

10/16/2025

# Smartsheet Handbook



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### INTRODUCTION

SERVICENOW IS A CLOUD BASED PLATFORM, WHICH WAS MAINLY DEVELOPED FOR WORKFLOW AND PROCESS AUTOMATION AS PER THE ITIL PRINCIPLES. SERVICENOW IS MORE OF A TICKETING TOOL, REQUEST CATALOG, ENTERPRISE DB ETC. SERVICENOW PROVIDES SCALABILITY, SECURITY, LOAD BALANCING AND DATA BACKUPS. THE LATEST VERSION OF SERVICENOW IS **ORLANDO**.

SERVICENOW OFFERS MANY READY TO USE SOLUTIONS, WORKFLOWS AND PRODUCTS FOR ORGANISATION. THE ORGANISATION CAN DEVELOP THE CUSTOMISED APPLICATIONS AND MODULES AS PER THE BUSINESS REQUIREMENT USING THE SERVICENOW SCRIPTING AND EXISTING TOOLS.

#### THE SERVICENOW PLATFORM

1. DATABASE
  - A. JUST ABOUT EVERYTHING IN SERVICENOW IS A RECORD IN A DATABASE TABLE
  - B. SINGLE ENTERPRISE-WIDE (THERE IS ONLY ONE DATABASE)
  - C. OVER 4000 TABLES DESIGNED TO MEET THE NEEDS OF MOST COMMON IT SERVICES
2. APPLICATIONS
  - A. HUNDREDS OF APPLICATIONS INSTALLED OUT OF BOX
  - B. BUSINESS APPLICATIONS TO PROVIDE SERVICES FOR THINGS LIKE APPLICATION LEVEL MANAGEMENT, APPLICATION PROGRAM MANAEMENT, CONTROL MANAGEMENT, SECOPS, ITSM ETC\
  - C. SERVICENOW STORE
3. DEV PLATFORM
  - A. MODIFY EXISTING APPLICATIONS OR BUILD CUSTOM APPLICATIONS
  - B. NO CODE/ LOW CODE/ FULL CODE
  - C. CREATE CUSTOM DATABASE TABLES, WORKFLOWS AND SCRIPTS

#### ADVANTAGES

- EASILY ACCESSIBLE FROM THE CLOUD
- CAN BE EASILY INTEGRATED WITH OTHER TOOLS
- PROVIDES GOOD REPORTING AND ANALYTICS

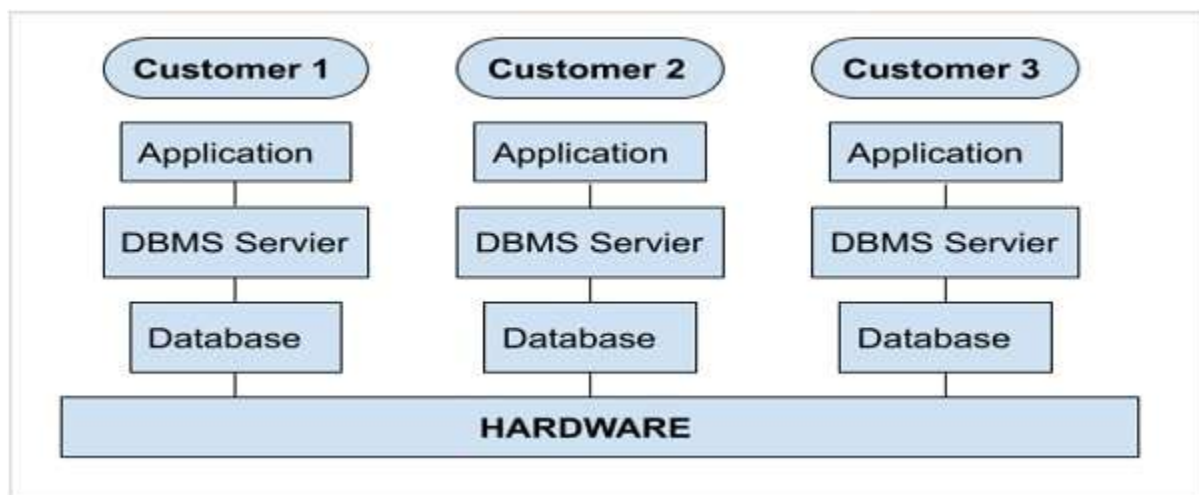
### SERVICES OF SERVICE NOW

1. **IT SERVICE MANAGEMENT:** SERVICENOW IS MAINLY USED AS A TICKETING TOOL TO MANAGE INCIDENTS, PROBLEMS AND CHANGES. IT HAS MANY ADVANCED FEATURES, ANALYTICS AND INSIGHTS THAT IMPACTS THE SPEED AND DELIVERY OF IT.
2. **HR MANAGEMENT:** SERVICENOW CAN BE USED FOR ALMOST ALL HR DELIVERY SERVICES LIKE LEAVE MANAGEMENT, TIMESHEET MANAGEMENT, EMPLOYEE DOCUMENT MANAGEMENT, NEW ONBOARDING MANAGEMENT, PERFORMANCE MANAGEMENT, ETC.
3. **IT ASSET MANAGEMENT:** WITH SERVICENOW, WE CAN MANAGE OUR HARDWARE AND SOFTWARE ASSETS TO OPTIMISE COST AND INCREASE EFFICIENCY. SERVICENOW HAS FEATURES SUCH AS LICENCE MANAGEMENT, WARRANTY MANAGEMENT, CI MANAGEMENT, ADVANCED REPORTING AND INSIGHTS, ETC.
4. **FINANCE OPERATION MANAGEMENT:** SERVICENOW MANAGES ALL THE ACTIVITIES RELATED TO FINANCE CLOSE AND AUTOMATES THE FINANCIAL PROCESSES. APART FROM OFFERINGS MENTIONED ABOVE, SERVICENOW ALSO OFFERS SERVICES FOR IT BUSINESS MANAGEMENT, SECURITY OPERATIONS, VIRTUAL CHATBOTS, ETC.

## SERVICE NOW INSTANCE

A SERVICENOW INSTANCE IS A SET OF DATABASES, APPLICATIONS, VIRTUAL MACHINES, LIBRARIES GROUPED TOGETHER TO PROVIDE THE REQUIRED SERVICES TO A SPECIFIC CUSTOMER. SERVICENOW CUSTOMER INSTANCE IS BUILT ON MULTI-INSTANCE ARCHITECTURE.

THE IMPORTANT POINT TO NOTE HERE IS THAT EACH CUSTOMER HAS A SEPARATE CUSTOMISED APPLICATION(S) ALONG WITH SEPARATE DATABASE(S) RUNNING ON SHARED HARDWARE RESOURCES. THE CUSTOMER DATA IS ENCRYPTED AND THEREFORE, IT IS COMPLETELY SECURE. THE DEPLOYMENT OF SERVICENOW IS VERY FLEXIBLE AND IT CAN ALSO BE IMPLEMENTED IN A PRIVATE CLOUD.



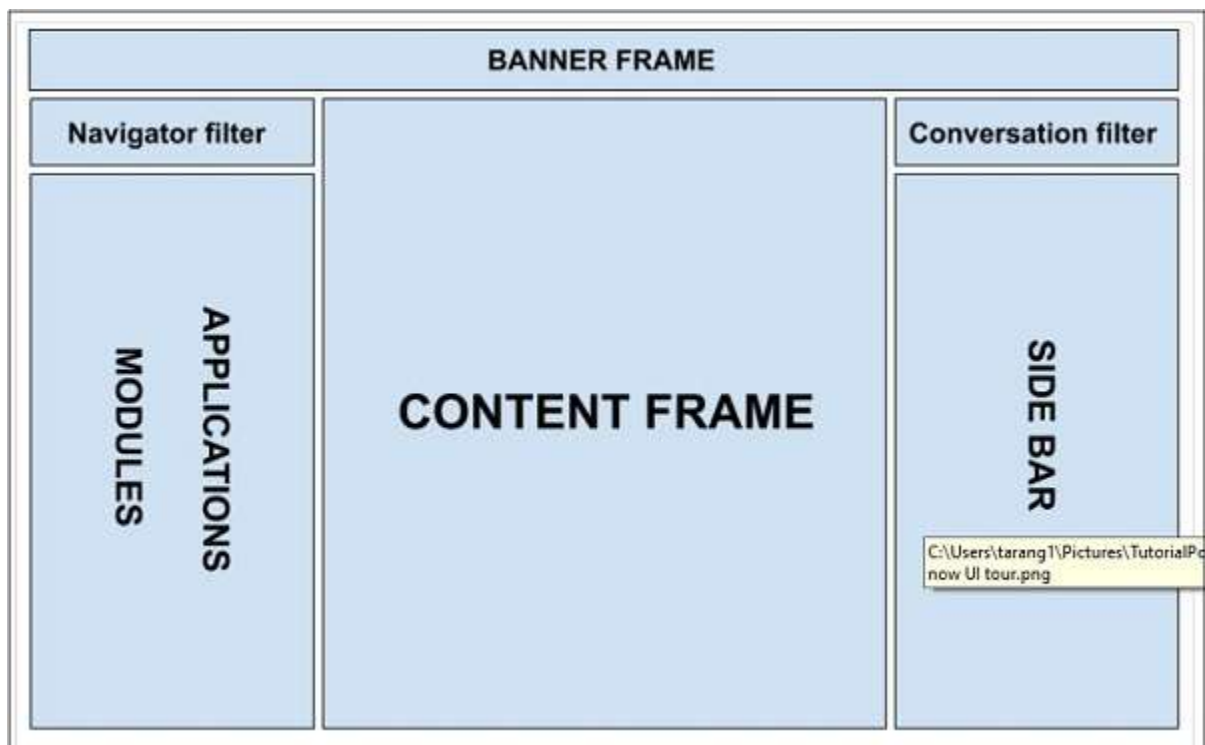
## GENERATING DEVELOPER INSTANCE

- GO TO THE URL [HTTPS://DEVELOPER.SERVICENOW.COM/](https://developer.servicenow.com/) AND CLICK ON REGISTER.

- SERVICENOW REGISTRATION FORM WILL OPEN. GIVE YOUR DETAILS AND CLICK SUBMIT
- SERVICENOW WILL SEND THE CONFIRMATION EMAIL. CLICK ON THE LINK IN EMAIL TO CONFIRM THE REGISTRATION.
- NOW, LOGIN TO YOUR SERVICENOW ACCOUNT. YOU WILL SEE THE DASHBOARD BELOW. GO TO MANAGE → INSTANCE.
- NOW, CLICK ON REQUEST INSTANCE.
- CLICK ON THE LATEST RELEASE OF SERVICENOW AND CLICK ON REQUEST INSTANCE. AT THE TIME OF WRITING THIS TUTORIAL, THE LATEST VERSION IS ORLANDO.
- IT WILL TAKE AROUND 20 MINUTES AND YOUR INSTANCE WILL GET READY. ON THE FOLLOWING PAGE, YOU WILL GET THE LINK FOR INSTANCE, THE ADMIN USERNAME AND PASSWORD. CLICK ON THE INSTANCE LINK AND GIVE YOUR USERNAME AND PASSWORD. AFTER LOGIN, YOU WILL BE REQUIRED TO CHANGE THE DEFAULT PASSWORD GIVEN BY SERVICENOW.

## SERVICENOW USER INTERFACE (UI)

SERVICENOW USER INTERFACE (UI) IS MADE OF DEFAULT ELEMENTS. THE INTERFACE IS HIGHLY FLEXIBLE AND CAN BE CUSTOMISED AS PER THE BUSINESS REQUIREMENTS.



- **BANNER FRAME**: THE BANNER FRAME HAS LOGO, SETTING OPTIONS, USER PROFILE, GLOBAL SEARCH BAR, AND OPTION TO TOGGLE BETWEEN CONVERSATION AND HELP IN THE RIGHT-SIDE BAR.
- **APPLICATION NAVIGATOR**: ALLOWS US TO BROWSE THROUGH ALL THE APPLICATIONS AND MODULES UNDER THE APPLICATIONS. WE CAN GIVE THE NAME OF APPLICATION OR MODULE IN THE NAVIGATION FILTER AND SERVICENOW WILL AUTOMATICALLY SHOW US ALL THE MATCHING APPLICATIONS AND MODULES. FOR EXAMPLE, INCIDENT IS AN APPLICATION IN SERVICE NOW AND

CREATE NEW IS A MODULE UNDER IT, USING WHICH, WE CAN CREATE A NEW INCIDENT. SIMILARLY, OPEN IS ANOTHER MODULE INSIDE INCIDENT APPLICATION, WHICH WILL LIST ALL THE OPEN INCIDENTS.

- **SIDEBAR:** THE SIDEBAR IS NOT PROVIDED BY DEFAULT. THE USER HAS TO ACTIVATE IT FROM THE BANNER FRAME. THE SIDEBAR CAN DISPLAY THE CONVERSATIONS OR THE HELP OPTIONS. USING THE CONVERSATION FEATURE, WE CAN CHAT WITH FELLOW COLLEAGUES AND BROWSE THROUGH CHAT HISTORY. THE HELP OPTION ALLOWS US TO REFER TO THE SUPPORT ARTICLES WHICH ARE ADDED BY ADMINISTRATORS.
- **CONTENT FRAME:** THE CONTENT FRAME IS THE CENTRE PART OF SERVICENOW PORTAL, WHICH LISTS THE ENTIRE CONTENT OF APPLICATIONS AND MODULES. THIS ALSO CONTAINS THE CENTRALISED MENU OF THE APPLICATIONS, WHICH ARE IMPORTANT FROM THE ADMINISTRATION POINT OF VIEW. BELOW, THE SAMPLES OF CONTENT FRAME DISPLAYING CENTRALISED MENU AND DISPLAYING CONTENT OF THE OPEN MODULE IN INCIDENT APPLICATION.

