



# **SAP Process Automation – Technical Academy**

## Accelerate Innovation by Unlocking the Potential of Your Business

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PUBLIC

- Introductions
- **SAP Business Technology Platform & Process Automation Overview**
- Technical Academy Overview
- Technical Academy Hands-on Exercises (Part 1-2)
- Break – 15 minutes
- Technical Academy Hands-on Exercises (Part 3-5)
- Wrap Up

# Digital technology platforms are a key innovation enabler

Firms that have a flexible technology foundation and a business operating model that can change quickly **grow nearly three times faster than their industry average.**

**Forrester**

Companies that innovate faster with software also score **higher on customer satisfaction, brand perception, and talent management.**

**McKinsey**

Forrester: Future Fit Firms Outpace The Competition, April 2021

McKinsey: Developer Velocity: How software excellence fuels business performance, December 2020

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**What is SAP BTP?**

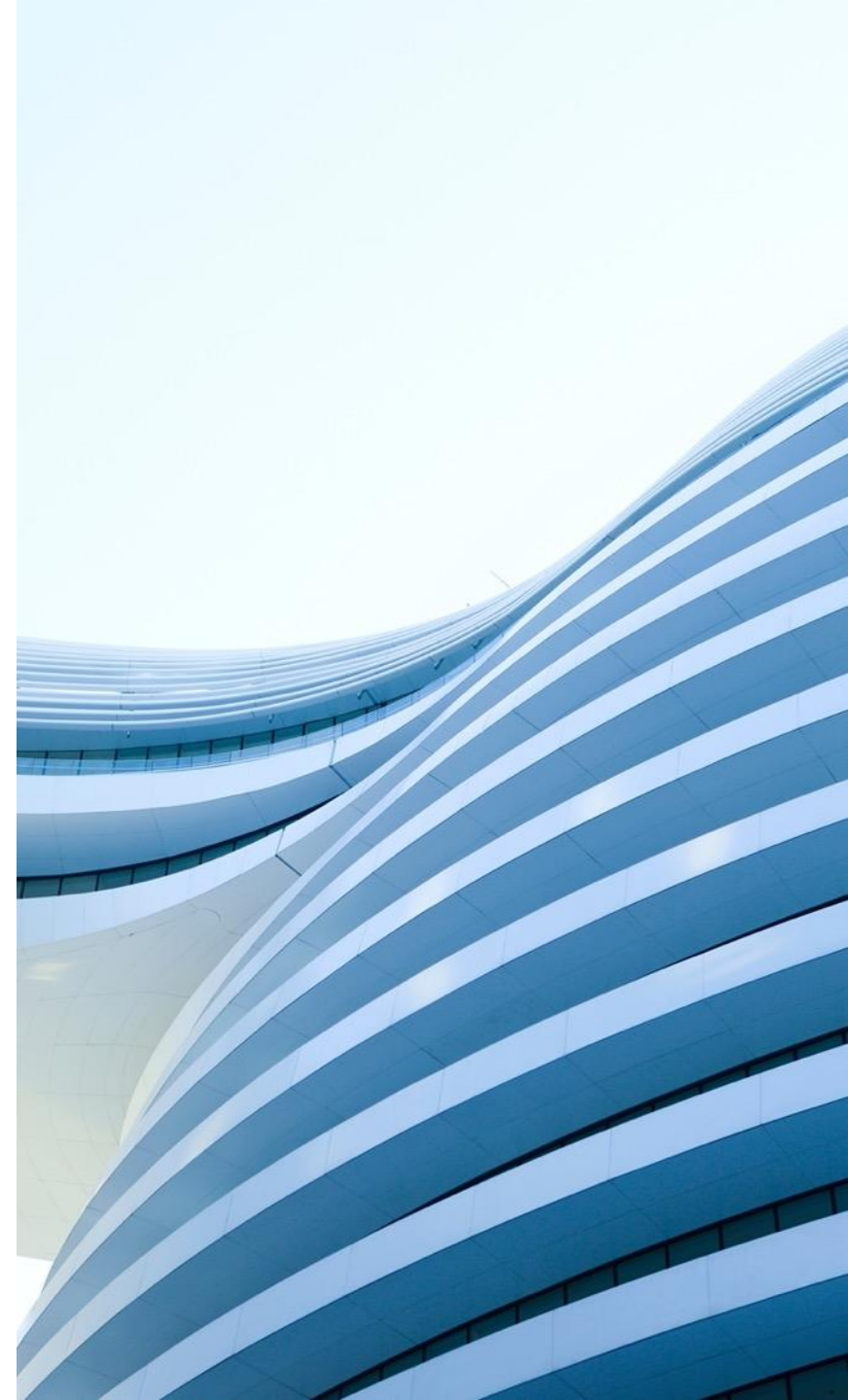


# What Is SAP BTP?

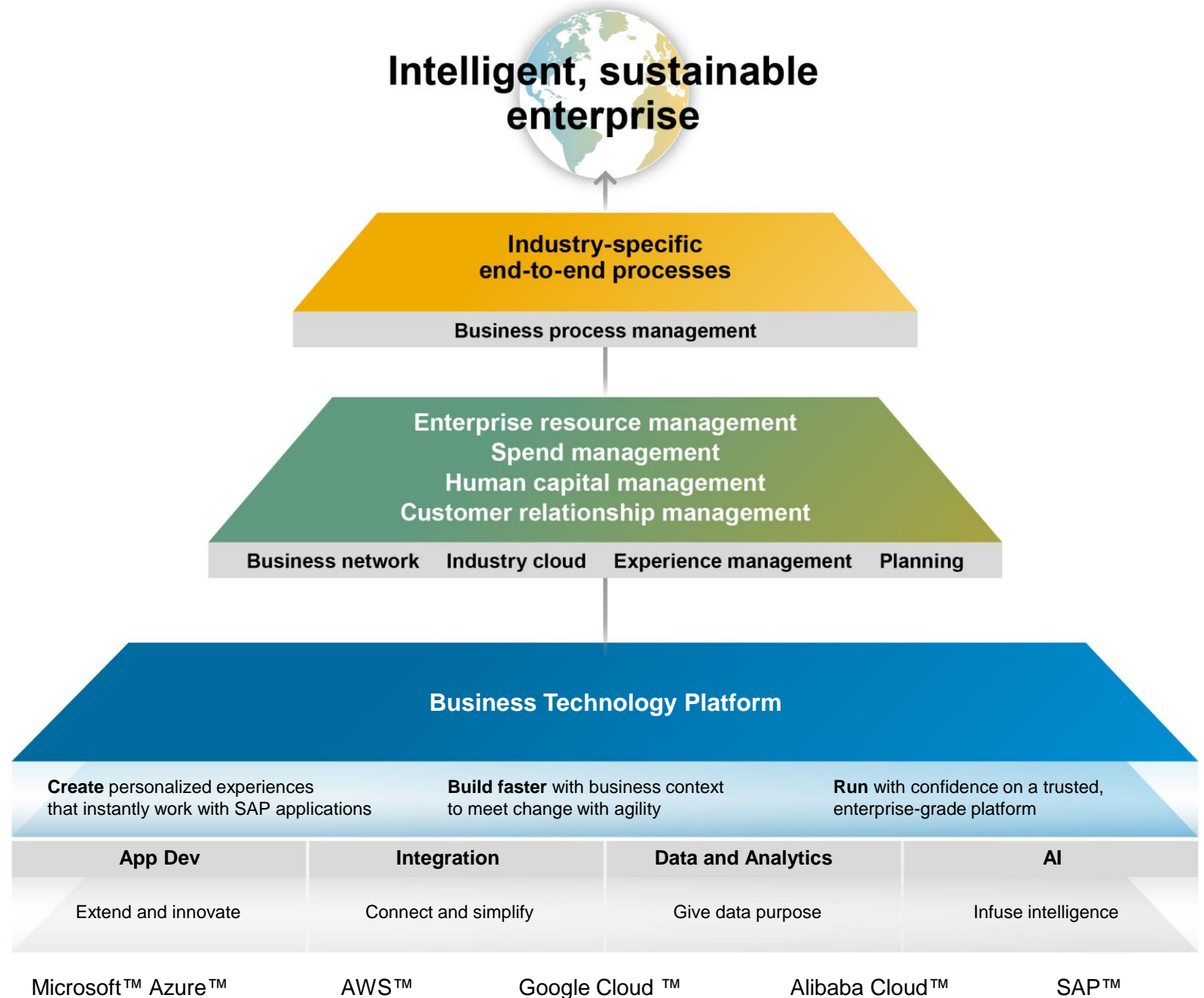
**The platform that brings together application development, data management, analytics and planning, integration, and AI capabilities into one unified environment optimized for SAP applications**

**It is a comprehensive solution with:**

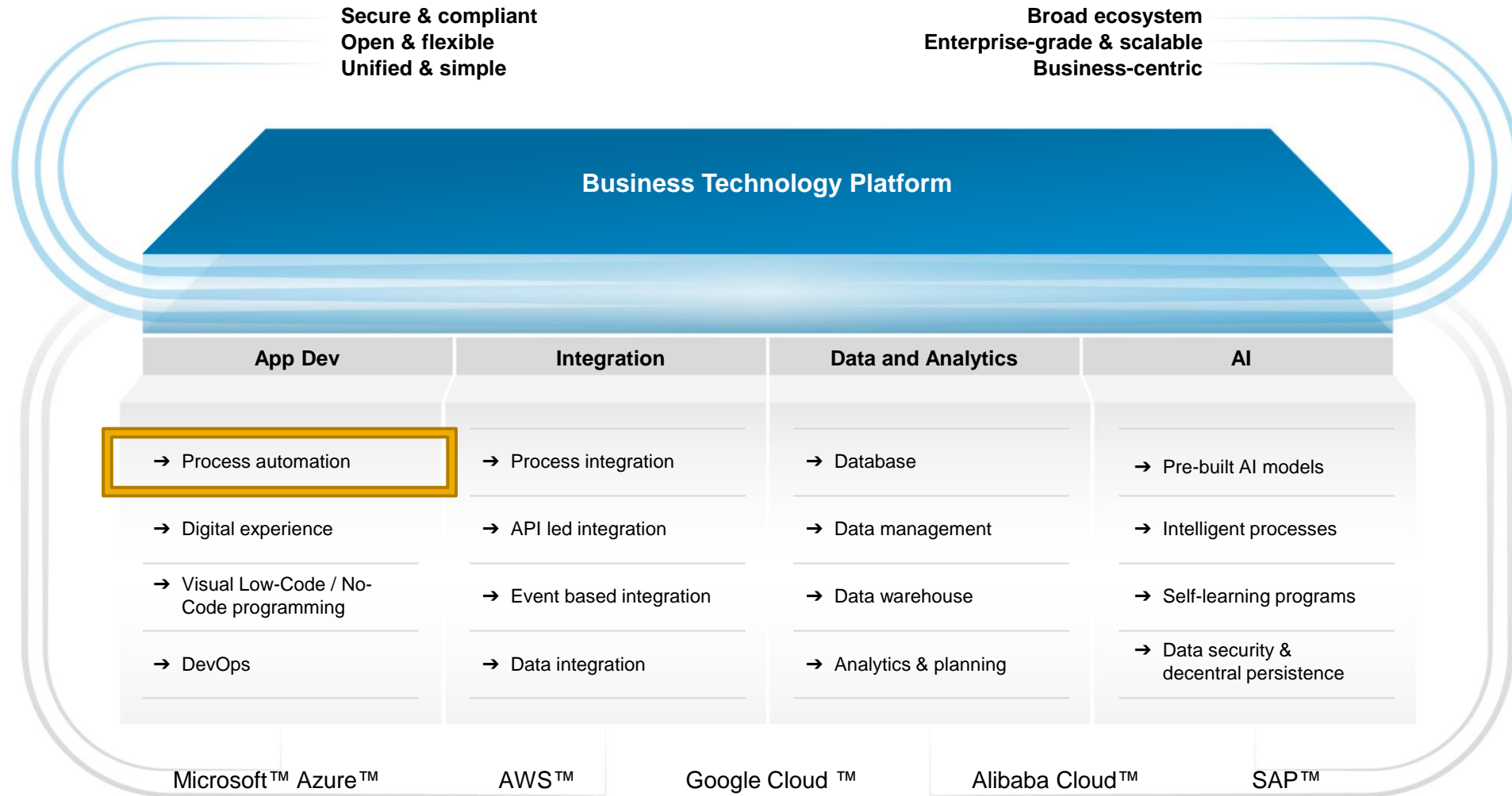
- An intuitive, modern development environment for both, professional IT and citizen/business developers
- Prebuilt data models, integrations, workflows, app templates, and AI business services
- Self-service data discovery, modeling, planning and analytics, for business users in a governed environment
- Availability on Microsoft™ Azure™, AWS™, Google Cloud™ and Alibaba Cloud™



