
ORACLE®

Oracle Digital Assistant

The Complete Training

Introduction to the System.CommonResponse Component

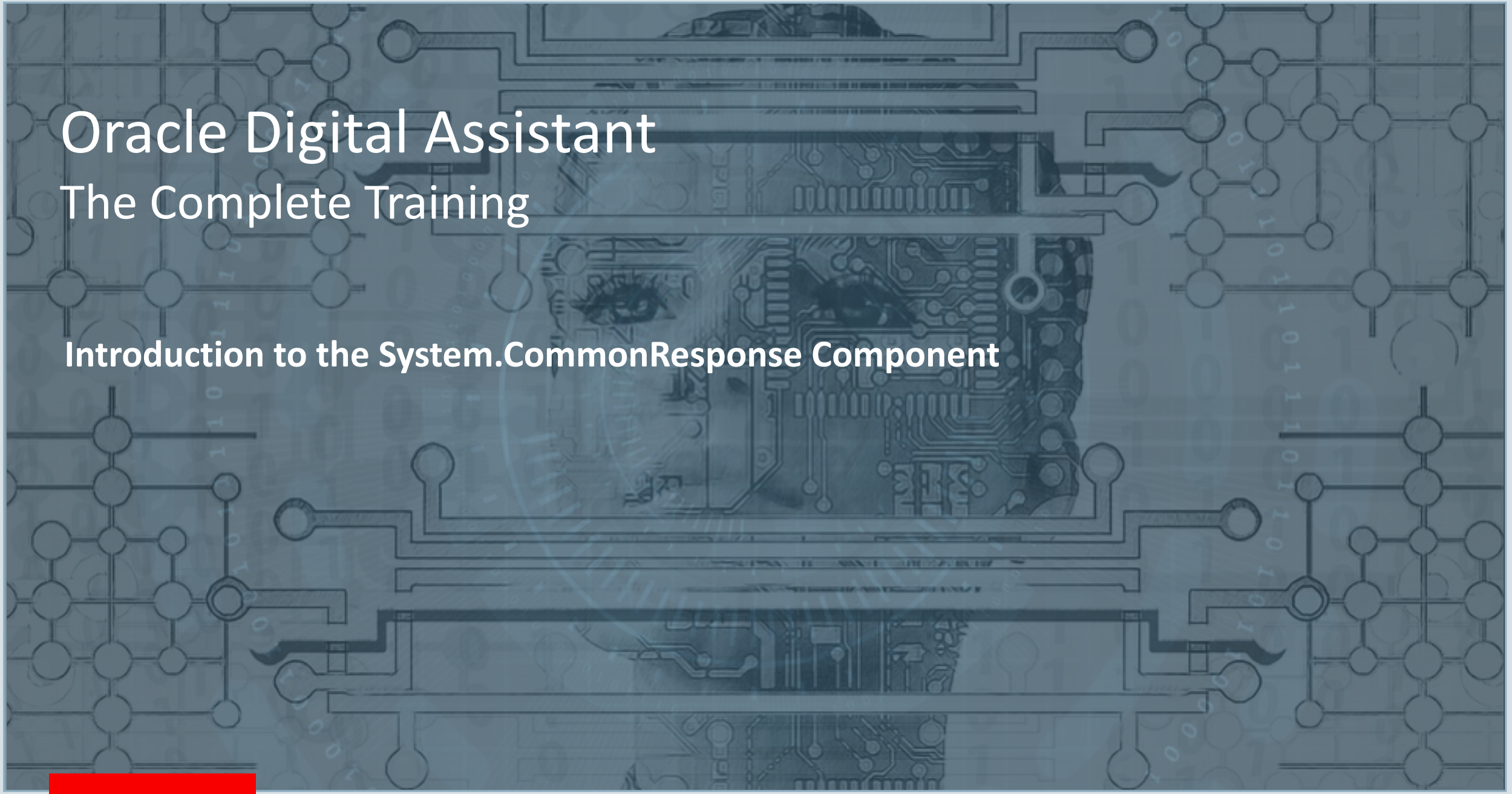


Image courtesy of pixabay.com

Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

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

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

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

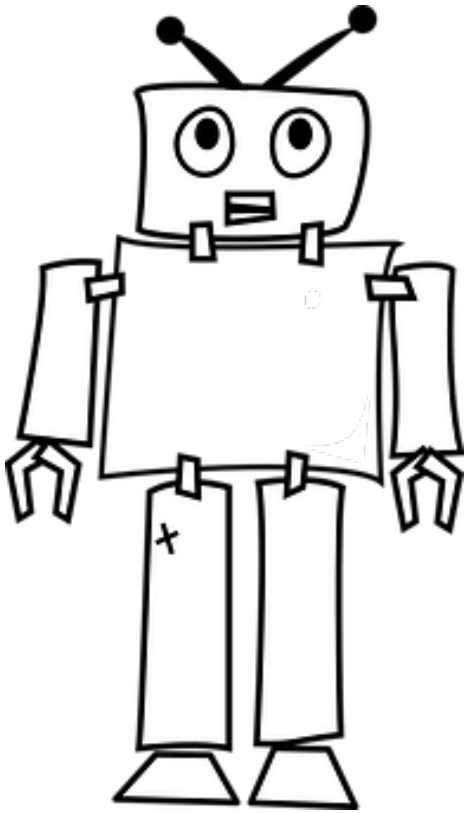
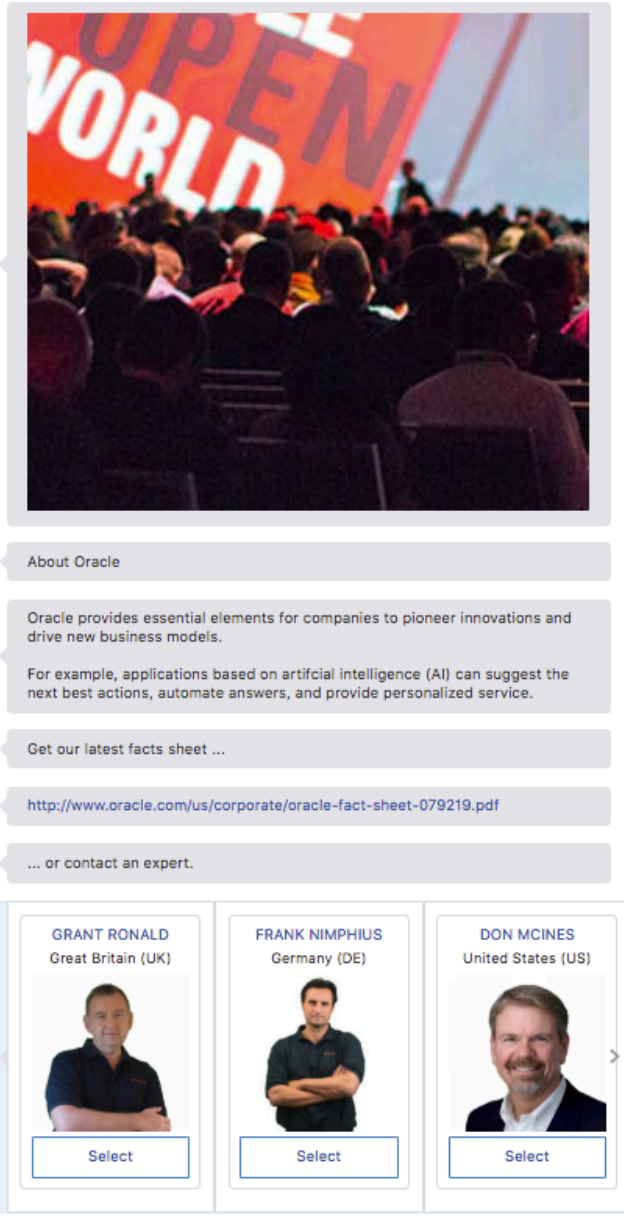


