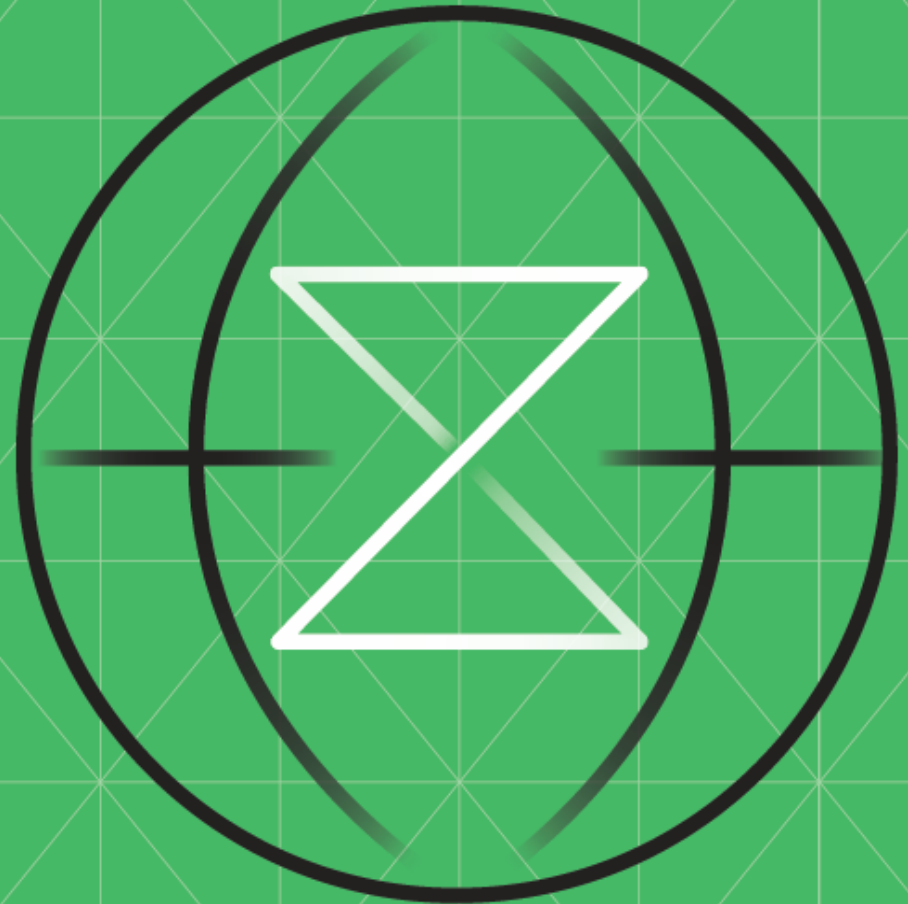


DSN1

Dataset handling with ISPF

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REVISITING ALLOCATE, COPY AND DELETE DATA SETS

The purpose of this challenge is to show you how the dataset manipulation activities you learned with VSCode in Fundamentals challenges can be achieved using a 3270 terminal and ISPF.

The Challenge

In this challenge you will become familiar with navigating ISPF. You will learn how to allocate data sets, copy members to different data sets and how to delete data sets. Along the way, you will learn ISPF short cuts and tips/tricks .

Before You Begin

Make sure you have completed TS01 and TS02. These challenges help get you set up on TS0/ISPF so you are ready to begin data set navigation

