



True North
Dreamin

Five Tips Every Admin Should Know about Visual Studio Code



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Agenda



- | | | | |
|-----------|--|-----------|---|
| 01 | Moving Data between
Salesforce Orgs | 04 | Querying the
Salesforce Objects |
| 02 | How to load records
into Custom
Metadata Records | 05 | Building better flows
with Lightning Flow
Scanner |
| 03 | Comparing
differences in text
files | 06 | TBA |

What is Visual Studio Code?

Alias

Also known as
VS Code

Cost

Free open source
text editor that can
be used to edit and
analyze and
manage files.

Files?

Salesforce
metadata are text
files formatted so
that the platform
can read them

Uses

Configure, develop,
backup, manipulate
metadata files
created by
Salesforce



Terms



Repos - Git / Bitbucket

- Fancy name for place to store text files

Folder Scaffolding - same as Windows Explorer

Command Pallet - Command Shift + P

- Replaces Command line in many cases
- Powerful tool that creates the commands for you
- Similar to Setup in Salesforce

Code Editor / IDE - Notepad++, Maven, Sublime

Extension - a bit of code that automates a task - think AppExchange



Why Should I use Visual Studio Code?



1

When used with the Salesforce CLI and Extensions written to solve specific problems one can do things other than simply write code.

2

Move data between Salesforce Orgs

- Individually or as a group of metadata

3

- Sign in and Open Salesforce Orgs
- Query Records
- Troubleshoot Issues



- Backup Salesforce Org Metadata

4

What are Extensions in VS Code?



They provide additional functionality.



Think of Apple App Store, Appexchange, or Google Play



- Convert CSV to a Table
- Convert CSV to JSON
- Showing Differences in Orgs
- Create Scratch Orgs to test one off quickly
- Visualize Flows
- Monitor Org Limits
- Track Time
- Schema Explorer