## SERVICE APP ENGINE STUDIO

1. FAVOURITES: DISPLAYS FREQUENTLY USED TABS
2. HISTORY: DISPLAYS THE LAST USED TABS
3. WORKSPACES: SHOWN ONLY FOR ADMIN USERS. DEPENDS ON THE TYPE OF ACCESS GIVEN
4. SEARCH TOOL: TO SEARCH FOR KEY TOOLS OR DB RECORD OR EVEN THE REQUEST NUMBER
5. DISCUSSIONS: SERVICENOW INTERNAL CHAT OR COLLABORATION TOOL
6. QUESTION MARK: EMBEDDED HELP ICON
7. NOTIFICATIONS: SHOWS THE NOTIFICATIONS RECEIVED CAN BE ACCESS RELATED OR ANY OTHER NOTIFICATION
8. PROFILE: SHOW YOUR PROFILE
  - A. PREFERENCES: PROVIDES THE ACCEBILITY FOR IMPROVING THE LOOK AND FEEL
  - B. IMPERSONATE USER: FOR ADMIN OR IMPERSONATOR ROLES. ALLOWS TO ACCESS SOME OTHER USERS ACCOUNT AND OPEN IN THEIR NAMES
  - C. ELEVATE ROLES: FOR ADMIN USERS. TO BUMP UP THE ACCESS
  - D. LOG OUT: TO LOG THE USERS OUT OF SESSION

## SERVICENOW SCREEN TYPES

1. LIST VIEW: DISPLAYS A LIST OF RECORDS FROM A DB TABLE AND INCLUDES TOOLS FOR FILTERING, SORTING AND CONFIGURING HOW THE RECORDS ARE DISPLAYED
2. FORM VIEW: DISPLAYS A SINGLE RECORD FROM DB TABLE, AND INCLUDES TOOLS FOR VIEWING RELATED RECORDS AND MAKING CHANGES TO THE RECORD
3. WORKSPACE: DISPLAYED IN A SINGLE PAGE THAT ARE DESIGNED TO SOLVE A SPECIFIC TYPE OF PROBLEM OR ENABLE THE COMPLETION OF A SPECIFIC TYPE OF WORK.
4. DASBOARD: CUSTOM ARRANGEMENT OF WIDGETS THAT ENABLE THE DISPLAY OF MULTIPLE PERFORMANCE ANALYTICS AND REPORTS ON A SINGLE SCREEN
5. SERVICE CATALOG: COMPANY'S ONLINE STORE FOR ORDERING IT SERVICES MADE AVAILABLE BY OTHER DEPARTMENTS

Incidents <span>Now</span> Search <input type="text" value="Number"/> Search <input type="text" value=""/>										
All										
		Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to
<input type="checkbox"/>		INC0010112	2019-07-29 11:48:43	Assessment : ATF Assessor	<a href="#">survey user</a>	5 - Planning	New	Inquiry / Help	(empty)	(empty)
<input type="checkbox"/>		INC0010111	2019-07-22 14:04:57	ATF : Test1	<a href="#">System Administrator</a>	5 - Planning	New	Inquiry / Help	(empty)	(empty)
<input type="checkbox"/>		INC0009009	2018-08-30 01:06:16	Unable to access the shared folder.	<a href="#">David Miller</a>	4 - Low	New	Inquiry / Help	(empty)	(empty)
<input type="checkbox"/>		INC0009005	2018-08-31 21:35:21	Email server is down.	<a href="#">David Miller</a>	1 - Critical	New	Software	(empty)	(empty)
<input type="checkbox"/>		INC0009004	2018-09-01 06:13:30	Defect tracking tool is down.	<a href="#">David Miller</a>	3 - Moderate	Closed	Software	(empty)	(empty)
<input type="checkbox"/>		INC0009003	2018-08-30 02:17:32	Cannot sign into the company portal app	<a href="#">David Miller</a>	3 - Moderate	Closed	Inquiry / Help	(empty)	(empty)
<input type="checkbox"/>		INC0009002	2018-09-16 05:49:23	My computer is not detecting the headphone device	<a href="#">David Miller</a>	3 - Moderate	Closed	Hardware	(empty)	(empty)
<input type="checkbox"/>		INC0009001	2018-09-11 20:56:26	Unable to post content on a Wiki page	<a href="#">David Miller</a>	3 - Moderate	New	Inquiry / Help	(empty)	(empty)
<input type="checkbox"/>		INC0007002	2018-10-16 22:47:51	Need access to the common drive.	<a href="#">David Miller</a>	4 - Low	New	Inquiry / Help	(empty)	(empty)

## FUNDAMENTALS

THE SERVICENOW DEVELOPER INSTANCE HAS AMPLE OF DUMMY DATA LIKE USERS, INCIDENTS, GROUPS ETC., WHICH WE CAN REFER TO GAIN GOOD UNDERSTANDING ABOUT THE CONCEPT.

## APPLICATIONS AND MODULES

SERVICENOW DEFINES APPLICATION AS, A COLLECTION OF FILES AND DATA THAT DELIVER A SERVICE AND MANAGE BUSINESS PROCESSES AND MODULES ARE, CHILDREN OF APPLICATION LINKING TO OTHER PAGES OR RECORDS IN THE PLATFORM.

## LISTS AND FORMS

### LISTS

IT DISPLAYS THE SET OF RECORDS (BASED ON CERTAIN CONDITIONS) FROM THE DATA TABLE. IT COULD BE A LIST OF INCIDENTS ASSIGNED TO A CERTAIN GROUP, FROM THE INCIDENT TABLE OR LIST OF PROBLEMS NOT ASSIGNED TO ANY GROUP FROM PROBLEM TABLE, ETC. THIS LIST IS GENERATED VIA THE RESOLVED MODULE OF INCIDENT APPLICATION. THIS IS A DEFAULT MODULE PROVIDED WITH SERVICENOW. TO OPEN THIS MODULE AND EXPLORE THIS LIST, SEARCH FOR THE INCIDENT IN APPLICATION NAVIGATOR AND INSIDE THE INCIDENT APPLICATION FIND RESOLVED MODULE.



	Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to
	INC0010112	2019-07-29 11:45:43	Assessment : ATF Assessor	Survey user	5 - Planning	Resolved	Inquiry / Help	(empty)	(empty)
	INC0010111	2019-07-22 14:04:57	ATF : Test1	System Administrator	5 - Planning	Resolved	Inquiry / Help	(empty)	(empty)
	INC0000601	2020-02-02 01:42:59	The USB port on my PC stopped working	Beth Anglin	5 - Planning	Resolved	Hardware	(empty)	(empty)

## FORMS

IT DISPLAYS ONE RECORD FROM THE DATA TABLE OR IT CAN BE USED TO ENTER/UPDATE A RECORD IN A DATA TABLE. FOR EXAMPLE, AN INCIDENT FORM WILL DISPLAY DETAILS RELATED TO A SINGLE SELECTED INCIDENT OR IT CAN ALSO BE USED TO ENTER DETAILS OF A NEW INCIDENT IN AN INCIDENT TABLE.

Incident: INC0010111

Number: INC0010111

Caller: System Administrator

Category: Inquiry / Help

Subcategory: - None -

Service: SAP Financial Accounting

Configuration item: \*ASSET-IBM

Contact type: - None -

State: Resolved

Impact: 3 - Low

Urgency: 3 - Low

Priority: 5 - Planning

Assignment group: ATF\_TestGroup\_ServiceDesk

Assigned to: ATF\_TestUser1ATF\_TestUser

Short description: ATF : Test1

Description: Issue resolved

TO ACCESS THE FIRST FORM IN THE ABOVE EXAMPLE, GO TO RESOLVED MODULE INSIDE INCIDENT APPLICATION. A LIST OF RESOLVED INCIDENTS WILL APPEAR. CLICK ON ANY INCIDENT NUMBER TO OPEN THE FORM.

THE SECOND SCREEN IN THE ABOVE EXAMPLE, HAVING A FORM TO ENTER NEW INCIDENT DETAILS, CAN BE ACCESSED VIA CREATE NEW MODULE OF INCIDENT APPLICATION.

Incident INC0010112

Number: INC0010112

Caller: surveyuser

Category: Inquiry / Help

Subcategory: -- None --

Service:

Configuration item:

Contact type: -- None --

State: Resolved

Impact: 3 - Low

Urgency: 3 - Low

Priority: 5 - Planning

Assignment group:

Assigned to:

\* Short description: Assessment : ATF Assessor

Description:

Related Search Results

## USERS, ROLES, AND GROUPS

**USERS:** ARE THE INDIVIDUALS WHO USE THE SERVICENOW WITHIN AN ORGANISATION. THEY HAVE ACCESS TO THE PLATFORM VIA A USER ID AND PASSWORD. THE SYSTEM ADMINISTRATOR HAS THE AUTHORITY TO CREATE A NEW USER, BROWSE THROUGH THE LIST OF EXISTING USERS, DELETE A USER, AND IMPERSONATE A USER. TO OPEN THE LIST OF EXISTING USERS, GO TO USERS' MODULE INSIDE USER ADMINISTRATION APPLICATION.

User ID	Name	Email	Active	Created	Updated
abel.tuter	Abel Tuter	abel.tuter@example.com	true	2012-02-17 19:04:52	2020-02-07 15:46:45
abraham.lincoln	Abraham Lincoln	abraham.lincoln@example.com	true	2013-07-23 17:15:54	2020-02-07 15:46:49
adela.cervantsz	Adela Cervantsz	adela.cervantsz@example.com	true	2012-02-17 19:04:50	2020-02-07 15:46:40
aleen.mottern	Aileen Mottern	aleen.mottern@example.com	true	2012-02-17 19:04:49	2020-02-07 15:46:46
alejandra.prenatt	Alejandra Prenatt	alejandra.prenatt@example.com	true	2012-02-17 19:04:52	2020-02-07 15:46:41
alejandro.mascali	Alejandro Mascali	alejandro.mascali@example.com	true	2012-02-17 19:04:52	2020-02-07 15:46:49
alene.rabeck	Alene Rabeck	alene.rabeck@example.com	true	2012-02-17 19:04:53	2020-02-07 15:46:50

TO CREATE A NEW USER, CLICK ON THE NEW BUTTON IN TOP LEFT OF THE CONTENT FRAME. THE FOLLOWING FORM WILL OPEN TO ENTER A NEW DATA RECORD FOR THE USER TABLE.

## ROLES

ARE ASSOCIATED WITH THE TASK THAT USER PERFORMS WITHIN AN ORGANISATION. THE ROLE IS ASSIGNED BASED ON THE WORK PROFILE. FOR EXAMPLE, THERE CAN BE AN INCIDENT MANAGER ROLE, APPLICATION DEVELOPER ROLE, INCIDENT ANALYST ROLE, ETC. THE ROLES CONTROL THE ACCESS TO THE FEATURES AND CAPABILITIES IN APPLICATIONS AND MODULES. SO, A SYSTEM ADMINISTRATOR ROLE MAY HAVE ACCESS TO A FEW APPLICATIONS WHICH INCIDENT MANAGER ROLE MAY NOT HAVE. THE LIST OF ROLES AND FORM TO ADD A NEW ROLE CAN BE FOUND IN SYSTEM SECURITY APPLICATION UNDER USERS AND GROUPS.

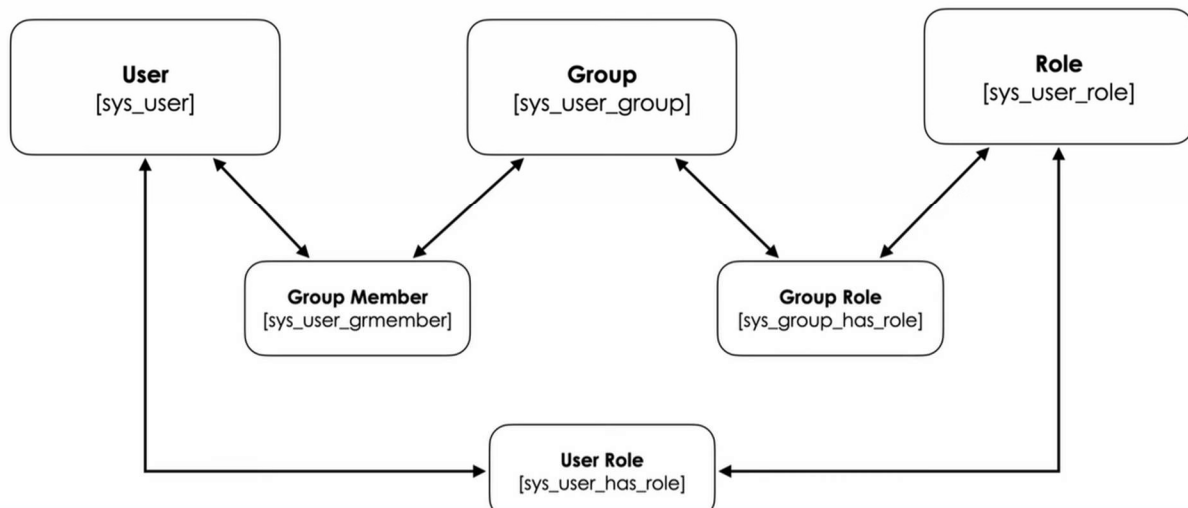
## GROUPS

GROUPS ARE THE COLLECTION OF USERS, WHICH PERFORM A SIMILAR TASK. FOR EXAMPLE, THERE CAN BE A GROUP OF CHANGE MANAGERS, WHO CAN APPROVE THE CHANGES IN PRODUCTION, OR THERE CAN BE A PROCUREMENT GROUP, WHO HAVE THE ACCESS TO RAISE THE PURCHASE ORDER, ETC. THE GROUP CAN BE ACCESSED VIA SYSTEM SECURITY → USERS AND GROUPS → GROUPS.