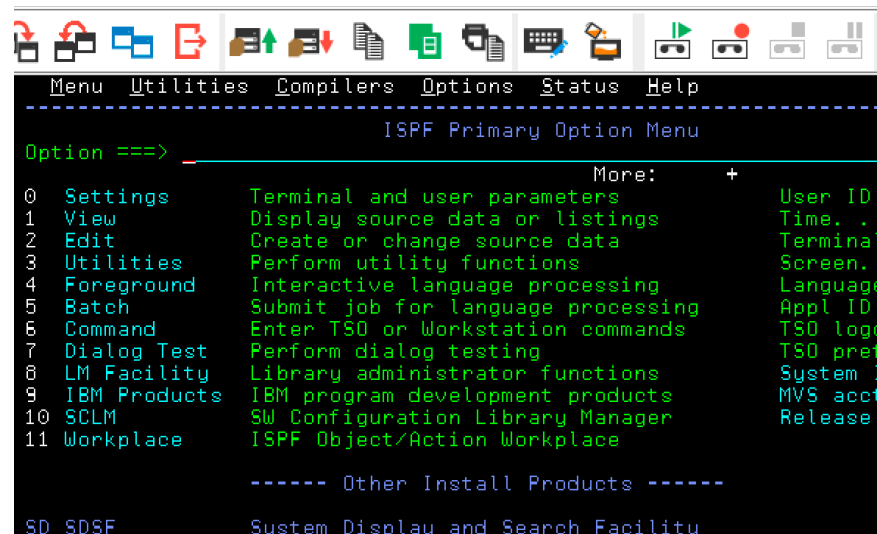
Investment

Steps	Duration
15	90 minutes

1 LET'S START FROM THE BEGINNING

Make sure you have correctly logged on to TSO with your userid and password.

Once logon completes, you should see the ISPF Primary Option Menu.



The screenshot shows a terminal window with a menu bar at the top containing icons and labels: Menu, Utilities, Compilers, Options, Status, and Help. Below the menu bar is a dashed line, followed by the title "ISPF Primary Option Menu". The main area displays a list of options, each with a number, a description, and a "More:" field with a plus sign. The options are:

Option	Description	More:
0	Settings	Terminal and user parameters
1	View	Display source data or listings
2	Edit	Create or change source data
3	Utilities	Perform utility functions
4	Foreground	Interactive language processing
5	Batch	Submit job for language processing
6	Command	Enter TSO or Workstation commands
7	Dialog Test	Perform dialog testing
8	LM Facility	Library administrator functions
9	IBM Products	IBM program development products
10	SCLM	SW Configuration Library Manager
11	Workplace	ISPF Object/Action Workplace

Below the list, there is a section titled "----- Other Install Products -----" followed by "SD SDSF" and "System Display and Search Facility".

Think of this as the ISPF “home” screen.

2 FAMILIARIZE YOURSELF

```

8  LM Facility      Library administrator functions      System ID
9  IBM Products    IBM program development products      MVS acct.
10 SCLM             SW Configuration Library Manager          Release .
11 Workplace       ISPF Object/Action Workplace

----- Other Install Products -----

SD SDSF           System Display and Search Facility
IP IPCS           Inter Problem Control Facility
IS ISMF           Inter Storage Management Facility
SM SMP/E          SMP/E and CBIPO Dialogs
HC HCD            HW Configuration Definition Dialog
R RACF            Resource Access Control Facility
S DFSORT          Data Facility Sort
OE OEDIT          OpenEdition MVS Edit files
OB OBROWSE        OpenEdition MVS Browse files
OS OSHELL         OpenEdition MVS ISPF Shell
F1=Help           F2=Split           F3=Exit           F7=Backward   F8=Forward   F
F10=Actions       F12=Cancel

a
PF1 PF2 PF3 PF4 PF5 PF6 Enter PA1 Attn Ir
PF7 PF8 PF9 PF10 PF11 PF12 Clear PA2 SysReq D
move the cursor to an unprotected position and retry the operation 204.90.1

```

Before going further, a quick review of commonly used ISPF keys on your keyboard. Not all 3270 emulator products offer a way of seeing all the keys as clickable buttons - you may need to rely on the key-caps of your physical keyboard.

ISPF COMMONLY USED KEYS	
F1	Help
F2	Split Screen
F3	End/Exit
F4	Return to Primary Option Menu
F7	Page Up
F8	Page Down

ISPF COMMONLY USED KEYS	
F9	Switch views between split screens (F2)
F10	Scroll Left
F11	Scroll Right
F12	Scroll Right
Ctrl (left side)	Resets locked keyboard

3 OPTIONS GALORE!

On the ISPF Primary Option Menu, you will notice multiple options for you to play around with in zOS.

