DFT_SFDC_M9506, RBT_TMT-RCPG_M3178 & Ramp_MegaLT_M4154 | SFDC Training | 6th Dec'21 to 7th Mar'22 | ILT - Virtual | Training Confirmation

Last edited: 16/05

Dec 06 2021

Get your trailhead account created

Start with Admin trail mix

Admin trail mix

Developer trail mix

Complete this form on or before 6 P.M today

https://forms.office.com/r/wBjsYL0ug6

Create a trail head playground

Dec 07 2021

Different ways to login

Launch a playground from trail head hands-on org

Reset your credentials from "Get your credentials" link then use login.salesforce.com

Always make a note of user name

3 important dept. users that will use CRM product

Sales

Marketing

Service

SF Admin role

create & onboard sales , service & marketing team users so they can access SF CRM product

to configure the product in such a way that it helps Sales, service & marketing folks to use it effectively

App exchange products

ready made product or app that u can use in SF org

Tailor-made

U use ur development skills (APEX) to customize the org

Further Reading:

https://trailhead.salesforce.com/content/learn/modules/sf_releases/sf_releases_start

Dec 08 2021

Std. Objects

Objects are nothing but storage or tables that holds data

Std. object that comes out of the box

Account

Case

Contact

Opportunity

Dec 13 2021

Custom Object

How do I create or do customization in SF

UC #1: I need to enable legal team to run a profile run against new customer being onboarded

To accomplish this,

Need to manage list of legal firms that legal team will work with for running a check against the customer

Solution:

Created a new custom object (legal firm)

Created few custom fields

Create a custom tab

Have a separate app for legal team so that they can focus on only the tasks they are supposed to do

Created an app (Legal)

Added custom tab created above(Legal Firm)

Bring Account link onto Legal Firm app

setup > App Manager > Create a new app

Ensure Status field is also added in the legal firm record page

Object manager > Page layouts

UC #2: I need to customized custom list view to see all legal firms and location and status

Solution:

Create a new list view apply filters and enable it for all users

Dec 14 2021

User license / Editions

Inactivate user license

Company Information

Profiles

A way to group users

Dictates what user can do in the org

Like create , edit , delete

see a specific tab or app etc

Created a legal team and assigned a profile

Enabled what legal users can do in the system

Enabled custom app permission

Enabled custom object permission

Enable custom tab permission

Dec 15 2021

Permission sets

Legal Team

Abi (Legal member)

Mounika (Legal member)

Sai Sachin (Legal Manager)

UC #1:

Ensure no one but Sai as legal Manager can able to create new legal firm record

Revoke create access from Abi and Mounika

Solution:

Shut all the doors: At profile level disable create access

Make an exception or provide add-on access by using permission set

Create a permission set and setup create access

Assign permission set to Sai

Key point to remember:

Permission sets cannot be used to revoke someone's access or permission

Freeze Vs Inactive

Both stops user from login

However, Freeze will not revoke license but In active will revoke license

Login IP

TODO Exercise:

Read about Permission Set Group

Sales Optimizer Report app exchange product from Salesforce Labs

https://help.salesforce.com/s/articleView?id=sf.optimizer_kick_off.htm&type=5

Dec 16 2021

Role

Using role data level security is implemented

Each record data has a owner

Role or Role hierarchy will dictate what data users can see

Organization wide default

Sharing Settings / Sharing Rules

Manual sharing

Organization wide default

Legal Team

Abi (Legal member)

Mounika (Legal member)

Sai Sachin (Legal Manager)

Chief Sales Officer

Hemamalini (CSO)

Sales Team

Vivekr (Sales Manager)

Role setup

From setup > Roles > Create role hierarchy

Assign users to the appropriate roles

can be done from user setup screen

or can be done from role hierarchy screen

Role hierarchy behind the hood - Break down- Hemamalini

Step 1: OWD is private -> SF will look and load records created by Hemamalini

Step 2: Is Role hierarchy is setup ?

Step 2.1 : If yes, SF will move down the hierarchy and fetch all the records created by the users in the lower hierarchy for display

Step 2.2 : If no, SF will show only the records created by Hemamalini

Further Reading:

https://www.sfdcpoint.com/salesforce/organization-wide-defaults-owd-in-salesforce/

https://www.commerceworks.net/blog/salesforce-security-update

Dec 20 2021

Manual sharing

Sharing Rules

Dec 21 2021

Data Relationship

Std. relationship

e.g: Account - Contact ; Account - Opportuity; Account - Cases etc

Custom relationship

Need a legal review recommendations for a newly customer

Note: Always start with child object when a relationship is created

Master - Detail Relationship

When master record is deleted all the child related records will also get deleted

It s a 1:M relation ship

Tightly coupled

Lookup Relationship

Loosely coupled

Child records will not get affected when parent is deleted

1:M relationship

Page Layouts

Further Reading:

Create Object Relationships Unit | Salesforce Trailhead

Episode 2 - Model your Salesforce Data - Apex Hours

Layouts in Salesforce - All You Need To Know | APPSeCONNECT

Episode 3 - Customize the Salesforce User Interface - Apex Hours

Dec 22 2021

1. Say, you are developing an app for Pharma industry. 2 custom objects have been created to store Pharma Product and Pharma Sample being dispatched to Hospitals, Doctors etc. Each Pharma product may have many samples records.