Image courtesy of pixabay.com

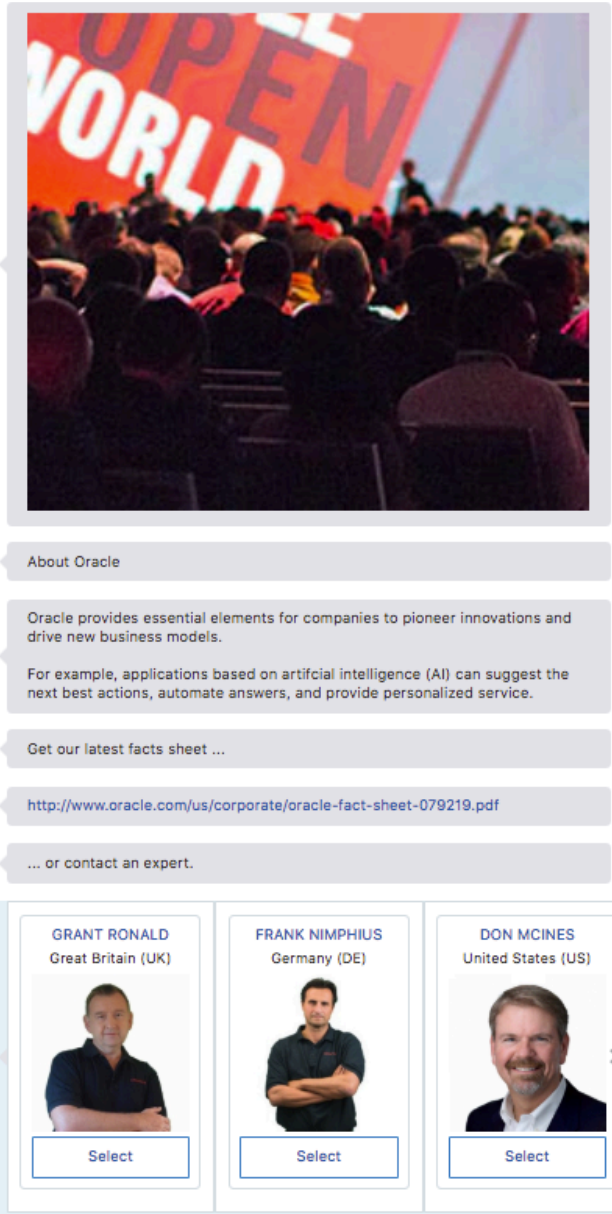
Building compelling chatbot user interfaces

- 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



Common response component

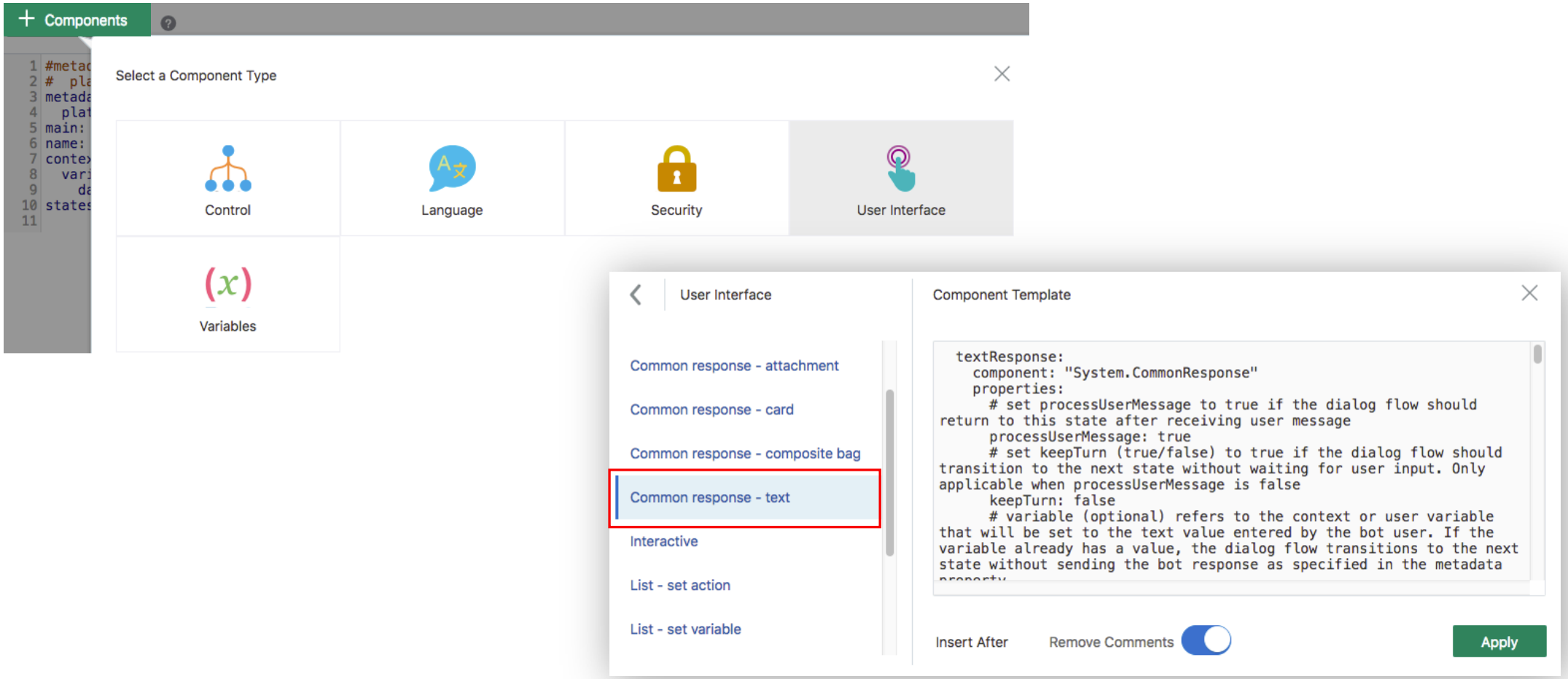
- The 'Clark Kent' among the system components
  - Can build simple and complex bot UI
  - Support for composite bag entities and iterators
  - Renders text, list, cards, location and attachment UI
- Aligns with Conversational Message Model (CMM)
- For many use cases, avoids the need for custom components