## USER ADMINISTRATION DATA MODEL

- SYS\_USER -> STORES A RECORD FOR EACH USER
- SYS\_USER\_GROUP -> STORES A RECORD FOR EACH GROUP
- SYS\_USER\_ROLE -> STORES A RECORD FOR EACH ROLE

# User Administration Data Model



## TABLES, COLUMNS AND FIELDS

**TABLES:** TABLES ARE THE COLLECTION OF DATA IN SERVICENOW. THE APPLICATIONS AND MODULES USE TABLES TO STORE, DISPLAY AND PROCESS THE DATA. FOR EXAMPLE, THE INCIDENT APPLICATION HAS AN INCIDENT TABLE. SIMILARLY, THERE IS A USER TABLE, CHANGE REQUEST TABLE, ETC. TO CHECK THE STRUCTURE OR UPDATE THE STRUCTURE OF ANY TABLE MAKE USE OF THE TABLES MODULE OF SYSTEM DEFINITION APPLICATION.

Tables					
Now Search Name Search					
All > Update name is not empty > Name == Incident					
	Label	Name	Extends table	Extensible	Updated
	Search	Search	Search	Search	Search
<input type="checkbox"/>	<a href="#">Incident</a>	incident	Task	false	2020-02-15 06:56:43
<input type="checkbox"/>	<a href="#">Incident Fact Table</a>	incident_fact_table	(empty)	false	2020-02-07 14:16:32
<input type="checkbox"/>	<a href="#">Incident Task</a>	incident_task	Task	false	2020-02-07 14:36:12
<input type="checkbox"/>	<a href="#">ServiceNow Instance</a>	instance	(empty)	false	2020-02-07 14:21:18
<input type="checkbox"/>	<a href="#">Interaction</a>	interaction	(empty)	true	2020-02-07 14:55:18
<input type="checkbox"/>	<a href="#">Interaction Context</a>	interaction_context	(empty)	false	2020-02-07 14:55:18
<input type="checkbox"/>	<a href="#">JSON Blob</a>	interaction_json_blob	(empty)	false	2020-02-07 14:55:18
<input type="checkbox"/>	<a href="#">Interaction Log</a>	interaction_log	(empty)	false	2020-02-07 14:55:18
<input type="checkbox"/>	<a href="#">Interaction Related Record</a>	interaction_related_record	(empty)	false	2020-02-07 14:55:18
<input type="checkbox"/>	<a href="#">Catalog Variable Set</a>	io_set_delivery_plan	Application File	false	2020-02-07 14:40:49
<input type="checkbox"/>	<a href="#">Catalog Variable Set</a>	io_set_item	Application File	false	2020-02-07 14:39:13

THE TABLE NAME CAN BE SEARCHED IN THE TOP SECTION OF THE CONTENT SCREEN. LET'S EXPLORE THE INCIDENT TABLE. ONCE, WE CLICK THE DESIRED TABLE, WE CAN FIND ALL THE COLUMNS IN THE TABLE, COLUMN TYPE (INTEGER, STRING, ETC.), MAXIMUM LENGTH, ETC. THE NEW COLUMN CAN BE ADDED TO THE TABLE, USING THE NEW BUTTON.

## RELATIONAL DATABASE

SERVICENOW COMES WITH A SINGLE DATABASE THAT SUPPORTS THE DATA STORAGE REQUIREMENTS OF THE SYSTEM AND ALL APPLICATIONS AND WORKFLOWS. SERVICENOW DATABASE IS A RELATIONAL DATABASE STORING DATA IN TABLES AS RECORDS AND FIELDS AND ENABLING RELATIONSHIPS BETWEEN TABLES

A DATABASE THAT STORES DATA IN TABLES AND USES RELATIONSHIPS BETWEEN TABLES TO MAXIMIZE EFFICIENCY AND ELIMINATE DATA DUPLICATION. EACH ROW IS A RECORD AND EACH COLUMN IS A FIELD. EACH COLUMN CREATED A DATA TYPE HAS TO BE DEFINED.

EG:

- NAME FIELD -> STRING TYPE
- CREATED FIELD -> CREATED DATE
- PRICE FIELD -> NUMBER DATA TYPE
- SYS\_ID -> PRIMARY KEY UNIQUE FOR EACH TABLE

DICTIONARY TABLES ARE TABLES IN THE DATABASE THAT STORE DATA ABOUT THE DATABASE ITSELF.

REFERENCE TABLE CAN BE CREATED BASED ON A COMMON COLUMN PRESENT IN BOTH THE TABLES.

SCHEMA MAP IS A PAGE IN SERVICENOW THAT DISPLAYS A GRAPHICAL REPRESENTATION OF A TABLE AND ALL OF ITS RELATIONSHIPS TO OTHER TABLES

## SERVICENOW ACL (ACCESS CONTROL)

MECHANISM THAT DEFINES A SET OF CONDITIONS UNDER WHICH A USER GETS TO PERFORM SOME OPERATIONS IN SERVICENOW. TYPE AND NAME FIELD DEFINE TO WHICH ACCESS IS GIVEN. OPERATION INCLUDES THE ROLES

OPERATIONS FIELD HAS THE FOLLOWING **CREATE, READ, DELETE, WRITE**

## ITIL

ITIL STANDS FOR INFORMATION TECHNOLOGY INFRASTRUCTURE LIBRARY.

### STAGES OF ITIL

DIVIDED INTO 5 STAGES

**SERVICE STRATEGY:** IT IS THE FIRST STAGE OF ITIL, WHICH LAYS DOWN THE BLUEPRINT OF A NEW SERVICE (OR CHANGES IN AN EXISTING SERVICE). THE PROPER PLAN AND ROADMAP OF THE SERVICE IS PREPARED IN THIS STAGE. ALL THE ASPECTS OF SERVICES LIKE VALUE CREATION, RESOURCES, CAPABILITIES, INVESTMENT, PORTFOLIO, ETC. ARE DISCUSSED IN THIS PHASE.

**SERVICE DESIGN:** THIS IS THE NEXT PHASE OF ITIL, WHEREIN, THE ARCHITECTURE OF THE NEW OR CHANGED SERVICE TAKES PLACE, AS PER THE SERVICE STRATEGY. IT ALSO LAYS DOWN THE PROCESSES, POLICIES AND SOLUTIONS AS PER THE BUSINESS REQUIREMENTS.

**SERVICE TRANSITION:** THIS IS THE THIRD STAGE OF ITIL AND THE MAIN OBJECTIVE OF THIS STAGE IS PLAN, MANAGE, BUILD AND DEPLOY THE NEW OR CHANGED IT SERVICE IN THE PRODUCTION (REAL WORLD). THIS STAGE ALSO DRAFTS THE RISK MANAGEMENT AND BACK OUT PLANS. CHANGE MANAGEMENT IS ONE OF THE IMPORTANT PROCESSES WHICH COMES UNDER SERVICE TRANSITION, WHICH IS EXPLAINED LATER.

**SERVICE OPERATION:** THIS STAGE OF ITIL FOCUSES ON THE DAY TO DAY IT SERVICES, WHICH ARE DELIVERED TO THE CUSTOMERS. IT MAKES SURE THAT EVERY IT SERVICE IS DELIVERED EFFICIENTLY WITHOUT ANY (OR AT MINIMUM POSSIBLE) DISRUPTION. THIS STAGE INTRODUCES VARIOUS PROCESSES, WHICH NEED TO BE CARRIED OUT IN CASE OF SERVICE DISRUPTION, INCIDENT MANAGEMENT AND PROBLEM MANAGEMENT BEING IMPORTANT AMONG THEM.

**CONTINUAL SERVICE IMPROVEMENT (CSI):** THIS STAGE HIGHLIGHTS THE STEPS THAT COULD BE TAKEN, TO INCREASE THE OVERALL EFFICIENCY AND PERFORMANCE OF THE SERVICE. THE CSI WORKS CLOSELY WITH ALL THE OTHER STAGES AND IDENTIFIES IMPROVEMENT OPPORTUNITIES WITH METRICS DRIVEN APPROACH.

## PROCESSES IN ITIL

THE CHANGE MANAGEMENT COMES UNDER SERVICE TRANSITION AND INCIDENT MANAGEMENT AND PROBLEM MANAGEMENT COMES UNDER SERVICE OPERATION.

- **CHANGE MANAGEMENT:** IT IS AN APPROACH WHICH GUIDES ON HOW TO PREPARE, MANAGE AND SUPPORT TRANSITION IN THE SERVICE. IT DEALS WITH ANY KIND OF CHANGE WITHIN THE ORGANISATION. MAY IT BE TECHNOLOGICAL CHANGE, PROCESS CHANGE, ORGANISATIONAL RESTRUCTURING, PHYSICAL DATACENTER RELATED CHANGES, SOFTWARE RELATED CHANGES, SERVER RELATED CHANGES, ETC. SPECIFIC CHANGE REQUEST IS RAISED IN ANY ITIL TOOLS LIKE SERVICENOW, REMEDY, ETC. TO TRACK THE CHANGE. THE CHANGE REQUEST UNDERGOES SEVERAL STAGES LIKE REVIEW, APPROVAL, BUDGETING, DOCUMENTATIONS, ETC. WHICH MAY VARY AS PER THE ORGANISATIONS POLICIES.
- **INCIDENT MANAGEMENT:** IT IS AN APPROACH TO IDENTIFY, ANALYSE, MANAGE AND RESTORE ANY DISRUPTION CAUSED IN THE SERVICE. INCIDENT MANAGEMENT ENSURES THAT THE PERFORMANCE OF THE SERVICE IS UP TO THE MARK AND ANY INTERRUPTION IN THE QUALITY OF THE SERVICE IS RESTORED AS SOON AS POSSIBLE. A SPECIFIC INCIDENT RECORD WITH UNIQUE TICKET NUMBER IS RAISED IN ITIL TOOL, BY SUPPORT/SERVICE DESK EXECUTIVE FOR EACH AND EVERY DISRUPTION REPORTED. THE CORRESPONDING TEAM FURTHER ANALYSES AND RESTORE THE SERVICE AND UPDATES THE INCIDENT TICKET ACCORDINGLY IN THE ITIL TOOL.
- **PROBLEM MANAGEMENT:** THE PURPOSE OF PROBLEM MANAGEMENT IS TO FIND A PERMANENT ROOT CAUSE FOR THE RECURRING INCIDENTS. PROBLEM MANAGEMENT MITIGATES THE IMPACT OF

THE RECURRING INCIDENTS IN THE SERVICES. AS PER THE ITIL PRACTICE, A PROBLEM RECORD IS RAISED FOR RECURRING TYPES OF INCIDENTS. THE CORRESPONDING TEAM FINDS THE EXACT ROOT CAUSE AND PROPOSES CHANGE OR FIX IN THE SERVICE FOR THE PERMANENT RESOLUTION OF THE INCIDENT. A CHANGE REQUEST IS RAISED FOR THE PROPOSED FIX/CHANGE AND IT IS IMPLEMENTED IN PRODUCTION THROUGH CHANGE MANAGEMENT PROCESS.

## APP ENGINE STUDIO PROCESS

CREATORS USE APP ENGINE STUDIO (AES) TO QUICKLY BUILD APPLICATIONS TO MEET AN ORGANIZATION'S BUSINESS NEEDS. APP CREATION WITH AES FOLLOWS A SIMPLE PROCESS:



APP ENGINE STUDIO'S INTERFACE ALLOWS YOU TO

- CREATE APPS AND APPLICATION COMPONENTS
- VIEW AND SELECT TEMPLATES TO CREATE APPS QUICKLY
- ACCESS RESOURCES RELATED TO APP ENGINE STUDIO

THE APP ENGINE STUDIO HEADER HAS FOUR TABS. SELECTING A TAB CHANGES THE CONTENT.

- HOME: CREATE AN APP OR APPLICATION COMPONENT, OPEN A RECENT APP, OR CREATE AN APP FROM A TEMPLATE
- MY APPS: OPEN APPS YOU CREATED
- TEMPLATES: VIEW TEMPLATES AVAILABLE TO CREATE APPS
- RESOURCES: VIEW DOCUMENTATION RESOURCES

## BUILDING AN APPLICATION IN APP ENGINE STUDIO

APPLICATION IS MADE OF APPLICATION COMPONENTS:

- DATA MODEL: A TABLE TO STORE INFORMATION ABOUT COLLECTION ITEMS

- USER EXPERIENCE: AN INTERFACE FOR A USER TO INTERACT WITH COLLECTION DATA AND RECORDS
- LOGIC AND AUTOMATION: AUTOMATION TO AUTOMATICALLY SET A VALUE IN A RECORD
- SECURITY: A ROLE TO PROVIDE ACCESS TO THE APPLICATION

## CREATING A TABLE

DATA IS A KEY COMPONENT OF AN APPLICATION. APPLICATIONS USE DATA TO:

- IDENTIFY USERS
- STORE INFORMATION FROM USERS OR ITEMS
- CAPTURE DETAILS ABOUT WORK PERFORMED AS PART OF A PROCESS

TO CREATE A TABLE IN APP ENGINE STUDIO, CLICK THE ADD BUTTON IN THE DATA SECTION ON THE APP HOME TAB.