# SAP BTP is the foundation of the Intelligent Sustainable Enterprise



# SAP BTP Cloud Capabilities



# SAP Process Automation

**Low-code/no-code as a solution**







## According to **Gartner**

80% of technology products will be built by non-technical people by 2024

How can you  
**empower business  
users, securely?**

What role to  
**pro-developers  
& IT play?**

# Critical Digitalization Challenges

Organizations Fail to Innovate at the Speed the Business Demands



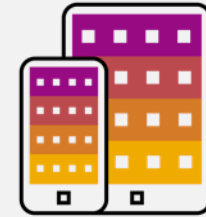
Rapidly evolving customer requirements accelerating demand for cloud solutions

“The pandemic is accelerating cloud demand, with 59% of enterprises expecting cloud use to exceed plans due to COVID-19.”<sup>1</sup>



Limited development resources, inhibiting digitalization

“Lack of skills was cited as the number-one challenge in a recent Gartner Research Circle survey, and CIOs identified the ‘lack of skills and resources’ as the biggest barrier to success.”<sup>2</sup>



Complex IT landscapes, with a growing number of applications maintained by companies

Large companies maintain 129 different applications on average, with the total number increasing by 68% since 2015.<sup>3</sup>

1. “Maximizing the Impact of Technology Investments in the New Normal,” CIO Insider, Deloitte, 03 February, 2021, Khalid Kark, Jagjeet, Gill, and Tim Smith.
2. “Forecast Analysis: Low-Code Development Technologies,” 22 January 2021, Fabrizio Biscotti, Paul Vincent, Jason Wong, Laurie Wurster. GARTNER is the trademark and service mark of Gartner Inc., and/or its affiliates and has been used herein with permission. All rights reserved.
3. “Employees Are Accessing More and More Business Apps, Study Finds,” The Wall Street Journal, 07 February, 2019, Angus Loten.

# The end-to-end value of business process intelligence

From process insights and customer experience to process automation and improvement

## Business process intelligence



# SAP Process Automation

Combining workflow management and RPA capabilities with a no-code citizen developer experience



SAP Process Automation **combines capabilities** from the SAP **Workflow Management** and **SAP Intelligent Robotic Process Automation** services with an **intuitive citizen developer experience**.



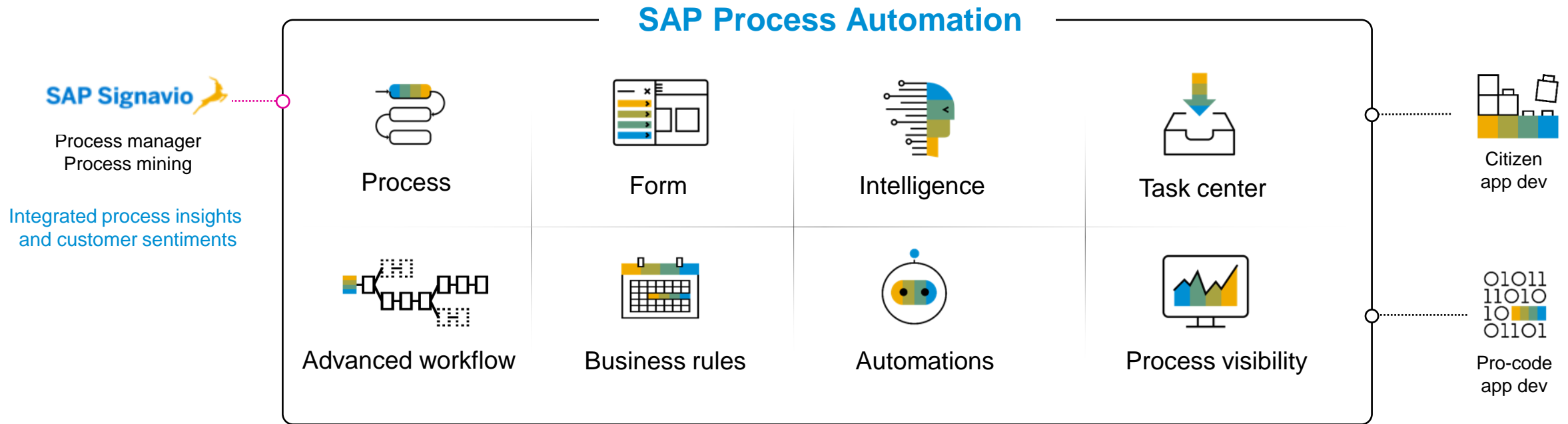
Enables organizations to manage the **automation of workflows and processes** using visual features that require **no coding expertise**.



Increases organizations' capacity to drive process automation by **empowering business experts to become citizen developers**. Leveraging the power of no-code, citizen developers can build, adapt, improve, and innovate business processes with minimum assistance from scarce IT resources.

# Introducing SAP Process Automation

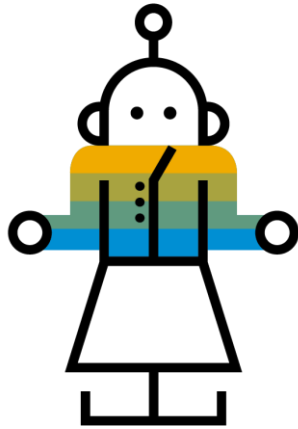
Capabilities: citizen automation for line-of-business builders



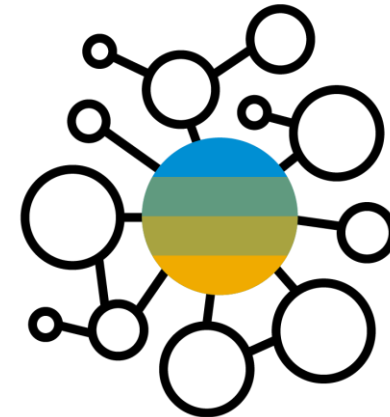
- New **citizen automation user experience** (process builder, forms builder)
- All **advanced workflow management** capabilities available (rules, process visibility, process flexibility, AI)
- Embedded **RPA capabilities** to readily combine bot automations with workflows
- Content and **reusable artifacts** (such as bots, workflow components, process steps, actions)
- **Unified launchpad and task center** for citizen developer applications and automations