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

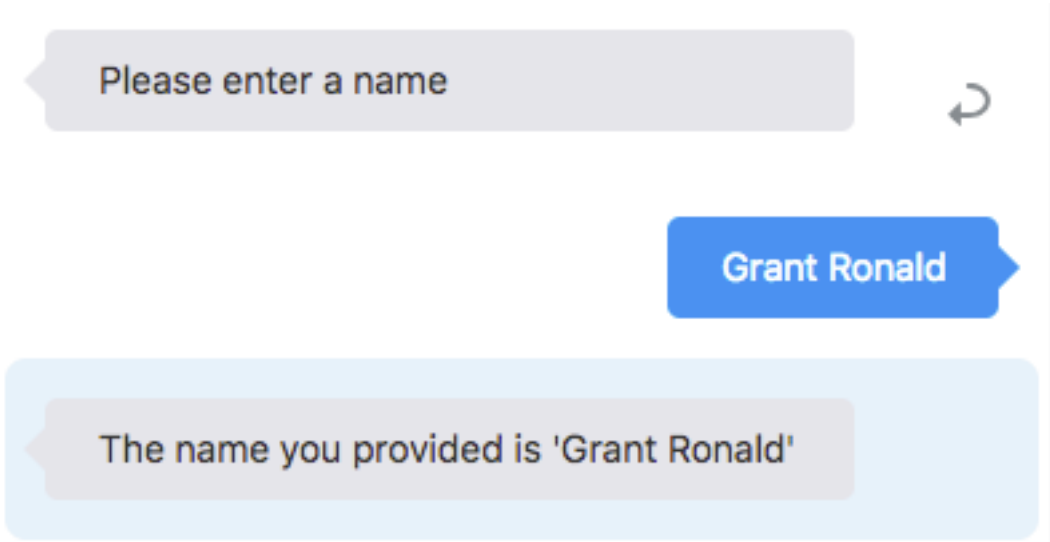
Creating a text response using the component templates



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"
```

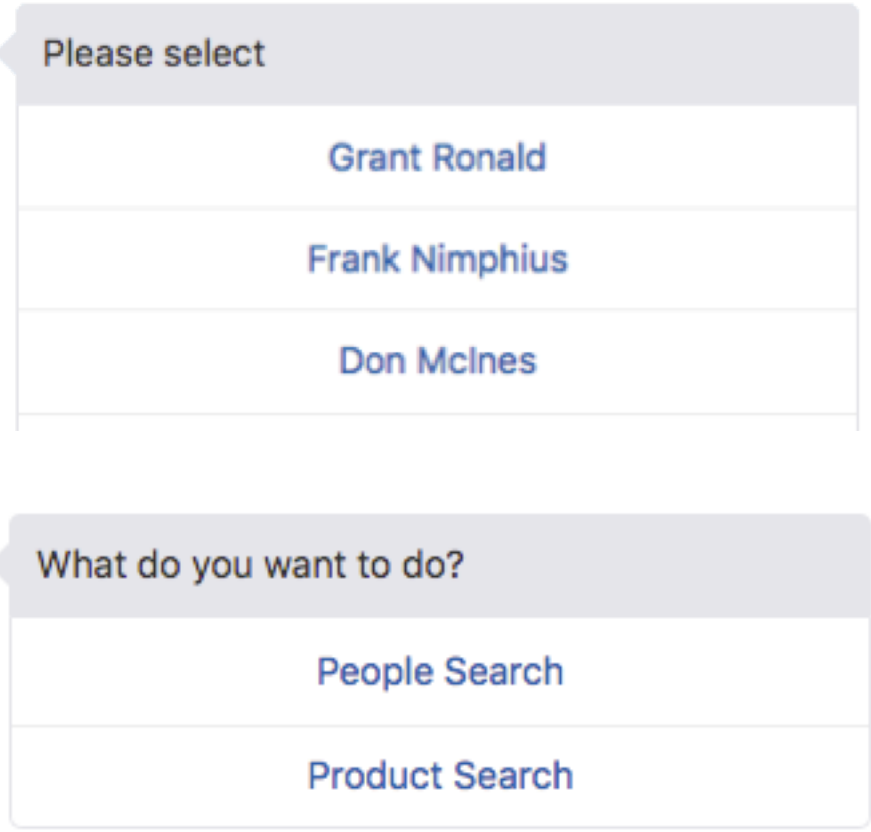


Topic agenda

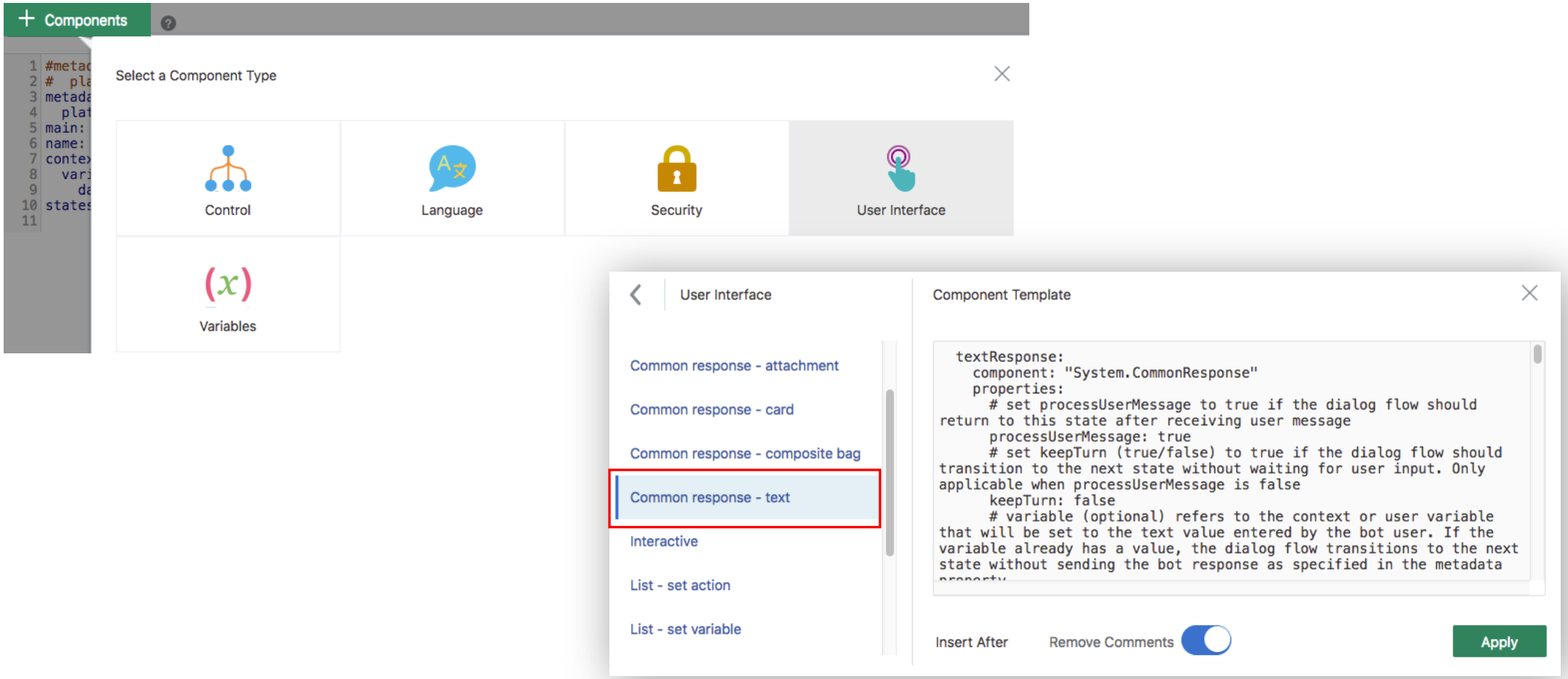
1. Building good conversational UI