As an admin

- what relationship do you configure between the two custom objects (Master-detail relationship)? And,
- in which object you will create relationship field (Pharma Sample)

Lookup relationship

- Pharma product is master / Sample is child

Master relationship

- Sample is master / Pharma product is master

Pharma Product would be the master

Pharma Sample as child

Dolo 800mg (1:M)

- SRMC hospital samples of 10
- AIMS hospital samples of 100

- GH samples of 1000

Tightly couple relationship

2. Say, you are developing an app for managing Salesforce training. 2 custom objects have been created to store SF Training Topic and Instructor. Each Traning Topic will have an associated instructor.

As an admin

- what relationship do you configure between the two custom objects ? And,
- in which object you will create relationship field

Master detail

lookup relationship

Master object: Instructor

Child object: Training Topic

Master object: Training Topic

Child object: Instructor

- Given the above setup: We need to implement lookup relationship

Topic record 1: Relationship

- Instructor: Rajesh

Topic record 2: Custom Object

- Instructor: Sundar

Topic record 3: Role and Profiles

- Instructor: Divya

Topic record 4: Sharing settings & OWD

- Instructor: Rajesh

3. Say, you are developing an app for managing customer orders. 2 custom objects have been created to store Order and Order line items. Each order will have one or more associated order line items.

As an admin

- what relationship do you configure between the two custom objects (Master Detail Relationship)? And,

- in which object you will create relationship field - Order line items

Master: Order

child: Order line items

Master - detail relationship

Page Management

Dec 23 2021

Page Management

Page layout

Used to add / remove & rearrange fields in record page details section

Can able to create multiple page layouts

and assign to users via profile

Lightning App builder

UC #1: For Chief sales officer, do not show activity component . Instead show recent items and related list

Solution:

Use Lightning app builder

add / remove components

set the component visbility

TODO :

Read about "setting component visibility" in lighting app builder

Validation rule

helps me to make a field mandatory

helps me to validate data being entered by the user in an expected way !!!!

Dec 27 2021

Record Types

Discovery questions:

Do we need to create multiple page layouts to collect different set of information

Is the same user or same profile users will use all the page layouts

if yes, go for record type

else, go with page layout and map to appropriate profile

Create fields to store details about each business process (New customer profiling , New Real estate, Patent)

Introduced a new picklist to track status

Create page layouts for each business process

Legal Firm (Patent Review)

Legal Firm (New Customer Profiling)

Legal Firm (New Real Estate Review)

Create Record Type so that system will allow you to setup multiple layouts for a profile

3 record types

Use record type to map a profile - page layout - record Type

change pick list to meet business needs

Once setup is done,

SF provide a new screen with options to enter different set of information

Further Reading:

https://trailhead.salesforce.com/en/content/learn/projects/customize-a-salesforce-object/create-record-types

Dec 28 2021

Dynamic Forms

Dec 29 2021

Record Type , Page Layouts , Dynamic Forms : Choose the right implementation

==

Q#1: Support users are being onboard onto Salesforce. They are required to view an extensive amount of information on Accounts around the customer's technical solution. This information does not apply to any existing users. They have two Support profiles

- Account object
- 2 sets of information to be shown to the end users (support team) :
- 2 sets of support team is present having 2 profiles (Say support profile1 , support profile2)

Option 1:

- Create 2 Page layouts to show different set of account information
- do we need record type or not? - No, cos we are dealing with 2 profile and 2 sets of users

Option 2:

- Can we use Dynamic forms?
  - Create 2 fields sections
    - --> 1st section to show less account infomration
    - --> 2nd section to show extensive account information
- Use component visibility and apply filer by profile

===

Q#2:Sales have yet another requirement . They would like to implement a different selling process on Opportunities for each of their 3 tiered levels of accounts (1-100, 101-500, 501+ employees). This involves different stages that the sale moves through, as well as capturing different information along the way. They only have one Sales profile

Option 1: Record Type + Pagelayout assign to Sales profile

==
===========

Q#3:The support team has a requirement to show different information on the page layout, depending on which level the case has been escalated to (Tier 1, 2 or 3). The support agents have 3 different profiles which correspond to the escalation level

Option : 3 Page layouts + more than one profile

==

In-app guidance

Dec 30 2021

Field History from object Fields& Relationship

Track field value changes

Along with user that made the change and DT

-

Chatter

Helps you to collaborate with users within your org

share files

use @ to mention the person

create private groups or public group or unlisted groups

Feed tracking

Track field value changes

up to 20 fields we can track for changes

Jan 03 2022

Data Management - Import / Export

SOQL - Language to communicate to the back end data base

Can be used to read data, write data and edit data , delete data

Admin tools for data import and export

Data Import Wizard

Discovery Questions:

Use me when you want to insert new data in bulk or update new data in bulk

can support up to 50K

Can support only few std. objects and supports all custom objects

native and runs within saelsforce org

Data Loader

Discovery Questions:

Use me when you want to insert new data in bulk or update new data in bulk or delete data

can support > 50K records

can support all std. objects and custom object

Stand alone application runs outside of salesforce

Scheduled

Data Export

Adhoc

Schedule export job

Jan 05 2022

Approval Process

UC #1: Say, Legal Manager(Sai) updates cost per hr. If cost/hr > 50 $ then send for Sales leadership (Hema) approval