# Deliver Full Automation to Your Customers



**Bots & workflows  
for Human Task  
automation**

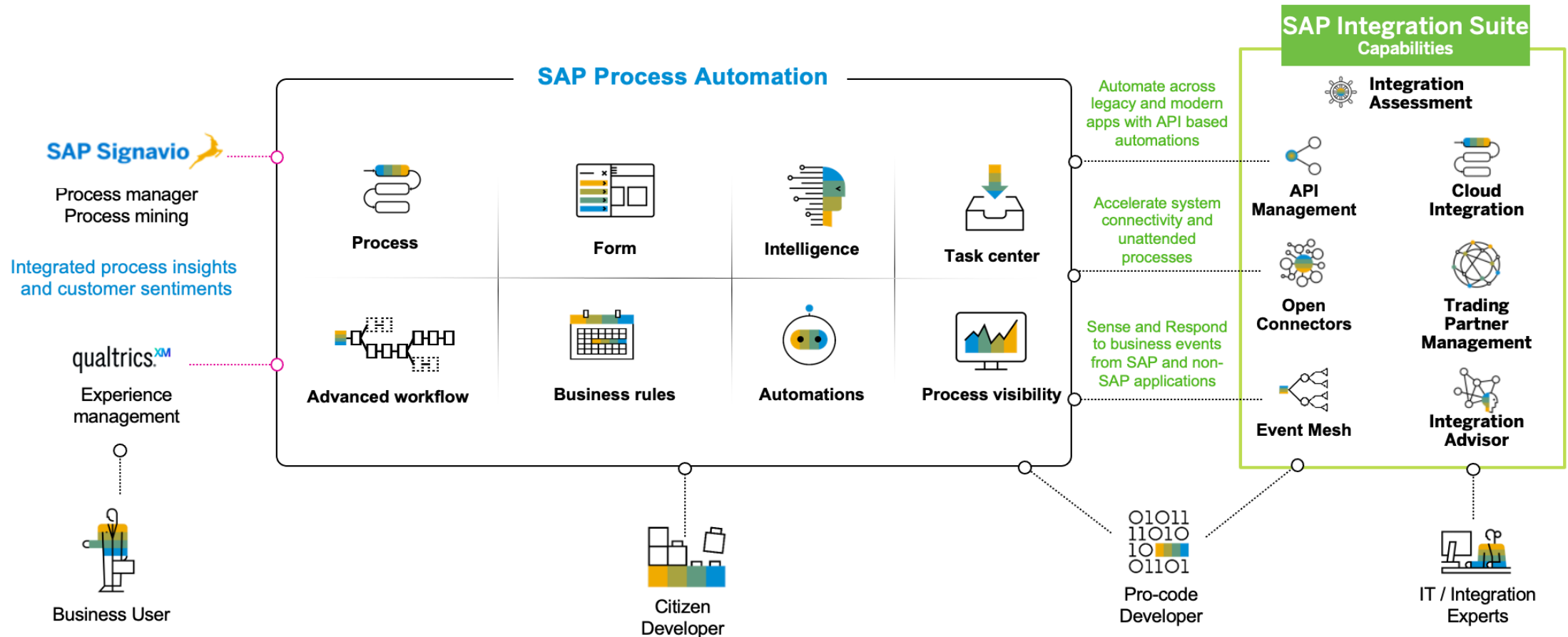


**Enterprise  
Integration for  
system automation**

# SAP Process Automation Complementing Integration Suite

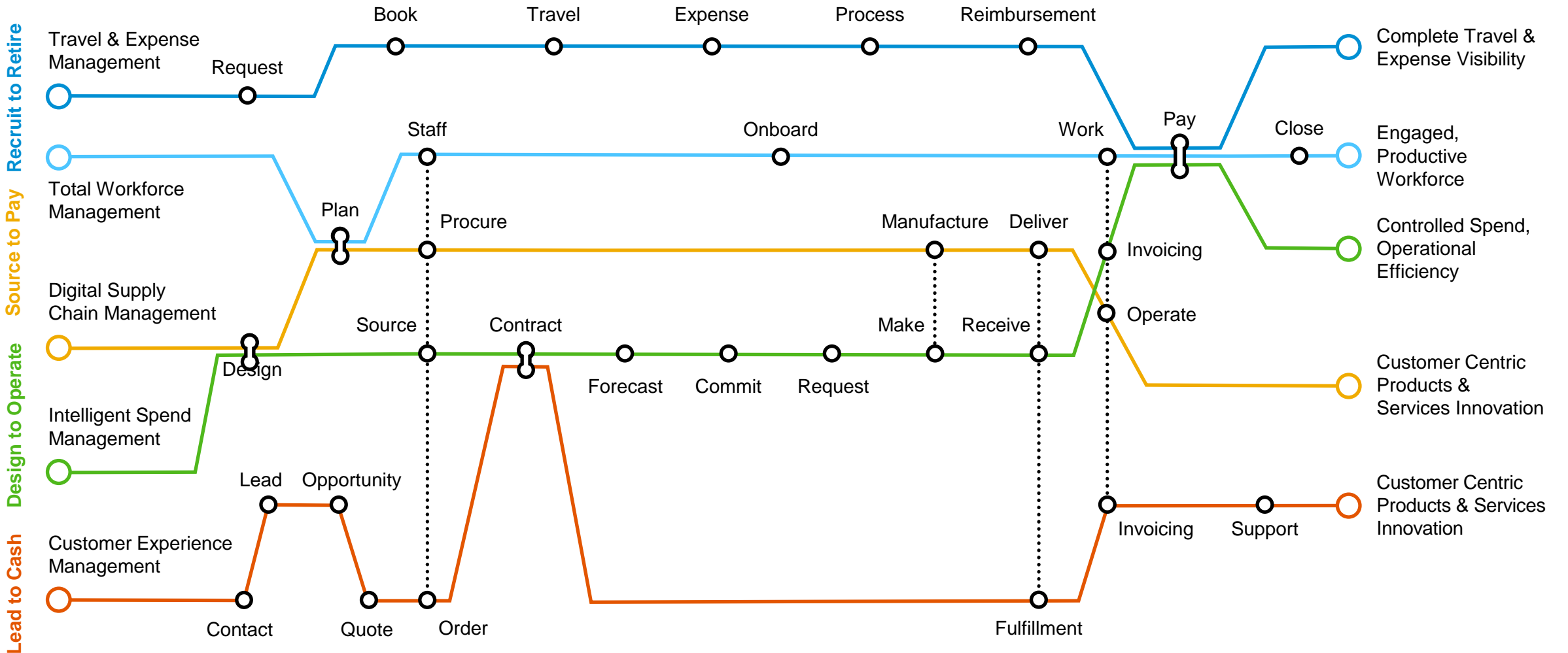
## Example Scenarios:

- SAP S/4HANA business events captured, categorized in Event Mesh invoking unattended bots on SAP Process Automation.
- Payment Request at the end of workflow approval, simplified and secured with managed APIs and application connectors.
- Sales order notification for credit blocks, triggering a process with an attended bot that allows users to make a decision



# Deliver Processes and Experiences across Multiple Applications and Systems

Connect SAP & Third Party Applications Across End-to-End Business Processes with **SAP Integration Suite**



# Citizen developer workflow and automation in ONE product experience

Quick Start

- Create an Automation
- Create a Form
- Create a Process
- Browse Content

All Projects (113)

| Name              | Latest Version | Type             | Last Accessed    | Collaborators |
|-------------------|----------------|------------------|------------------|---------------|
| PR Garage Project | EDITABLE       | Business Process | Dec 16, 5:50 pm  | Everyone      |
| TestSPAHP2 string | EDITABLE       | Business Process | Dec 16, 10:56 am | Everyone      |
| TestSPAHP4 dght   | EDITABLE       | Business Process | Dec 16, 10:12 am | Everyone      |

**Lobby**

One Lobby across Process Automation & Application Development

Facility Requisitions in NewCo

Overview

Artifacts (15)

| Name   | Description  | Type                | Last edited |
|--|--|---------------------|-------------|
| ApproveDetermination                               | Determine Approvers                                      | Decision            | 2 days ago  |
| Approvers  | No value   | Data Type           | 12 days ago |
| Confirmation                                       | No value   | Automation          | 2 days ago  |
| Facility Requisition Visibility NewCo              | A visibility scenario for Facility Requisitions in NewCo | Visibility Scenario | 2 days ago  |
| Facility Requisitions Audit, Approval and Creation | Facility Requisitions Audit, Approval and Creation       | Process             | A day ago   |
| PurchaseInvoice                                    | No value   | Document Template   | 2 days ago  |
| PurchaseInvoiceID7                                 | No value   | Data Type           | 2 days ago  |
| ReqDocumentID7                                     | No value   | Data Type           | 12 days ago |
| Requisition  | No value   | Form                | 2 days ago  |

**Project**

One Process Project with a simple life cycle and fast time to value across all artifacts

Garage Project Department 002 PR Requests

Process One 002

Manager Approval

Expected Cost (€)\*

Quantity\*

Purchase Requisition Name\*

Approver Comments

Delivery Date\*

Plant\*

Description\*

**Process**

One Process Builder combining Workflow with Automations in a simple intuitive language

Facility Requisitions in NewCo

Facility Requisition Visibility

Scan & Check

ApproverDetermination

Requisition is submitted

**Process with intelligent Automation**

Embedded AI capabilities with immersive modeling experience to add intelligent automations into process



# **SAP Process Automation Technical Academy**



# Goals of a Technical Academy

*“Tell me and I will forget, show me and I may remember; involve me and I will understand.” — Confucius*

Customer can experience the power of SAP  
BTP to deliver business outcomes

Save time and money with out of the box  
pre-configured SAP software landscape  
free of charge

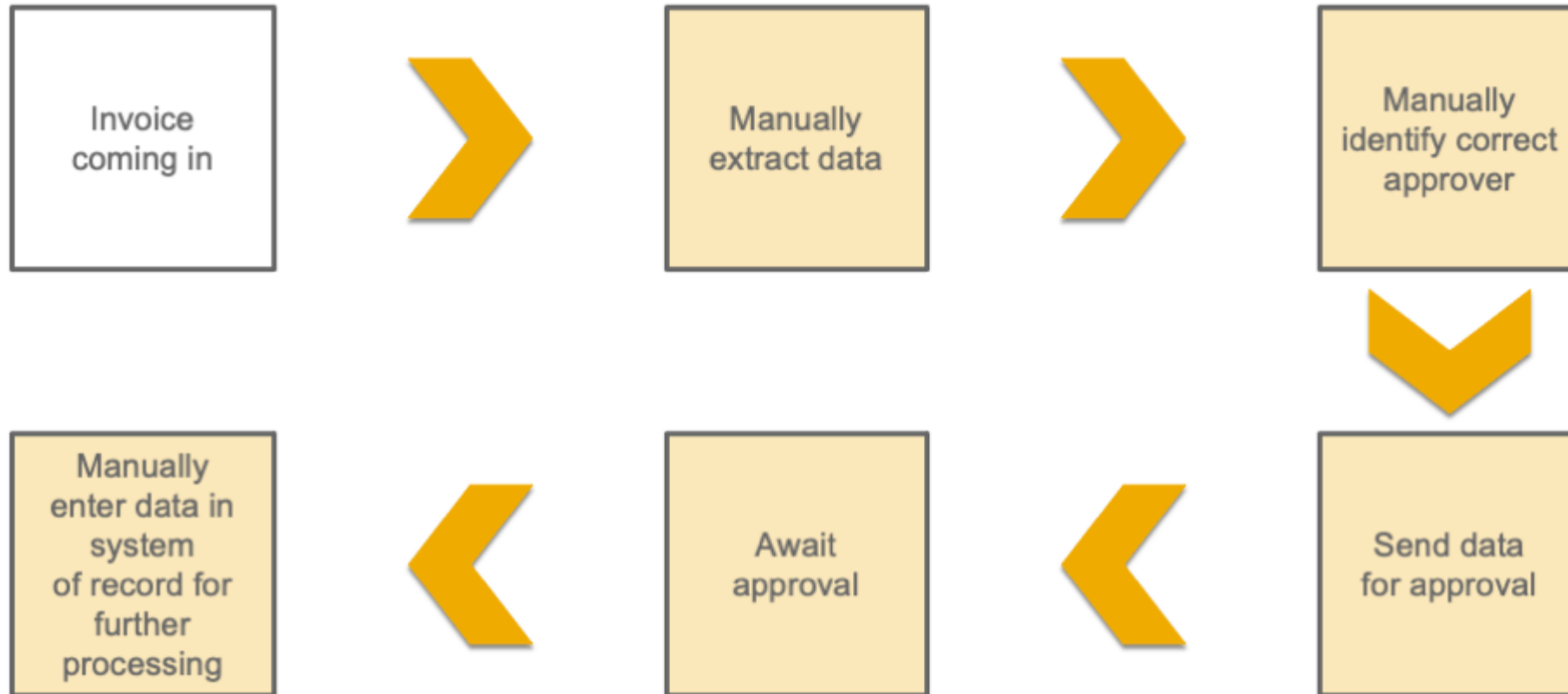
Academy workshops allows customers to see and  
feel how SAP can help them achieve their desired  
outcomes

## Expectations for Technical Academy

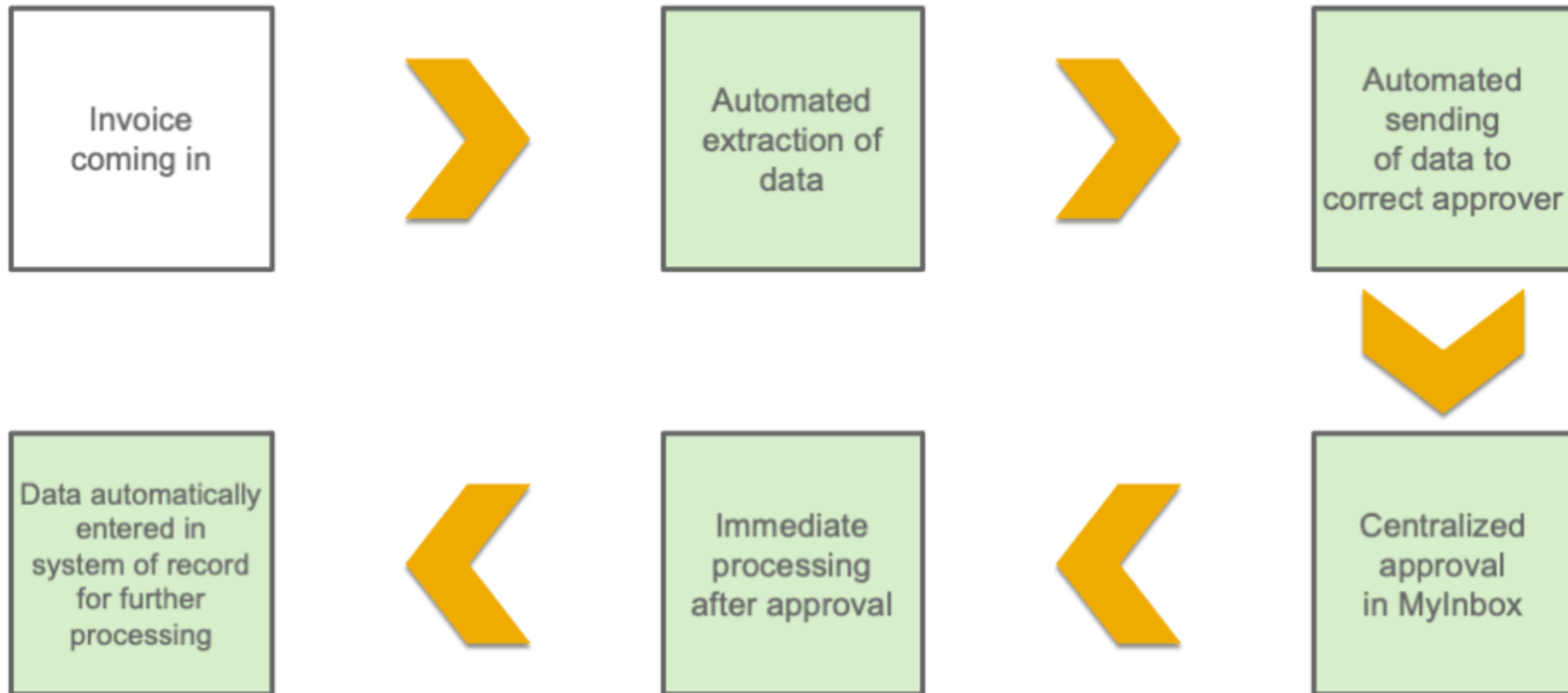
- This is not a full training/education session
- We will not be covering all capabilities within SAP Process Automation
- You may not finish all exercises within the allotted time (You can complete the exercise after our session today, if you run out of time).



