s) that are sent to the user. You can define text, card, and
attachment message types, add actions to text and card messages, and
specify global actions that typically appear at the bottom of the
chat window.
```

Insert After: searchPeople
Remove Comments: on

Attachment

- Displays content
  - Audio, video, image, file
  - No streaming of binaries
- Content rendering depends on messenger
  - No guarantee that videos e.g. are displayed in place
- Attachments cannot have action items

```
showImageAsAttachment:
  component: "System.CommonResponse"
  properties:
    processUserMessage: false
    keepTurn: false
    metadata:
      responseItems:
      - type: "attachment"
        attachmentType: "image"
        attachmentUrl: "${imageUrl.value}"
  transitions:
    return: "done"
```

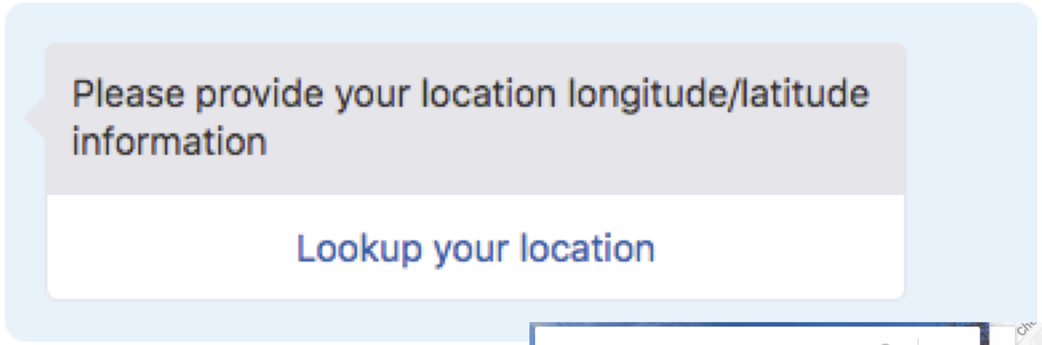

Thank you for your order, your Large PEPPERONI pizza with Tomatoes will be delivered in 30 minutes at home!

Topic agenda

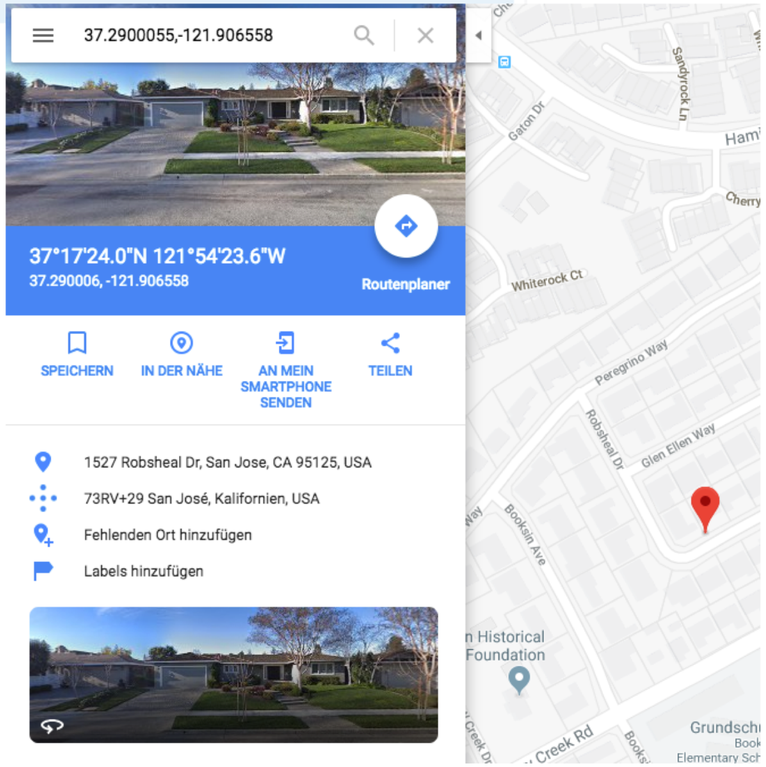
1. Building good conversational UI
2. Building an input text component
3. Displaying value and action lists
4. Creating a card layout
5. Displaying attachments
6. **Choosing a location**
7. Local & global actions
8. Composite responses

Choosing a location

