ServiceNow

·224G1A3377.
· CSA.

OVERVIEW :

1. what is ServiceNow
2. Releases and Personal Development environment (PDI).
3· List & forms
4. filter & search
5. condition Builder
6. context menu
7. Modifying list & forms.

CUSTOMIZATION :

1. Server-side vs client-side
2. UI Policies
3 UI Actions
4. Business Rules
5. client scripts
6. Data policies and script includes.
7. update sets and plugins.

Tables & Fields:

1. Tables
2. Fields and field type
3. Table structue and schema map
4. Create Table and fields.

User Administration:

1. User and groups
2. Roles
3 Access control List(ACL)
4. LDAP, SSO & Impersonation.
5. client scripts.

CORE APPLICATIONS :

1. Incident Management
2. Service Level Agreement (SLA)
3. Problem Management
4. Change Management
5. Configuration Management
6. Service Catalog
7. Knowoledge Management
8. Service portal.

SYSTEM ADMINISTRATION :

1. Configuration & system properties
2. Dashboard & Self Service
3. Diagnostics & Troubleshooting
4. Events & Notifications
5. Work Flows
6. Import Sets
7. Reporting

What is ServiceNow?

- ServiceNow is an 'American' software company based in 'Santa Clara', California.
- Founded in '2003' by 'Fred LUDDY'.
- It was named as 'GLIDESOFT' before.
- '2006' it is name as ServiceNow.
- It is a SAAS (Software as a Service).

Defination:

ServiceNow is a cloud-computing platform that allows employees to work the way they want to, not how software dictates they have to.

USES OF SERVIENow:

1. IT Service Management
   - Manage incidents, problems and changes.
   - It has advanced features, Analytics and insights that impacts the speed & delivery of IT.
2. HR Management
   - Leave management, Timesheet management, employee document management, new onboarding management, Perfomance mangement etc.
3. FINANCE OPERATION MANAGEMENT:
   - ServiceNow manages all the activities related to finance close and automates the financial processes.

Services / products of ServiceNow

⇒

ServiceNow Releases:

- ~~Future~~ feature release, patch realse, and hot-fix.
- 6.8 month release cycle.
- New UI, new apps, new features.

→ Record :-

- A row in a spreadsheet
- * Each record has a unique key (sys_Id). GUId
  ↓
  32 bit character.

→ Field :

- A column → table cell that stores data.

*⇒ List view :

- Multiple records per page.
- Limitted fields.
- * Filter & sort details.

→ Form view.

- 1 record per page.
- Details of Record.
- More fields
- More control.

*⇒ All > Incidents > ALL :

All > incident.list

All > Incident.to

Filter & Search:

1. global search.
2. Incident search -> to get a record(s)
3. condition search.

Wild-card search condition:

*[term] -> contains.

!*[term] -> does not contain

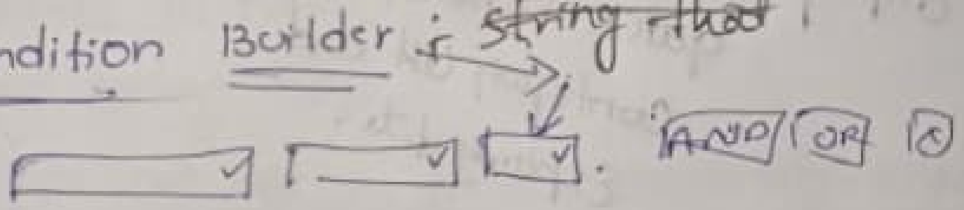
=[term] -> equall

*!=[term] -> does not equal

[term]%. -> starts with.

%.[term] -> Ends with.

Condition Builder: ~~string that~~



All > Opend o-- > --- (>)---> ← Breadcrumbs.

helpful to remove next condition,

operator field value.

Breadcrumbs: String that displays filter criteria.

Impersonation: glide, sys- log — Impersonation.

→ CONTEXT MENU :

→ Personalize list: we can remove add fields.

- It is user s
- Add or remove field.

→ configure list layout

- Admistrator controlled.
- System controls.

→ Personalize form:

Remove icon on form.

