



# Basic Screen Development

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# Topics

- Web Screens
  - Screen Templates
  - Screen Content
  - Screen Variables
- Fetching Data
  - Preparation
- Screen Lifecycle

# OutSystems Web Applications

OutSystems Web applications use the HTTP request / response protocol

- User makes a request in a browser
- Server replies with an HTTP response

End-users interact with the applications through web browser's user interface

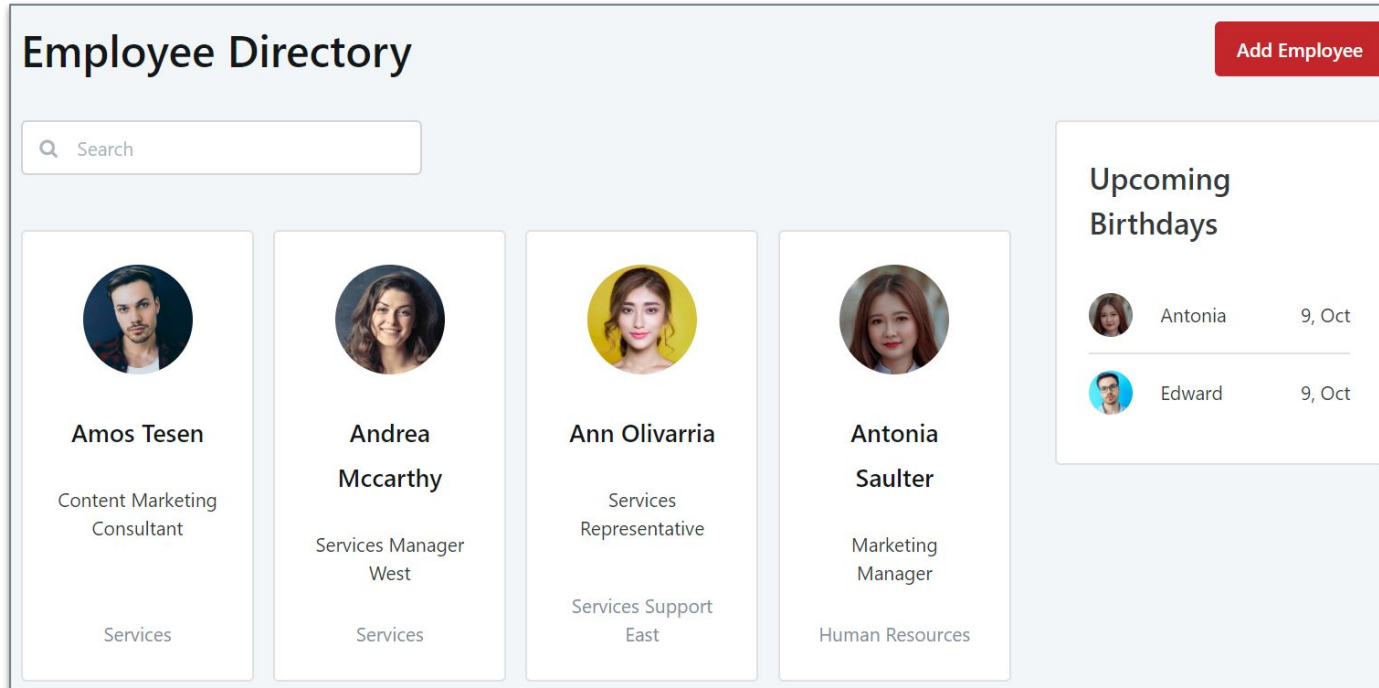
- Interact with the HTML page in the browser
- Make new requests and get new responses

Web Screens are the app's user interface. They are a crucial part of any good app!