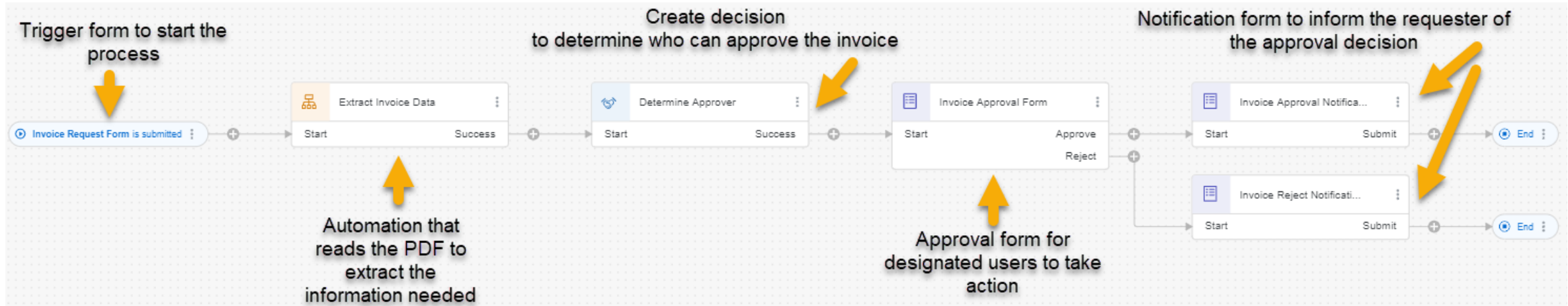
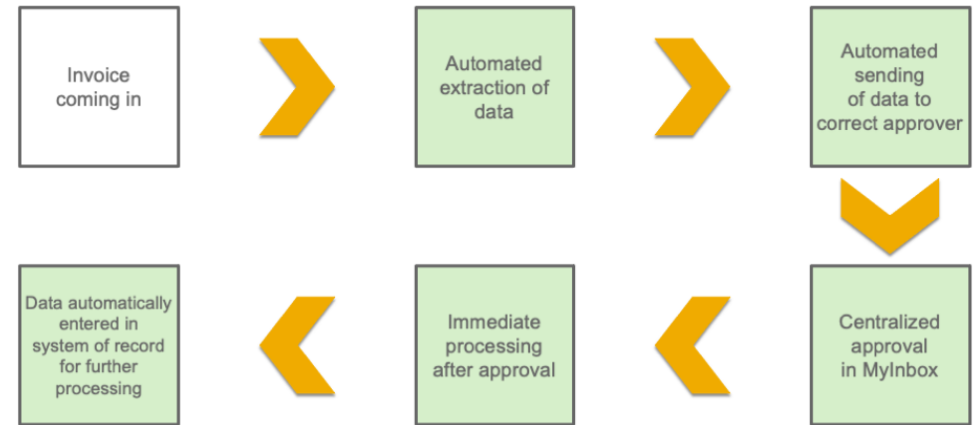
# Typical “Manual” Invoice Processing



# Improving the Business Process

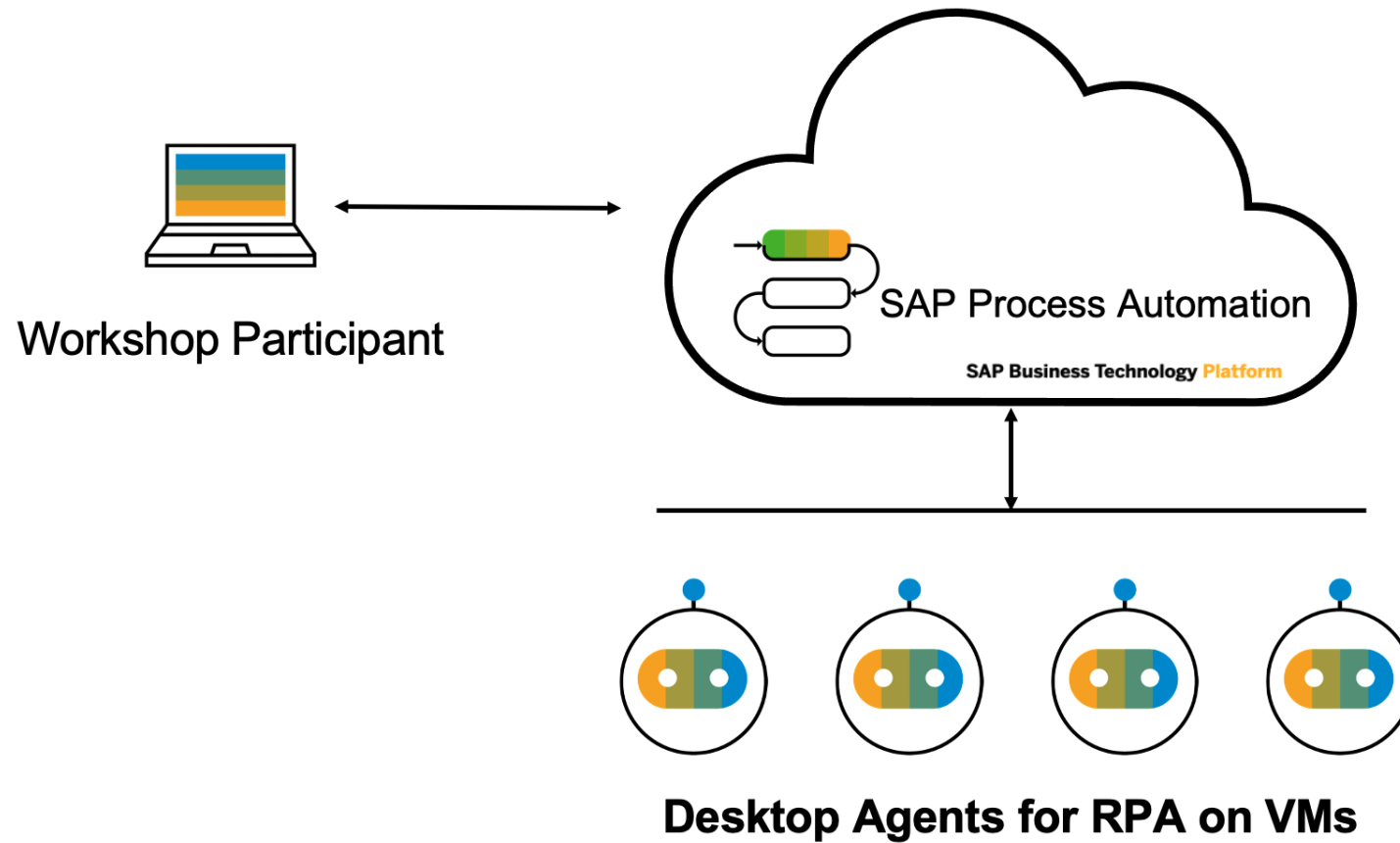


# Exercise Overview





# Exercise: Setup



- Introductions
- SAP Process Automation Overview
- Technical Academy Overview
- **Technical Academy Hands-on Exercises (Part 1-3)**
- Break – 15 minutes
- Technical Academy Hands-on Exercises (Part 4-5)
- Wrap Up

# Exercise 1– Create an Invoice Approval Process (5 mins)



SAP Application Development Lobby Store Monitor Settings SS

Quick Start

- Create a Process
- Create a Form
- Create an Automation
- Browse Content

All Projects (0)

| Name | Versions | Type | Last Accessed | Collaboration |
|------|----------|------|---------------|---------------|
|------|----------|------|---------------|---------------|

Actions Project  
Encapsulate APIs as Actions

**Business Process**  
Automate processes and tasks

No results found  
Try changing your search or filter criteria to find what you are looking for

# Exercise 1.2 – Creating a new Process

The screenshot displays the SAP Application Development interface for an 'Invoice Approval' process. The top navigation bar includes the SAP logo, 'Application Development', the process name 'Invoice Approval', and the status 'Editable'. On the right, there are buttons for 'Release' and a user profile icon 'SS'. The main content area shows the process name 'Invoice Approval' in a red-bordered box. Below it, a metadata table provides details:

| Icon | Last updated on:          | Created on:               | Collaborators | Description  | Agent version |
|------|---------------------------|---------------------------|---------------|--|---------------|
| >>>  | April 13, 2022<br>By: You | April 13, 2022<br>By: You | You           | Process to extract information from an invoice and get the needed approvals. | No value      |

Below the table, it indicates 'Artifacts (0)'. The main workspace is empty, showing a message: 'No artifact has been created yet. Create your first artifact to start your project!'. A 'Create' dropdown menu is open on the right, listing various artifact types: Automation, Alert, Application, Project Pane, User Task, Process (highlighted with a red box and a tooltip 'Create a process'), Form, Visibility Scenario, Decision, Data Type, Document Template, and File. At the bottom, there are tabs for 'Design Console (0)', 'Test Console (0)', and 'Variables (0)'.

# Exercise 1.3 – Create the Submission Form

Overview >> Get Invoice Details x [Release] [Save]

Process Details

General Inputs Visibility

Process name: \*  
Get Invoice Details

Subject \*  
Get Invoice Details T

Business Key  
Process Instance Id x T

Trigger

Add a form or API trigger to your process using the + icon. If you add an API trigger, go to the side panel to configure the process.

Forms > + New Form

API >

Start Process

Design Console (0) Test Console (0) Variables (0)

Trigger

Invoice Request Form

Open Editor

Remove

Start Process

SAP Application Development Invoice Approval Editable

Overview >> \*Get Invoice Details x Invoice Request Form x

Layout

H1 H2

Headline 1 Headline 2

Paragraph

Inputs

Text Dropdown

Checkbox Number

Date

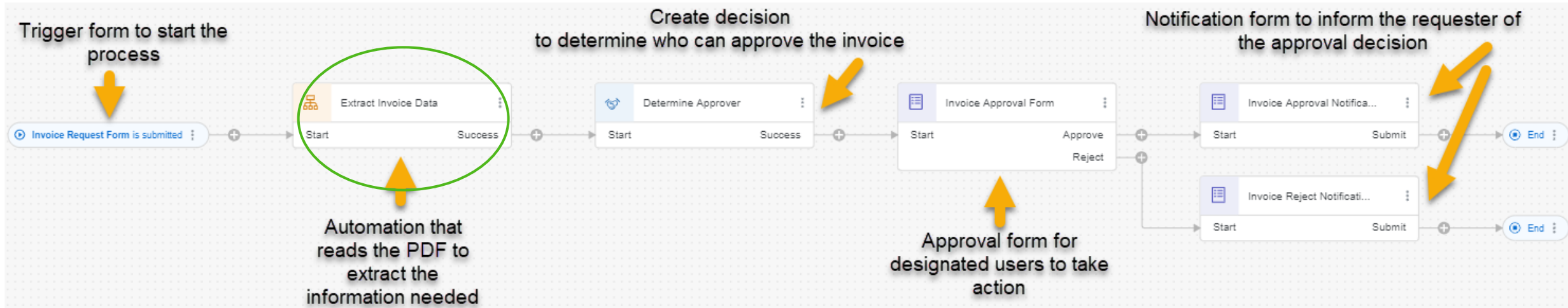
Invoice Request Form

+ Drag any field or click to add here

Submit



## Exercise 2 – Extract Invoice Details (40 mins)



# Part 2.1 – Create Data Types

The screenshot illustrates the SAP Application Development environment. The top navigation bar shows 'SAP Application Development' and 'Artifacts' with a search bar. A dropdown menu is open, highlighting 'Create' and 'Data Type'. The 'Data Type' menu item is also highlighted in the main interface. The main workspace displays 'Invoice Approval' with a table of fields and a 'Field Details' panel.