Prerequisites



Visual Studio Code



Salesforce Command Line



Salesforce Extension Pack



Navigating Visual Studio Code

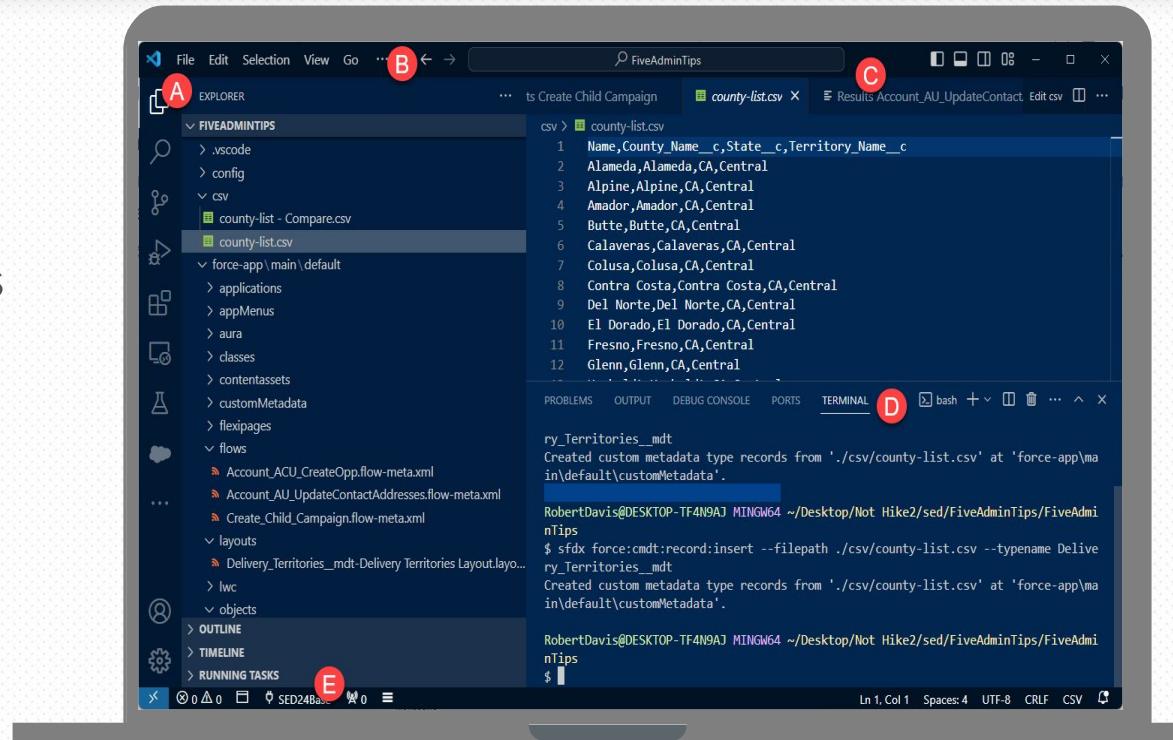
A – Activity Bar

B – Menu

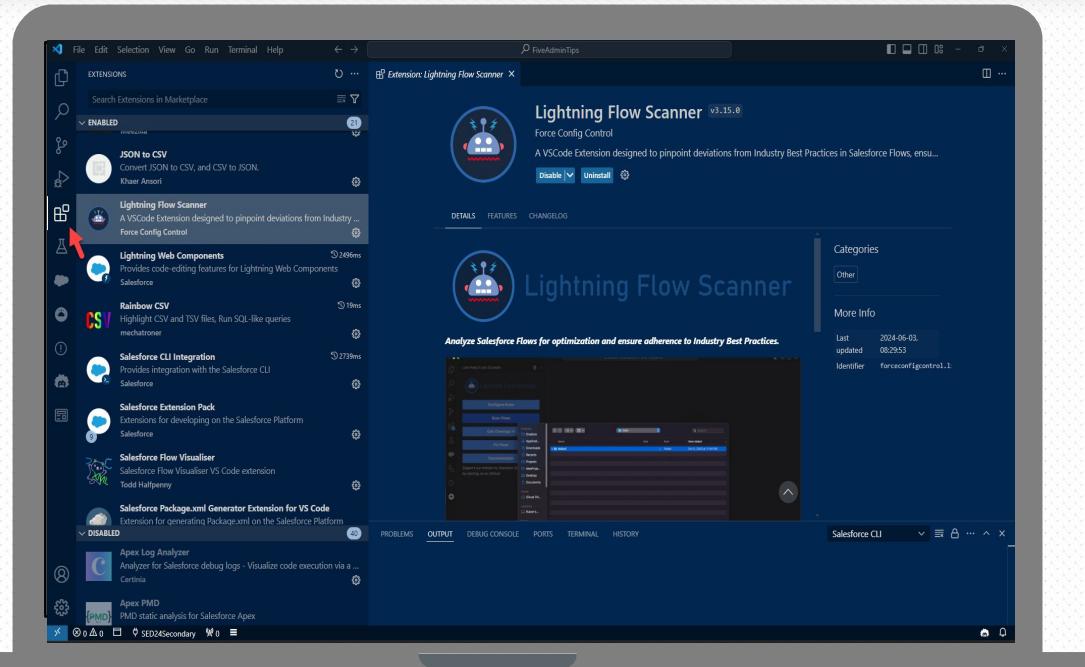
C – Editor Groups

D – Command
Line / Terminal

E - SideBar



Find Extensions



Where can I find and select extensions for installation



Retrieve

- Via Project Manifest

Right click the package.xml file and select SFDX:Retrieve Source in Manifest from Org

- Individual Metadata

- Find in Org Browser in Visual Studio Code
- Select the object and select the little cloud icon beside its name.

Deploy

- Via Project Manifest

Right click the package.xml file and select SFDX:Deploy Source in Manifest to Org