2. Building an input text component
3. Displaying value and action lists
4. Creating a card layout
5. Displaying attachments
6. Choosing a location
7. Local & global actions
8. Composite responses

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

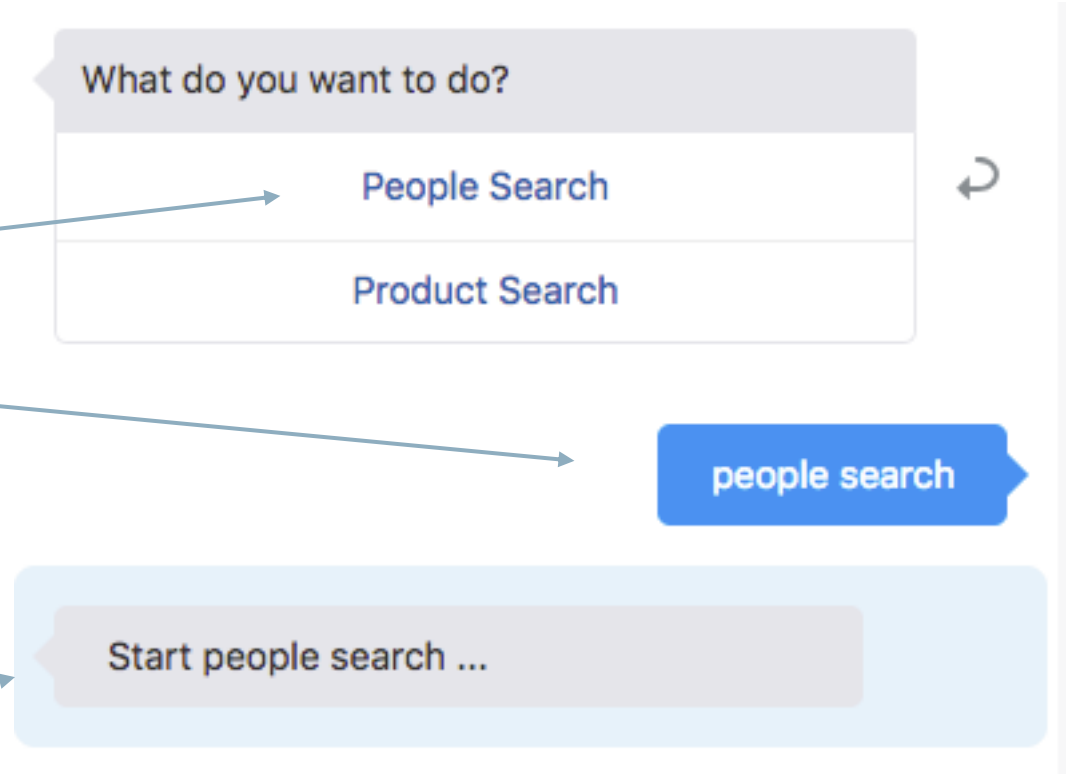


Building list-of-values



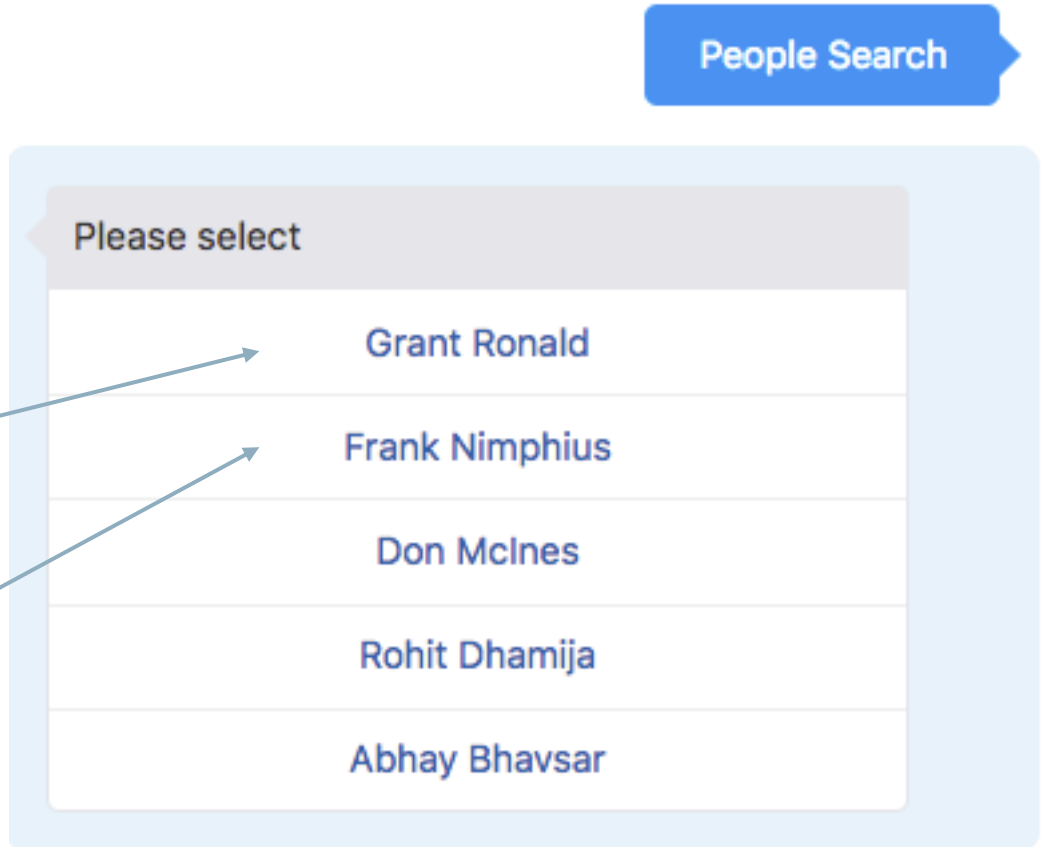
Action lists