**Table of Fields:**

| Name           | Type   | Sample | List | Required |           |
|----------------|--------|--------|------|----------|-----------|
| DocumentNumber | String |        | No   | No       | New Child |
| GrossAmount    | Number |        | No   | No       | New Child |
| SenderName     | String |        | No   | No       | New Child |

**Field Details Panel:**

**General Information**

Name: \*  
SenderName

Type: \*  
String

Sample value:  
Sample value

**Constraints**

Required  
 Enumeration

# Part 2.2 – Create Automation

The screenshot shows the SAP automation builder interface. On the left, a 'Trigger' card is visible with the text 'Invoice Request Form' and a 'Start Process' button. A red arrow points to a small red '+' icon on the right side of the trigger card. To the right of this icon is a vertical menu with the following items: Forms, Approvals, Automation, Decision, Actions, Workflow, Mail, and Controls. The 'Automation' item is highlighted with a red box, and a 'New Automation' button is visible to its right, also highlighted with a red box.

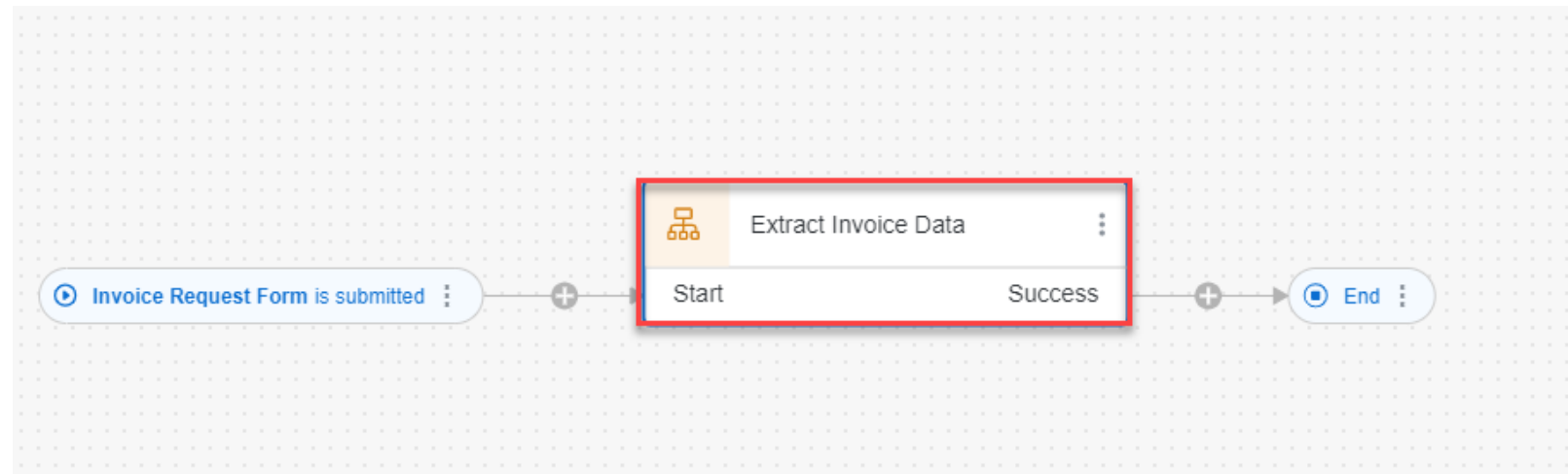
## Configure agent version

Please select the version of the agents installed on machines that will execute the automation. For more information, [see the documentation](#).

Agent version: \*

2.0.26 Registered X v

Confirm Cancel



# Part 2.3 – Create Input/Output Parameters

SAP Application Development Invoice Approval Editable

Artifacts Overview \*Get Invoice ... Invoice Invoice Reques... Extract Invoic... Release Save

Search Artifacts

Extract Invoice Data Invoice Request Form Get Invoice Details Invoice

Start Canvas End

Start building your automation by dragging activities from the panel to the flow.

Automation Details

Tools Input/Output Info

Input parameters

No input parameter defined for this Automation.

Add new input parameter

Output parameters

No output parameter defined for this Automation.

Add new output parameter

Other users won't be able to edit this artifact while you're editing it. **Save**

## Automation Details

Tools **Input/Output** Info

### Input parameters

FilePath

Path where the invoice document is stored

String

List

Delete input

Add new input parameter

### Output parameters

InvoiceDetails

Extracted Invoice Details

Invoice

List

Delete output

Add new output parameter

# Part 2.4 and 2.5 – Create document template and Annotate

The screenshot illustrates the SAP Document Information Extraction (DIE) interface. On the left, the 'Create' menu is open, highlighting the 'Document Template' option. Below it, a flow diagram shows a 'Start' node leading to a box with the instruction 'Start building your automation by dragging activities from the panel to the flow.', which then leads to an 'End' node.

The main interface displays the 'ABCCommunicationTemplate / Invoice.pdf' document. The preprocessing status is 'DONE'. A search bar contains the text: 'If a header field appears on every page, annotate it on the first page only.' The document content shows an invoice for 'ABC Communication' with the following details:

- Address: 3451 NE Willoughby Blvd., Sturt, FL 5494 U.S.A.
- Phone: (72) 288-2250 Fax: (72) 288-9631 42-5846832
- E-Mail: dispatch@abcms.com Web: www.abcms.com
- Number: 174221
- Date: 2/18/2019
- PO: 1258-0854

The 'Assign Field' dialog box is open, showing the 'documentNumber' field selected with a value of '174221'. The 'Apply' button is highlighted.

Below the invoice content, there is a table with columns: Acct.#, A/R Cust.#, Acct. ID, Customer P.O., Attn to, Sales Rep, Ship Via, and Terms. The first row contains: 860, Std Products, Ft. Lauderdale, 285058-5848, Curtis V. Brown, ., Email, and Dis upon receipt.

Additional text includes 'Work Requested: 02/01/2016 11:39 AM, Gary:' and 'Per phone call from Ben: Customer advised that the incoming phone calls now ring throughout the store over the speaker.' followed by 'Ben # 306.41.073' and 'Ben cell# 052-005-691'.

At the bottom, it says 'Work Performed: 2/16/16' and 'Lines had programming glitch, ring over page to group 5011. Deleted Lisa out of MC 7224. Tested all lines incoming OK 711231-716. There should be no calls coming in on these lines/3'.

# Part 2.6 – Build Automation

This screenshot shows the SAP Automation Builder interface for an automation named '\*Extract Invoice...'. The workflow consists of a 'Start' node, an 'Extract Data (Template)' activity (highlighted with a red box), and an 'End' node. A red dashed arrow points from the 'Extract Data (Template)' activity to the 'Automation Details' panel on the right. In this panel, the 'Tools' tab is active, showing a search for 'extract Data' and a list of activities under 'Document Information Extraction Activities', with 'Extract Data (Template)' highlighted in a red box.

This screenshot shows the SAP Automation Builder interface for an automation named '\*Get Invoice Details'. The workflow consists of a 'Start' node, an 'Extract Data (Template)' activity, a 'Create Invoice variable' activity, and a 'Log Message' activity (highlighted with a red box), followed by an 'End' node. A red dashed arrow points from the 'Log Message' activity to the 'Automation Details' panel on the right. In this panel, the 'Parameters' tab is active, showing the 'message' input parameter with the value '2 myinvoiceData' highlighted in a red box.

This screenshot shows the SAP Automation Builder interface for an automation named '\*Extract Invoice...'. The workflow consists of a 'Start' node, an 'Extract Data (Template)' activity, a 'Create Invoice variable' activity (highlighted with a red box), and an 'End' node. A red dashed arrow points from the 'Create Invoice variable' activity to the 'Automation Details' panel on the right. In this panel, the 'Tools' tab is active, showing a search for 'Invoice' and a list of data types under 'Data Types', with 'Invoice' highlighted in a red box.

This screenshot shows the SAP Automation Builder interface for an automation named '\*Get Invoice Details'. The workflow consists of a 'Trigger' node, an 'Invoice Request Form' activity, an 'Extract Invoice data' activity (highlighted with a red box), and an 'End' node. A red dashed arrow points from the 'Extract Invoice data' activity to the 'Automation Details' panel on the right. In this panel, the 'Inputs' tab is active, showing the 'FilePath' input parameter with the value 'File Path | Invoice Requ...' highlighted in a red box.



## Tips:

- “Create Automation” -> Select the agent version “2.0.26”
- “Create Input/Output Parameters” -> Make to choose ‘invoice’ as datatype for Output
- “Create Date Types” -> Choose the correct Type for GrossAmount (i.e. “Number”)
- “Create Document Template” -> download invoice.pdf
- “Create Document Template” -> Make sure to Create New Schema
- “Build the Automation” -> Step 10 make sure you include the full expression when selecting the expression `extractedData.headerFields.documentNumber.grossAmount.value`

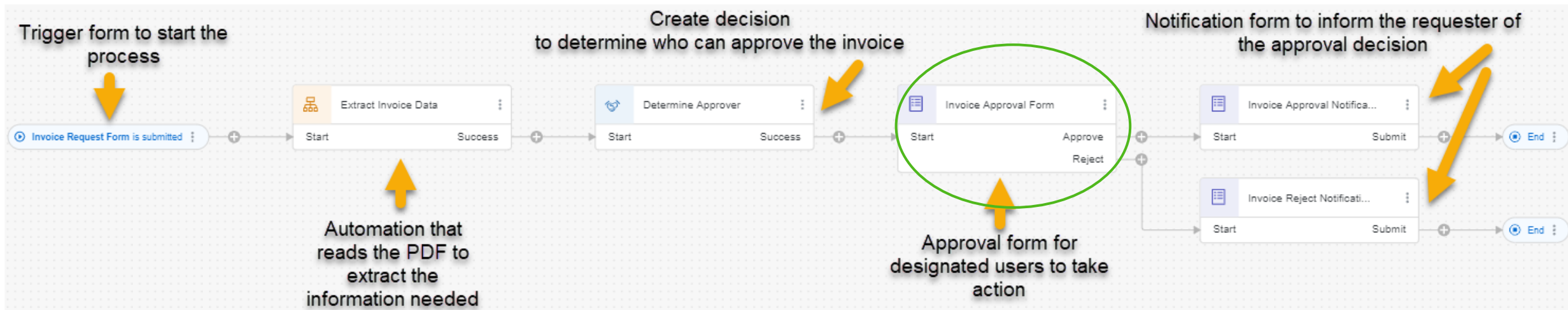
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- **Break – 15 minutes**
- Technical Academy Hands-on Exercises (Part 3-5)
- Wrap Up