1. SELECT THE CREATE A BLANK TABLE TILE ON THE HOW DO YOU WANT TO ADD DATA TO YOUR APP? SCREEN TO CREATE A TABLE TO STORE DATA.
2. CLICK THE CONTINUE BUTTON.
3. ON THE HOW DO YOU WANT TO CREATE A TABLE? SCREEN, SELECT WHETHER THE TABLE WILL BE EMPTY OR BE SEEDED WITH COLUMNS FROM ANOTHER TABLE. IN THE EXAMPLE, THE TABLE WILL BE EMPTY. SELECT THE CREATE NEW TABLE TILE.
4. CLICK THE CONTINUE BUTTON.
5. CONFIGURE THE TABLE PROPERTIES ON THE NOW, LET'S GET MORE INFO ABOUT YOUR NEW TABLE SCREEN. PROVIDE A TABLE LABEL FOR THE TABLE. THE TABLE NAME IS CONFIGURED AUTOMATICALLY.
6. CLICK THE CONTINUE BUTTON.
7. CONFIGURE THE PERMISSIONS FOR THE DEFAULT ROLES ON THE LET'S ADD PERMISSIONS TO YOUR TABLE. SCREEN. GRANT ROLES PERMISSION TO CREATE, READ, WRITE, OR DELETE RECORDS IN THE TABLE.
8. CLICK THE CONTINUE BUTTON. APP ENGINE STUDIO CREATES THE TABLE.
9. CLICK THE DONE BUTTON TO RETURN TO THE APP HOME TAB.



EACH TABLE INCLUDES DEFAULT FIELDS.

- CREATED: THE DATE THE RECORD WAS CREATED
- CREATED BY: THE USER WHO CREATED THE RECORD
- UPDATED: THE DATE THE RECORD WAS LAST UPDATED
- UPDATED BY: THE USER WHO LAST UPDATED THE RECORD
- UPDATES: THE NUMBER OF UPDATES MADE TO THE RECORD

BEFORE CREATING A FIELD IN TABLE BUILDER, IDENTIFY:

- THE LABEL FOR THE FIELD
- THE TYPE OF DATA STORED IN THE FIELD, SUCH AS TEXT, NUMBER, OR DATE
  - FOR GENERAL TEXT, USE THE TYPE *STRING* AND SPECIFY A LENGTH FOR THE TEXT
  - FOR NUMBERS WITHOUT DECIMALS, USE THE TYPE *INTEGER*
  - FOR DATE VALUES WITHOUT A TIME, USE THE TYPE *DATE*
  - FOR DATE VALUES WITH A TIME, USE THE TYPE *DATE/TIME*
- IF THE VALUES FOR A FIELD SHOULD BE LIMITED TO SPECIFIC OPTIONS
  - FOR VALUES FROM ANOTHER TABLE, USE THE TYPE *REFERENCE* AND SELECT A REFERENCE TABLE
  - TO DEFINE THE AVAILABLE OPTIONS FOR THE FIELD, SELECT THE TYPE *CHOICE* AND ADD OPTIONS

IN TABLE BUILDER, CLICK THE + ADD NEW FIELD BUTTON TO ADD A FIELD TO THE TABLE.

- ENTER A VALUE FOR THE COLUMN LABEL.
- PRESS THE RETURN/ENTER KEY ON THE KEYBOARD. TABLE BUILDER ADDS A COLUMN NAME VALUE FROM THE COLUMN LABEL AND SETS THE DEFAULT TYPE FOR THE FIELD TO STRING.
- FIELDS DEFAULT TO A STRING TYPE TO STORE TEXT VALUES. TO CHANGE THE TYPE VALUE FOR A FIELD, CLICK THE TYPE FIELD AND SELECT A VALUE, SUCH AS INTEGER FOR NUMBERS OR DATE/TIME FOR DATE AND TIME VALUES.
- CLICK THE SAVE BUTTON.

DATA CAN BE ADDED FROM SPREADSHEET AS WELL

SELECT A SOURCE FOR THE TABLE:

- **UPLOAD A SPREADSHEET:** CREATE A TABLE FROM A SPREADSHEET
- **CREATE FROM AN EXISTING TABLE:** CREATE A TABLE BY EXTENDING AN EXISTING SERVICENOW TABLE AND ADD CUSTOM FIELDS
- **CREATE FROM SCRATCH:** CREATE A TABLE WITH A STANDARD SET OF FIELDS AND ADD CUSTOM FIELDS

REGARDLESS OF TABLE CREATION METHOD, THE FINAL STEP IN TABLE CREATION IS TO CONFIGURE THE TABLE PROPERTIES.

- **TABLE LABEL:** THE USER-FRIENDLY LABEL FOR THE TABLE
- **TABLE NAME:** THE AUTOMATICALLY-GENERATED NAME FOR THE TABLE USED PROGRAMMATICALLY BY THE APPLICATION
- **MAKE EXTENSIBLE:** ALLOW THE TABLE TO BE EXTENDED BY OTHER TABLES
- **AUTO NUMBER:** CONFIGURE A FIELD TO ASSIGN A UNIQUE, AUTOMATICALLY-GENERATED NUMBER TO EACH RECORD IN THE TABLE

## FORMS

APPLICATION USERS CREATE AND EDIT RECORDS USING FORMS. A FORM IS A PAGE THAT DISPLAYS FIELDS AND VALUES FOR A SINGLE RECORD FROM A DATABASE TABLE.

The image shows a screenshot of a ServiceNow form titled "Suggestion Innovation Friday". The form contains several fields: "Suggestion" (text input with value "Innovation Friday"), "Type" (dropdown menu), "Description" (text area with value "Block four hours every Friday for the team to work on innovation projects together"), "Status" (dropdown menu with value "New"), "Submission date" (calendar icon and value "2021-01-29"), "Submitter" (text input with value "Beth Anglin"), and "Closed date" (calendar icon). Annotations include: "Form" with an arrow pointing to the top of the form; "Fields" with three arrows pointing to the "Suggestion", "Type", and "Description" fields; and "Field Values" with three arrows pointing to the values "Innovation Friday", "Beth Anglin", and "2021-01-29".

## VIEWS

VIEWS ARE ALTERNATE FORM LAYOUTS FOR THE SAME TABLE. APPLICATION USERS MAY ONLY NEED TO SEE A SUBSET OF A RECORD'S FIELDS, WHEREAS REVIEWERS, MANAGERS, OR APPLICATION ADMINISTRATORS NEED TO SEE MORE OR ALL OF A RECORD'S FIELDS.

THE VIEW NAME APPEARS IN A FORM'S HEADER. IF THERE IS NO VIEW NAME IN THE HEADER, THE FORM IS USING THE *DEFAULT* VIEW.

TO CHANGE A FORM'S VIEW, OPEN THE **ADDITIONAL ACTIONS** MENU AND SELECT THE **VIEW > <VIEW NAME>** MENU ITEM.

## ADDING LOGIC AND AUTOMATION

AUTOMATION USES AN APPLICATION TO MANAGE REPEATABLE PROCESSES INSTEAD OF USING PEOPLE. AUTOMATION IS OFTEN REFERRED TO AS A WORKFLOW, OR FLOW. APP ENGINE STUDIO ALLOWS CREATORS TO ADD PROCESS FLOWS TO THEIR APPLICATIONS. FOR EXAMPLE:

- A. UPDATE A FIELD IN RESPONSE TO ANOTHER FIELD'S VALUE
- B. SEND EMAIL NOTIFICATIONS
- C. REQUEST AN APPROVAL
- D. CREATING A REQUEST
- E. UPDATING FIELDS ON THE REQUEST
- F. SENDING A COPY OF THE REQUEST TO THE REQUESTOR
- G. SUBMITTING THE REQUEST FOR APPROVAL



## THE FLOW EDITOR IS MADE UP OF:

- **HEADER:** DISPLAYS THE FLOW NAME, ACTIVATION STATUS, AND CONTROLS TO CONFIGURE, TEST, AND ACTIVATE
  - **ACTIVATION STATUS**
    - **INACTIVE FLOW:**
    - **ACTIVE FLOW:**
  - **TEST:** INITIATES A TEST OF THE FLOW
  - **DEACTIVATE** (NOT DISPLAYED): DEACTIVATES AN ACTIVATED FLOW
  - **ACTIVATE:** ACTIVATES A FLOW
  - **SAVE:** SAVES THE FLOW
- **FLOW TAB:** DISPLAYS THE NAME OF THE FLOW
- **MORE ACTIONS MENU:** LISTS FLOW MANAGEMENT OPTIONS SUCH AS *PROPERTIES*, *EXECUTIONS*, *COPY FLOW*, AND *MANAGE SECURITY*
- **FLOW FOOTER:** DISPLAYS THE STATUS AND APPLICATION FOR THE FLOW
  - **STATUS:** INDICATES FLOW STATUS OF DRAFT, MODIFIED, OR PUBLISHED
  - **APPLICATION:** IDENTIFIES THE FLOW'S APPLICATION
- **FLOW CANVAS:** WORK AREA FOR ADDING AND CONFIGURING FLOW COMPONENTS
- **DATA PANEL:** DISPLAYS A LIST OF DYNAMIC VALUES USED TO CONFIGURE FLOW COMPONENTS
- **ERROR HANDLER:** ACTIONS TO EXECUTE IF EXECUTION ERRORS OCCUR

## IN THE LOGIC AND AUTOMATION SECTION OF THE APP HOME TAB, CLICK THE ADD BUTTON

- ON THE WHAT DO YOU WANT TO ADD? SCREEN, SELECT THE FLOW TILE.
- ON HOW DO YOU WANT TO ADD AN AUTOMATED WORKFLOW TO YOUR APP? SCREEN, SELECT THE TYPE OF AUTOMATION TO ADD. FOR EXAMPLE, THE BUILD FROM SCRATCH OPTION.
- ON THE LET'S SET UP YOUR FLOW SCREEN, PROVIDE A NAME AND A DESCRIPTION FOR THE FLOW, THEN CLICK THE CONTINUE BUTTON.

- WHEN FLOW CREATION IS COMPLETE, CLICK THE EDIT THIS FLOW BUTTON IN SUCCESS! YOUR FLOW IS READY. SCREEN.

## TRIGGERS

FLOWS ARE MADE UP OF TRIGGERS AND ACTIONS.

- TRIGGER: WHEN TO EXECUTE
- ACTIONS: WHAT TO DO

TRIGGERS DETERMINE WHEN A FLOW'S LOGIC EXECUTES. SELECT THE RIGHT TYPE OF TRIGGER FOR THE PROCESS FLOW. THE TRIGGER TYPES ARE:

- RECORD: EXECUTE THE FLOW WHEN A RECORD IS CREATED OR UPDATED
- DATE: EXECUTE THE FLOW AT A SPECIFIC TIME OR INTERVAL
- APPLICATION: EXECUTE THE FLOW WHEN SOMETHING HAPPENS ON AN INSTANCE SUCH AS RECEIVING AN EMAIL

SELECT THE RIGHT TRIGGER TYPE FOR THE PROCESS. FOR EXAMPLE, IF A FLOW NEEDS TO EXECUTE ONCE / DAY, CHOOSE A *DATE* TRIGGER. CHOOSE A *RECORD* TRIGGER IF A FLOW NEEDS TO EXECUTE WHEN A RECORD IS UPDATED, CHOOSE A *RECORD* TRIGGER.

TO ADD A TRIGGER TO A FLOW, CLICK THE ADD A TRIGGER LINK.

- IN THE TRIGGERS DIALOG, SELECT A TRIGGER. HOVER OVER A TRIGGER TO SEE THE TRIGGER DOCUMENTATION.
- AFTER SELECTING A TRIGGER, THE TRIGGER'S CONFIGURATION FIELDS ARE ADDED TO THE TRIGGER SECTION. EACH TRIGGER HAS ITS OWN CONFIGURATION OPTIONS. RECORD TRIGGERS REQUIRE SPECIFYING A TABLE.
- WITH ONLY THE TABLE FIELD CONFIGURED, THE FLOW WILL EXECUTE FOR EVERY RECORD ADDED TO THE TABLE. TO TRIGGER A FLOW FOR SPECIFIC RECORDS ON THE TABLE, CLICK THE ADD FILTERS BUTTON IN THE CONDITION FIELD.
- CONFIGURE THE CONDITION. THE GENERAL SYNTAX FOR CONDITIONS IS: [FIELD] [COMPARISON OPERATOR] [VALUE].
- [FIELD] AND [COMPARISON OPERATOR] ARE REQUIRED FOR ALL CONDITIONS. SOME [COMPARISON OPERATORS], LIKE IS EMPTY, DO NOT USE [VALUE] IN THE CONDITION DEFINITION.

THE *RUN TRIGGER* CONFIGURATION OPTION SPECIFIES WHAT TO DO WHEN A CONDITION IS REPEATEDLY MET FOR A RECORD.

- **ONCE**: RUNS ONLY ONCE FOR THE RECORD.
- **FOR EACH UNIQUE CHANGE**: RUNS ONLY FOR EACH UNIQUE CHANGE TO THE RECORD.

- **ONLY IF NOT CURRENTLY RUNNING:** RUNS ONLY IF A FLOW IS NOT ALREADY RUNNING FOR THE RECORD.
- **FOR EVERY UPDATE:** RUNS EVERY TIME THE RECORD IS UPDATED TO MEET THE CONDITION UNLESS A FLOW IS ALREADY ACTIVE FOR THE RECORD.

THE *RUN TRIGGER* OPTION ONLY APPLIES TO *UPDATED* AND *CREATED OR UPDATED* TRIGGERS.