```
chooseLocation:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    keepTurn: false
    variable: "location"
    nlpResultVariable:
    metadata:
      responseItems:
      - type: "text"
        text: "Please provide your location longitude/latitude information"
        actions:
        - label: "Lookup your location"
          type: "location"
  transitions:
    next: "printLocation"

printLocation:
  component: "System.Output"
  properties:
    text: "long: ${location.value.longitude} lat: ${location.value.latitude}"
  transitions:
    return: "done"
```


Please provide your location longitude/latitude information

Lookup your location


37.2900055,-121.906558

37°17'24.0"N 121°54'23.6"W
37.290006, -121.906558

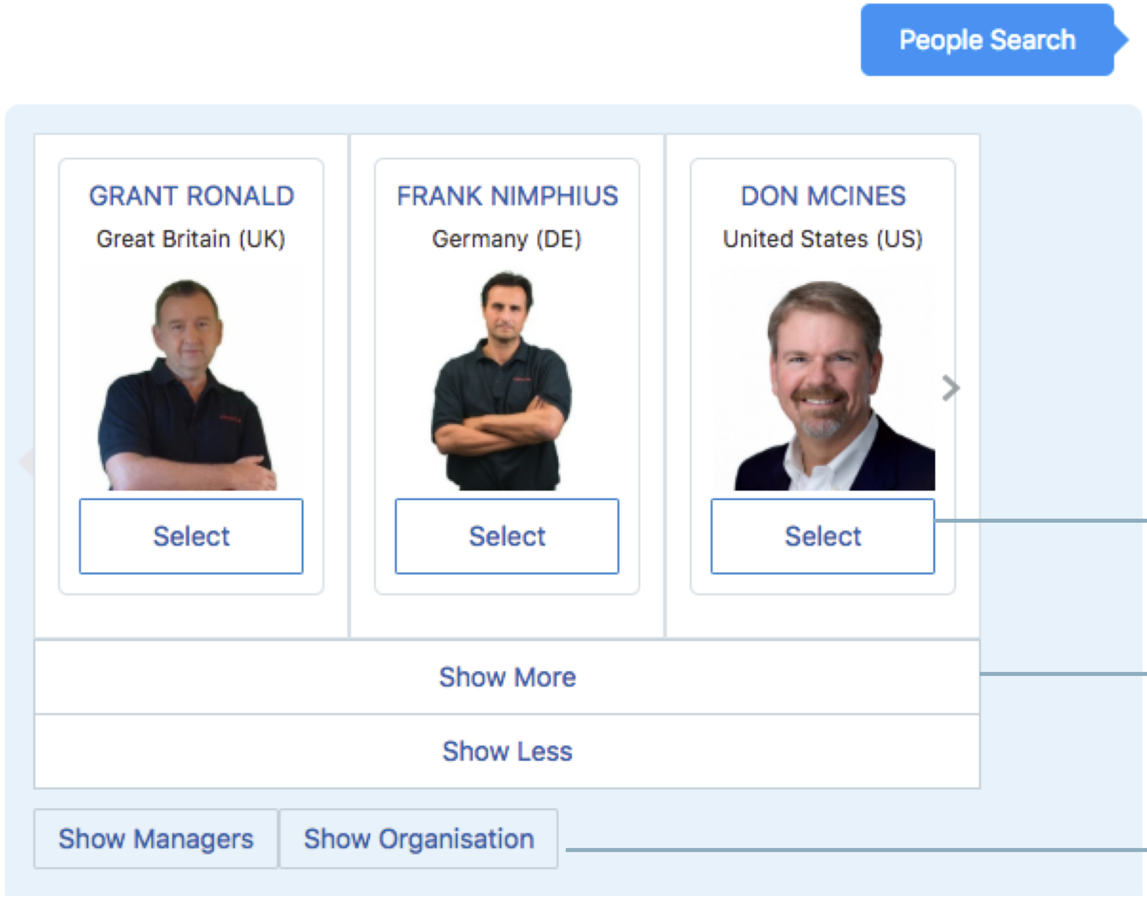
Routenplaner

SPEICHERN IN DER NÄHE AN MEIN SMARTPHONE SENDEN TEILEN

1527 Robsheal Dr, San Jose, CA 95125, USA
73RV+29 San José, Kalifornien, USA
Fehlenden Ort hinzufügen
Labels hinzufügen

Topic agenda

Action types

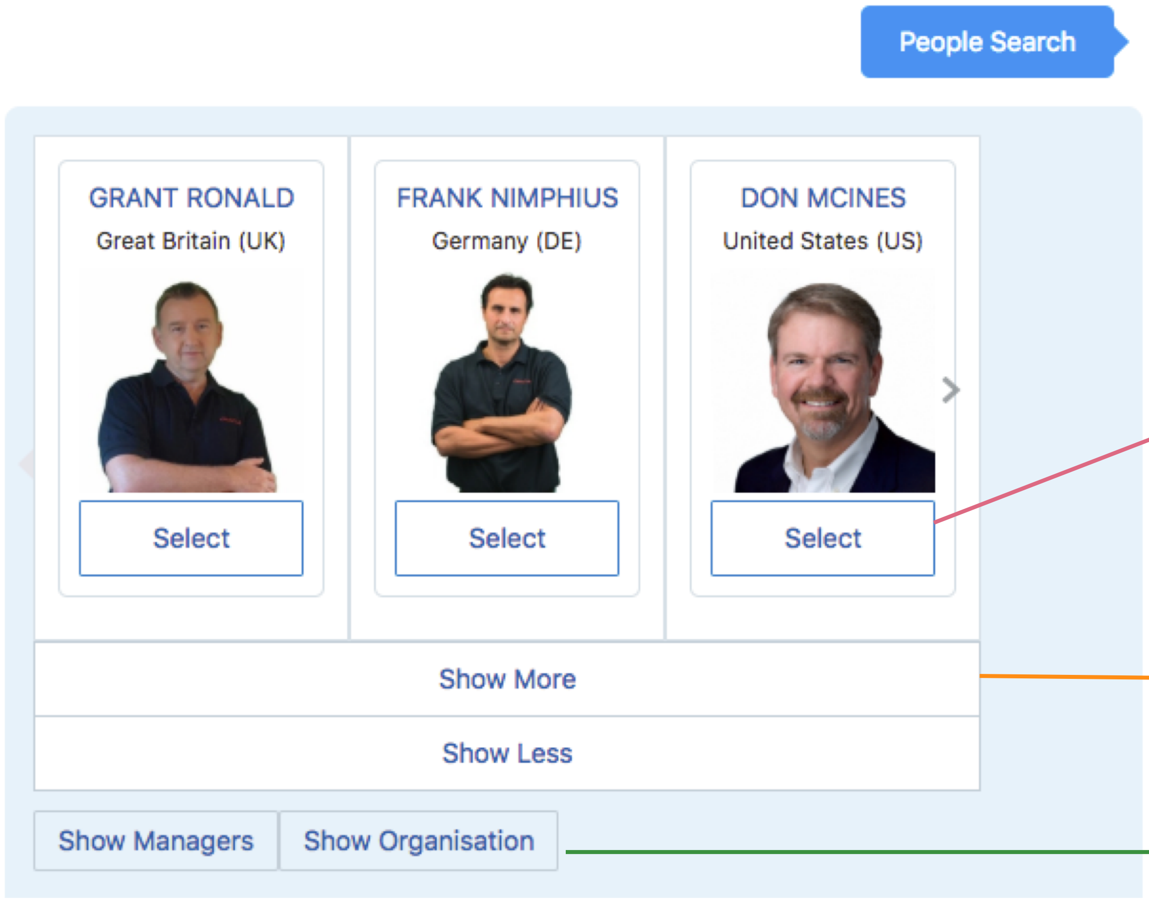


Action items local to a card

Actions local to a response type

Actions global for a component

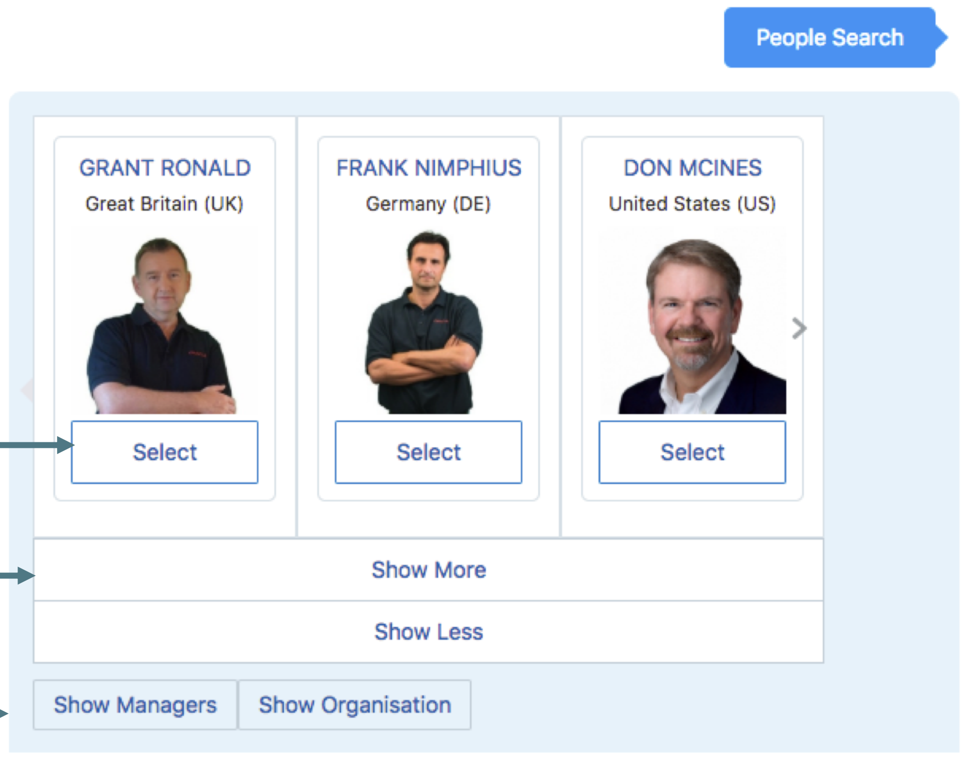
Action types