- Individual Metadata

- Right click the component and select SFDX: Deploy Source to Org

Getting Salesforce Metadata into VS Code

- Can use project manifest
- Can pull down by the Org

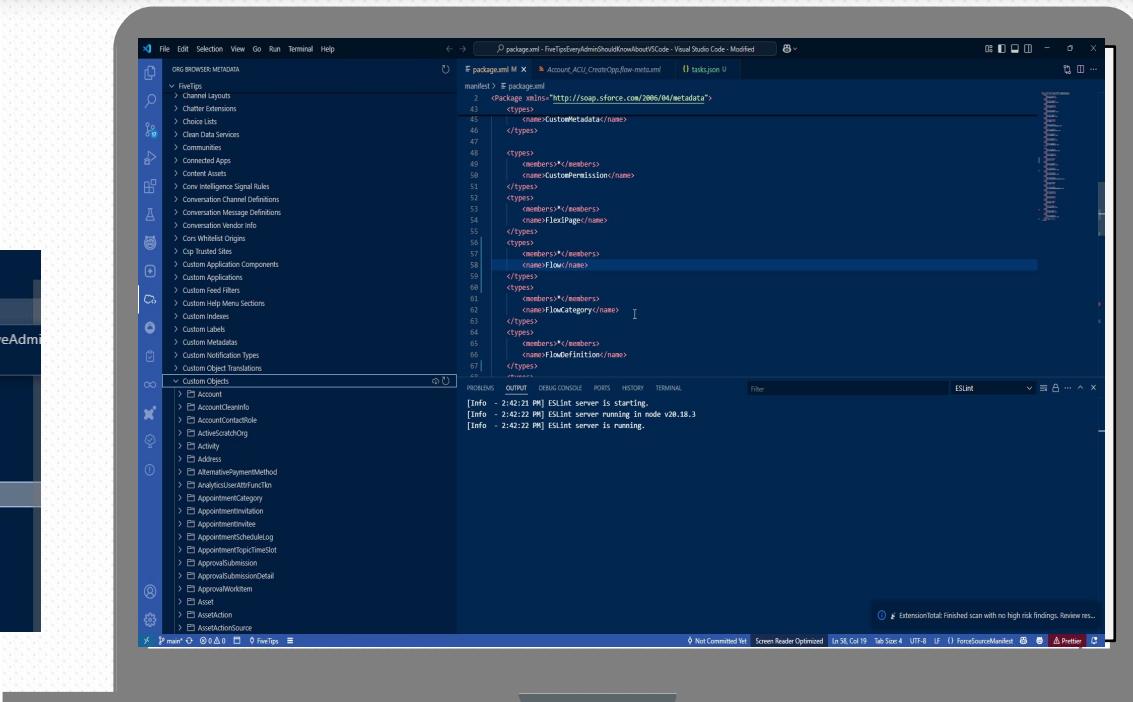
Browser

```

> quickActions
> reports
> reportTypes
> staticresources
> tabs
> triggers
> json
  { events.json
    manifest
      package.xml
        > scripts
        .forceignore
        .gitignore
        .prettierignore
        .prettierrc

```

C:\Users\RobertDavis\Desktop\Not Hike2\sed\FiveAdmins\app\main\default\reportTypes



The screenshot shows the VS Code interface with two tabs open: package.xml and Account_ACU_CreatedOpFlow-metdata.xml.

package.xml:

```

<?xml version="1.0" encoding="UTF-8"?>
<Package xmlns="http://soap.sforce.com/2006/04/metadata">
  <types>
    <type name="CustomMetadata"/>
  </types>
  <types>
    <members></members>
    <name>CustomPermission</name>
  </types>
  <types>
    <members></members>
    <name>FlexPage</name>
  </types>
  <types>
    <members></members>
    <name>Flow</name>
  </types>
  <types>
    <members></members>
    <name>FoxCategory</name>
  </types>
  <types>
    <members></members>
    <name>FlowDefinition</name>
  </types>

```

Org Browser API (Browser Screenshot):

The browser shows a list of API endpoints under the "ORG BROWSER METADATA" section. Some items are collapsed (indicated by a minus sign). The "reportTypes" endpoint is selected, showing its details:

```

C:\Users\RobertDavis\Desktop\Not Hike2\sed\FiveAdmins\app\main\default\reportTypes

```

Where Can VS Code by Used?



- Sandboxes
- Production
 - Will run all the test just like deploying with a Changeset
 - All same requirements as any other push into Production



Loading Data into Custom Metadata Objects

- Mass loading is not supported by Data Loader
- Loading in a few hundred records can be time consuming
- Usually to load territories or zips for some sort of Flow or Apex lookup
 - Country Mappings
 - Courthouse Mappings
- Command Line:
 - ```
robert.davis_hike2@HIKE2-LT026 MINGW64 ~/Desktop/hike2/IDE Projects/one-view (main)
$ fdx force:cmdt:record:insert --filepath FIVEADMINTIPS/csv/county-list.csv --typename Delivery_Territories__mdt
```
- Deploy to the Salesforce Org

# Differences in Text Files



- Large text file and you need to know if they are the same.
  - Example - troubleshooting long token
  - Example - comparing new values before uploading
- Using Visual Studio Code Extension named Diff Tool by jinsihou
  - Lots of Diff checker extensions
  - Like this one because I do not have to search for the other file like some ask
- Open the two files in VS Code
  - Control + Shift + P DiffTool Mark file 1
  - Control + Shift + P DiffTool Mark file 2
- Will get a file with differences highlighted



# SOQL



A screenshot of Visual Studio Code displaying a SOQL query and its results. The interface includes an Explorer sidebar, a SOQL Query editor, and a SOQL Query Results panel.