**Break – 15 minutes**

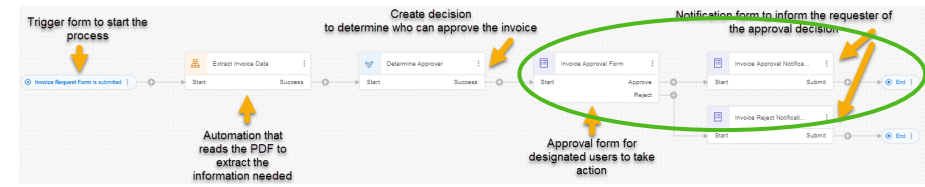
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# Exercise 3 – Create Form for Approval Process (20 mins)



# Exercise 3.1 – Approval Form



SAP Application Development Invoice Approval AC08129UXX Editable

Overview >>> Get Invoice Details AC08... x

Save

Get Invoice Details AC08129UXX

General Inputs Visibility

Process name: \*  
Get Invoice Details AC08129UXX

Subject \*  
Get Invoice Details AC08129UXX

Business Key  
Process Instance Id | Pr... x T

Trigger

Invoice Request Form

Start Process

Extract Invoice Data

Start Success

Approvals > + New Approval Form

Automation >

Decision >

Actions >

Workflow >

Mail >

Controls >

Design Console (0) Test Console (0) Variables (0)

Save

Invoice Approval Form

General Inputs Outputs

Employee Name \*  
Employee Name | Invoic... x T

Company Name \*  
SenderName | Extract In... x T

Gross Amount \*  
GrossAmount | Extract I... x #

Invoice Number \*  
DocumentNumber | Extr... x T

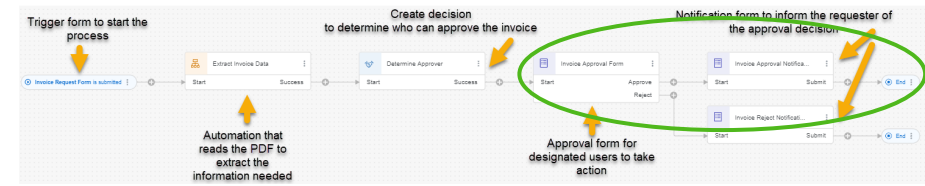
Invoice Approval Form

Start Approve Reject

End



# Exercise 3.1 – Approval Form



SAP Application Development | Invoice Approval AC08129UXX | Editable

Overview | Get Invoice Details AC08... x | Release | Save

Get Invoice Details AC08129UXX

General | Inputs | Visibility

Process name: \*  
Get Invoice Details AC08129UXX

Subject \*  
Get Invoice Details AC08129UXX

Business Key  
Process Instance Id | Pr... x T

Trigger: Invoice Request Form (Start Process)

Automation: Extract Invoice Data (Start Success)

Menu: Forms, Approvals (+ New Approval Form), Automation, Decision, Actions, Workflow, Mail, Controls

Design Console (0) | Test Console (0) | Variables (0)

Invoice Approval Form

General | **Inputs** | Outputs

Employee Name \*  
Employee Name | Invoic... x T

Company Name \*  
SenderName | Extract In... x T

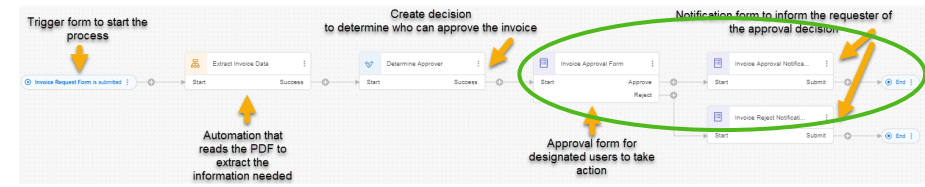
Gross Amount \*  
GrossAmount | Extract I... x #

Invoice Number \*  
DocumentNumber | Extr... x T

Save

Invoice Approval Form (Start, Approve, Reject)

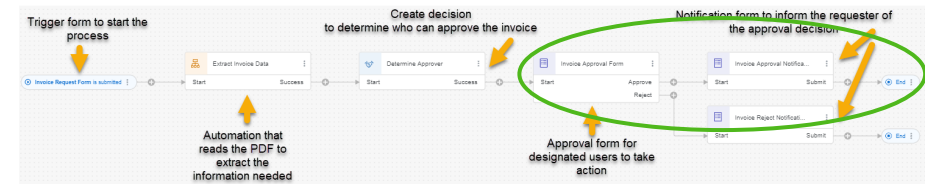
# Exercise 3.2 – Create Approval Notification



This screenshot shows the SAP Application Development interface for the 'Invoice Approval' process. The process flow is visible, including the 'Extract Invoice Data' step. A context menu is open over the 'Determine Approver' step, with 'New Approval Form' highlighted. The right-hand pane shows the configuration for 'Get Invoice Details', with fields for Process name, Subject, and Business Key.

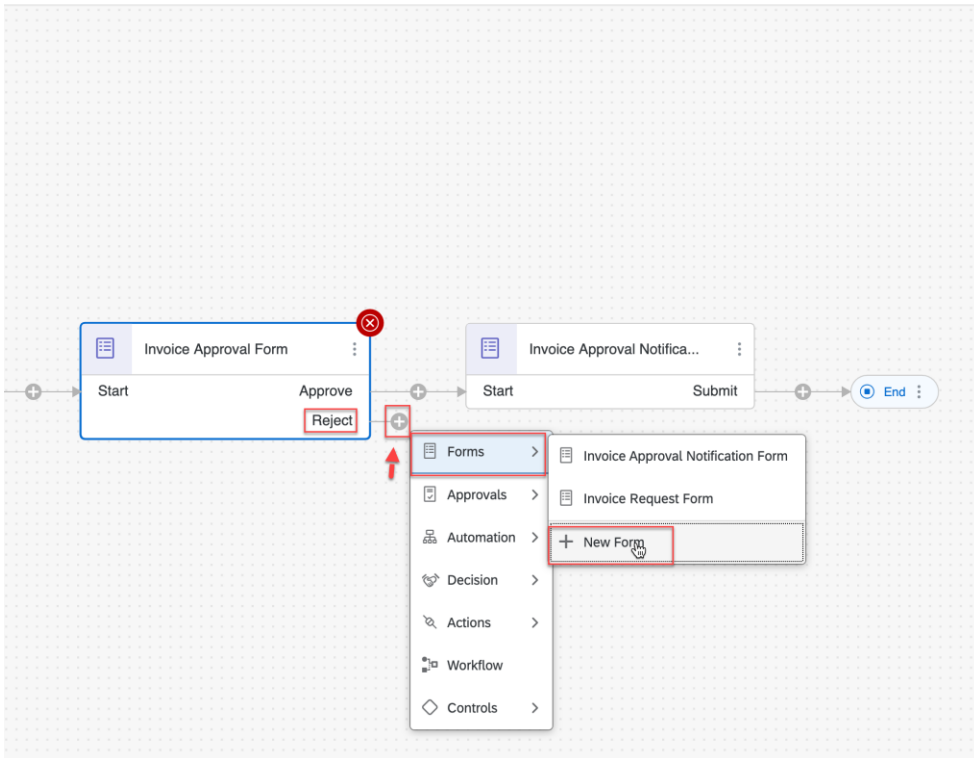
This screenshot shows the completed SAP Application Development interface for the 'Invoice Approval' process. The process flow now includes 'Invoice Approval Form', 'Invoice Approval Notification', and 'Invoice Reject Notification' steps. The right-hand pane shows the configuration for 'Get Invoice Details' with the Business Key field populated with 'Process Instance Id | Pr...'. The interface includes a 'Save' button and a 'Release' button.

# Exercise 3.3 – Create Rejection Notification



Invoice Approval Editable

Invoice Request Form × Determine Approver × Approver × Invoice Approval Form × Invoice Approval Notificati... ×



SAP Application Development Invoice Approval AC08129UXX Editable

Overview >>> Get Invoice Details AC08... × Invoice Approval Notificati... × Invoice Reject Notification ... ×

Release Save

Get Invoice Details AC08129UXX

General Inputs Visibility

Process name: \*  
Get Invoice Details AC08129UXX

Subject \*  
Get Invoice Details AC08129UXX T

Business Key  
Process Instance Id | Pr... × T

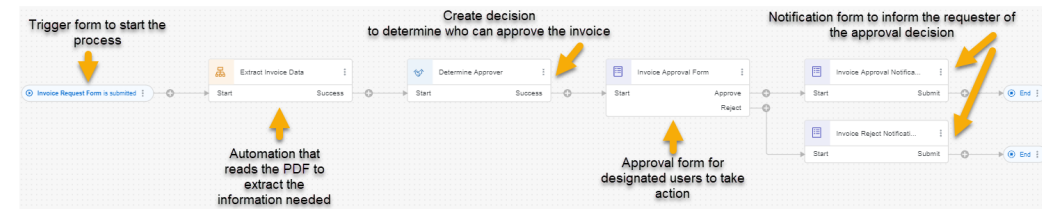
Design Console (0) Test Console (0) Variables (0)

The screenshot shows the SAP Business Builder interface for the 'Invoice Approval AC08129UXX' process. The main canvas displays the process flow diagram, including the 'Trigger', 'Extract Invoice Data', 'Invoice Approval Form', and 'Invoice Approval Notification' steps. The right-hand pane shows the configuration for the 'Get Invoice Details AC08129UXX' function, with fields for 'Process name', 'Subject', and 'Business Key'. The 'Subject' field is populated with 'Get Invoice Details AC08129UXX' and has a 'T' icon. The 'Business Key' field is populated with 'Process Instance Id | Pr...' and also has a 'T' icon.

# Tips

- “Create New Approval Form” -> Select the appropriate Field Type (i.e. Text or Number)
- “Create New Approval Form” -> Make sure text fields are 'Read Only'
- “Create New Approval Form” -> Step 13 Do not copy and paste text from the instructions and ensure the selected content is combined with the typed content
- “Create Rejection Form” You will have an error until process is 'Ended' (Step 8)

# Exercise 4 – Deploy and Run (20 mins)



The screenshot shows the 'Get Invoice Details' process in the SAP Application Development environment. The process flow is visible on the left, and the right pane shows the configuration for the 'Get Invoice Details' step.

**Get Invoice Details Configuration:**

- Process name: \*Get Invoice Details
- Subject: \*Get Invoice Details
- Business Key: Process Instance Id | Pr... X

The 'Release' button is highlighted with a red box in the top right corner.

The screenshot shows the 'Invoice Approval' process in the SAP Application Development environment, now in 'Released' mode. The 'Deploy' button is highlighted with a red box in the top right corner.

**Invoice Approval Overview:**

- Last updated on: April 15, 2022
- Created on: April 13, 2022
- Description: Process to extract information from an invoice and get the needed approvals.
- Attributes: 1

**Artifacts (11):**

| Name                      | Description                           | Type              |
|---------------------------|---------------------------------------|-------------------|
| ABCCCommunicationSchemaDT | No value.                             | Data Type         |
| ABCCCommunicationTemplate | No value.                             | Document Template |
| Approver                  | Including the approvers email address | Data Type         |
| Determine Approver 2      | Determine Approver 2                  | Decision          |
| Extract Invoice Data      | No value.                             | Automation        |
| Get Invoice Details       | Process to approve invoices           | Process           |
| Invoice                   | No value.                             | Data Type         |

# Part 4.1 – Creating the request

The screenshot shows the SAP Application Development environment. The top navigation bar includes 'SAP Application Development', 'Invoice Approval 1.0.0 Deployed', and a 'Deploy' button. The main workspace displays a process flow diagram with several steps: 'Invoice Request Form (Selected)', 'Extract Invoice Data', 'Determine Approval 2', 'Invoice Approval Form', 'Invoice Approval Notification', and 'Invoice Request Notification'. The 'Invoice Request Form' step is highlighted with a red box. To the right, the 'Trigger Settings' panel is visible, showing 'Type: Form Submission', 'Forms: Invoice Request Form', 'Form Link: https://sap-adoption-bootcamps.sap-proc...', and 'Launchpad Configuration Parameter: ?packagelid=2ec54ccb-2f98-454e-945b-5...'. A 'Deployment Console (0)' is visible at the bottom left.