```
searchPeople:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    autoNumberPostbackActions:
    metadata:
      responseItems:
      - type: "cards"
        cardLayout: "horizontal"
        cards:
        - title: "${personArray.name?upper_case}"
          description: "${personArray.location}"
          imageUrl: "${personArray.image}"
          iteratorVariable: "personArray"
          rangeStart:
          rangeSize:
          actions:
          - label: "Select"
            type: "postback"
            keyword: "${personArray.name?replace(' ',',')}"
            payload:
              variables:
                person: "${personArray.name}"
                location: "${personArray.location}"
        actions:
        - label: "Show More"
          type: "postback"
          keyword: "show more, more"
          payload:
            action: "showMore"
        - label: "Show Less"
          type: "postback"
          keyword: "show less, less"
          payload:
            action: "showMore"
      globalActions:
      - label: "Show Managers"
        type: "postback"
        keyword: "manager"
        payload:
          action: "showManagers"
      - label: "Show Organisation"
        type: "postback"
        keyword: "organisation"
        payload:
          action: "showOrg"
  transitions:
```

About actions types

- Action items local to a card
  - Buttons associated with list items or cards
  - Remain visible when component goes out of scope
- Actions local to a response type
  - Buttons associated with component
  - Remains visible when component goes out of scope
- Actions global for a component
  - E.g. quick replies on Facebook



Topic agenda

Using the Common Response component, **you can** combine multiple response types to **build arbitrarily complex bot responses** with ease

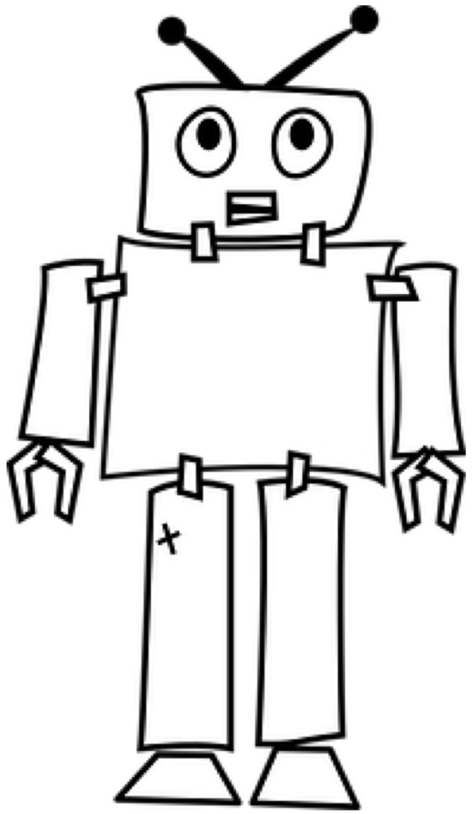
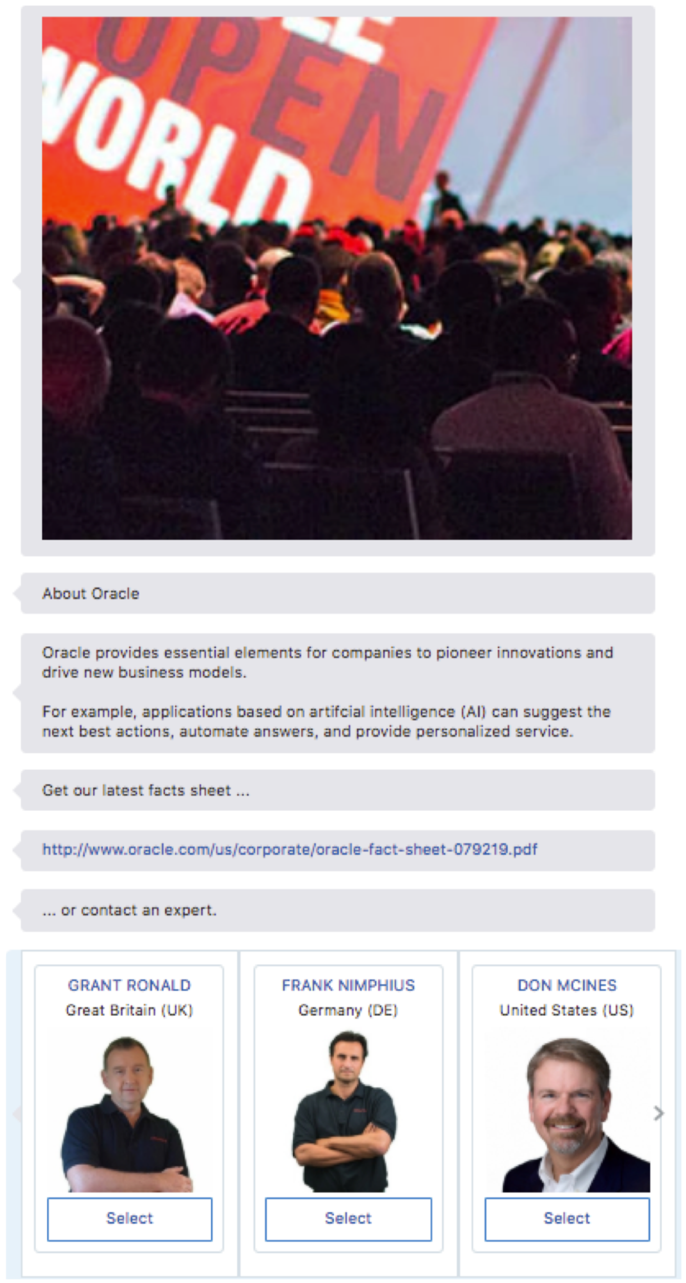


Image courtesy of pixabay.com