```
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"
```



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"
```



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

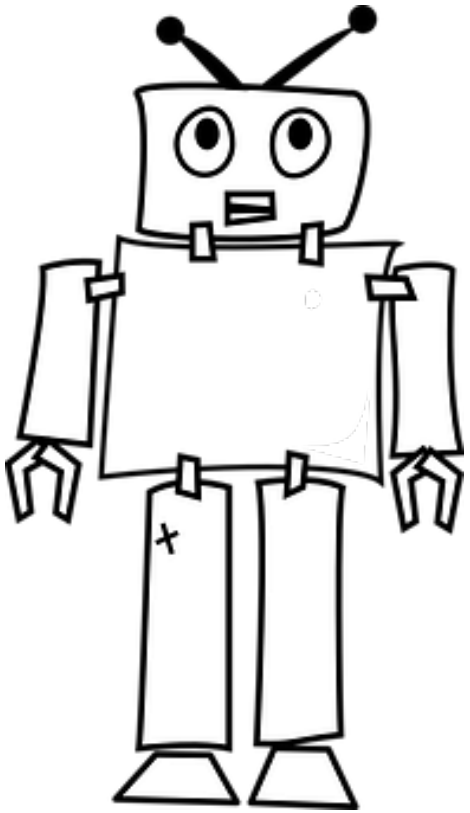


Image courtesy of pixabay.com

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

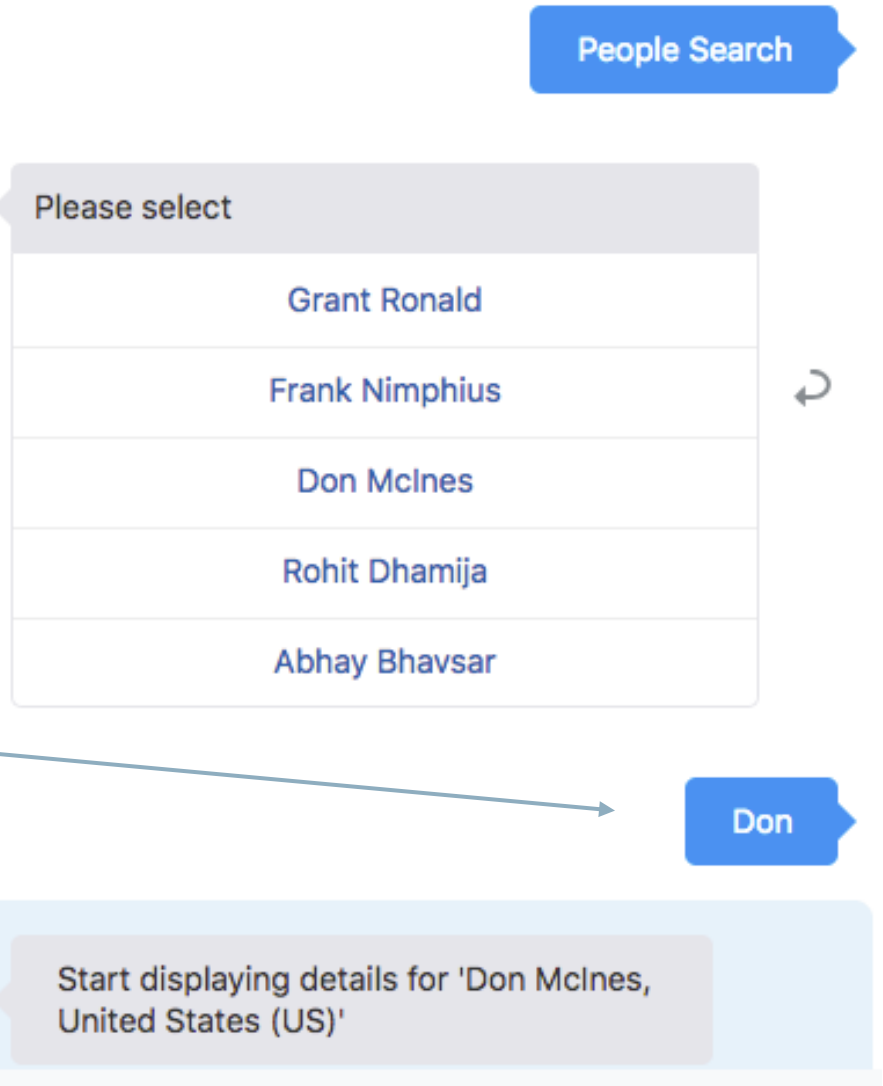
```
variables:
  personArray: "string"



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

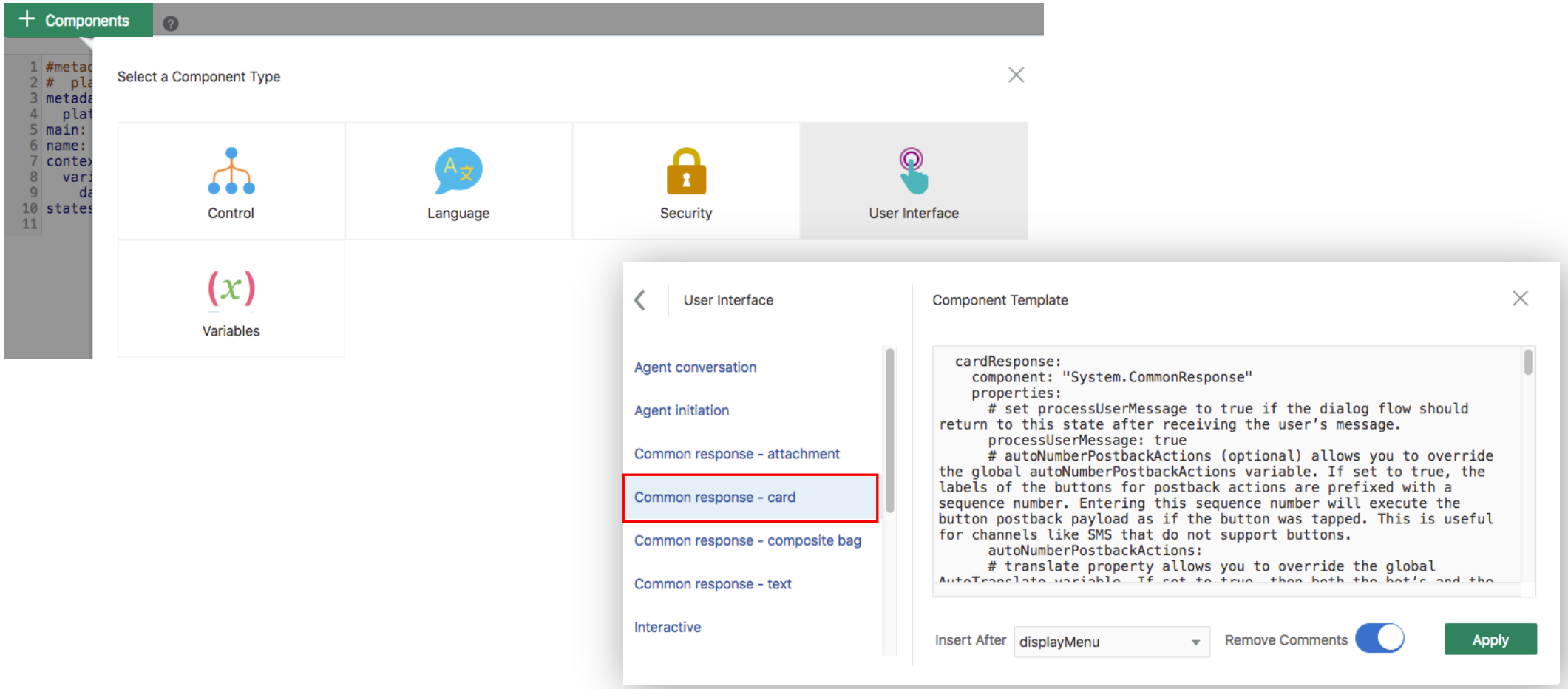
```
searchPeople:
  component: "System.CommonResponse"
  properties:
    processUserMessage: true
    keepTurn: false
    variable:
    nlpResultVariable:
    metadata:
      responseItems:
      - type: "text"
        text: "Please select"
        actions:
        - label: "${personArray.name}"
   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