The screenshot shows the 'Invoice Request Form' user interface. The title is 'Invoice Request Form'. Below the title, it says 'Please provide the following details to start the process'. There are four input fields: 'Employee Name \*' with a text input field, 'File Path \*' with a text input field, 'Current Date' with a date selection field, and a 'Submit' button at the bottom right.

# Part 4.2 – Approve/Reject

SAP My Inbox

All Tasks (2)

Search

REFRESH

Please approve the invoice 174221  
Medium

Your order has been successfully received  
Medium

### Invoice Approval

Invoice Details:

Company Name  
ABC Communication

Invoice Number  
174221

Gross Amount  
220

Employee Name

Approve Reject Show Log Claim

SAP My Inbox

All Tasks (3)

Search

REFRESH

Approved Invoice: 174221  
Medium

Approved Invoice: 174221  
Medium

Your order has been successfully received  
Medium

### Invoice Approval

Your invoice has been approved.

Invoice Number  
174221

Submit Show Log Claim



# Part 4.3 - Monitoring

The screenshot shows the SAP Application Development monitoring interface. The top navigation bar includes 'Lobby', 'Store', 'Monitor', and 'Settings'. The main area displays a list of instances on the left and a detailed view of a 'Get Invoice Details' instance on the right. The instance is in a 'Running' state. The 'CONTEXT' and 'EXECUTION LOG' tabs are highlighted with red boxes. The instance details include:

- Instance ID: 3f2ac2b7-c001-11ec-9717-eeee0a99f6a5
- Definition ID: eu10-canary.sap-adoption-bootcamps.invoiceapproval2.getInvoiceDetails
- Definition Version: 4
- Started By: celine.audin@sap.com
- Started At: Apr 19, 2022, 6:53:32 PM
- Completed At: (empty)
- Business Key: 3f2ac2b7-c001-11ec-9717-eeee0a99f6a5
- Parent Instance ID: (empty)
- Root Instance ID: 3f2ac2b7-c001-11ec-9717-eeee0a99f6a5

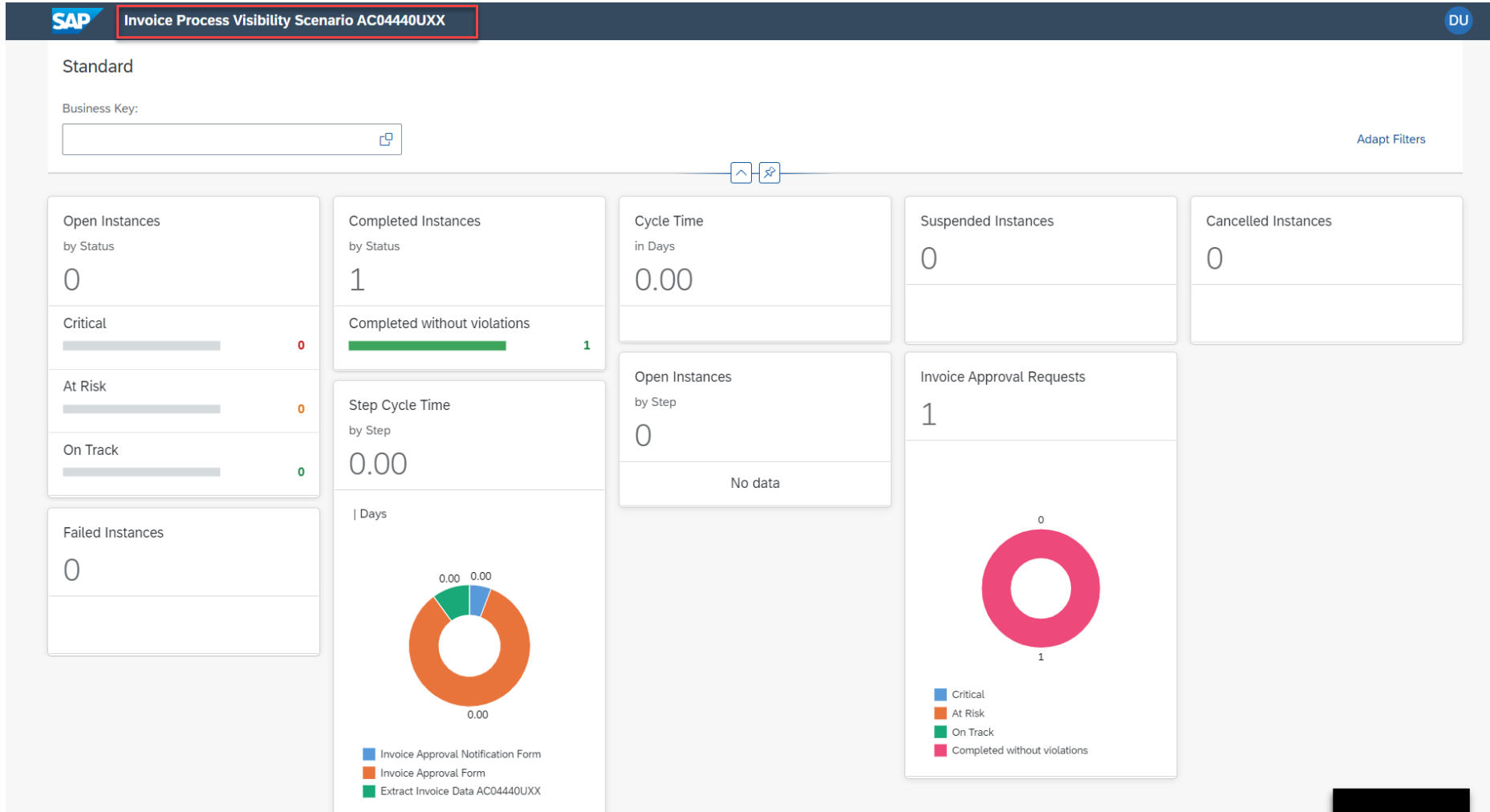
The 'ERROR MESSAGES' section shows 'No error messages.' The 'CONTEXT' section is currently empty.

The screenshot shows the same SAP Application Development monitoring interface, but with the 'EXECUTION LOG' tab selected and highlighted with a red box. The execution log displays a sequence of events:

- "Determine Approver 2" completed successfully (Apr 19, 2022, 6:53:57 PM)
- "Determine Approver 2" started (Apr 19, 2022, 6:53:57 PM)
- "Extract Invoice Data" completed successfully (Apr 19, 2022, 6:53:57 PM)
- "Extract Invoice Data" started (Apr 19, 2022, 6:53:33 PM)
- (empty) started the instance (Apr 19, 2022, 6:53:32 PM)

The left sidebar menu is visible, with 'Process and Workflow...' highlighted in red. The instance details and status remain the same as in the previous screenshot.

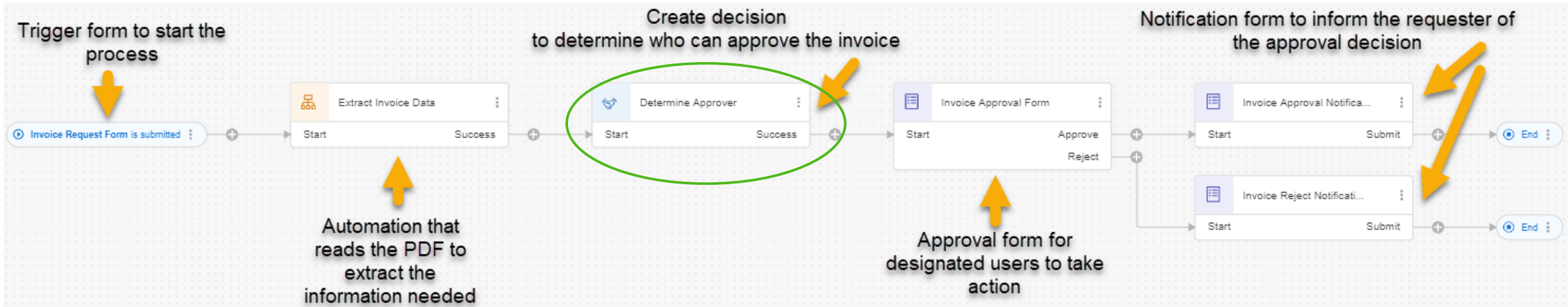
# 4.4 - Process Visibility Dashboard



# Tips

- “Run the Business Process” -> Use `C:\Users\student\Desktop\Invoice.pdf` for the file path and not the location where you saved invoice.pdf on your local machine

# Exercise 5 – Decisions for Invoice Approval (Optional) (25 mins)



# Part 5.1 – Create a Decision Table

The screenshot shows the SAP Application Development interface for 'Invoice Approval'. The main window displays the 'Determine Approver' decision diagram, which includes an 'Input' node, a 'Decision' node, and a 'Result' node. A 'Default Policy' node is connected to the 'Decision' node. The right-hand panel shows the 'Default Policy' configuration, with a description 'Default Policy for the Decision' and a value of 50. The 'Rules' section is currently empty, with an 'Add Rule' button highlighted in a red box.

The screenshot shows the SAP Application Development interface for 'Invoice Approval' with the 'DT Determine Approver' decision table configuration. The main window displays the 'Determine Approver' decision diagram, which includes an 'Input' node, a 'Decision' node, and a 'Result' node. A 'Default Policy' node is connected to the 'Decision' node, and a 'DT Determine Approver' node is connected to the 'Result' node. The right-hand panel shows the 'DT Determine Approver' configuration, with a description 'Decision Table to determine approver' and a status of 'Draft'. The 'Decision Table' section is currently empty, with an 'Add Row' button highlighted in a red box.

| If  | Then    |
|---|---------|
| <input checked="" type="checkbox"/> Determine Approver Input.SenderName | UserID  |
| <input checked="" type="checkbox"/> EXISTSIN [ ABC Communications ]     | P066210 |
| <input checked="" type="checkbox"/> EXISTSIN [ Telecommunications ]     | P066210 |

# Part 5.2 – Assign Inputs and Outputs

Save

**Process Content**

Search

- Extract Invoice Data
  - InvoiceDetails
    - DocumentNumber**
    - GrossAmount
    - SenderName
  - Invoice Request Form (Trigger)
    - Current Date
    - File Path
    - Employee Name
  - Process Metadata
    - Process Started By
    - Process Instance Id

**Determine Approver**

Inputs Outputs

determineApprover\_Input \*

DocumentNumber  
Select item T

GrossAmount  
Select item #

SenderName  
Select item T

SAP Application Development Invoice Approval DEVAC00486U01 Editable

Overview \*Get Invoice Details DEV... Invoice Request Form Invoice Extract Invoice Data DEVA... nvoice\_DEVAC00486U01 Determine Approver Approver

Save

~ 100%

**Determine Approver**

Inputs Outputs

determineApprover\_Output

T UserID

```
graph LR; A[Invoice Request Form is submitted] --> B[Extract Invoice Data DEVA...]; B --> C[Determine Approver]; C --> D[End];
```

Design Console (0) Test Console (0) Variables (0)

# Part 5.3 – Assign Inputs and Outputs

The image shows two panels from the SAP interface. The left panel, titled "Process Content", has a search bar and a list of process elements. The "InvoiceDetails" element is expanded, showing "DocumentNumber" (a text input type 'T') highlighted with a red box. Other elements include "GrossAmount" (number type '#') and "SenderName" (text type 'T'). Below this are "Invoice Request Form (Trigger)" with "Current Date", "File Path", and "Employee Name", and "Process Metadata" with "Process Started By" and "Process Instance Id". The right panel, titled "Determine Approver", shows the configuration for the "determineApprover\_Input" step. It lists three input fields: "DocumentNumber" (text type 'T'), "GrossAmount" (number type '#'), and "SenderName" (text type 'T'). A red box highlights the 'T' icon next to the "DocumentNumber" field.