```
helloOracle:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    autoNumberPostbackActions:
    metadata:
      responseItems:
      - type: "attachment"
        attachmentType: "image"
        attachmentUrl: "https://www.oracle.com/us/assets/cb15-small-events-2868339.jpg?16"

      - type: "text"
        text: "About Oracle"
      - type: "text"
        text: |-
              Oracle provides essential elements for companies to pioneer innovations and drive

              For example, applications based on artifcial intelligence (AI) can suggest the ne

      - type: "text"
        text: "Get our latest facts sheet ... "

      - type: "attachment"
        attachmentType: "file"
        attachmentUrl: "http://www.oracle.com/us/corporate/oracle-fact-sheet-079219.pdf"

      - type: "text"
        text: "... or contact an expert."

      - type: "cards"
        cardLayout: "horizontal"
        cards:
        - title: "${personArray.name?upper_case}"
          description: "${personArray.location}"
          imageUrl: "${personArray.image}"
          iteratorVariable: "personArray"
          rangeStart:
          rangeSize:
          actions:
          - label: "Select"
            type: "postback"
            keyword: "${personArray.name?replace(' ',',')}"
            payload:
              action: "showPersonDetails"
              variables:
                personIndex: "${personArray?index}"
  transitions:
    actions:
      showPersonDetails: "printPersonDetails"
      textReceived: "done"
```



About Oracle

Oracle provides essential elements for companies to pioneer innovations and drive new business models.

For example, applications based on artifcial intelligence (AI) can suggest the next best actions, automate answers, and provide personalized service.

Get our latest facts sheet ...

http://www.oracle.com/us/corporate/oracle-fact-sheet-079219.pdf

... or contact an expert.

GRANT RONALD
Great Britain (UK)
Select

FRANK NIMPHIUS
Germany (DE)
Select

DON MCINES
United States (US)
Select

Integrated Cloud

Applications & Platform Services

Oracle Digital Assistant Hands-On

TBD