Topic agenda

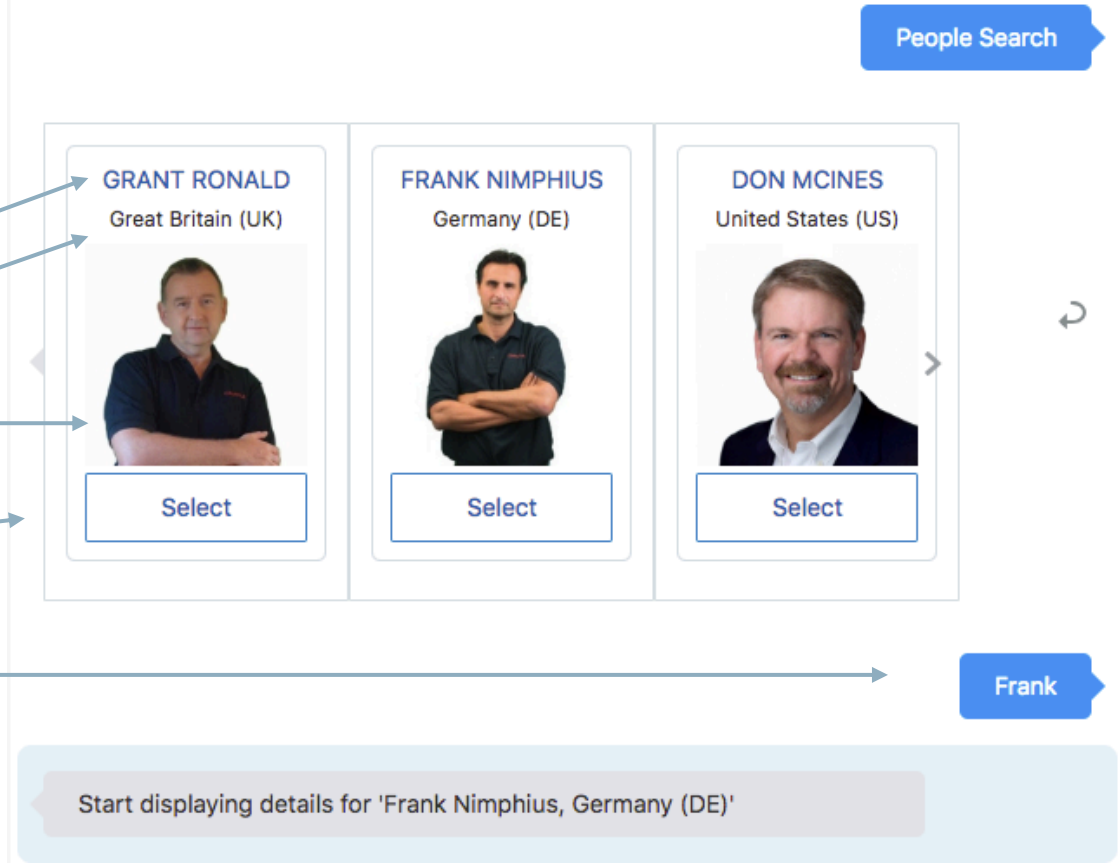
1. Building good conversational UI
2. Building an input text component
3. Displaying value and action lists
4. Creating a card layout
5. Displaying attachments
6. Choosing a location
7. Local & global actions
8. Composite responses

Building card layouts using the component templates



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"
```



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**

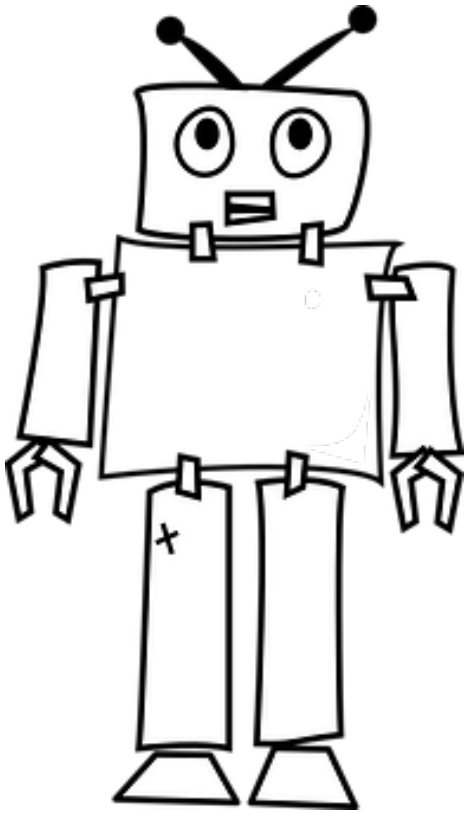
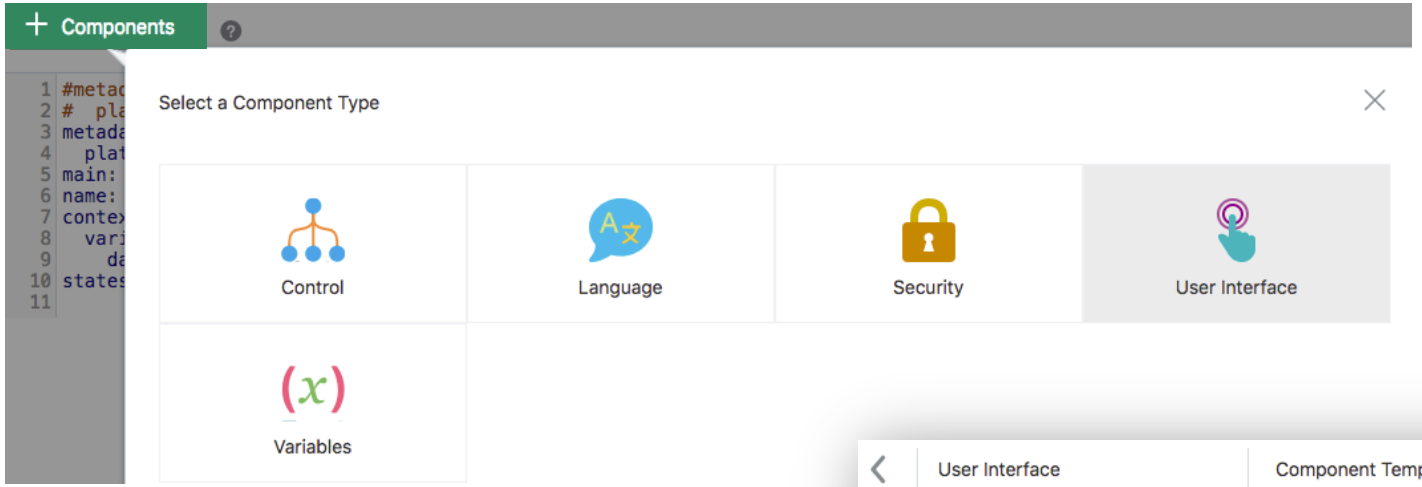


Image courtesy of pixabay.com

Topic agenda

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

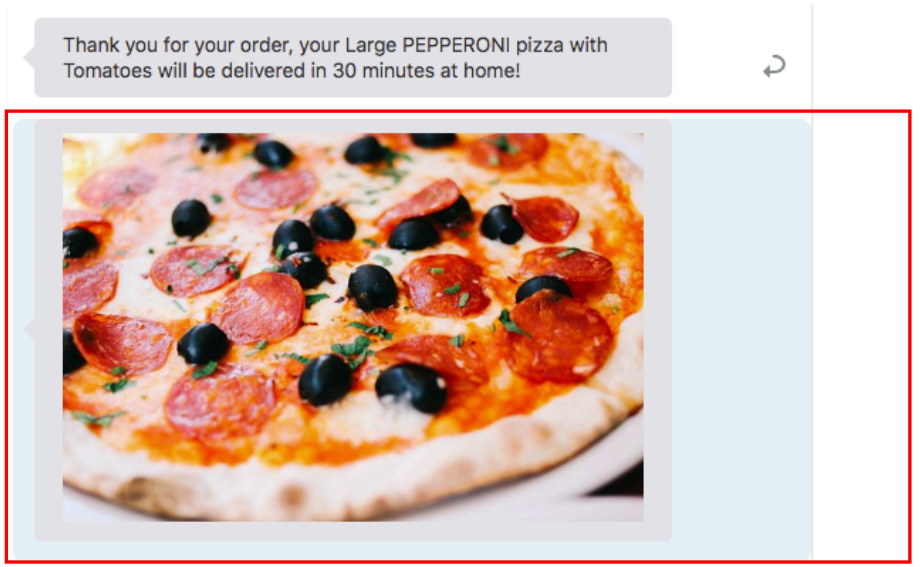
Creating attachments using the component templates



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"
```