→ Configure form layout - to remove fields

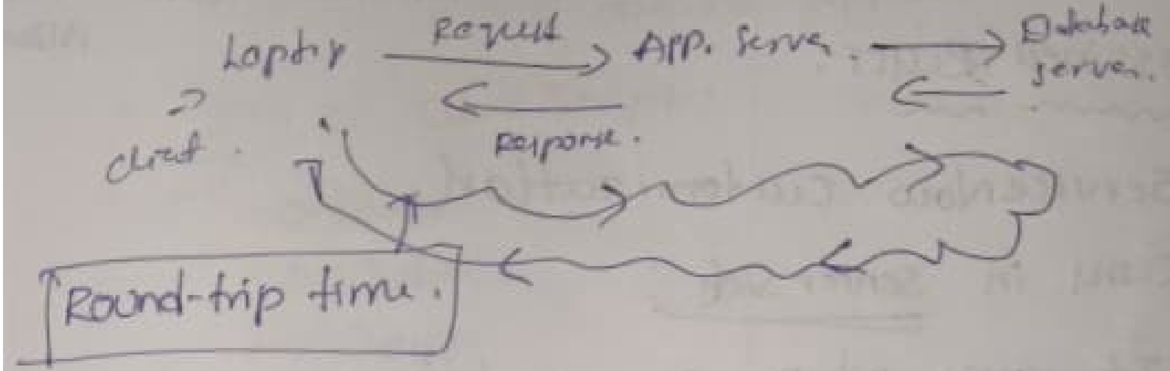
controlled by admin

- Column context menu;

displays actions such as creating quick report, configuring list and Exploring data.

* CLIENT-SIDE VS SERVER-SIDE:

Client-side → where we are accessing Service-Now
(browser)



* UI POLICIES:

- Runs on client-side
- works in form.
- No coding req.
- you can set a field Mandotary, Read only & show/Hide. ✓.

>All > system UI > UI policies. - ①

② All > incident.list > 'any incident' > Configure > UI policy.
(right click)

③ All > incident.list > New > form menu > Configure > UI policy.

UI ACTIONS:

TO create menu & configure buttons, links ...

→ Action name ⇒ serverside.

link Button choic contex Men

BUSSiness Rules:

- ServiceNow customization.
- Runs in <u>server Side</u>.
- It runs when a record is
  displayed,
  Inserted,
  deleted or
  table is quired.

- 'sys_script' ⇒ table name where all business rules are scripted.

→ Types of Business Rules:

- when to run?
  - Before
  - After
  - Async
  - display
- operation
  - Insert
  - Query
  - update
  - Delete

- can be a piece of JS.

⇒ Client Script :

- ServiceNow customization. • sys_script_client.
- Runs in client-side.
- Generally works in form view,
  can be applied in list view.

- Types of Client Script :
  - onLoad
  - onSubmit
  - onChange
  - onCellEdit.

onload().

- It runs when the form is open
  & before user can enter any data.
  eg: P1 ticket (shows a popup msg before doing action on form & after just opening the form).

onsubmit:()

- it runs when a form is being submitted

- shows a popup message after you enter values and want to save it.

onchange()·

- it runs when a field value change in form.
- Shows popup msg after changing the and saving the form.

onCellEdit() :

- It runs when you change a field value of list.

=> Data Policy

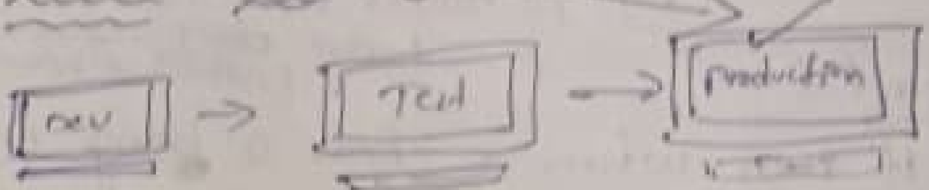
=> for external sources

Data policy runs regardless of how data is entered into it, but UI policy we used for form interaction

- It is used to make fields mandatory or read only in server end.

UI policies	Data policy.
• client side	• server side.
• show/hide, mandatory & read only.	• mandatory & read-only field
• main form or table	• works on external sources like import sets, web services etc.

=> UPDATE SET: [∴ Avoid using 'Default update set' for moving customizations from one to instance



It allows admin. to group a series of changes

- It is a group of config. changes (eg: business rule, UI policy etc) that be moved from one instance from another.

Complete Retrive preview com

- Here,
  If we want to create new thing (data):
  first we store the previous data (update set)
  and ~~d~~ make changes.

- Items to capture (to move)
  - Business rules, client scripts → published forms
  - UI policy, UI actions, notification. → Report definition

- Items cannot capture:
  - Records • users • groups • CMDB records
  - System ~~se~~ properties, more.

planning process of update set:

- same Version of instance (eg: tokyo, xanadu ..)
- proper update set Collection.
- cloned envi.
- schedule a date and time.
- Review and commit.
- Review before moving.

- All are stored in Default - global.

* ServiceNow Tables:-

- A place where records are stored.
- It has rows & column.
- Rows - Record

  column - field.

sys ID(GUID, Document ID, Date/Time.

-> field types:-

string, choice, reference, int etc.

- Data Dictionary tables:-

  - contains info about a table

tables - ServiceNow table stores under sys_db_object table.

fields. - info about a field in a table is stored sys_dictionary table.

field data. The field label of table in sys_~~docum~~ table documentation.

⇒ Fields & field type

All > sys_dictionary.list.