THE *WHEN TO RUN THE FLOW* FIELD INCLUDES CHOICE LISTS TO CONFIGURE:

- INTERACTIVE SESSIONS
  - **ONLY RUN FOR NON-INTERACTIVE SESSION:** EXECUTE THE FLOW WHEN THE RECORD IS CREATED OR UPDATED FROM AN API. SEE THE SERVICENOW DOCS SITE FOR MORE INFORMATION ON [NON-INTERACTIVE SESSIONS](#).
  - **ONLY RUN FOR USER INTERACTIVE SESSION:** EXECUTE THE FLOW WHEN A LOGGED IN USER CREATES OR UPDATES A RECORD.
  - **RUN FOR BOTH INTERACTIVE AND NON-INTERACTIVE SESSIONS:** EXECUTE THE FLOW REGARDLESS OF HOW THE RECORD IS CREATED OR UPDATED.
- USERS
  - **DO NOT RUN IF TRIGGERED BY THE FOLLOWING USERS:** SPECIFY A LIST OF USERS WHO CANNOT EXECUTE THE FLOW.
  - **ONLY RUN IF TRIGGERED BY THE FOLLOWING USERS:** SPECIFY A LIST OF USERS WHO CAN EXECUTE THE FLOW.
  - **RUN FOR ANY USER:** EXECUTE THE FLOW FOR ANY USER.
- TABLES
  - **RUN ONLY ON CURRENT TABLE:** EXECUTE THE FLOW ONLY WHEN RECORDS ARE CREATED OR UPDATED ON THE SELECTED TABLE.
  - **RUN ON CURRENT AND EXTENDED TABLES:** EXECUTE THE FLOW WHEN RECORDS ARE CREATED OR UPDATED ON THE SELECTED TABLE OR ANY TABLE THAT EXTENDS THE SELECTED TABLE.

CONFIGURE WHERE TO RUN THE FLOW:

- **RUN FLOW IN BACKGROUND (DEFAULT):** EXECUTE THE FLOW ASYNCHRONOUSLY. USE THIS OPTION FOR FLOWS THAT DO NOT REQUIRE IMMEDIATE UPDATES AND TO ALLOW OTHER SYSTEM PROCESSES TO RUN AT THE SAME TIME.
- **RUN FLOW IN FOREGROUND:** EXECUTE THE FLOW SYNCHRONOUSLY TO PROVIDE IMMEDIATE UPDATES TO THE USER. RUNNING A FLOW IN FOREGROUND MAY BLOCK THE CURRENT SESSION THREAD AND PREVENT USER INPUT UNTIL THE FLOW FINISHES.

## ACTIONS

ACTIONS SPECIFY WHAT A FLOW DOES WHEN TRIGGERED. FLOWS HAVE ONLY ONE TRIGGER BUT CAN HAVE MANY ACTIONS.

TO ADD AN ACTION TO A FLOW, CLICK THE ADD AN ACTION, FLOW LOGIC, OR SUBFLOW LINK.

- CLICK THE BUTTON FOR THE TYPE OF ACTION TO ADD: ACTION, FLOW LOGIC, OR SUBFLOW. THE EXAMPLE SHOWS ADDING AN ACTION TO UPDATE A RECORD.
- AFTER SELECTING AN ACTION, THE ACTION'S CONFIGURATION FIELDS ARE ADDED TO THE ACTIONS SECTION OF THE FLOW EDITOR. EACH ACTION HAS ITS OWN CONFIGURATION OPTIONS. THE UPDATE RECORD ACTION REQUIRES SPECIFYING THE RECORD TO UPDATE, THE RECORD'S TABLE, AND THE FIELDS TO UPDATE.
- TO DYNAMICALLY SET VALUES IN ACTION CONFIGURATIONS, USE DATA PILLS. DATA PILLS ARE VARIABLES THAT HAVE NO VALUE UNTIL A FLOW EXECUTES; THEY ARE PLACEHOLDERS FOR VALUES. THE DATA PANEL CONTAINS THE AVAILABLE DATA PILLS. DATA PILLS ARE GROUPED BY TRIGGER AND BY ACTIONS.

AVAILABLE ACTIONS INCLUDE:

- *ASK FOR APPROVAL*
- *CREATE OR UPDATE RECORD*
- *CREATE RECORD*
- *CREATE TASK*
- *DELETE RECORD*
- *LOG*
- *LOOK UP RECORD*
- *LOOK UP RECORDS*
- *SEND EMAIL*
- *UPDATE RECORD*

TO DYNAMICALLY SET VALUES IN ACTION CONFIGURATIONS, USE DATA PILLS. DATA PILLS ARE VARIABLES THAT HAVE NO VALUE UNTIL A FLOW EXECUTES; THEY ARE PLACEHOLDERS FOR VALUES. THE *DATA* PANEL CONTAINS THE AVAILABLE DATA PILLS. DATA PILLS ARE GROUPED BY TRIGGER AND BY ACTIONS. ANY FIELD WITH THE *DATA PILL PICKER* BUTTON CAN DYNAMICALLY SET VALUES USING DATA PILLS. TO USE A DATA

PILL, DRAG THE DATA PILL FROM THE *DATA* PANEL TO A FIELD.






SELECT **SERVICENOW CORE > FOR ANY ACTION RELATED PART IN THE AUTOMATION**

## TESTING FLOWS

AFTER CREATING A FLOW, TEST THE FLOW LOGIC BY CLICKING THE **TEST** BUTTON IN THE FLOW EDITOR HEADER. THE *TEST* FEATURE IGNORES THE TRIGGER LOGIC AND EXECUTES ONLY THE FLOW ACTIONS. THE TRIGGER IS *NOT* TESTED BY THE *TEST* FEATURE.

THE *TEST FLOW* DIALOG OPENS. THE TEST CONFIGURATION OPTIONS IN THE *TEST FLOW* DIALOG DEPEND ON THE TRIGGER TYPE. THIS LEARNING MODULE DISCUSSES TESTING FLOWS WITH *RECORD* TRIGGERS.

FLOWS WITH *RECORD* TRIGGERS REQUIRE A RECORD TO TEST THE FLOW. SELECT THE RECORD TO USE FOR THE TEST IN THE *TEST FLOW* DIALOG.

- USE THE **LOOKUP RECORDS** () BUTTON TO OPEN THE LIST OF RECORDS TO FILTER AND SELECT.
- CLICK THE **CREATE NEW RECORD** () BUTTON TO CREATE A RECORD TO USE FOR THE TEST.
- WITH A RECORD SELECTED, USE THE **PREVIEW SELECTED RECORD** () BUTTON TO PREVIEW THE SELECTED RECORD.

BY DEFAULT, FLOW TESTS EXECUTE IN THE FOREGROUND TO EXPEDITE TESTING. TESTING IN THE FOREGROUND MEANS THAT COMPUTING RESOURCES ARE UNAVAILABLE UNTIL THE TEST EXECUTION IS COMPLETE. TO TEST IN THE BACKGROUND, SELECT THE RUN TEST IN BACKGROUND CHECKBOX.

WHEN THE TRIGGER IS SET TO UPDATED OR CREATED OR UPDATED, THE TRIGGER INCLUDES A CHANGED FIELDS ARRAY TO PASS CHANGED FIELD VALUES TO THE FLOW. TO SIMULATE CHANGED INFORMATION IN A TEST, THE TEST FLOW DIALOG INCLUDES A CHANGED FIELDS SECTION TO ADD DATA TO THE ARRAY FOR USE IN TESTING THE FLOW.

ALL VALUES IN THE ARRAY ARE STRINGS.

- **FIELD NAME:** THE NAME OF THE CHANGED FIELD, NOT THE LABEL.
- **PREVIOUS VALUE:** THE FIELD VALUE BEFORE THE UPDATE.
- **CURRENT VALUE:** THE FIELD VALUE AFTER THE UPDATE.
- **PREVIOUS DISPLAY VALUE:** THE FIELD DISPLAY VALUE BEFORE THE UPDATE.
- **CURRENT DISPLAY VALUE:** THE FIELD DISPLAY VALUE AFTER THE UPDATE.

THE VALUES ENTERED IN THE *CHANGED FIELDS* SECTION DO NOT CHANGE THE VALUES IN THE RECORD SELECTED FOR THE TEST.

## VIEWING FLOW EXECUTION DETAILS

A FLOW EXECUTION (OR CONTEXT) IS A FLOW'S RUNTIME ENVIRONMENT. A FLOW EXECUTION IS CREATED WHEN A FLOW EXECUTES. A FLOW EXECUTION LOADS THE FLOW CONFIGURATION AT EXECUTION TIME. USE FLOW EXECUTIONS TO TEST AND DEBUG FLOWS.

WHEN TESTING, AFTER FLOW EXECUTION IS COMPLETE, CLICK THE **YOUR TEST HAS FINISHED RUNNING. VIEW THE FLOW EXECUTION DETAILS**. LINK IN THE *TEST FLOW* DIALOG. THE EXECUTION DETAILS OPEN IN A NEW TAB.



THE *FLOW STATISTICS* SECTION SHOWS WHO EXECUTED THE FLOW, WHAT THE FLOW EXECUTION STATE IS, WHEN THE FLOW BEGAN EXECUTION, AND HOW LONG THE FLOW TOOK TO RUN.

EXECUTION DETAILS		Set Closed date	Test Run - Completed	Open Flow	Open Context Record
Show Action Details	State		Start time		
FLOW STATISTICS	Run as: System Administrator	Open Flow Logs	Completed	-10-19 10:39:40	58ms

Open detailed logs for the Flow execution

A FLOW CAN BE IN ONE OF THREE STATES:

- **COMPLETED:** THE FLOW SUCCESSFULLY RAN ALL ACTIONS
- **WAITING:** THE FLOW EXECUTION PAUSED AND IS WAITING FOR AN ACTION TO COMPLETE
- **ERROR:** THE FLOW EXECUTION STOPPED WITH AN ERROR

Open Trigger record

TRIGGER

now

Suggestion Updated

Open Current Record ⓘ

Session Information

VARIABLE NAME	VALUE
Calling Source	Flow Designer Test

Configuration Details

VARIABLE NAME	RUNTIME VALUE	CONFIGURATION	TYPE
Condition		status=implemented ORstatus=declined	Conditions
Run Trigger	every	every	Choice
Table	x_126321_suggest_0_suggestion	x_126321_suggest_0_suggestion	Table Name
run_flow_in	any	any	Choice
run_on_extended	false	false	Choice
run_when_setting	both	both	Choice
run_when_user_list			List

Variables

Values from execution

Configuration

Variable type

THE *SESSION INFORMATION* SECTION SHOWS WHAT CAUSED THE FLOW TO EXECUTE: A TEST OR TRIGGER.

THE *CONFIGURATION DETAILS* SECTION SHOWS HOW THE TRIGGER INPUT VARIABLES WERE CONFIGURED WHEN THE FLOW EXECUTED. *RECORD* TRIGGERS SHOW THE TABLE AND CONDITIONS FOR A RECORD TO TRIGGER THE FLOW.

THE *TRIGGER OUTPUT* SECTION SHOWS THE OUTPUT VARIABLES AND RUNTIME VALUES FROM THE TRIGGER. IN THE EXAMPLE, THE TRIGGER INCLUDES THREE OUTPUT VARIABLES: *RECORD*, *RUN START TIME*, AND *TABLE NAME*. THE RUNTIME VALUE FOR *TABLE NAME* IN THE EXAMPLE IS *X\_126321\_SUGGEST\_0\_SUGGESTION*. RUNTIME VALUES FOR *RECORD* AND REFERENCE VARIABLE TYPES ARE *SYS\_IDS*. CLICK THE LINK TO PREVIEW DETAILS FOR THE REFERENCED RECORD.

CLICK AN ACTION TO SEE CONFIGURATION AND RUNTIME DETAILS. CLICK THE **SHOW ACTION DETAILS** LINK IN THE EXECUTION DETAILS HEADER TO SEE THE RUNTIME DETAILS FOR ALL ACTIONS IN THE FLOW. EACH ACTION INCLUDES ACTION STATE, WHEN THE ACTION EXECUTION STARTED, AND HOW LONG THE ACTION TOOK TO RUN.

ACTIONS

1

now

Update Record

Core Action

Completed

2021-07-21 19:31:54

53ms

Configuration Details

VARIABLE NAME	RUNTIME VALUE	CONFIGURATION	TYPE
Record	05c79bcc071660102825f87e7c1ed0b8	Trigger ▶ Suggestion Record	Document ID
Table	x_126321_suggest_0_suggestion	x_126321_suggest_0_suggestion	Table Name
Fields	closed_date=2021-02-08 07:26:00	closed_date= Trigger ▶ Suggestion Record ▶ Updated	Template Value

Output Data

VARIABLE NAME	RUNTIME VALUE	CONFIGURATION	TYPE
Action Status	{"Action Status":{"code":0,"message":"Success"}}		Object
Don't Treat as Error	true	true	True/False
Record	05c79bcc071660102825f87e7c1ed0b8	record	Document ID
table_name	x_126321_suggest_0_suggestion	table_name	Table Name

No Logs

Variables

Values from execution

Configuration

Variable type

THE *CONFIGURATION DETAILS* SECTION SHOWS THE ACTION INPUT VARIABLES AND RUNTIME VALUES WHEN THE ACTION EXECUTED. IN EXAMPLE, THE *CLOSED\_DATE* FIELD WAS UPDATED.

THE *OUTPUT DATA* SECTION SHOWS OUTPUT VARIABLES AND RUNTIME VALUES WHEN THE ACTION EXECUTED. RUNTIME VALUES FOR *RECORD* AND REFERENCE VARIABLE TYPES ARE LINKS. CLICK THE LINK TO PREVIEW DETAILS FOR THE REFERENCED RECORD.