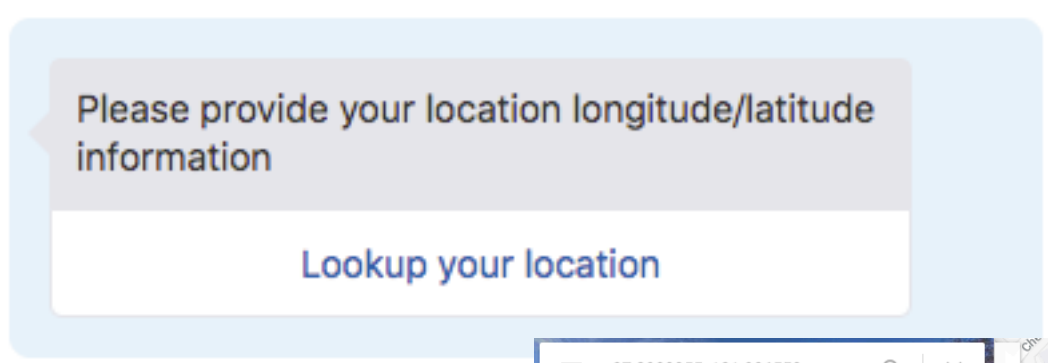
Topic agenda

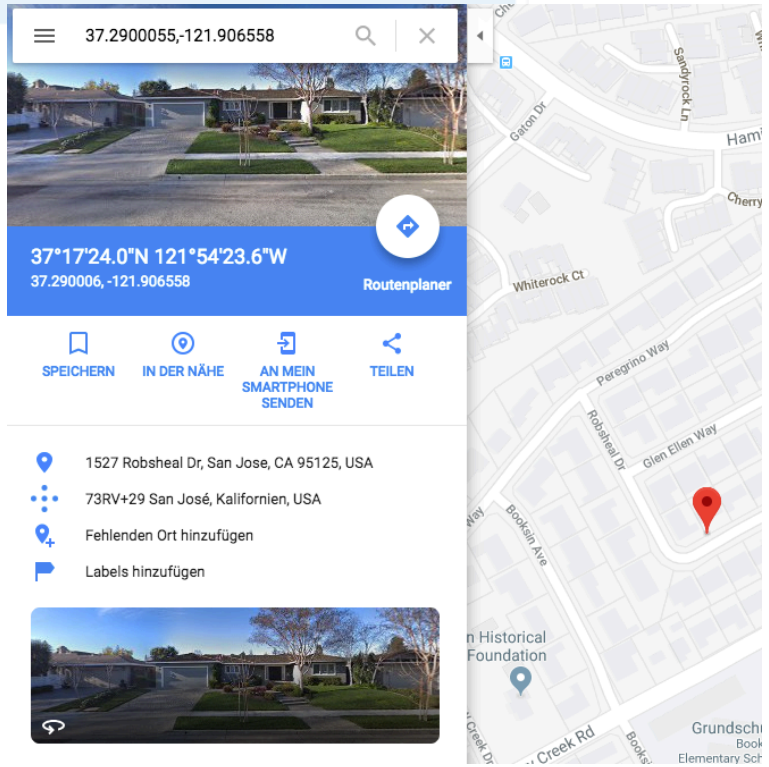
1. Building good conversational UI
2. Building an input text component
3. Displaying value and action lists
4. Creating a card layout
5. Displaying attachments
6. Choosing a location
7. Local & global actions
8. Composite responses