- > List > configure > ~~dictionary~~ table
- > form > ~~configure~~ category > ~~table~~ dictionary.

eg. Type
column name
" label.
Attributes
dependent.

⇒ Table Relationships:

- one to many
  - one table has a field which is referencing to other table.

  eg. caller field in incident table

- Many to many:
  - two or more table

- Extended:

  one or more table can be extended from another table.

- Table name
  parent table name.
  &
  Any table name (wildcard)

→ Table types:

① Base table

- not extended from any table
- But can extends for another table.

eg: task table.

② Extended table:

- A table which is Extended from another table.

eg: Incident table.

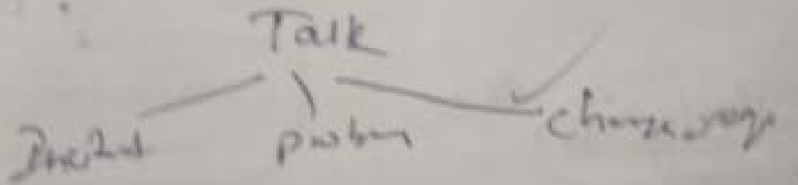
③ Core table:

Table created by servicenow

④ Custom table:

Table created by servicenow Administration or servicenow Developer.

Parent table & child table:



- Dictionary override: (edit field properties in extended table).
- If we extend a table, then the field from extended (mandatory) but in our table we can make it not mandatory with help of Dictionary override.

User Administration:-

=> User and Group:-

User :

- Having account in servicenow.
- Part of Sys_user table.
- can be part of specific group
- Can be assigned diff. roles.

Group:

- Collection of users which has same roles.
- sys_user_group table.
- Roles are assigned in a group.
- groups can be part of parent group.

=> >All >organization> users

All >system security> groups.

- task to group:-
- my group work.
- Skills
- On-call Schedule
- Availability.

=> Roles *

- Collection of permissions. used to control appli. & module access
- part of sys_user_role table
- Roles are assigned in a group
- It contains other rol

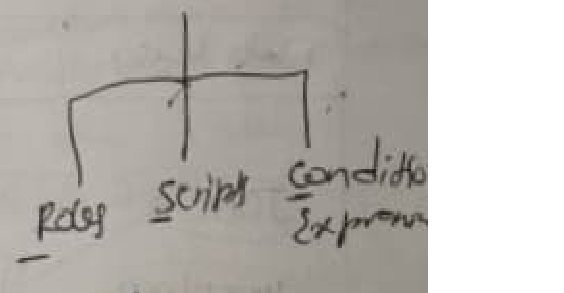
Popular roles

- Admin
- security_admin
- ItIL ⇐ Incident.
- Impersonator.
- Knowledge_admin.
- catalog_admin.
- allet.

⇒ ~~A~~ ACCESS CONTROL LIST(ACL):

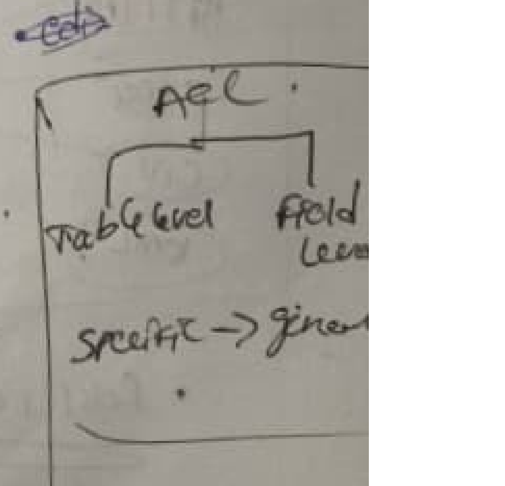
(security_admin)

- client end.
- ACL determines how a serviceNow user can interact with data in a table.
- A record in 'sys_security_acl' table.
- To create or edit ACL you need to "elevate Role",
- ⇒All > System_security > Acl.
- highest level of security.
- It can be applied on :-
  1. table
     - record
     - field.



-> CRUD operation:

- create, read, update/write, delete.



-> serviceNow restricted operation.

- execute
- edit_ci_relations
- save as template
- Report on
- personalize choice

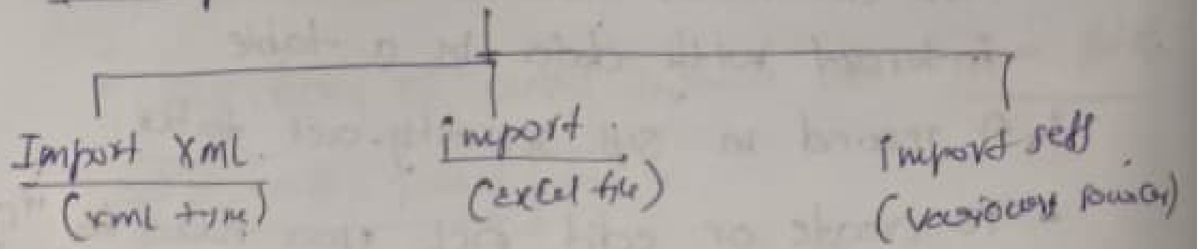
· ACL Flows;