## ACTIVATING FLOWS

NEW FLOWS ARE NOT PART OF THE RUNTIME ENVIRONMENT FOR AN APPLICATION. UNTIL A FLOW IS ACTIVATED, TRIGGER CONDITIONS DO NOT CAUSE A FLOW TO EXECUTE.

FLOWS SHOULD BE TESTED BEFORE ACTIVATION TO ENSURE THE FLOW LOGIC WORKS AS INTENDED. TO ACTIVATE A FLOW, CLICK THE **ACTIVATE** BUTTON IN THE FLOW HEADER.



DEACTIVATING A FLOW STOPS THE FLOW FROM BEING TRIGGERED IN THE RUNTIME ENVIRONMENT. TO DEACTIVATE A FLOW, CLICK THE **DEACTIVATE** BUTTON. ALL ACTIVE EXECUTIONS OF THE SAME FLOW CONTINUE TO RUN UNTIL COMPLETED OR CANCELED.

## CREATING A WORKSPACE

A WORKSPACE IS A TARGETED EXPERIENCE FOR A SPECIFIC TYPE OF USER OF AN APPLICATION. A WORKSPACE INCLUDES DATA VISUALIZATIONS AND OTHER USER EXPERIENCE COMPONENTS TO ALLOW A USER TO INTERACT WITH AN APPLICATION.

AN EXPERIENCE, ALSO KNOWN AS USER INTERFACE, IS HOW A USER INTERACTS WITH AN APPLICATION. CREATE USER INTERFACE COMPONENTS IN THE EXPERIENCE SECTION OF THE APP-HOME TAB. ONE TYPE OF EXPERIENCE IS A WORKSPACE, WHICH IS A DASHBOARD TO INTERACT WITH APPLICATION DATA.

- CLICK THE ADD BUTTON FOR EXPERIENCE ON THE APP HOME TAB.
- SELECT THE WORKSPACE TILE ON WHAT TYPE OF EXPERIENCE DO YOU WANT TO ADD TO YOUR APP? SCREEN.
- ON THE A WORKSPACE HELPS USERS MANAGE AND FULFILL REQUESTS SENT TO THEM. SCREEN, CLICK THE GET STARTED BUTTON.
- ON THE LET'S DESIGN YOUR WORKSPACE SCREEN, PROVIDE A NAME AND DESCRIPTION FOR THE WORKSPACE. REMOVE ANY ROLES CREATED PREVIOUSLY THAT SHOULD NOT HAVE ACCESS TO THE WORKSPACE, THEN CLICK THE CONTINUE BUTTON.

## CONFIGURING A WORKSPACE

- CLICK THE PREVIEW LINK ON A WORKSPACE'S CARD IN THE EXPERIENCE SECTION TO OPEN THE WORKSPACE.
- CLICK THE EDIT BUTTON IN THE WORKSPACE HEADER TO EDIT THE COMPONENTS.
- THE WORKSPACE CONSISTS OF ELEMENTS LAID OUT ON A PAGE, SUCH AS HEADINGS, DATA VISUALIZATIONS, AND LISTS.
- THE CONFIGURATION PANEL OPENS. USE THE CONFIGURATION PANEL TO MAKE CHANGES TO THE SELECTED ELEMENT ON THE PAGE.

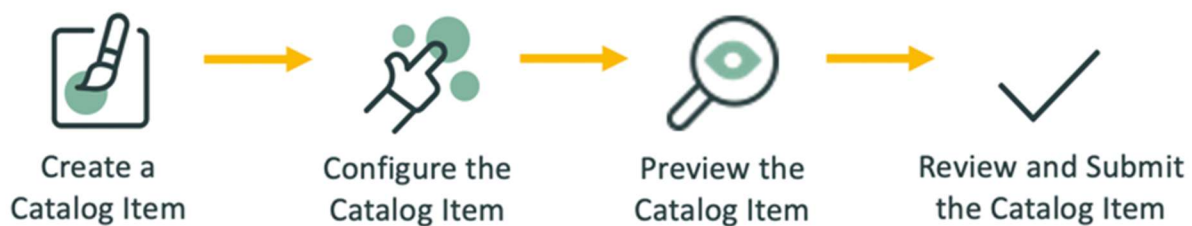
## WHAT IS A RECORD PRODUCER?

A SERVICE CATALOG IS A CONSUMER-LIKE USER INTERFACE (UI) FOR REQUESTING SERVICES OR PRODUCTS. THE SERVICE CATALOG UI IS FOR USERS OF ALL SKILL LEVELS AND IS FAMILIAR TO ANYONE WHO HAS ORDERED ITEMS FROM CONSUMER WEBSITES. USERS CONFIGURE THEIR REQUESTS BY ANSWERING A SERIES OF QUESTIONS. RECORD PRODUCERS USE THE CATALOG ITEM USER INTERFACE TO CREATE RECORDS IN APPLICATION-SPECIFIC TABLES.

## CATALOG ITEM CREATION PROCESS

CREATORS USE THE *EXPERIENCE* APPLICATION COMPONENT TO CREATE CATALOG ITEMS. CREATE A CATALOG ITEM THEN USE THE CATALOG EDITOR, ALSO KNOWN AS CATALOG BUILDER, TO CONFIGURE THE CATALOG ITEM.

CATALOG ITEMS ARE CREATED USING A SIMPLE PROCESS:



THE CATALOG EDITOR CONTAINS THREE PANELS.

- **NAVIGATION PANEL:** CONTAINS THE CATALOG EDITOR STEPS.
  - DETAILS
  - DESTINATION (RECORD PRODUCER ONLY)
  - LOCATION
  - QUESTIONS
  - SETTINGS
  - ACCESS
  - FUL
  - REVIEW AND SUBMIT
- **CANVAS:** SHOWS THE FIELDS TO CONFIGURE IN EACH *CATALOG EDITOR STEP*.
- **SECTION INFO PANEL:** DISPLAYS A DESCRIPTION FOR EACH *CATALOG EDITOR STEP*.

## WHAT IS A CATALOG ITEM?

A SERVICE CATALOG IS A CONSUMER-LIKE USER INTERFACE (UI) FOR REQUESTING SERVICES OR PRODUCTS. THE SERVICE CATALOG UI IS FOR USERS OF ALL SKILL LEVELS AND IS FAMILIAR TO ANYONE WHO HAS ORDERED ONLINE.

## CREATING RECORD PRODUCER

A CATALOG ITEM CAN BE EASILY CREATED TO SUBMIT INFORMATION, FULFILL A REQUEST, OR CREATE A TASK. CREATE A CATALOG ITEM, THEN USE THE CATALOG EDITOR TO CONFIGURE THE CATALOG ITEM.

APP ENGINE STUDIO CAN CREATE TWO TYPES OF CATALOG ITEMS:

- **STANDARD CATALOG ITEM:** A CATALOG ITEM USED TO REQUEST GOODS AND SERVICES
- **RECORD PRODUCER:** A CATALOG ITEM USED TO CREATE A RECORD IN A TABLE
  1. TO CREATE A RECORD PRODUCER EXPERIENCE, OPEN THE *APP HOME* TAB. CLICK THE **ADD** ICON IN THE *EXPERIENCE* SECTION.
  2. ON THE *WHAT TYPE OF EXPERIENCE DO YOU WANT TO ADD TO YOUR APP?* SCREEN, SELECT **RECORD PRODUCER**.
  3. ON THE NEXT SCREEN, CLICK THE **BEGIN** BUTTON.
  4. ON THE *LET'S SET UP YOUR STANDARD RECORD PRODUCER* OR *LET'S SET UP YOUR RECORD PRODUCER* SCREEN, CONFIGURE THE NAME AND SHORT DESCRIPTION FOR THERECORD PRODUCER

## CONFIGURING RECORD PRODUCER

CREATORS SHOULD PROVIDE A UNIQUE NAME AND DESCRIPTION WHEN CREATING RECORD PRODUCERS. THE NAME AND DESCRIPTION GIVE USERS THE BASIC INFORMATION NEEDED WHEN DETERMINING WHICH RECORD PRODUCER FITS THEIR NEEDS.

THE *DETAILS* STEP CONTAINS THE *BASIC INFO* AND *ITEM DETAILS* OF A RECORD PRODUCER.

THE *BASIC INFO* IS AUTOMATICALLY POPULATED WITH THE *ITEM NAME* AND *SHORT DESCRIPTION* ADDED WHEN THE RECORD PRODUCER WAS CREATED.

- **ITEM NAME:** A UNIQUE NAME TO IDENTIFY THE RECORD PRODUCER.
- **SHORT DESCRIPTION:** A BRIEF DESCRIPTION TO HELP USERS UNDERSTAND THE PURPOSE OF THE RECORD PRODUCER.
- IN THE *ITEM DETAILS* SECTION, ADD A DETAILED DESCRIPTION TO THE *DESCRIPTION* FIELD, THEN CLICK THE **INSERT/EDIT IMAGE** ICON
  - IMAGE: AN IMAGE TO DISPLAY ON THE RECORD PRODUCER FORM. IMAGES ARE OPTIONAL.

- DESCRIPTION: DETAILS THE USER NEEDS TO KNOW TO COMPLETE THE RECORD PRODUCER.
- CLICK SAVE BUTTON
- CLICK THE CONTINUE TO DESTINATION → LINK TO MOVE TO THE NEXT CATALOG EDITOR STEP.

## PREVIEWING A RECORD PRODUCER

IN THE CATALOG EDITOR, CREATORS CAN PREVIEW RECORD PRODUCER DURING CONFIGURATION. USE THE *PREVIEW* BUTTON TO SEE A REPRESENTATION OF THE RECORD PRODUCER IN SERVICE PORTAL, ON MOBILE DEVICES, AND IN VIRTUAL AGENT. CATALOG ITEMS CANNOT BE SUBMITTED FROM THE PREVIEW. TO PREVIEW A CATALOG ITEM, SELECT THE **PREVIEW** BUTTON IN THE CATALOG EDITOR. IN THE *PREVIEW YOUR CATALOG ITEM* DIALOG, SELECT **PORTAL**, **NOW MOBILE**, OR **VIRTUAL AGENT** IN THE *VIEW WITHIN* FIELD. SELECT THE **OPEN PREVIEW IN A NEW TAB** LINK TO OPEN THE CATALOG ITEM PREVIEW IN A NEW BROWSER TAB.

## SELECTING A DESTINATION TABLE

A RECORD PRODUCER CATALOG ITEM CREATES A RECORD IN A TABLE. THE DESTINATION TABLE, ALSO CALLED THE RECORD SUBMISSION TABLE, SPECIFIES WHERE A RECORD PRODUCER CREATES RECORDS. WHEN A USER SUBMITS A COMPLETED RECORD PRODUCER FORM, A RECORD IS CREATED IN THE DESTINATION TABLE.

## ADDING QUESTIONS TO A RECORD PRODUCER

QUESTIONS IN A RECORD PRODUCE CAPTURE INFORMATION FROM USERS THAT IS NEEDED TO CREATE A RECORD IN A TABLE. IN THE CATALOG EDITOR, THE *QUESTIONS* STEP ADDS QUESTIONS TO A RECORD PRODUCER. WHEN ADDING QUESTIONS TO A RECORD PRODUCER, INCLUDE IMPORTANT DETAILS USERS SHOULD KNOW TO ANSWER EACH QUESTION.

## QUESTION TYPES AND SUBTYPES

CATALOG ITEM QUESTIONS ARE CATEGORIZED INTO TYPES AND SUBTYPES. SELECT A *QUESTION TYPE* AND *QUESTION SUBTYPE* FOR EACH QUESTION TO CONFIGURE HOW USERS SHOULD RESPOND TO THE QUESTION IN A CATALOG ITEM.

QUESTION TYPE	QUESTION SUBTYPE	DESCRIPTION
TEXT	SINGLE-LINE	ENTER A SINGLE LINE OF TEXT.
TEXT	MULTI-LINE	ENTER MULTIPLE LINES OF TEXT.

QUESTION TYPE	QUESTION SUBTYPE	DESCRIPTION
TEXT	RICH TEXT	ENTER HTML TEXT WITH ADVANCED FORMATTING OPTIONS.
OPTION	CHECK BOX	CREATE A WIDGET TO CHOOSE AN OPTION.
OPTION	YES / NO	CREATE A CHOICE LIST TO CHOOSE YES OR NO. SELECT THE <b>INCLUDE NONE CHOICE</b> CHECK BOX TO INCLUDE -- <i>NONE</i> -- AS AN OPTION IN THE CHOICE LIST.
CHOICE	DROPDOWN (FIXED VALUES)	CREATE A CHOICE LIST TO CHOOSE FROM A PREDEFINED LIST OF OPTIONS. SELECT THE <b>INCLUDE NONE CHOICE</b> CHECKBOX TO INCLUDE -- <i>NONE</i> -- IN THE CHOICE LIST.
CHOICE	DROPDOWN (VALUES FROM A TABLE)	CREATE A CHOICE LIST TO CHOOSE FROM A LIST OF OPTIONS MAPPED TO A FIELD IN A TABLE. SELECT THE <b>INCLUDE NONE CHOICE</b> CHECKBOX TO INCLUDE -- <i>NONE</i> -- IN THE CHOICE LIST.
CHOICE	RECORD REFERENCE	CREATE A CHOICE LIST TO CHOOSE FROM A LIST OF REFERENCES TO RECORDS IN ANOTHER TABLE.
CHOICE	RADIO	CREATE RADIO BUTTONS TO CHOOSE FROM A LIST OF QUESTION CHOICES. CHOOSE <b>DOWN</b> OR <b>ACROSS</b> TO CONFIGURE THE DIRECTION IN WHICH THE CHOICES WILL DISPLAY. SELECT THE <b>INCLUDE NONE CHOICE</b> CHECKBOX TO INCLUDE -- <i>NONE</i> -- IN THE CHOICE LIST. SELECT THE <b>DO NOT SELECT FIRST CHOICE</b> CHECKBOX TO EXCLUDE THE FIRST CHOICE FROM THE LIST.
CHOICE	MULTI-SELECT	CREATE A CHOICE LIST TO SELECT AND ADD MULTIPLE RECORDS FROM A TABLE TO A FIELD.
DATE / TIME	DATE	CREATE A WIDGET WITH A FIELD AND CALENDAR TO CHOOSE A DATE.