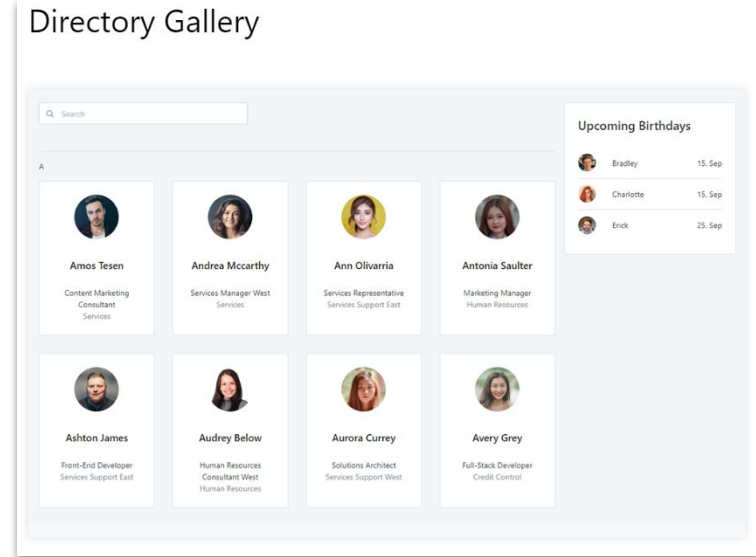
# Screens

OutSystems Screens define the user interface that end-users interact with



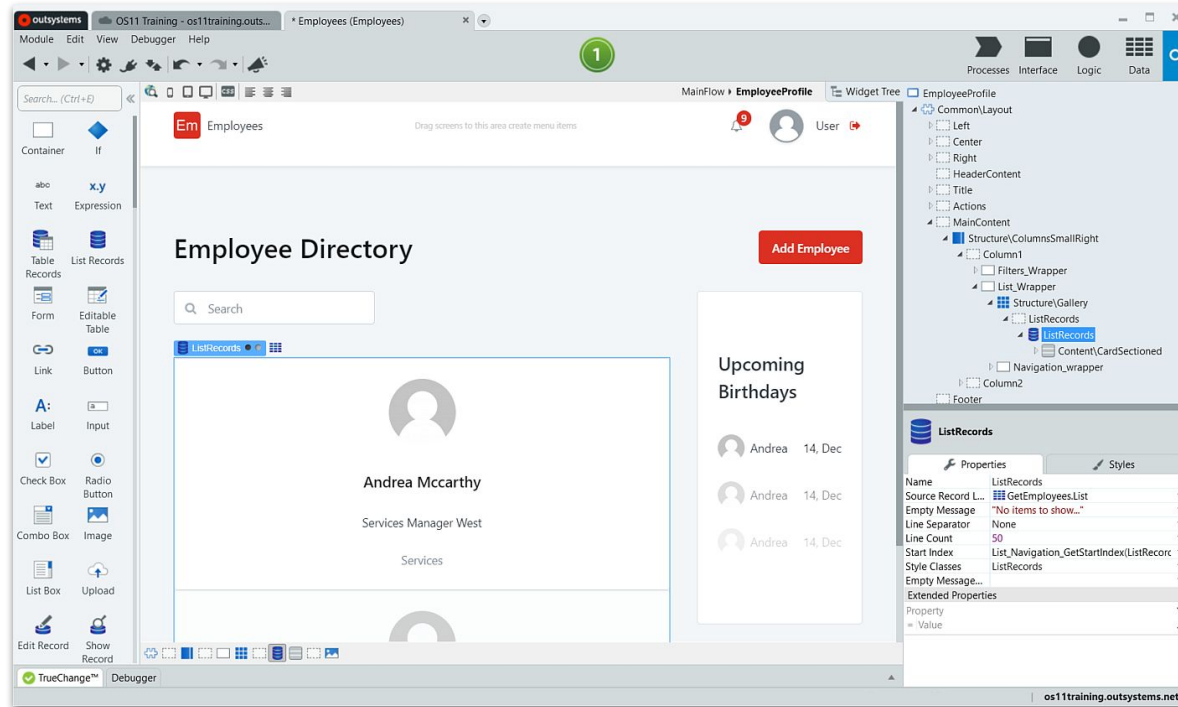
# Screen Templates

New Screens can be **Empty** or can be created based on an existing **Template**



# Screen Content

Screens are defined by the hierarchy of the various elements that make them up



# Screen Variables

What is displayed to the end-user depends on their request

Screens can have **Input Variables**

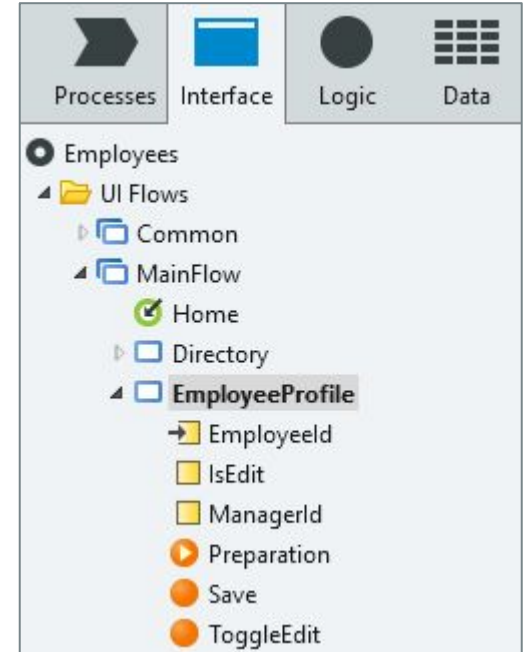
- Parameters that are passed in with the request for a Screen
- Mandatory input variables must have values assigned to them