UC #2: Say, Account revenue is > 5Million then send the record for Sales leadership (Hema) approval

- Always user has to hit submit for approval to initiate approval process

4 actions possible

Email alert / Task / Field update / OM

Approval Requests is the page that shows summary of all records pending for approval

It is possible to configure more than one approval step

Further Reading:

Jan 06 2022

Process automation tools

approval process

Workflow

Process builder

Flow

UC #1: Say, when account legal review check box is selected in account record page, either a task or email alert should be triggered to legal team

Use workflow to accomplish the above use case as an admin

TODO: Time dependent work flow actions

Further Reading: https://developer.salesforce.com/docs/atlas.en-us.usefulWorkflowRules.meta/usefulWorkflowRules/workflow_examples.htm

UC #2: Say, when account billing country is changed, all related contacts mailing country should also be updated

Use process builder to accomplish

Jan 07 2022

Process builder.....

UC #1: Say, when account legal review check box is selected in account record page, a chatter post should be triggered to legal team. As an admin how do you implement this

Workflow cant be used as there is no way to send a chatter post

Use either Process builder or Flow

Step 1: Select your object (Account)

Step 2: Define your criteria (Account. Legal Review Required is true) - should check when account is created or updated

Step 3: Choose what to automate (Post a chatter msg to legal team)

Step 4: Activate the process

Jan 10 2022

Process builder.....

UC #2: As an admin, implement auto approval submission when a legal firm record is created or edited

Use either Process builder or Flow

Step 1: Select your object (Legal Firm)

Step 2: Define your criteria - should check when legal firm is created or updated

Step 3: Choose what to automate (trigger or automatically submit the record for approval)

Step 4: Activate the process

UC #3: Say, when an account country is changed , send account and all the related contracts for review with legal team. Ensure the approval triggers automatically

FLOW:

Use Flow

Step 1: Select your object (Legal Firm)

Step 2: Define your criteria - should check when legal firm is created

Step 3: Choose what to automate (trigger or automatically submit the record for approval)

Step 4: Activate the process

Jan 11 2022

Flow...

UC #1: Sales leadership profile users would like to see an easiest option in Salesforce to perform Contact search . Given an account , list of contacts associated to the account should be listed. This new functionality should be accessed from anywhere in the org. As an admin, how do you implement.

Should be available for sales leadership users alone

Need a page to take account input so that list of contacts can be displayed

There is no OOB option

Go with Screen flow as there is a need to get account name from the user

Flow tasks:

Step 1: Create a screen that will list all the accounts - DONE

Step 2: Upon selecting the account, find all the associated contacts - DONE

Use account Id to filter all contacts

Step 3: Show the contact on the screen - DONE

Use picklist or elements to display the output

Step 4: Configure the flow visibility so that it works only for Sales leadership users - DONE

Ensure RUN FLOW is enable for the user for which flow should work. Use profile or permission set to open up this access

UC #2: Sales leadership profile & Legal team users would like to see an easiest option in Salesforce to create an opportunity anywhere in the org. User will enter opportunity mandatory information which later to be associated to the account. As an admin, how do you implement.

Should be available for sales leadership users alone

Need a screen that take opp. mandatory details

Store the information in DB

Flow tasks:

Step 1: Create a screen that will list all the accounts - DONE

Step 2: Upon selecting the account, get opp. mandatory fields from the user - DONE

Step 3: Insert or create new opportunity back in the data base and associate to the chosen account - DONE

Step 4: Configure the flow visibility so that it works only for Sales leadership users - DONE

Step 5: Run flow should be enabled for Sales leadership and Legal Team (One Time) - DONE

Jan 12 2022

Flow....

UC #3: Users would like to see an easiest option in Salesforce to create an contract as a quick action in account page. User will enter opportunity mandatory information which later to be associated to the account. As an admin, how do you implement

Flow tasks:

Step 1: Create a screen and get contract mandatory fields - DONE

Step 2: Upon entering details , automatically assign the current account from which contract is being created - DONE

use "recordId" variable to get the id of the record which launched the flow

Step 3: Insert or create new contract back in the data base - DONE

Step 4: Enable this flow as a quick action in account page - DONE

UC #4: Sales leadership profile users would like to see an easiest option in Salesforce to clone a closed-won opportunity anywhere in the org. User will enter opportunity mandatory information which later to be associated to the account. As an admin, how do you implement.

Flow tasks:

Step 1: Create a screen and show list of opportunities associated to the account - DONE

Step 2: Get the opportunity Id which user wanted to clone - DONE

Step 3: Get a new screen t collect new opp. details - DONE

New Opp. Name

New Opp. close date

New Opp. Stage

Step 4: Except the above 3 , copy all other fields from old opportunity to the new opportunity - DONE

Use Assignment element

Step 5: Create a new opp. and associate with the same account

Use create data element

Further reading:

https://help.salesforce.com/s/articleView?id=sf.flow_ref_resources_system_variables.htm&type=5

https://salesforce-flowsome.com/

https://trailhead.salesforce.com/en/content/learn/modules/flow-builder

Jan 13 2022

Reports & Dashboards

UC#1: CEO wants to send an email to all customer contacts. As a sys admin how do you find and report contacts that do not have email address?