QUESTION TYPE	QUESTION SUBTYPE	DESCRIPTION
DATE / TIME	DATE & TIME	CREATE A WIDGET WITH A CALENDAR AND FIELDS TO SELECT A DATE AND TIME.
DISPLAY LABEL	PLAIN TEXT	CREATE A LABEL TO DISPLAY IMPORTANT INFORMATION ON THE CATALOG ITEM FORM.
DISPLAY LABEL	RICH TEXT	CREATE A LABEL WITH DETAILS THAT USERS NEED TO ANSWER A QUESTION.

## CONFIGURING SETTINGS AND ACCESS

USE THE *SETTINGS* STEP IN THE CATALOG EDITOR TO CONFIGURE A CATALOG ITEM'S SETTINGS IN SERVICE PORTAL. GRANT ACCESS TO CATALOG ITEMS IN SERVICE PORTAL USING THE *ACCESS* STEP.

ADJUST THE *PORTAL SETTINGS* TO CUSTOMIZE THE CHECKOUT AREA OF A CATALOG ITEM.

- **HIDE 'ADD TO WISHLIST' BUTTON:** SELECT TO HIDE THE *ADD TO WISH LIST* BUTTON ON THE CATALOG ITEM.
- **HIDE ATTACHMENT BUTTON:** SELECT TO HIDE THE *ADD ATTACHMENTS* BUTTON ON THE CATALOG ITEM.
- **MAKE ATTACHMENT MANDATORY:** SELECT TO MAKE ADDING AN ATTACHMENT MANDATORY FOR A CATALOG ITEM.

## FULFILLMENT

WHEN A USER ORDERS A CATALOG ITEM, A REQUEST IS CREATED THAT FOLLOWS A FULFILLMENT PROCESS. A FULFILLMENT PROCESS DEFINES THE STEPS TO REQUEST APPROVAL, ASSIGN FULFILLMENT TASKS, AND FULFILL REQUESTS. USE THE *FULFILLMENT* STEP IN THE CATALOG EDITOR TO CONFIGURE WHICH PROCESS TO USE TO COMPLETE THE SERVICE CATALOG REQUEST.

## SUBMITTING A RECORD PRODUCER

WHEN CONFIGURING A RECORD PRODUCER, *REVIEW AND SUBMIT* IS THE FINAL *CATALOG EDITOR STEP* TO COMPLETE. IN THE *REVIEW AND SUBMIT* STEP, ENSURE THE INFORMATION IN EACH *CATALOG EDITOR STEP* IS CORRECT THEN SUBMIT THE RECORD PRODUCER.



IN THE *REVIEW AND SUBMIT* STEP, REVIEW THE RECORD PRODUCER CONFIGURATION.

USE THE **PREVIEW** BUTTON TO VERIFY THE CONFIGURATION OF THE CATALOG ITEM BEFORE SUBMITTING.

RETURN TO THE *REVIEW AND SUBMIT* STEP AND CLICK THE **SUBMIT** BUTTON.

## SECURE APPS AND DATA

### WHAT IS SECURITY?

MANY APPLICATIONS CONTAIN SENSITIVE OR PRIVATE DATA THAT IS NOT APPROPRIATE FOR ALL SERVICENOW USERS TO SEE OR MODIFY. APPLICATION CREATORS USE ROLES TO GRANT AUTHORIZED USERS ACCESS TO PARTS OF APPLICATION. SECURITY PREVENTS ACCIDENTAL MODIFICATION OR DELETION OF DATA. SECURITY ALSO ENSURES ONLY AUTHORIZED USERS TO SEE APPLICATION DATA.



THE GENERAL PROCESS FOR APPLYING SECURITY IS:

1. *CREATORS* BUILDING APPLICATIONS IN APP ENGINE STUDIO CREATE ROLES.
2. *CREATORS* APPLY ROLES TO AN APPLICATION'S DATA MODEL AND USER EXPERIENCES.
3. *SYSTEM ADMINISTRATORS* ASSIGN ROLES TO USERS.
4. *CREATORS* AND *SYSTEM ADMINISTRATORS* COLLABORATE ON TESTING ROLE-BASED DATA ACCESS

### DETERMINING WHAT ROLES TO CREATE

SECURITY IS AN IMPORTANT PART OF APPLICATION CREATION. SECURITY SHOULD BE DESIGNED INTO AN APPLICATION AND NOT ADDED AS AN AFTERTHOUGHT. BEFORE CREATING AN APPLICATION, TAKE THE TIME TO DETERMINE WHO SHOULD HAVE ACCESS AND WHAT LEVEL OF ACCESS THEY SHOULD HAVE.

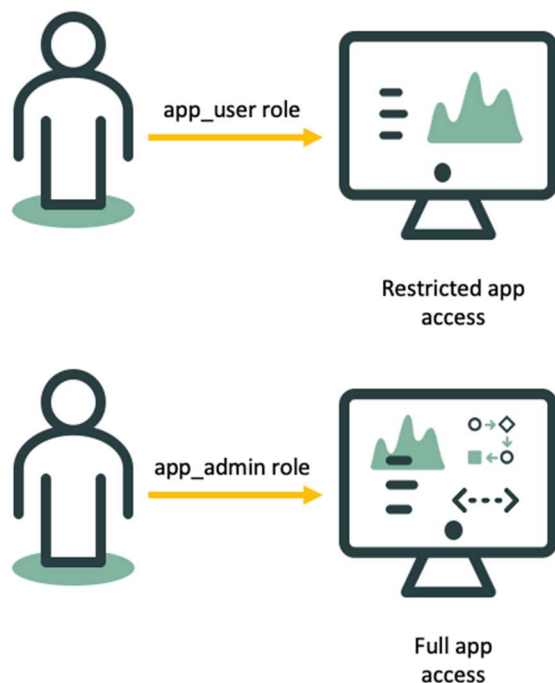
ROLES DETERMINE WHAT APPLICATION ACCESS IS GRANTED TO WHICH USERS. DESIGN YOUR APPLICATION'S SECURITY TO ENSURE YOUR APPLICATION AND DATA ARE PROTECTED.

- WHO NEEDS ACCESS TO THE APPLICATION AND DATA?
- WHAT ACCESS TO RECORDS DO THEY NEED? CREATE? VIEW? MODIFY? DELETE?
- WHICH USER EXPERIENCES CAN THEY ACCESS?

ALTHOUGH ALL APPLICATIONS SHOULD HAVE SECURITY, IT IS NOT NECESSARY TO CREATE UNIQUE ROLES FOR EVERY APPLICATION. IF A ROLE ALREADY EXISTS AND HAS BEEN ASSIGNED TO THE SAME SET OF USERS AS THOSE TARGETED BY YOUR APPLICATION, USE AN EXISTING ROLE.

IF AN APPLICATION'S SECURITY REQUIREMENTS ARE UNIQUE TO THE APPLICATION, CREATE ROLES INSTEAD OF USING EXISTING ROLES. IT IS COMMON FOR APPS TO HAVE AT LEAST TWO ROLES. WHEN CREATING AN APP, APP ENGINE STUDIO SUGGESTS CREATING TWO ROLES:

- **APP\_USER**: USERS WHO:
  - CREATE AND VIEW APPLICATION RECORDS
  - MAY BE ABLE TO MODIFY APPLICATION RECORDS
  - TYPICALLY, CANNOT DELETE APPLICATION RECORDS
- **APP\_ADMIN**: USERS WHO:
  - HAVE FULL ACCESS TO APPLICATION DATA
  - CAN MODIFY APPLICATION FILES



## ADDING ROLES DURING APPLICATION CREATION

APP ENGINE STUDIO SUGGESTS BOTH A DEFAULT *ADMIN* AND *USER* ROLE FOR THE APPLICATION. THE DEFAULT ROLES ARE NOT REQUIRED AND CAN BE EDITED OR DELETED. TO ADD ADDITIONAL ROLES, CLICK THE **ADD A ROLE** BUTTON.

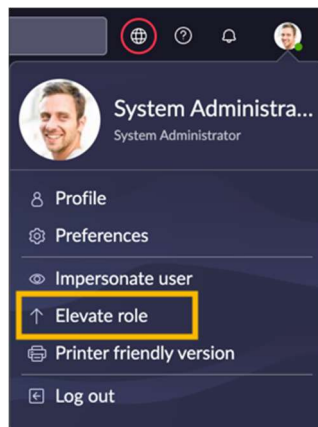
AN APPLICATION'S ROLES ARE LISTED IN THE *APP HOME* TAB'S *SECURITY* SECTION.

## ELEVATING PRIVILEGES

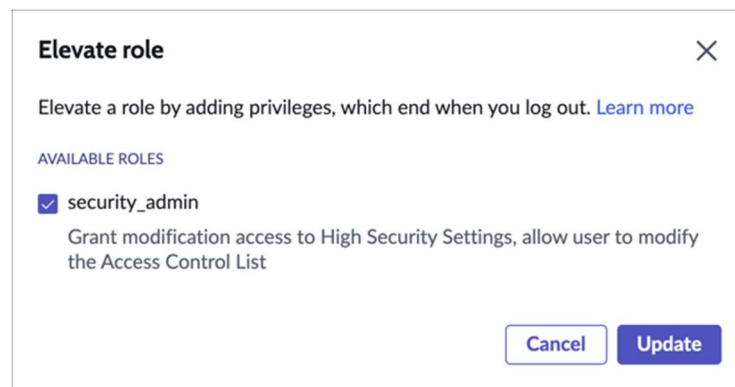
USERS WITH THE *ADMIN* ROLE CAN USUALLY MODIFY ANY RECORD ON ANY TABLE. UNRESTRICTED RECORD MODIFICATION COULD LEAD TO INADVERTENT CHANGES TO RECORDS ON TABLES PROTECTED BY SECURITY. TO PREVENT ACCIDENTAL MODIFICATION OF TABLE SECURITY, USERS WITH THE *ADMIN* ROLE ARE REQUIRED TO TEMPORARILY GRANT THEMSELVES AN ADDITIONAL ROLE, *SECURITY\_ADMIN*, WHENEVER THEY MODIFY A ROLE'S ABILITY TO CREATE, READ, WRITE, OR DELETE A TABLE'S RECORDS.

ELEVATE SECURITY PRIVILEGES IN THE MAIN SERVICENOW BROWSER WINDOW (NOT APP ENGINE STUDIO). OPEN THE **USER MENU** IN THE BANNER AND SELECT THE **ELEVATE ROLE** MENU ITEM.

ELEVATE SECURITY PRIVILEGES IN THE MAIN SERVICENOW BROWSER WINDOW (NOT APP ENGINE STUDIO). OPEN THE **USER MENU** IN THE BANNER AND SELECT THE **ELEVATE ROLE** MENU ITEM.



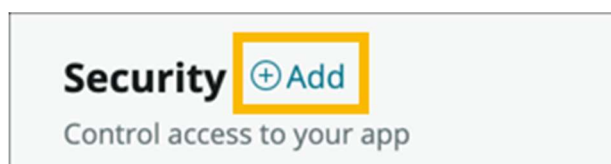
IN THE *ELEVATE ROLE* DIALOG, SELECT THE **SECURITY\_ADMIN** OPTION, THEN CLICK THE **UPDATE** BUTTON.



WHEN THE *SECURITY\_ADMIN* ROLE IS APPLIED, THE *USER MENU* AVATAR GETS A RED BORDER AND AN ARROW ICON TO INDICATE THE ROLE IS APPLIED. THE *SECURITY\_ADMIN* ROLE TIMES OUT. WHEN CREATING OR EDITING SECURITY, IT MAY BE NECESSARY TO ELEVATE ROLES MORE THAN ONCE DUE TO TIMING OUT.

## CREATING ROLE

ON THE *APP HOME* TAB, CLICK THE **ADD** ICON IN THE *SECURITY* SECTION.

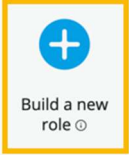


ON THE *HOW DO YOU WANT TO ADD A ROLE TO YOUR APP?* SCREEN, SELECT WHETHER TO CREATE A ROLE OR APPLY AN EXISTING ROLE.


- USE THE *BUILD A NEW ROLE* OPTION WHEN A ROLE IS UNIQUE TO YOUR APP.
- USE THE *USE AN EXISTING ROLE* OPTION WHEN A SUITABLE ROLE ALREADY EXISTS AND HAS BEEN ASSIGNED TO THE SAME SET OF USERS AS THOSE TARGETED BY YOUR APPLICATION.

**ADD SECURITY**

**How do you want to add a role to your app?**



Build a new role ⓘ



Use an existing role ⓘ

ON THE *LET'S GET STARTED WITH A NEW ROLE* SCREEN, PROVIDE A NAME AND A DESCRIPTION FOR THE ROLE, THEN CLICK THE **CONTINUE** BUTTON.