Screens can also have **Local Variables**

- Initialized in the scope of the Screen

These variables exist within the scope of the Screen

The Scope of the Screen is its complete lifecycle





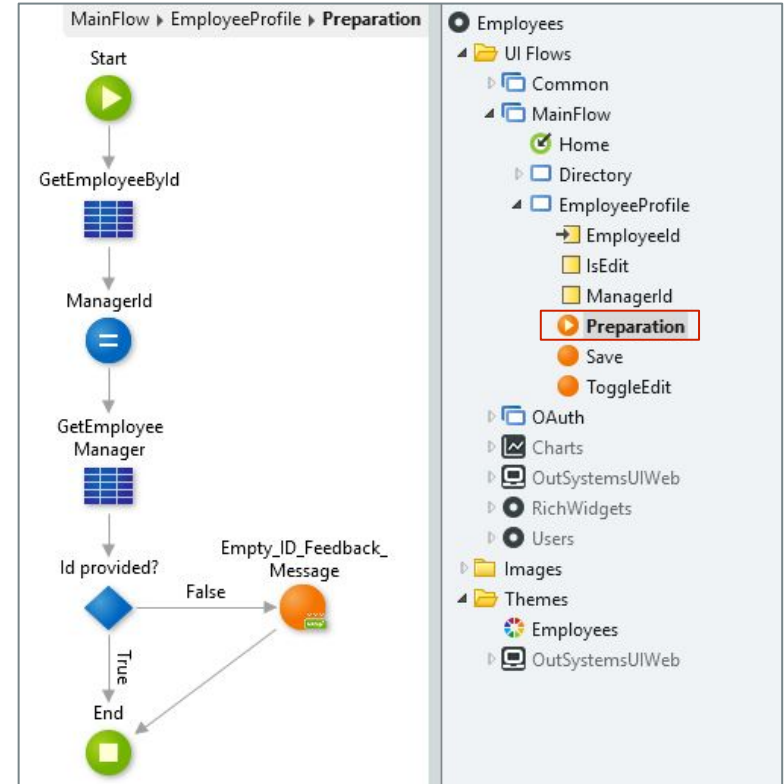
# Fetching Data: Preparation

Screens may need to display “external” data

The **Preparation** is a special **Screen Action** which has access to the Screen Inputs and Local Variables and can access other data

Data needed to help render the Screen should be fetched in the Preparation

- Data can be fetched from multiple sources
  - Databases: Aggregates & SQL
  - Integrations: Web Services, REST, etc.
- Data becomes available for use in the Screen



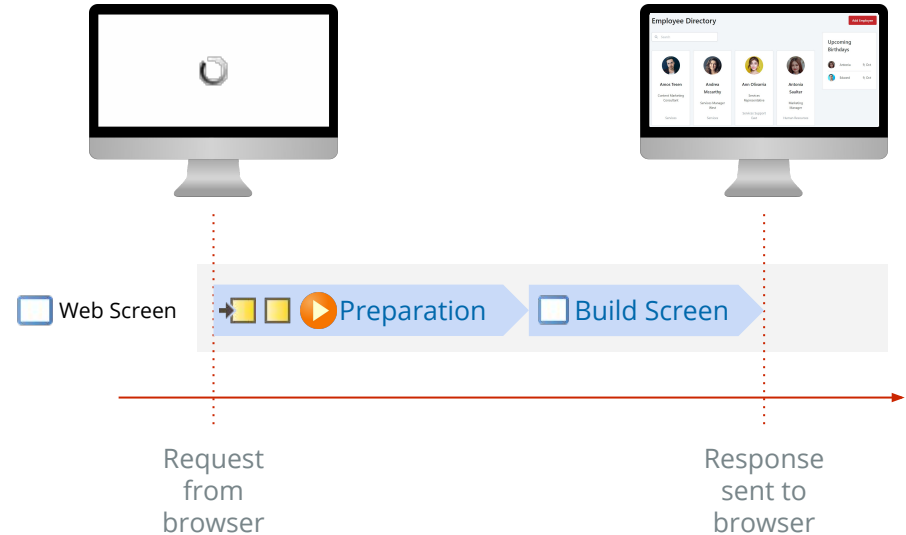


# Screen Lifecycle

When accessing a Screen, it all starts with a request from the browser

1. Mandatory Input Parameters are set to the value sent in the request
2. Empty Non-mandatory Input Parameters and Local Variables are set to default values
3. Preparation runs
4. Screen is built (rendered) from top to bottom

When the response gets to the browser, it is displayed to the user



# Summary

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  - Screen Content
  - Screen Variables
- Fetching Data
  - Preparation
- Screen Lifecycle



**Basic Screen  
Development  
Thank You!**