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"
```

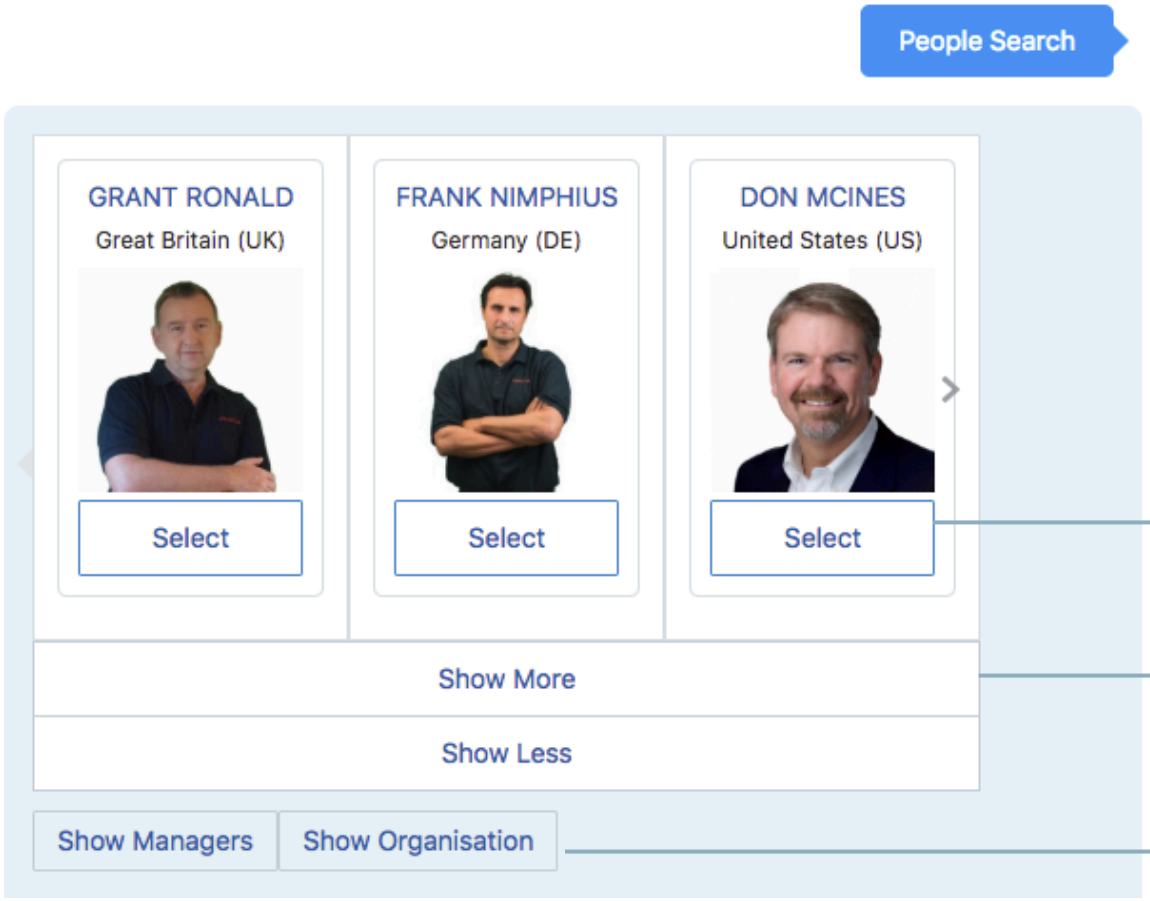




Topic agenda

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

Action types

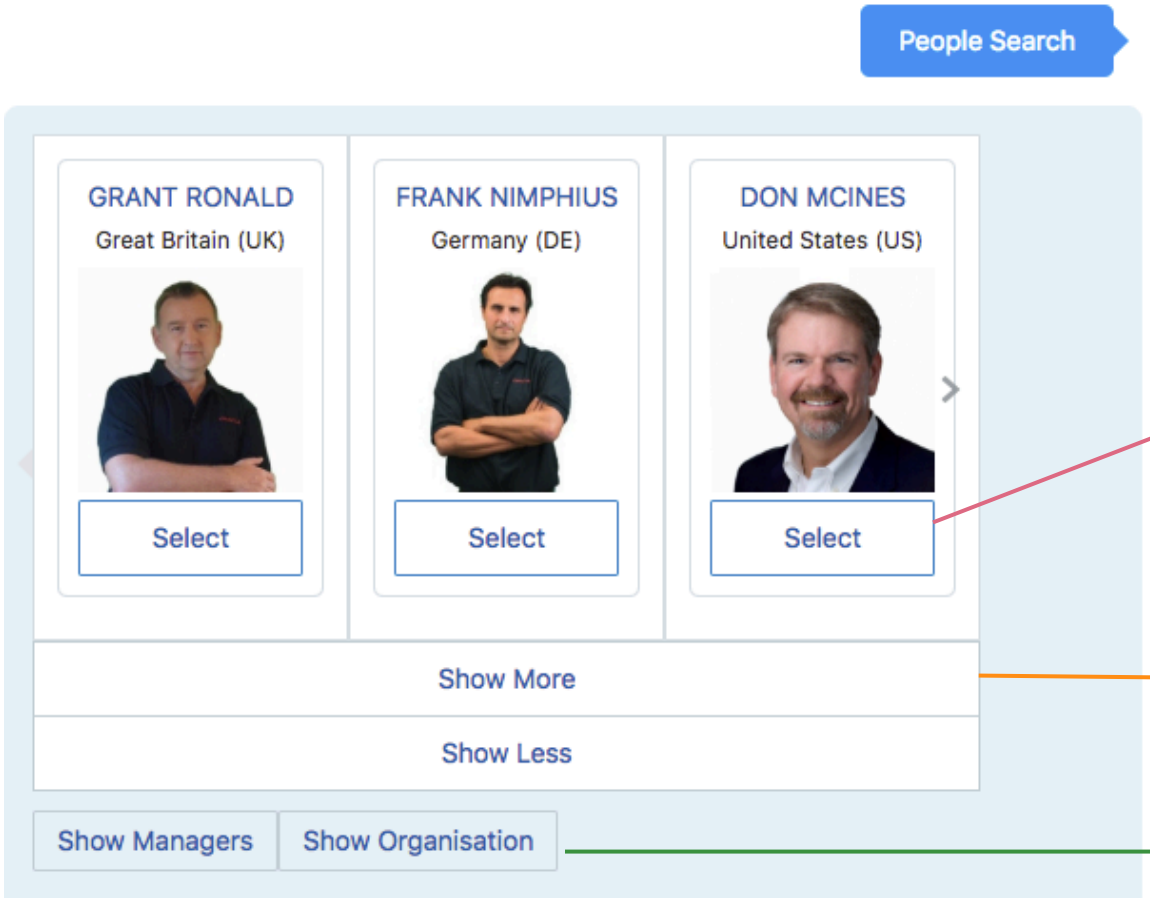


Action items local to a card

Actions local to a response type

Actions global for a component

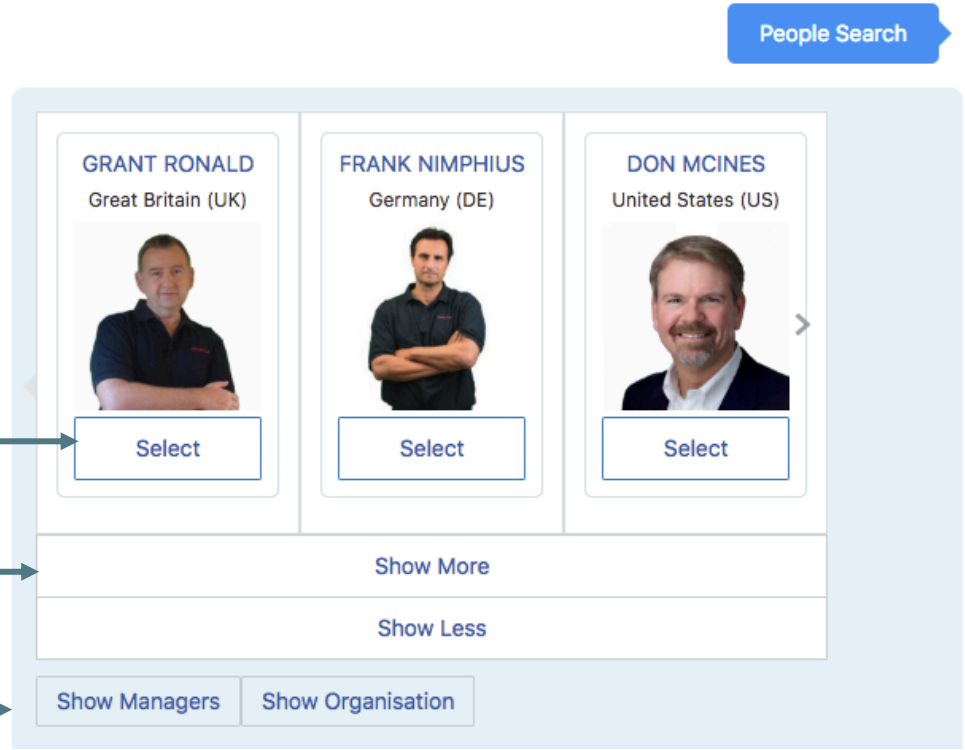
Action types




```
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

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

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

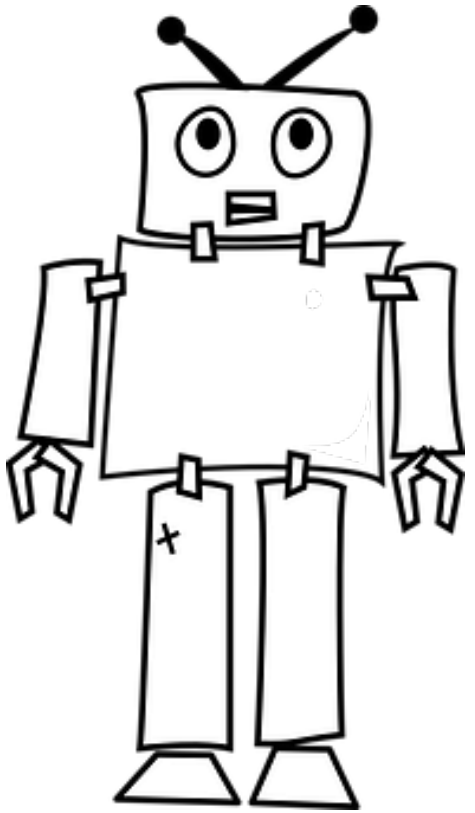


Image courtesy of pixabay.com

```yaml
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

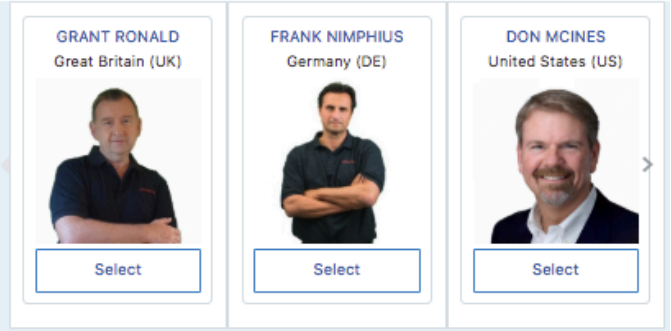
Oracle provides essential elements for companies to pioneer innovations and drive new business models.

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.



Integrated Cloud

Applications & Platform Services


ORACLE®

Oracle Digital Assistant Hands-On

TBD