**ADD SECURITY**

**Let's get started with a new role**

This role needs a name and description.

Name \* ⓘ  
reviewer

Description ⓘ  
Reviewer role with read-only and update

CancelContinue

IN THE *WHAT CAN THE '<ROLE\_NAME>' ROLE DO WITHIN YOUR APP?*. SCREEN, APPLICATION CREATORS GRANT OR DENY THE ROLE ACCESS TO TABLE RECORDS AND TO EXPERIENCES.

**ADD SECURITY**

**What can the 'reviewer' role do within your app?**

Choose how much control this role has over elements of your app.

DataExperience

	Create	Read	Write	Delete
<input type="checkbox"/> Select All				
<input type="checkbox"/> Suggestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Suggestion Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

USE THE *DATA* TAB TO SPECIFY WHICH TABLE RECORDS AND DATABASE OPERATIONS ARE GRANTED TO THE ROLE. A CHECK MARK MEANS ACCESS IS GRANTED TO THE ROLE. IN THE EXAMPLE, THE *REVIEWER* ROLE HAS BEEN GRANTED ACCESS TO SELECTED DATABASE OPERATIONS ON THE TABLES.

Select All	Create	Read	Write	Delete
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLICK THE **CONTINUE** BUTTON.

## USERS AND GROUPS

ROLES DO NOT PROTECT DATA UNTIL THEY ARE ASSIGNED TO SPECIFIC USERS OR GROUPS. CREATORS TYPICALLY WORK WITH A SYSTEM ADMINISTRATOR TO ASSIGN AND MANAGE ROLES.

EVERY USER WHO LOGS IN TO SERVICENOW HAS A *USER* RECORD THAT INCLUDES INFORMATION SUCH AS:

- *USERNAME*
- *FIRST NAME*
- *LAST NAME*
- *PASSWORD*
- *EMAIL ADDRESS*

THE *USER* RECORD ALSO INCLUDES A LIST OF ROLES THAT ARE ASSIGNED TO THE USER. TO SEE A *USER* RECORD, IN THE MAIN SERVICENOW BROWSER TAB, USE THE *ALL* MENU TO OPEN **USER ADMINISTRATION > USERS**.

SYSTEM ADMINISTRATORS CAN ADD ROLES TO *USER* RECORDS. IF A ROLE IS APPLIED TO A SMALL NUMBER OF USERS, ADDING THE ROLE TO *USER* RECORDS IS EASILY DONE. IF A ROLE NEEDS TO BE APPLIED TO THOUSANDS OF *USER* RECORDS, IT CAN BE CHALLENGING TO COMPLETE THE PROCESS MANUALLY. RATHER THAN ASSIGN ROLES TO USERS DIRECTLY, SYSTEM ADMINISTRATORS CREATE GROUPS. GROUPS ARE COLLECTIONS OF USERS WHO NEED THE SAME PERMISSIONS AND ARE A SHORTCUT WAY OF ASSIGNING ROLES TO USERS.

## IMPERSONATING USERS

BEFORE PUTTING AN APPLICATION INTO PRODUCTION, TEST THE APPLICATION'S USER PERMISSIONS TO ENSURE THEY ARE WORKING AS DESIGNED. YOU WILL NEED TO WORK WITH YOUR SYSTEM ADMINISTRATOR TO TEST PERMISSIONS. SYSTEM ADMINISTRATORS HAVE SUPERPOWER CALLED IMPERSONATION. IMPERSONATION ALLOWS SYSTEM ADMINISTRATORS TO TEMPORARILY BECOME ANOTHER AUTHENTICATED USER FOR TESTING PURPOSES. IMPERSONATION DOES NOT REQUIRE KNOWING ANOTHER USER'S PASSWORD. WHEN IMPERSONATING A USER, THE *ADMIN* USER CAN SEE AND DO EXACTLY WHAT THE IMPERSONATED USER CAN DO.

### OFFICE KT'S

## SMARTSHEET GROUP MANAGEMENT

GROUP MANAGEMENT IS CREATED FOR ALL THE WORKDAY PROJECT SINCE THERE IS A CHECKLIST IN THE STANDARD TEMPLATE OF THE WORKDAY PROJECT

- GO TO PROFILE -> GROUP MANAGEMENT
- CLICK THREE LINES ON THE LEFT
- SELECT USER AND GROUP DROPDOWNS -> GROUP MANAGEMENT

### TO CREATE A NEW GROUP

- PRESS CREATE A NEW GROUP
- GIVE GROUP NAME -> CLIENT NAME LIKE JH (JOHN HOPKINS) FOLLOWED BY THE CLIENT GROUP/CLIENT LEADERSHIP GROUP/ CONSULTANT GROUP/ CONSULTANT LEADERSHIP GROUP/ JH VIEW ONLY FROM THE OPTIONS
- EG NAME FORMAT: JH VIEW ONLY

### TO PROVIDE THE ACCESS DO AS FOLLOWS

- GO TO THE MAIL
- TAP ON THE ROW NO IN THE AUTOMATION MAIL (EG: ROW 150)
- IT WILL OPEN TO THE SHEET RESPECTIVLY
- IN THE SHEET U WILL SEE THE NEW TEAM MEMBER'S EMAIL AND THE GROUP ASSIGNMENT ALONG WITH THE REQUESTOR
- COPY THE NEW TEAM MEMBER'S EMAIL FROM THE COLUMN
- THEN GO TO PROFILE -> GROUP MANAGEMENT
- TYPE IN THE SEARCH BAR "JH VIEW ONLY" -> SELECT JH SMARTSHEET VIEW ONLY ACCESS -> VIEW GROUP
- HERE SELECT ADD MEMBERS -> PASTE THE EMAIL ID AND SAVE IT
- REPEAT THIS PROCESS DEPENDING ON THE EMAIL IDS RECEIVED

- ALSO RAISE A TICKET IN SERVICE NOW

#### TO REMOVE ACCESS DO AS FOLLOWS

- TAP ON THE ROW NO IN THE AUTOMATION MAIL
- IT WILL OPEN THE SHEET
- IN THE SHEET ON RHS CHECK ON THE **DATE ACCESS SHOULD BE REMOVED COLUMN**. THEN BASED ON THE DATE GO THE GROUP MANAGEMENT AND REMOVE THE ACCESS OF THE PERSON FROM THEIR AND UNTICK THE SMARTSHEET ACCESS GRANTED COLUMN

**ALSO CHECK THE EMAIL ID OF THE TEAM MEMBER'S EMAIL IF IT HAS ANYTHING APART FROM HCG IT SHOULD COME UNDER CLIENT OR CLIENT LEADERSHIP GROUP ELSE IF IT HAS HCG THEN CONSULTANT OR CONSULTANT LEADERSHIP GROUP**

## WORKSPACE CREATION

SERVICE NOW IS USED TO GET REQUESTS FROM DIFFERENT SERVICE LINE. WE HAVE VARIOUS SERVICES LIKE WORKDAY, ORACLE, HEALTHCARE, HR, DATA MANAGEMENT ETC.,

WHATEVER REQUESTS ARE THERE WE HAVE TO FILL OUT A FORM AS IN IN SERVICE NOW INCASE OF WORKSPACE CREATION -> SELECT IT AND SELECT THE REQUIRED THING IN THE COST CENTER DEPENDING ON THE PROJECT.

**EXCEPT WORKDAY FOR OTHERS SELECT DIGITAL PMO WORKSPACE CREATION. FOR WORKDAY SELECT WORKSPACE CREATION.**

- ONCE THE SERVICENOW REQUEST FOR WORKDAY IS SUBMITTED THE CONCERNED SPOC WILL GET A FORM AS IN WORKDAY INTAKE FORM.
- AS SOON AS THE PROJECT MANAGERS SUBMIT THE INTAKE FORM, WE RECEIVE A MAIL-> GO TO THE SHEET-> IT WILL TAKE U TO THE WORKDAY INTAKE SHEET
- ONE ENTRY WILL BE CREATED
- WHILE SUBMITTING THE INTAKE FORM THE PMS ARE RESPONSIBLE FOR SUBMITTING THE TYPE OF PROJECT LIKE YOUR WAY, ADAPTIVE, LAUNCH, STUDENT ETC,
- WE NEED TO CHECK THE CLIENT TYPE, WHETHER THEY ATTACHED THE LOGO. CROSS CHECK EVERYTHING IF THEY SUBMITTED THE CORRECT DATA OR NOT.
- EACH OF THE CLIENT TYPE HAS ITS OWN CHECKLIST.
- GO TO **NEW WORKSPACE CHECKLIST** AND BASED ON THE CLIENT TYPE FOLLOW THE CHECKLIST POINTS AND DO ACCORDINGLY
- INCASE THE LOGO IS NOT ATTACHED IN THE WORKDAY INTAKE SHEET JUST DOWNLOAD IT FROM THE ATTACHEMENT OF THAT ROW AND THEN DOWNLOAD AND ADD IT IN THE CLIENT LOGO COLUMN
- U WILL RECEIVE AN APPROVAL MAIL JUST OPEN AND CHECK IT ONCE

- FOR WORKDAY RELATED WORK IN THE CONTROL CENTER REFER TO THE **DIGITAL WORKDAY BLUEPRINT**.

## **PROCESS TO SETUP A SMARTSHEET PROJECT (WORKDAY/ YOUR WAY)**

1. PM SUBMITS THE INTAKE FORM -> CLIENT TYPE HAS TO BE SELECTED AS YOUR WAY/ LAUNCH
2. EMAIL NOTIFICATION WILL BE SENT TO THE SMARTSHEET TEAM
3. IF THE PROJECT TYPE IS YOUR WAY/LAUNCH
4. VERIFY THE BELOW PROJECT DETAILS IN THE INTAKE SHEET BY SELECTING THE CHECKBOX AS YES FOR THE BELOW COLUMNS
  - A. TECHNICAL MANAGEMENT SET OF TEMPLATES
  - B. SECONDARY SET OF TEMPLATES
  - C. WORKSET C FOR COPY
  - D. WORKSETS FOR COPY (A & B)
5. ADD THE CLIENT LOGO
6. FINALIZE THE PROJECT DETAILS AND SUBMIT FOR APPROVAL TO CONTROL CENTER
7. IN THE CONTROL CENTER
  - A. PRIMARY TEMPLATES: DIGITAL WORKDAY (YOUR WAY/LAUNCH) BLUEPRINT IS TRIGGERED AND THE WORKSPACE IS CREATED AUTOMATICALLY.
  - B. MANUALLY THE BELOW BLUEPRINTS NEED TO BE PUSHED FOR THE CREATED PROJECT WORKSPACES: **(MAYBE TICK THESE TEMPLATES)**
    - I. FUNCTIONAL MANAGEMENT TEMPLATES
    - II. TECHNICAL MANAGEMENT TEMPLATES
    - III. WORKSET C
    - IV. WORSETS FOR COPY
    - V. IF TESTING IS APPLICABLE: DIGITAL WORKDAY TESTING
8. WORKSPACE/ PROJECT FOLDER IS CREATED
9. OPEN NEW WORKSPACE CHECKLIST SHEET UPDATE THE WIDGET LINKAGES IN ALL THE DASHBOARDS AND UPDATE THE FORMULAS
10. THERE ARE 245 DETAILED TASKS WHICH NEEDS TO BE COMPLETED
11. PROVIDE THE ADMIN ACCESS TO THE PM FOR THE CREATED WORKSPACE
12. EMAIL NOTIFICATION SENT TO PM

## **PROCESS TO CREATE THE WORKSPACE MANUALLY**

- PM SENDS A REQUEST TO CREATE THE WORKSPACE THOROUGH EMAIL
- SMARTSHEET ADMIN SHOULD CREATE THE WORKSPACE MANUALLY BY GOING TO THE CONTROL CENTER AND SELECTING THE DIGITAL PMO PROGRAM
- ADD THE PROJECT AND SELECT THE BLUEPRINT AND ALL THE REQUIRED TEMPLATES AND SUBMIT
- WORKSPACE WILL BE CREATED AND SEND AN EMAIL NOTIFICATION THE PM



## **SMARTSHEET BLUEPRINT**

IF SOMEONE ASKS SENDS A REQUEST TO REFRESH THE BLUEPRINT

EG FOR ADAPTIVE

**JUST GO TO CONTROL CENTER-> DIGITAL WORKDAY -> TURN OFF THE AUTOMATION -> CLICK ON THE BLUEPRINT THEN GO NEXT TILL THE TEMPLATE PART -> A POPUP WILL SHOW TO ADD THE NEW TEMPLATES ADD IT AND CLICK NEXT TILL LAST STAGE AND SAVE IT**

IF SOMEONE RAISES A REQUIREMENT DIRECTLY ON MAIL JUST RE RAISE IT IN SERVICE NOW.

FOR ARCHIVING FIRST FOLLOWUP WITH THE PERSON THEN ONLY GO FOR ARCHIVING.

**GO TO THE PORTFOLIO SUMMARY AND THEN UPDATE THE STATUS IN THE COMMENT COLUMN WHAT THEY HAVE MENTIONED IN THE MAIL. USE THE ARCHIVE COLUMN AND TICK IT TO ARCHIVE THE WORKSPACE. NEXT GO TO THE CONTROL CENTRE**

**BEFORE ARCHIVING CHECK BOTH THE PORTFOLIO SUMMARY AND THE WORKDAY INTAKE SHEET FOR THE DETAILS AND THEN GO FOR ARCHIVING**

**GO TO ARCHIVING -> SEKECT WORKFLOW EDUCATIONAL WORKFLOW -> CHECK FOR THE BLUEPRINT CORRECTLY THEN SELECT THE PERFORM ARCHIVING**