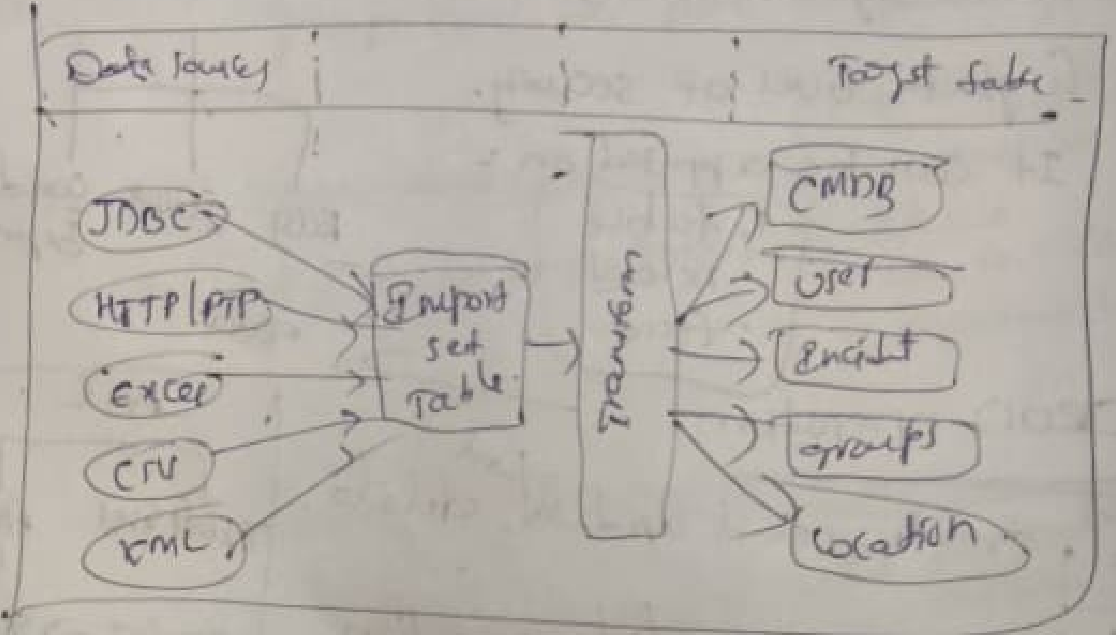
- Access controls are assigned to roles.
- Roles are assigned to groups
- users are assigned to groups.

⇒ Import sets;

: Import data from external source.
eg: Excel, ~~xls~~

· Diff ways to import data:





- Roles req: admin (or) ~~[illegible]~~ import admin.
- In SN, we have application called "System Import Sets"

components of Import set:

- Data source
- Load data
- Import set table
- Tranform map
- Tranform

→ local sources
→ JDBC
→ Network serv.

- Data source: LDAP, Azure AD, ADFS etc.

- Load data:

  A place where you load data from diff. data source.

- Import set table:

  - It is the temporary staging area for records which are imported from a data source.
  - fields are generated automatically based on imported data.

- Tranform map: ** [An existing transform map can be used multiple times on same imp. se

  - used to create relationship b/w fields in import set table and fields in target table.

- Tranform: types

  - Automatic mapping: fields are same in both table.
  - mapping assist → [Field map:]

- Tranform:

  once mapping is done with transform m
  you can transform your data from
  to target table.

CORE APPLICATIONS:

⇒ Service Level Aggreement (SLA):

Priority 1 - lot of user are affected due to services (P1 ticket)

- SLA -
  . i a certain level of services provided in the metioned time.
  . it defines in the workflow.
  (how much time the affected service will be get back).

Response Resolution.

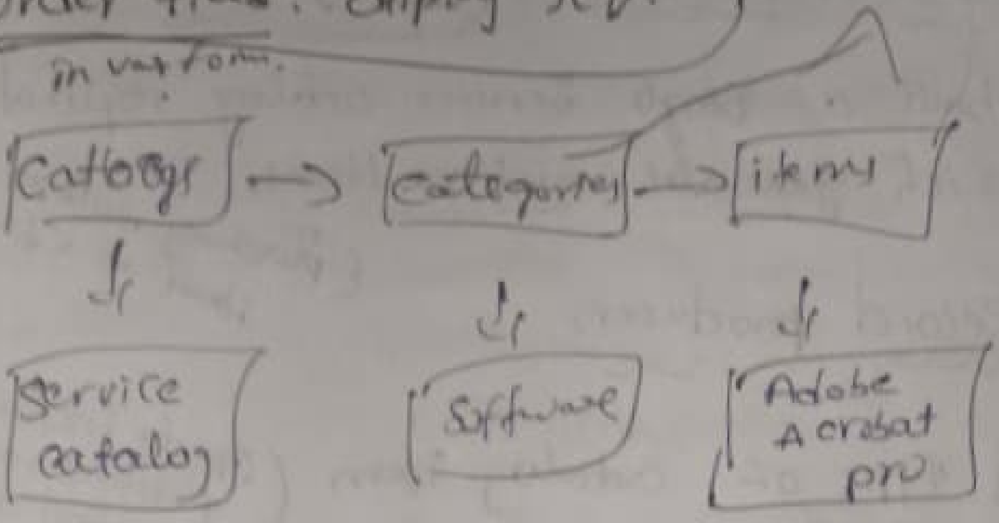
⇒ Service Catalog:

- service catalog vas. are global by default.
- It is an ordering system for different products and services.
- one stop shopping available for user.
- Multiple service catalogs are availab
- 'Categories' organizes items into service catlog items. logical g
- admin (or) catalog_item.

Variable types

multiple choice select Box checkbox k

order field: display seq.
in var form.



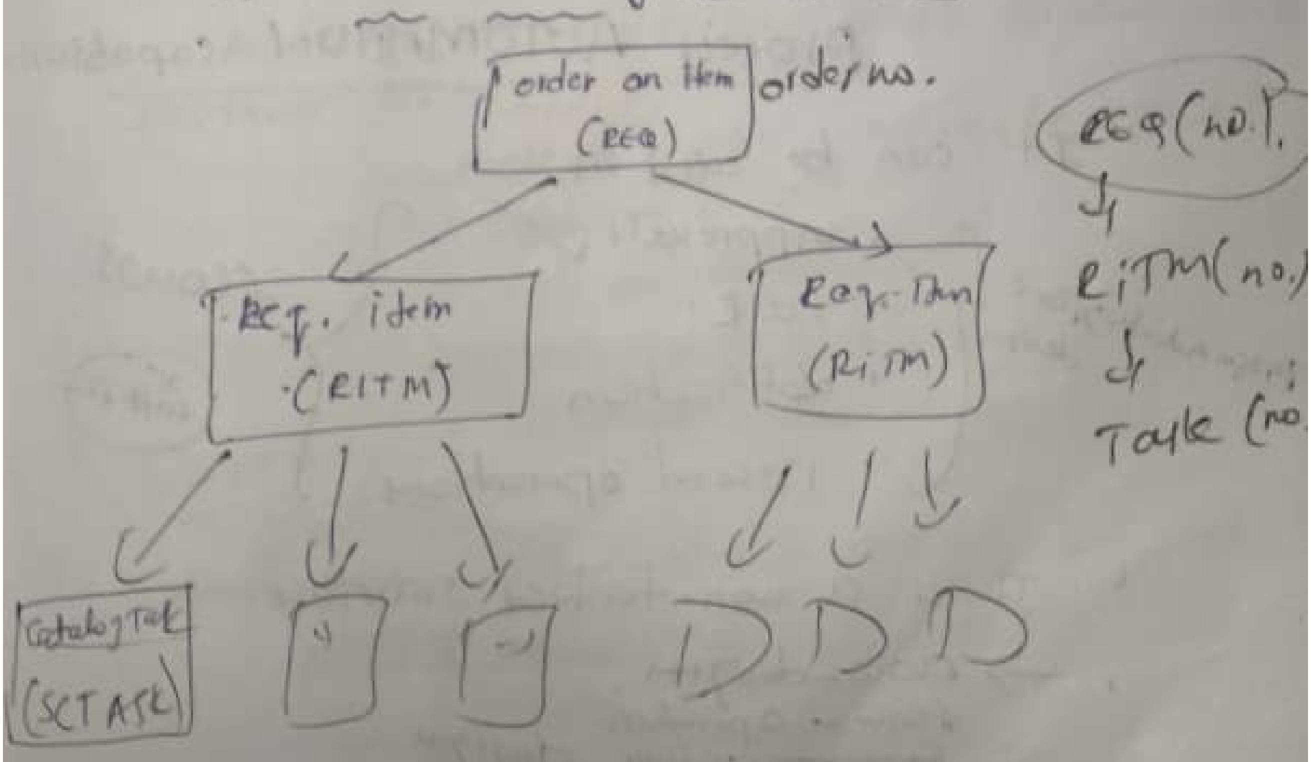
variables:

- Questions that can be asked to the enduser (customer) while purchasing a catalog item.

· Variable Sets:

- collection of var.
- can be shared b/w catalog items.

→ The journey of an order



> self-service > SC

=) ORDER GUIDES - (display icv).

- Submit a single Service catalog request which generates multiple items.

(eg: purchasing multiple items at a time).