**SOQL Query:**

```
SELECT Id, BillingCity, BillingState
FROM Account
WHERE BillingState = 'TX'
```

**SOQL Query Results:**

| Id                 | BillingCity | BillingState |
|--------------------|-------------|--------------|
| 001aj000006AUB4AAO | Austin      | TX           |

**VS Code Status Bar:**

package.xml  
Created Create\_Child\_Campaign Flow force-app/main/default/flows/Create\_Child\_Campaign.flow-meta.xml  
Created Duplicate\_DML\_Operation Flow force-app/main/default/flows/Duplicate\_DML\_Operation.flow-meta.xml  
Unchanged HardCoded\_Id Flow force-app/main/default/flows/HardCoded\_Id.flow-meta.xml

12:37:13,993 ended SFDC: Deploy This Source to Org

- Visual Studio Code
- SOQL by Salesforce
- Easily Answer: "How many records have..."
- Easily Export to CSV or JSON

# SOQL



A screenshot of the Visual Studio Code (VS Code) interface. The top bar shows the title "SFDX: Execute SOQL Query with Currently Selected Text". The main editor area displays the following SOQL query:

```
SELECT Id, Name, (SELECT AccountId, Name, HomePhone FROM Contacts) FROM Account
```

The status bar at the bottom shows the message "Querying Data... done". Below the status bar, the output shows the results of the query:

```
001ai000006AkMeAAK_Lake_Llorrac null
```

- Open Text File
- Create a SOQL :
  - SELECT Id, Name, (SELECT AccountId, Name, HomePhone FROM Contacts) FROM Account
- Select Query
- SFDX: Execute SOQL Query with Currently Selected Text

# Flow Scanner



- Visual Studio Code Extension Lightning Flow Scanner by Force Fig Control
- Applies Standard Best practices by evaluating and surfacing
- Helps us build better flows



The screenshot shows the Lightning Flow Scanner extension running in a Visual Studio Code window. The sidebar on the left has icons for Configure Rules, Scan Flows, Calc Coverage %, Fix Flows, and Documentation. A message at the bottom encourages users to support the mission to champion Best Practices by starring the repository on GitHub. The main panel displays a table of scan results:

| # | Results | Label                             | Flow Type        | % Test ... | Details                  |
|---|---------|-----------------------------------|------------------|------------|--------------------------|
| 1 |         | Hardcoded Id                      | AutoLaunchedFlow |            | <button>Details</button> |
| 1 |         | Duplicate DML Operation           | Flow             |            | <button>Details</button> |
| 5 |         | Create Child Campaign             | AutoLaunchedFlow |            | <button>Details</button> |
| 1 |         | Account AU UpdateContactAddresses | AutoLaunchedFlow |            | <button>Details</button> |
| 4 |         | Account ACU CreateOp              | AutoLaunchedFlow |            | <button>Details</button> |
| 5 |         |                                   |                  |            |                          |

Below the table, a terminal window shows a Salesforce query:

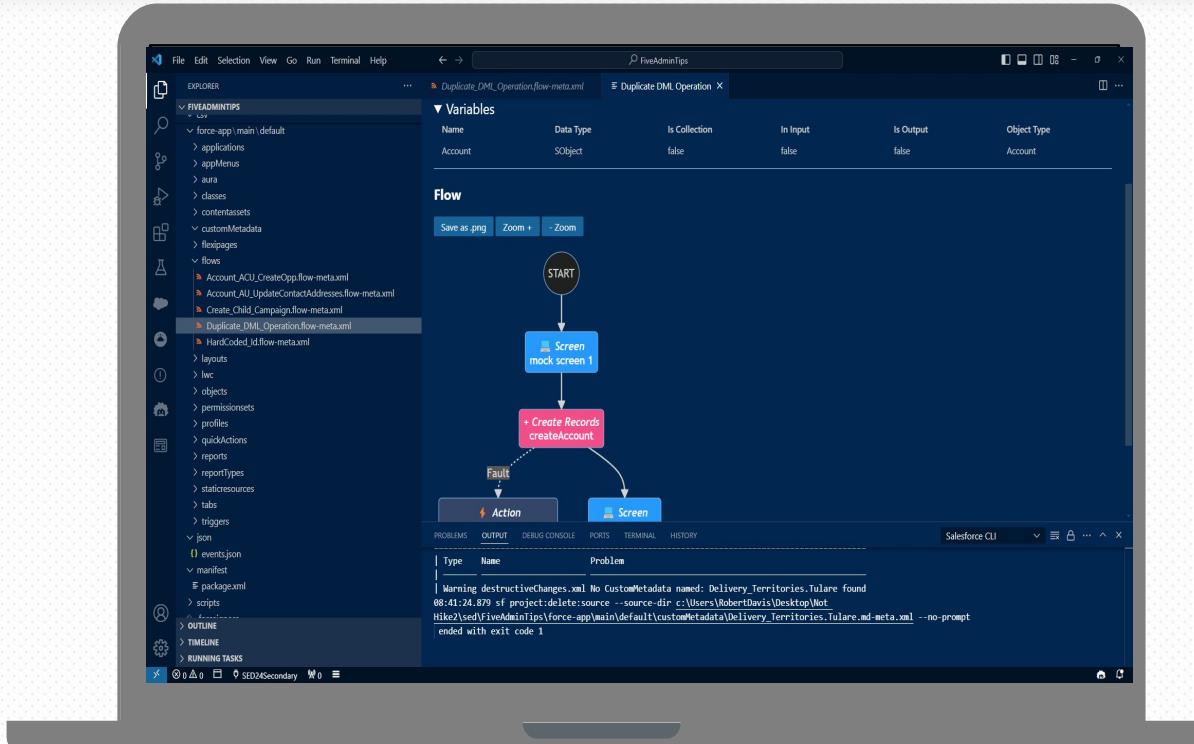
```
14:08:36.9 sf data:query -query SELECT Id, Name, (SELECT AccountId, Name, HomePhone FROM Contacts) FROM Account
Querying Data... done
```

| ID                 | NAME                                | CONTACTS.ACCOUNTID | CONTACTS.NAME | CONTACTS.HOMEPHONE |
|--------------------|-------------------------------------|--------------------|---------------|--------------------|
| 001aj000006AUB4AAO | Edge Communications                 | 001aj000006AUB4AAO | Sean Forbes   | null               |
| 001aj000006AUB5AAO | Burlington Textiles Corp of America | 001aj000006AUB5AAO | Rose Gonzalez | null               |
| 001aj000006AUB6AAO | Pyramid Construction Inc.           | 001aj000006AUB6AAO | Jack Rogers   | null               |
| 001aj000006AUB7AAO | Dickenson plc                       | 001aj000006AUB7AAO | Pat Stumller  | null               |
|                    |                                     | 001aj000006AUB7AAO | Andy Young    | null               |

# Flow Visualizer



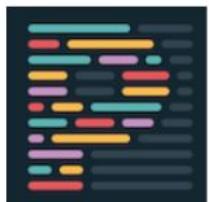
- Flow Visualizer Render Command
- Shows image of process Shows variables and formulas
- Flow Visualizer by Todd Halfpenny



# Security



- [Bleeping Computer headlines from February and March 2025](#)
- Verified Publisher
- Reviews and Ratings and Repos
- [ExtensionTotal Security](#)



## Prettier - Code formatter v11.0.0

Prettier [prettier.io](#)

50,344,694

★ ★ ★ ★ (464)

Sponsor

Code formatter using prettier

Install

Auto Update



## VSCode extensions with 9 million installs pulled over security risks

By Bill Toulas

February 26, 2025

02:10 PM

1



### Microsoft apologizes for removing VSCode extensions used by millions

By Bill Toulas

March 13, 2025

04:53 PM

8





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Thank You!

# Resources



## References

- [How to Setup Visual Studio Code](#) for Salesforce by Apex Hours
- [Quick Start: Visual Studio Code for Salesforce Development](#) by Trailhead
- [Visual Studio Code User Interface](#)
- [Mass Insert Custom Metadata Type Records](#) by SFDC Lessons
- Write [SOQL](#) Queries by Trailhead

## Extensions

- [Salesforce Package.xml Generator Extension](#) for VS Code by Vignaesh Ram A
- [Diff Tool](#) by jinsihou
- [SOQL](#) by Salesforce
- [Lightning Flow Scanner](#) by Force Fig Control
- [Flow Visualizer](#) by Todd Halfpenny

# Resources



## References

- [Extension publisher Trust](#) by Microsoft
- [Determine extension reliability](#) by Microsoft
- [Microsoft protections](#) by Microsoft
- [4/6 | Introduction ExtensionTotal : How to Assess Risk in VS Code Extensions](#) by Koi Security
- [ExtensionTotal](#) by ExtensionTotal Security

# Slides



Put in QR Code and bit.ly link

# THANK YOU