Use Reports

Reports Types:

=========

Tabular Report

Summary Report

Matrix Report

Joined Report

Custom Report Type

TODO: Dashboards

SALESFORCE DEVELOPER :

Jan 17 2022

Install all the developer tools

Install in personal laptop

Install in HCL laptop (Use TARMAC app from myhcl.com)

SOQL:

Use API Name in the query

3 options or interface to access records or data from database

When using VS code sql query editor

Auth an org

Use SQL query editor

Relationship queries - Std. object

Accessing parent from the child object.

Use "dot" operator

```
SELECT
   FirstName,
   Title,
   Contact.Account.Name, // accessing parent fields
   Contact.Account.ShippingCountry
FROM
   Contact //Child object
WHERE
   Account.Name LIKE 'CNG%'
SELECT
   FirstName,
   Contact.Account.OwnerId,
   Contact.Account.Name,
```

```
   Contact.Account.Owner.FirstName,
   Contact.Account.Owner.LastName,
   Contact.Account.Owner.Username,
   Contact.Account.Owner.Profile.Name

FROM
   Contact
```

Accessing child from the parent object

Use Sub queries

```
SELECT    Name,(
      SELECT
         ID,
         FirstName,
         LastName
      FROM
         Contacts
   ),
   (
      SELECT
         Name
      from
         Opportunities
   )
FROM
   Account
WHERE
   Name like 'CNG%'
```

Jan 18 2022

Relationship Queries .... Custom object

Accessing parent from the child object.

Use "dot" operator

```
SELECT
   Review_Comments__c,
   Legal_Review_Recommendation__c.Legal_Firm__r.Location__c,
   Legal_Review_Recommendation__c.Legal_Firm__r.Name
FROM
   Legal_Review_Recommendation__c
```

Accessing child from the parent object'

Use Sub queries

```
SELECT
   Name,
   Location__c,
   (SELECT ID FROM Legal_Review_Recommendations__r) // Use Child Relationship Name and
append __r to refer custom object in
relationship query

FROM
   Legal_Firm__c
```

SOSL : Salesforce Object Search language

```
FIND {cng*} IN ALL FIELDS RETURNING Account(Id,Name), Contact(id,FirstName)
FIND {cng*} IN Name, Description FIELDS RETURNING Account(Id,Name), Contact(id,FirstName)
```

```
SELECT Name FROM Account WHERE CreatedDate > Oct 02 2021 and CreatedDate < Dec 31 2022
```

Further Reading:

https://blog.bessereau.eu/assets/pdfs/salesforce_soql_sosl.pdf

Jan 20 2022

APEX Programming

Classes & Objects

Class is nothing but a Blue print

Use Blue print to create multiple instances called objects

In Salesforce , we use account blue print to create multiple accounts

Create an APEX Class

Variables

Methods

Data Types

Primitive (pre-defined size)

E.g Integer (2 bytes) , String (8 bytes) etc

Non-primitive

e.g Collections

TODO: Pre-read: Class Access modifier (public, global, private, protected)

Further Reading:

https://developer.salesforce.com/docs/atlas.en-us.236.0.apexref.meta/apexref/apex_namespace_Search.htm

Jan 21 2022

APEX Programming

New APEX Class: How do I create

Option 1: Use Dev Console

Option 2: Use SFDX and VS code

Jan 31 2022

TODO: Difference between Insert and Database. Insert(recrods, false)

TODO: Map collection

Transaction:

Save and Commit

when u insert 100 records using Database.insert(recrods, false);

Order and order detail

ON#1 OD#1; OD#2; OD#3 -> Tied to ON#1

rollback

APEX - Collections

Set

List

Map

Governor Limits

Feb 04 2022

APEX Triggers

Feb 07 2022

Unit Testing

Developer needs an environment to do coding and see if the new changes are working fine

Dev environment

dev.hcltech.com

curious-hawk.salesforce.com

Unit testing - As a developer you test the code that you have written

Testers will check or test the product changes made by the developers

Test environment

test.hcltech.com

alchemist-fox.salesforce.com

Once testers provide a sign off, It wil be tested again by the business team

Post business team sign off (UAT) move the changes to prod or live system

hcltech.com

hcl.salesforce.com

APEX classes - Code coverage should be > 75%

APEX trigger - Code coverage should be > 1%

Unit test class is nothing more than an APEX class

It differs from other classes by using certain annotations

@isTest

UC #1: When a user is trying to delete an account, check if the account has one or more contact records.

If yes - Do not allow user to delete

If no - Allow account(s) to delete

Future Method

Sync vs Async

User > Click on new > Create a new account > Click on Save > Display success or error msg
 - Introduce a trigger for account insert (assume it takes 10 secs to complete)

e,g:

UC#1:As an admin , you have been asked to create 1000 users .And, when users having profile "Custom:Sales Profile' are being created assign a permission set named 'Sales Users'

UC#2: As an admin, you have to send new customers information to legal team for review. Legal team has a separate app developed in .net or java app. and exposed a web service which will receive data from your salesforce org whenever a new account is created.