=) Record producer:

- A type of catalog item (create incident, password reset, report outage...) allows end user to create task based record (eg: incident records from service catalog). (not catalog req).

catalog builder (for catalog item creation)

=>

FLOW DESIGNER: All > process automation > flow designer.

- Interface which we can enable process AUTOMATION capabilities.

- It can be used in.
  - Approvals ✓
  - task
  - Notification
  - record operations.

process automation > flow designer

flows.

~~task~~ flow.

- It is a non-techical Interface.

- → flow-designer, flow-operator, ~~flow~~ action_design

- you can Integrate with 3'd party applications from integration hub.

componets of flow:

- Triggen
- condition.
- Actions
- Data.

Adv

- . less manual scripts.
- , reduced techical dept.

- **Trigger:** . when the flow will start. (To initiate a flow).

Types

Record Based
- It triggers a flow when a record is created or updated, or (created updated)

Date based
- It triggers a flow at the specified date and time

Application based.
- It triggers a flow when app. specific conditions are met.

- **Action:**

Actions, are operations that system would perform like:

- create task
- updating field.
- Ask for approval.
- Look up record. . - - etc.
- wait for conditions
- create record

- **DATA:**

, Each time you add an action to flow, flow designer adds a "data pill" to store its results.

data pill ↓ run time value.

⇒ Use cases of flow Designer:

- If short Description contains the word 'VPN', the ticket would automatically assigned to the network team & the category and Sub-category of the ticket will become Network & VPN.
- If the ticket is a P1, it would assign to the Service desk team and an automatic email would be send to the user mentioning :--

⇒* CMDB : [contain tangible and intangible business assets,

- Configuration Management DataBase.
- It is a 'series of tables', which stores info. about different 'CI (config. Item)' with their attribute and relationship b/w them.

(CI: → Any device in comp. that provide service)
e.g.) Router, Server.

- Asset, itil, itil_admin, cmdb_read.

3 types of tables

cmdb

cmdb_ci

cmdb_rel-ci

- cmdb => base table. (Base configuration table).
  (does not extends from another table)

- cmdb-ci =>
  - Any item that needs to be managed in order to deliver services.
  - An CI can be a:
    computer, laptop,
    router, server,
    database, application ... etc.
  - A CI record will contain data;
    - Name
    - owned by
    - model ID
    - cared for
    - vendor ...

- CI Relationship: (cmdb_rel_ci).
  - It stores diff. type relationship b/w diff. CI.
  - It helps to understand 'root problem' of particular issue.
    and
    which services are affected due to effective CI.
  - helps to understand infrastructure of an IT company.

-

Uses of CMDB in ITSM :-

Incident management	problem management	change management	Request management.
• An Infrastructure component broke in our Data center. [what part of business is affected?]	• We have identified a defect in our infrastructure. [what business app. are affected].	• We need to change something in our data center. [How will this affect our business?]	• I would like to have new software loaded on my computer.

→ Service portal :-

~~ATP~~

- Service portal, where can request diff. Services, raise an incident, order – –
- Access mobile app.
- Own logo / own photo – –.

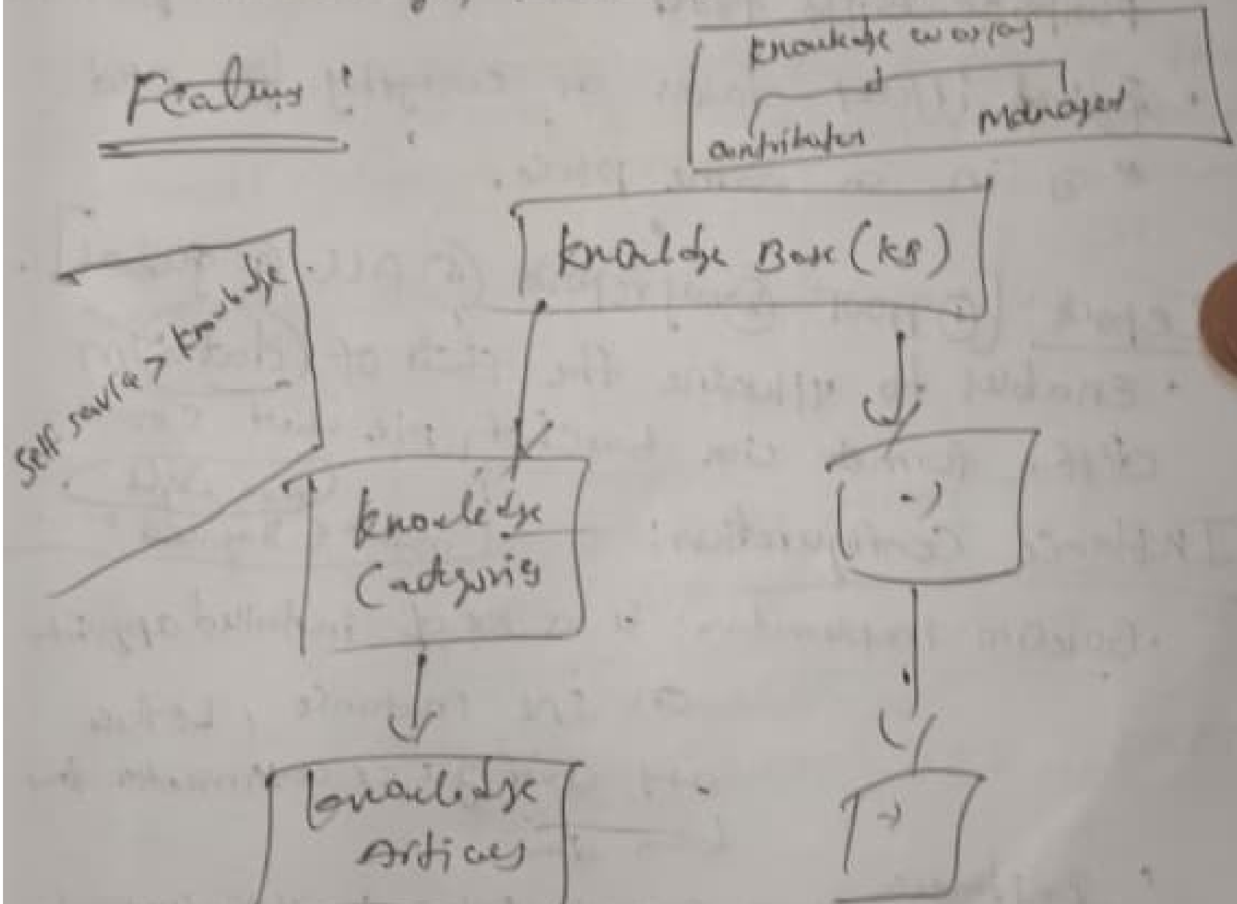
All > Service portal home > Service portal