The image shows the SAP Application Development design console for "Invoice Approval DEVAC00486U01". The main workspace displays a process flow: "Invoice Request Form is submitted" (start event) → "Extract Invoice Data DEVA..." (function block) → "Determine Approver" (function block) → "End" (end event). The "Determine Approver" block is highlighted with a red box. The right sidebar shows the configuration for "Determine Approver", with the "Outputs" tab selected. Under "determineApprover\_Output", the "UserID" output is highlighted with a red box. The top of the console shows several open tabs, including "Get Invoice Details DEV...", "Invoice Request Form", "Invoice", "Extract Invoice Data DEVA...", "invoice\_DEVAC00486U01", "Determine Approver", and "Approver".

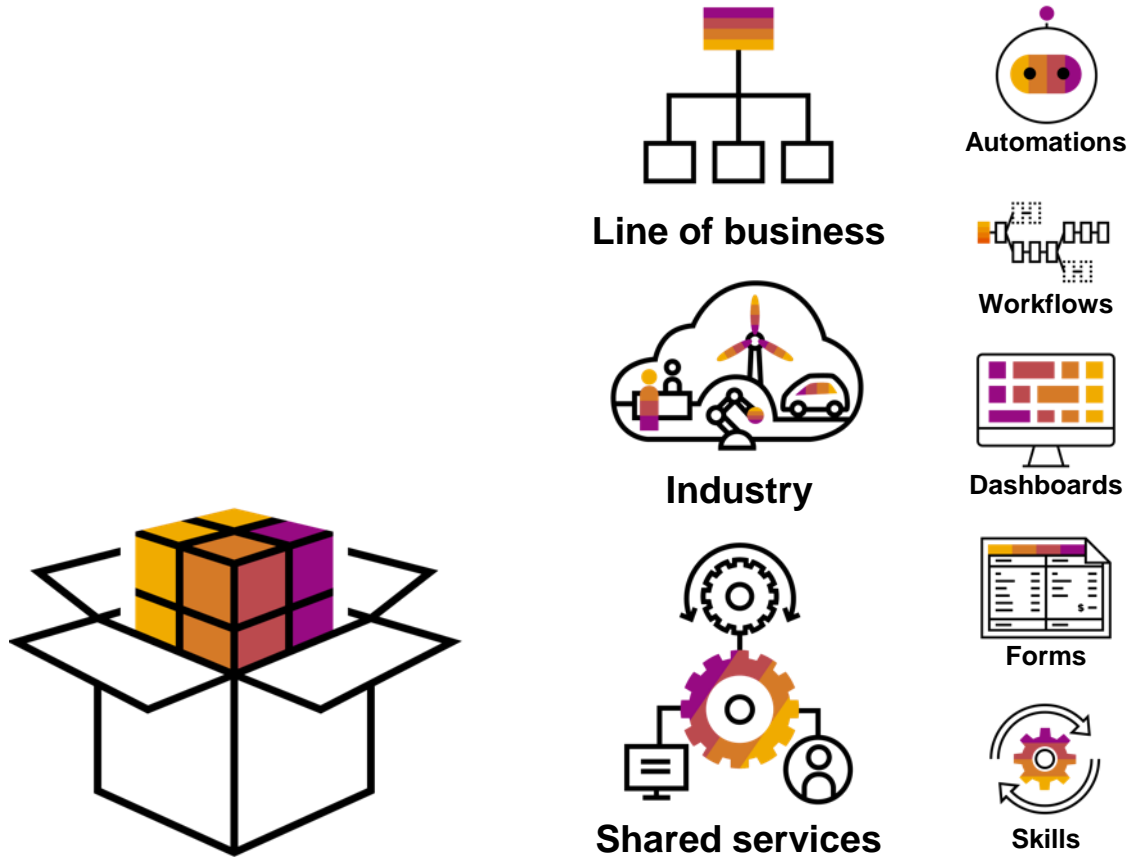


# Tips

- “Create a decision table” -> Step 10 retrieve your User ID and use that value (Starts with “P”) and **not** your class username (i.e. AC07628Uxx)
- “Create a decision table” -> Step 10 and 11, enable that the user id value is surrounded by single quotes ‘PXXXXXX’
- “Create a decision table” -> Step 11, must select the first row before “Insert After” is enabled

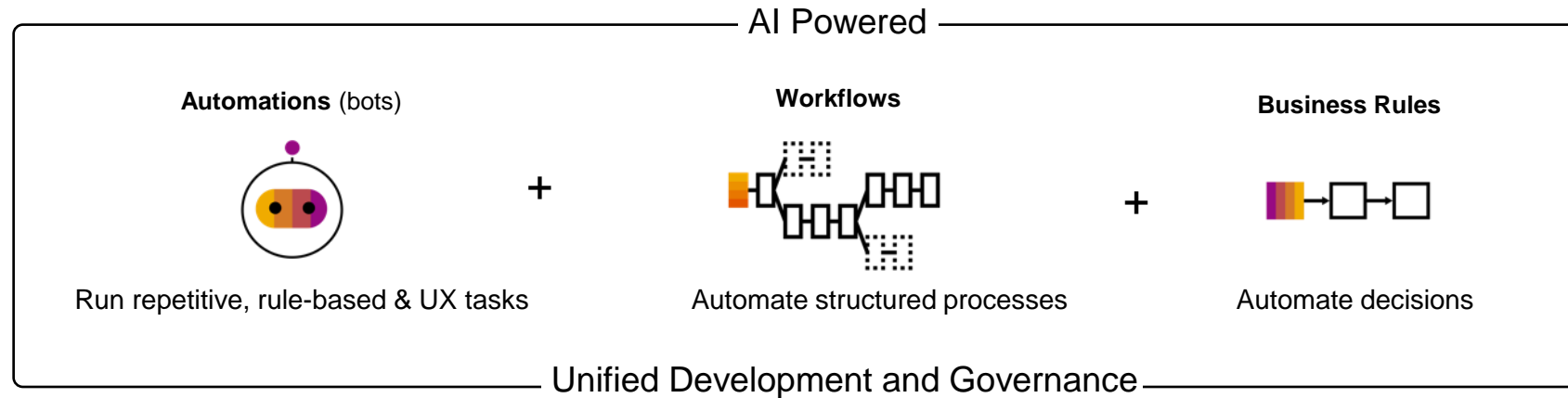
- Introductions
- SAP Process Automation Overview
- Technical Academy Overview
- Technical Academy Hands-on Exercises (Part 1-3)
- Break – 15 minutes
- Technical Academy Hands-on Exercises (Part 4-5)
- **Wrap Up**

# Accelerate business transformation with prebuilt content packages



- **Jump-start automation development** while making use of **best practices**
- Select from a wide variety of **prebuilt, directly usable packages**
  - across lines of business
  - industries
  - shared functions
- Content ranges from
  - **templated automations** (bots)
  - **processes** (workflows)
  - **process visibility dashboards**
  - **form** templates
  - **actions** (called skills)to **complete automation packages combining artifacts**

# All automation tools in one integrated offering



## Benefits of a unified process automation solution:

- **Address complex scenarios** including exceptions and approvals
- **Automate across legacy and modern apps** with both UX and API based automations
- Improve **compliance and governance** with unified monitoring and reporting
- **Enhance adoption** by providing users a single automation solution for multiple solutions
- **Lower costs**, including solution cost, training and maintenance

# SAP Process Automation

A simpler and faster way to enhance business efficiency and agility with confidence



## Build with Simplicity

Simplify automation with visual drag-and-drop tools and industry specific content



## Automate Faster

Automate faster with business context in a unified workflow management and robotic process automation solution



## Operate Confidently

Operate confidently on a trusted, enterprise-grade multi-cloud platform

# SAP Process Automation Resources

## Tutorials and Missions

- [Discovery Center Mission: Process and approve your invoices with SAP Process Automation](#)
- [SAP Developer Center: Invoice Processing and Approval Using SAP Process Automation](#)

## Learning and Certification

- [Learning Journey: Utilize Low-Code/No-Code Applications and Automations for Citizen Developers](#) - Business process and LCNC fundamentals, using SAP AppGyver, SAP Process Automation and SAP Work Zone, conducting citizen developer appathons
- [LCNC Certification: C LCNC 01 - SAP Certified Citizen Developer Associate - Low-Code / No-Code Applications and Automations](#)

## Prebuilt Content

- [SAP Intelligent RPA Store](#) - Prebuilt automation content for a variety of use cases
- [SAP API Business Hub](#) - Extension, integration and innovation such such as workflows, business decisions, integrations, and much more

## Community

- [YouTube Channel: SAP Process Automation](#)
- [SAP Process Automation Community landing page](#)
- [SAP Process Automation blog posts on SAP Community](#)

# Want to Try out SAP BTP?

**Sign up** for a PAYG account\* and start today with our free tier service plans!

**Need ideas?** Check out the “Free Tier” missions on [SAP Discovery Center](#)



Access free-tier service plans



Start developing – check out missions



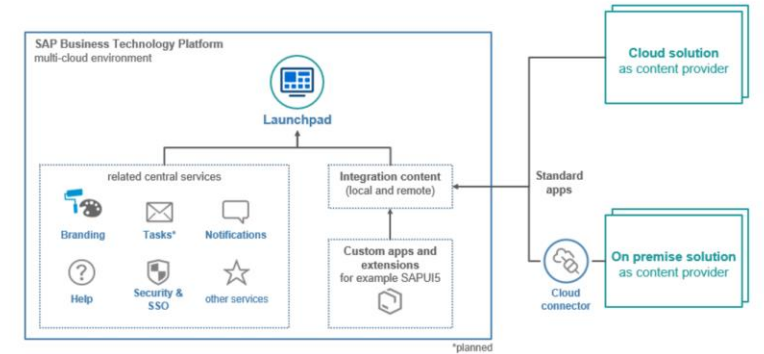
Go productive with a simple upgrade



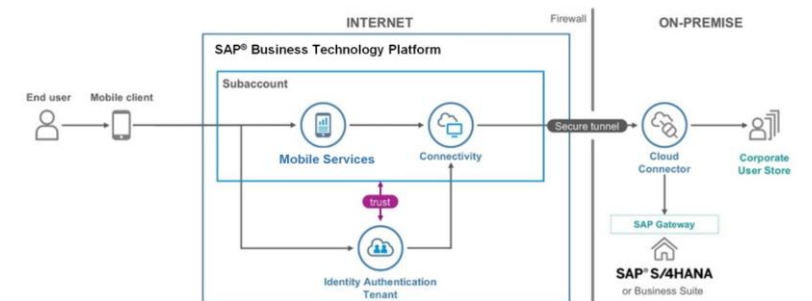
Get support from the entire SAP community

→ [Free tier services](#) → [Free tier missions](#) → [SAP Community for SAP BTP](#)

## Establish a central point of access on SAP Business Technology Platform high-level architecture



## Empower field technicians by building native apps using SDKs



\* Existing CPEA & PAYG customers have access to free tier service plans



# Thank you

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