Feb 10 2022

UC #3: When new marketing users having profile ‘Custom:Marketing User’ are onboarded into the org. You have automatically add the user(s) to a marketing chatter group & send an welcome email to the user with marketing related materials

Batch APEX – When you want to process bulk records

UC #1: You have an org having 500,000 contacts. As a developer you have been tasked to mark contacts Status as 'Inactive' if last activity date is 6 months old

You have found that there are more that 250,000 contact records that are dormant in your org

Solution : Use Batch APEX as it could process 50 million records

- Global or public class
- Converting a simple APEX class into Batch APEX by Implements Database.Batchable<sObject>
- Implement start, execute and finish methods
- // Think about batch start method as a loop that can process records of size
- // minimum 200 to maximum 2000

Step 1: Create an APEX class
Step 2: Converting a simple APEX class into Batch APEX by Implementing Database.Batchable<sObject>
Step 3: Get records that want to process in start() method
Step 4: Implement either update, delete, insert etc in execute() method
Step 5: If you want to send an email or notify someone about the status of batch once completed use finish() method and write the code

UC #2: You have been asked to run contact inactive batch every Sunday @9 P.M

Solution : Schedulable APEX

Step 1: Create an APEX class
Step 2: Converting a simple APEX class into Batch APEX by Implementing Schedulable interface
Step 3: Simply call Batch APEX code inside execute method

TODO: Queueable APEX

Summary:

APEX Async Programming

- Future methods
- Batch APEX
- Schedulable APEX
- Queueable APEX

Tools Check:
Git :

Run "Git version" from command prompt

```
C:\Users\rajeshprabhu.balak>git version
git version 2.28.0.windows.1
```

#2: Clone a remote repo
https://github.com/ShareAndShine/SFDevDocs.git

```
C:\Users\rajeshprabhu.balak\OneDrive - HCL Technologies Ltd\Desktop\chumma\Code>git clone https://github.com/ShareAndShi
ne/SFDevDocs.git
Cloning into 'SFDevDocs'...
remote: Enumerating objects: 48, done.
remote: Counting objects: 100% (48/48), done.
remote: Compressing objects: 100% (40/40), done.
remote: Total 48 (delta 14), reused 32 (delta 5), pack-reused 0
Unpacking objects: 100% (48/48), 16.79 MiB | 5.14 MiB/s, done.

C:\Users\rajeshprabhu.balak\OneDrive - HCL Technologies Ltd\Desktop\chumma\Code>
```

Trouble shooting links:
[Cant clone from GitHub : SSL certificate problem: unable to get local issuer certificate · Issue #9293 · desktop/desktop]()
git config --global http.sslBackend schannel
git config --global http.**sslVerify** false

#3: In case of HCL Laptop, moving file from local to your git hub is blocked by firewall
[Connecting to Github with SSH (Windows) - DEV Community]() – Firewall blocks port #22 which needs to be corrected

[Git push results in "Authentication Failed" - Stack Overflow]()
[authentication - Logon failed, use Ctrl + C to cancel basic credential prompt - Stack Overflow]()

SFDX:
#1

```
C:\Users\rajeshprabhu.balak>sfdx --version
 »   Warning: sfdx-cli update available from 7.114.0 to 7.136.2.
sfdx-cli/7.114.0 win32-x64 node-v14.17.5
```

#2:

```
C:\Users\rajeshprabhu.balak>sfdx auth:web:login -r https://login.salesforce.com
 »   Warning: sfdx-cli update available from 7.114.0 to 7.136.2.
Successfully authorized reader.vm@empathetic-wolf-grcx6e.com with org ID 00D5j00000342OBEAY
```

#3:

```
C:\Users\rajeshprabhu.balak\OneDrive - HCL Technologies Ltd\Desktop\chumma\Code\config>sfdx force:project:create --projectname mywork --defaultpackagedir myapp --manifest
 »   Warning: sfdx-cli update available from 7.114.0 to 7.136.2.
target dir = C:\Users\rajeshprabhu.balak\OneDrive - HCL Technologies Ltd\Desktop\chumma\Code\config
   create mywork\config\project-scratch-def.json
   create mywork\README.md
   create mywork\sfdx-project.json
   create mywork\manifest\package.xml
   create mywork\.husky\pre-commit
   create mywork\.vscode\extensions.json
   create mywork\.vscode\launch.json
   create mywork\.vscode\settings.json
   create mywork\myapp\main\default\lwc\.eslintrc.json
   create mywork\myapp\main\default\aura\.eslintrc.json
   create mywork\scripts\soql\account.soql
   create mywork\scripts\apex\hello.apex
   create mywork\.eslintignore
   create mywork\.forceignore
   create mywork\.gitignore
   create mywork\.prettierignore
   create mywork\.prettierrc
   create mywork\jest.config.js
   create mywork\package.json

C:\Users\rajeshprabhu.balak\OneDrive - HCL Technologies Ltd\Desktop\chumma\Code\config>
```

Feb 14 2022

- Moving away from org. based development to **<u>source code driven development</u>**
- **<u>With org based development</u>**
  - One org is shared between developers
  - Problems that might occur
    - Overwrite Code developed by other developers
    - Loss of code
- Source driven development
  - Salesforce Code is shared
  - Each developer can get a copy of the code
  - Each developer can work independently and merge the code for final product changes
  - Tools used to achieve this
    - Git & GitHub
      - Used to manage your project code
    - VS Code or SFDX
      - Used for source code driven development and deployment (moving code from one org to another)

Each developer can work independently – How do I achieve this ?