> ... – –

⇒ Knowledge Management : (KM)

- In servicenow, it allows user's to create, edit & view knowledge articles to share information accross the organization.
- Each article contains info. that can help the end users or an agent who is going to perform troubleshooting.
- Knowledge articles are part of diff. categories and knowledge base.
- knowledge, knowledge_manager, knowledge_admin.

Features :



access favorites items.

- Flag article : mark a knowledge article for review.
- User criteria :' (Con rnd tab) conditions that are evaluated defining which users can create whom users to

- ways to interact with SN:

  - workspace
  - List
  - Form
  - Dashboard.
  - KB
  - Service catalog.

Workspace: [They are moved very update ser]

- provides agent and professionals targeted, purpose-built tools and info. on single page.
- Solves issues faster as everything you need is in a same place.

Reports: [① group ② my reports ③ ALL ④ global].

- Enables to visualize the state of data in diff. format viz barchart, pie chart etc.

  - drown Agle
  - insert & stay and P

Instance Configuration:

- Baseline implementation: is a set of installed applicatns on SN instance, before any config. or customization has been done.
- Instance: is a copy of SN envi. that's specific to certain.

production
people do their work & support customers

non production
- use for dev, testing and expansion

Dev.
dev. get their own dev. env. to do work

Configuration

- Most of the what administration (adm) do in a SN instance.
- primarily consists of things that can be done without code.

eg: · update list
· Add fields

customization :

- customization is done when a customer req. additional functionality that does not exist in the platform and they want to add features.

eg: enhance a portal widget to display ~~~.

Image change of SN Logo:

All > System properties > my company > UI 16 Banner Image

Types of Notifications -> A tool for alerting that events concern them have occurred.

for

- Email => System notification > email > notification
- SMS
- ~~Meeting~~ not invitation.

· email creation!

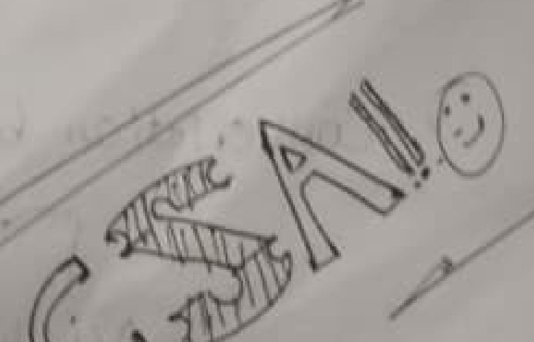
Step1: Create email layout
All > System policy > email > layout

Step2: · Apply layout to template.
All > System notification > email > templates.

Step3: Apply template to notification.
All > ~~NO~~ System notification > email > notification

UI 16

- Browser tab title.
- color module ~~text~~ color
- Banner Image
- Header Background color
- BASE THEME.



- Valid ServiceNow Authentication method
  - ✓ Local database
  - LDAP
  - SSO.

xml [illegible]

- Service catalog Variable types:
  - multiple Choice
  - select BOX.
  - CheckBOX.