- Can I ask developers to use their own trailhead playground for project development ? – **It's a BIG NO**
- **Alternate option ??**
  - **SF says use disposable development org named 'Scratch Org' and give it to developers for development**

Annamali is project lead – Received 3 requirements from Company's sales and marketing team

Arthi – Developer

- Has been given a task or requirement to implement a new custom object named 'Customer Survey'

Kowsalya – Developer

- Has been given a task or requirement to implement a new screen or component to show >25 Million dollars opportunities

Arjun – Developer

- Has been given a task or requirement to implement a new app called 'Car Rental' using LWC

Annamalai

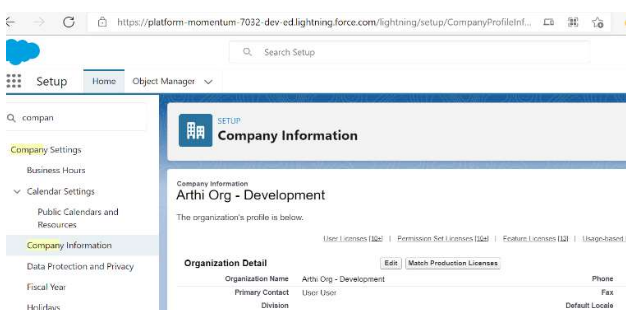
- Has to setup 3 environments or orgs to each developer so they can work independently
    - Setup scratch org
        - Step 1: Dev Hub setup
            - https://empathetic-wolf-grcx6e-dev-ed.lightning.force.com/
        - Step 2: Authorize your dev Hub org with SFDX command or VS Code
            - Sfdx auth:web:login -r https://login.salesforce.com
            - Sfdx force:org:list

```
=== Orgs
     ALIAS      USERNAME                            ORG ID              CONNECTED STATUS
───  ─────────  ──────────────────────────────────  ──────────────────  ────────────────
                reader.vm@gmail.com                 00D7F000007CLuUUAW  Connected
(D)  YourAlias  reader.vm@empathetic-wolf-grcx6e.com  00D5j000003420BEAY  Connected

No active scratch orgs found. Specify --all to see all scratch orgs
```

        - 7
        - Step 3: Create scratch Org for developers to use
            - Arthi

```
C:\Users\rajeshprabhu.balak>sfdx force:org:create -s -a ArthiOrg -d 30 -f C:\config\project-scratch-def.json
 »   Warning: sfdx-cli update available from 7.114.0 to 7.136.2.
Successfully created scratch org: 00D6D00000022WHUAY, username: test-di6k3zimthux@example.com
```

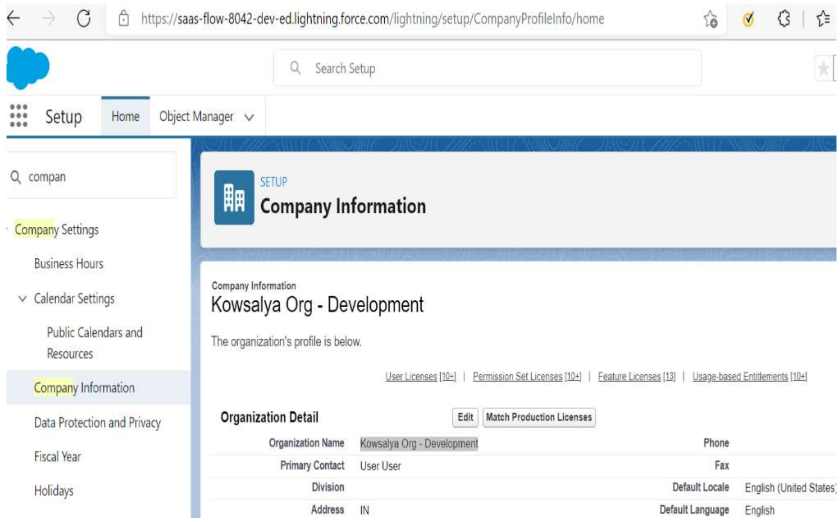


            - Kowsalya

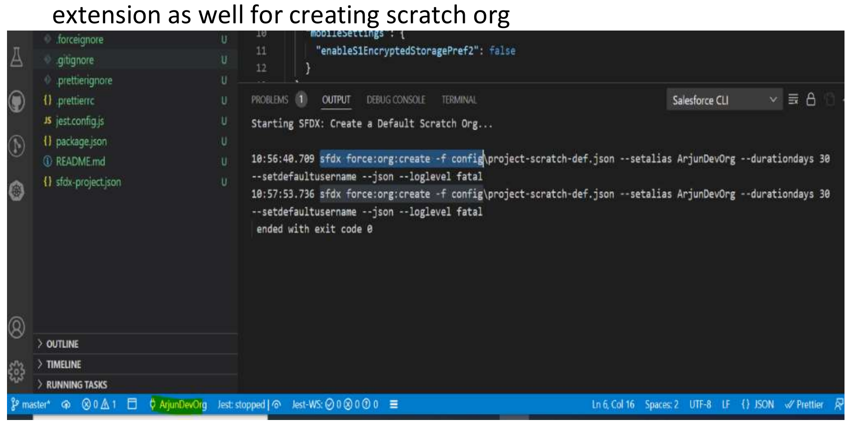
```
C:\Users\rajeshprabhu.balak>sfdx force:org:create -s -a KowsalyaOrg -d 30 -f C:\config\project-scratch-def.json
 »   Warning: sfdx-cli update available from 7.114.0 to 7.136.2.
Successfully created scratch org: 00D6D00000028AOUAY, username: test-mjjsft8namjr@example.com
```

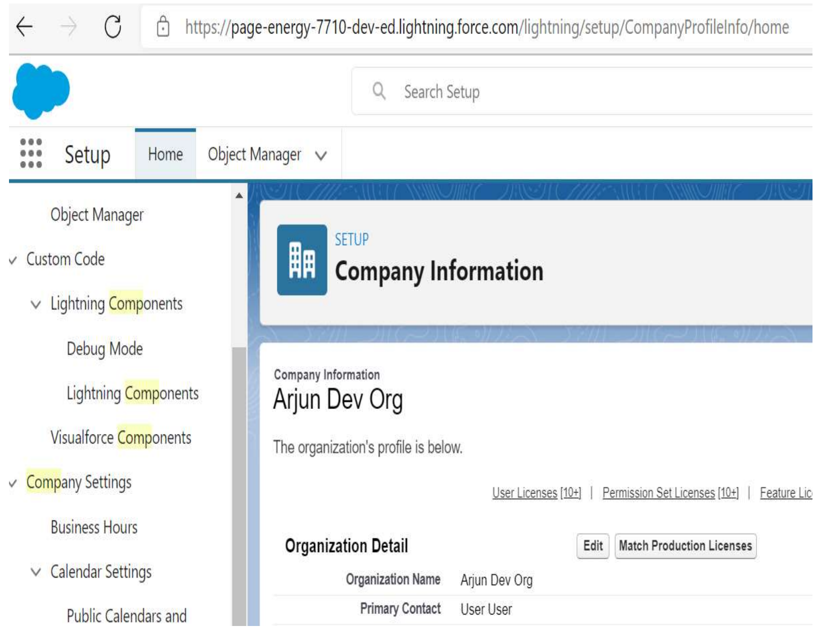
```
C:\Users\rajeshprabhu.balak>sfdx force:org:list
 »   Warning: sfdx-cli update available from 7.114.0 to 7.136.2.
WARNING: Starting in API version 52, the JSON output of this command no longer returns the property connectedStatus for scratch orgs.
=== Orgs
     ALIAS      USERNAME                              ORG ID              CONNECTED STATUS
───  ─────────  ────────────────────────────────────  ──────────────────  ────────────────
                reader.vm@gmail.com                   00D7F000007CLuUUAW  Connected
(D)  YourAlias  reader.vm@empathetic-wolf-grcx6e.com  00D5j000003420BEAY  Connected

     ALIAS        USERNAME                       ORG ID              EXPIRATION DATE
───  ───────────  ─────────────────────────────  ──────────────────  ───────────────
     ArthiOrg     test-di6k3zimthux@example.com  00D6D00000022WHUAY  2022-03-16
(U)  KowsalyaOrg  test-mjjsft8namjr@example.com  00D6D00000028AOUAY  2022-03-16
```



- Arjun
    - Besides SFDX commands, you can use VS code SF extension as well for creating scratch org





- Has to enable a way to merge the code from each developer once coding is done
    - GitHub
- Has to setup another org for testing team to review
- Has to setup deployment options for moving all the code from 3 developers to production org so that company's sales and marketing team can see the output

<u>Arjun</u>

- Create a folder to mange all his work or code in the local machine
- Use VS code to open the project folder
- Connect VS code and the org (ArjunDevOrg) against which Arjun will develop his code
- Arjun creates a new custom object to hold "cars"
    - Use sfdx force:source:pull -u <OrgAliasName> or sfdx force:source:retreive
        - To bring changes from scratch org to local project
    - Use sfdx force:source:push -u <OrgAliasName> or sfdx force:source: deploy
        - To move changes from local project to scratch org

<u>Kowslya</u>

- Talks to Arjun and says she will do peer review of Arjun's code
- She insists him to deploy his code to her org KowsalyaOrg

Solution:

```
h\Code\ArjunCodeBase\ArjunDev> sfdx force:source:deploy -u KowsalyaOrg -p force-app\main\default\
 »   Warning: sfdx-cli update available from 7.114.0 to 7.136.2.
*** Deploying with SOAP API ***
Deploy ID: 0Af6D00000dmOxXSAU
SOURCE PROGRESS |                                        | 9/14 Components
```

CLI Tools that can be used

- Git bash
- Windows Command prompt
- Powershell

SFDX Command Reference:

[org Commands | Salesforce CLI Command Reference | Salesforce Developers]

Feb 16 2022

3 Musketeers

- **HTML**
- **CSS – Cascading Style Sheet**
- **Javascript**
  - The above ones are natively supported and understood by a web browser

What is LWC – Lightning web component

- JS Framework developed by Salesforce
  - Framework is nothing but bunch of files that helps me to do coding much faster

SF Coding language journey

- Visual Force – Legacy & Not covered a part of the training
- Aura component – Not covered a part of the training
- LWC – WILL BE DISCUSSED IN THE TRAINING

Feb 18 2022

HTML

- Browser language that **uses tag** to instruct browser how to design a page

CSS

- Look and feel of a page is defined here

JS

- Event driven programming

Feb 21 2022

- Assignment Rules today
- Web Components
  - LWC is an example

Feb 22 2022

- LWC should follow camel case convention
- LWC bundle is ntg but html, js and meta.xml

Tip: During development always enable debug mode

Data Binding:

- Bringing data or value defined in a JS file to HTML file

Feb 24 2022

1. Object , Tab & App setup
   a. Copy objects , classes and tabs files to your local project
   b. Use force:source:push to move the code from local project to your scratch Org
   c. Ensure all the custom objects (car, car exp & car type) are added to the car rental app as navigation items
      i. In case if its not appearing, check profiles – Tab or object access
2. Sample Data setup

a. Use create data class and static method (create Package Data) to populate sample record

Components breakup

Feb2022BatchDocs/Salesforce Admin & Developer - LWC Car Rent Components.pdf at main · ShareAndShine/Feb2022BatchDocs(github.com)

[Feb2022BatchDocs/Salesforce Admin & Developer - LWC Car Rent Components.pdf at main · ShareAndShine/Feb2022BatchDocs (github.com)]

Feb 25 2022

carTile is ready
carSearchresult

- This component will use cartile
  - Which makes carSearchResult component as parent
  - & cartile as child;;
- Steps:
  - Make a call to DB and fetch all cars
  - Store cars data in an object array
    - Carslst = [
      {Id:'1',Picture__c: '/resource/cars/luxury/mercedes_benz_gls.jpg',OwnerName:'AAA'}
      {Id:'2',Picture__c: '/resource/cars/luxury/mercedes_benz_gls.jpg',OwnerName:'BBB'}
      {Id:'4',Picture__c: '/resource/cars/luxury/mercedes_benz_gls.jpg',OwnerName:'CCC'}
      {Id:'5',Picture__c: '/resource/cars/luxury/mercedes_benz_gls.jpg',OwnerName:'Rajesh'}
      {Id:'6',Picture__c: '/resource/cars/luxury/mercedes_benz_gls.jpg',OwnerName:'Rajesh'}

    ];
  - Loop thru each car object in the array and
  - Pass it on to carTile component to display array of cars

<u>Parent to child component communication:</u>

Step 1: In child component, expose a property as @api
Step 2: In parent component, use api property name as attribute and pass the value

<u>For loop in HTML or HTML Directives</u>

```
<template for:each={Carslst} for:item="cardetail">
  <div key={cardetail.Id}>
            <c-car-tile car={cardetail} title={title}></c-car-tile>
        </div>
 </template>
```

<u>// DB call using wire method</u>

Feb 28 2022

- **Use console.log to debug the running code**
- **Use browser debugging option to intercept JS code**

NavigationMixin

- **Use me to redirect user to a new page or open a page with in orf**
- **Use me to redirect user to an external URL etc**

Further Recepies:
[lwc-recipes/force-app/main/default/lwc at main · trailheadapps/lwc-recipes (github.com)]()

Mar 1 2022

Current component hierarchy:

Car Search Container – Parent

- Car Search Form (Child 1)
- Car Search Result (Child 2)
    - Car Tile (Child2's Child)

Case 1: If I want to send data from Parent(Car Search Container) to Car Search form(Child) => Use @api
Case 2: If I want to send data from Child compoments (Car Search form or Car search result) to Parent(Car Search Container) => Use custom events

Step 1: Car search form to hold the selected car type Id
Step 1.1 : Use custom events to send car type Id from Car Search form to Car Search Container

```
        //Use custom events to send car type Id from  Car Search form to Car 
Search Container
        const carTypeChangeEvent = new CustomEvent('cartypeselect', {detail: 
carTypeId});
        this.dispatchEvent(carTypeChangeEvent);
```

Step 1.1.1 : In Car Search Container, Use events to receive car Type id being sent from Car Search form

```
<div class="slds-m-bottom_small">
        <lightning-card title="Search your car">
            <c-car-search-form oncartypeselect={handlecartypeselect}></c-car-
search-form>
        </lightning-card>
    </div>
```

```
 handlecartypeselect(event)
    {
        const carTypeIdValue = event.detail;
    }
```

Step 1.2 : Use @api public property to resend car type Id from **Car Search Container** to **Car search Result**
Step 2: Share the car type Id to car search result component . The same can be used to filter cars being shown

Current component hierarchy: - Part II
Car Detail Container – Parent

- Car Details (Child 1)
- Add Experience (Child 2)
- View Experience (Child 3)

Enable data exchange between **unrelated components** on the same page

- Use PubSub (Publisher & Subscriber) model or Lightning messaging service
    - Publisher : Radio mirchi or red mirchi station (98.3)
    - Subscriber:
        - Mr X. tune to 98.3
        - Mr.Y tune to 98.3
        - Mr z tune to 98.3 to listen to the music
    - **In our case**,
        - Car Tile acts as publisher
            - Publishing the selected car
        - Car Detail container acts as subscriber
            - Subscribe to the value or data (Selected car)
        - Car location acts as subscriber
            - Subscribe to the value or data (Selected car)

Mar 02 , 2022

Summary :

- How to create a LWC
- Considerations in terms of naming convention to be followed when LWC is created
- Meta xml significance
- Data binding
- SLDS
- HTML Directives
- Calling APEX method
- Accessing static resource
- Components communication
    - Parent to Child
    - Child to Parent
    - Unrelated components (pub sub) or LMS
- LWC debugging

Current component hierarchy: - Part II
Car Detail Container – Parent

- Here make a call to db and collect all the details of selected car so that it can be passed on to the child components as needed
    - Car Details (Child 1)
    - Add Experience (Child 2)
    - View Experience (Child 3)