- ACL permission req;
  - Roles
  - conditions Express
  - script

- UI 16
  - Banner Image.
  - System Date format
  - Browser Tab title

- Conversation bot platform (helps user to obtain info, make de
  § perform common ta
  - Virtual agent.

~~Emoo~~

- Where can admin check which release is running on SN instance

  Stats module.

- which group of permission is used to control Application & module access.

  roles.

- which section on a task record would you use to see most recent updates made to record?

  activity.

- which field is used as a unique key during imports?

  coalesce field.

  [illegible]

- which component of a table contains a piece of data for one record?

  field

- To access the reports ~~[illegible]~~ available to you?

  . report > ~~[illegible]~~ View / run.

- where should administrator navigate to add "Save" button in header.

  All > system properties > UI properties.

- which displays list of activities or history on a form?

  Ans: formatter.

- service catalog ~~maintain~~-create new catalog item?

  An: maintain items.

- which feature can be used to give users the choice to easily populate the most used fields for a specific table?

  Ans: Template.

- In a KB,
  where can adm. find the ~~a~~ critiea?

  Ans: can Read tab.

- Benifits of flow designer?

  ① NO-code.
  ② provides natural-language.
  ③ Integration with 3rd party.

- Best practice of import data?

  Plan time before you import to remove obsolete or inaccurate the

- TO quickly return to instance home page:

  ↳ Instance logo.

- what process allows users to create, review.... in a centralized location.. -

  ↓

  KM.

- which role manage - knowledge bases.

  ↓

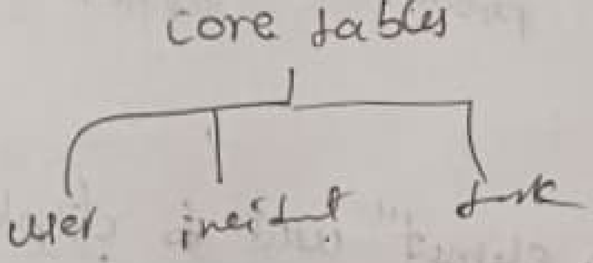
  knowledge_admin.

- which service now resource can be used as a blueprint to map your IT services.

  ↓

  CSDM (common service data model).

-



- Icon → double click to expand & ~~coplse~~ collapse

  ↳ Application.

- Reports can be created
  - List & col. heading
  - view/con module.

20

- CMDB products
  - Discovery
  - IntegrationHub ETL. (spoke).

- Connect chat:

  real-time conversation with logged-in u

- CMDB
  - Database
  - service process
  - Tables and fields
  - Dependency views

- Formatter:

  is a "form element" used to display info. that is not a field in recor.

- @Event log ↓ generated event. @ event registry ↓ table of event def.

- Virtual task Board
  - flexible
  - free-form
  - guided board

- Service catalog flow:-
  - complex fulfillment process
  - Send Notifications

- Event
  - Business rule
  - workflow.

- column
  - one field
- record
  - one row

- Application scope: protect Application

- SN Interfaces:
  - New mobile app
  - Service portal
  - New platform @ user Interface

- choice
  - drop-down list

- FORM Design Interface
  - page header
  - form Layout
  - field Navigator

- workflows
  - Customer
  - Employee
  - SIT.

- Related List buttons
  - Add
  - edit
  - New

- ~~A~~pprove [approva_ctls] ← authorize req.

- <u>schema map:</u>

system definition > Tables, select table;

goto related Links click

show schema map

- ~~Service~~ SN products
  - Discovery
  - cmdb
  - service map pg.

273

user menu

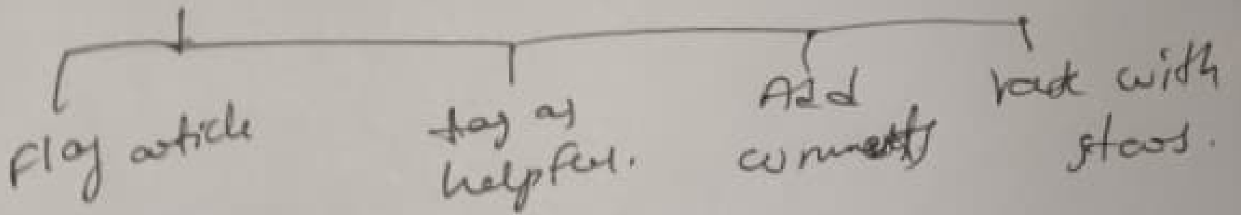
- **Assigment RULE:**

feature helps to automaticaly allocate a
critical, high priority, servic req. to approve
assignment . group or team member.

- **Mapping assist utility:**

drag and drop

- KM



- **VTB (visual task Board):**

Compact cards.

- **Delegated dev:** [delicated role, admin]
to develope application

- **Service Catalogly item:** for one env to another

Ats: "Required for