Notice the **Option ==>** line at the top of your screen (or at the bottom - you can select where you want it to be placed). This is where you will type in your commands or use TSO commands like you did to complete the TS02 challenge.

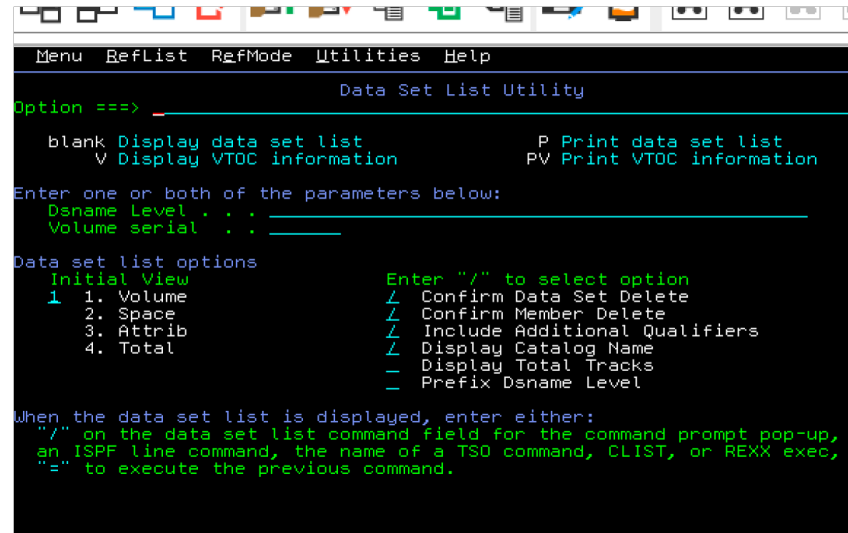
To go into an option, tab or move your cursor into the option field, and type the number of the option you would like to go to.

For this challenge, start with "Utilities" by typing **3** on the Option line, and press Enter.

```
Menu  Utilities  Compilers  Options  Status  Help
-----
Option ==> 3
More:
0 Settings      Terminal and user parameters
1 View          Display source data or listings
2 Edit          Create or change source data
3 Utilities      Perform utility functions
4 Foreground    Interactive language processing
5 Batch         Submit job for language processing
6 Command       Enter TSO or Workstation commands
7 Dialog Test   Perform dialog testing
8 LM Facility   Library administrator functions
9 IBM Products  IBM program development products
10 SCLM         SW Configuration Library Manager
11 Workplace    ISPF Object/Action Workplace
----- Other Install Products -----
```

DSN11230303-07/54

4 DIVE INTO DSLIST



```
Menu RefList RefMode Utilities Help
Data Set List Utility
Option ==>
blank Display data set list P Print data set list
V Display VTOC information PV Print VTOC information
Enter one or both of the parameters below:
Dsname Level . . :
Volume serial . . :
Data set list options
Initial View
1 1. Volume
2 2. Space
3 3. Attrib
4 4. Total
Enter "/" to select option
/ Confirm Data Set Delete
/ Confirm Member Delete
/ Include Additional Qualifiers
/ Display Catalog Name
- Display Total Tracks
- Prefix Dsname Level
When the data set list is displayed, enter either:
"/" on the data set list command field for the command prompt pop-up,
an ISPF line command, the name of a TSO command, CLIST, or REXX exec, or
"=" to execute the previous command.
```

On the Utilities panel, go into **Dslist** (Data Set List) by typing **4** on the Option line.

In the *Data Set List panel*, type **ZXP** on the “Dsname Level” line. To get there, either use the tab key, or click your cursor on the line.

5 EXPLORE SOME FAMILIAR DATASETS

```
                                Data Set List Utili
Option ==> _____

blank Display data set list
V Display VTOC information          P

Enter one or both of the parameters below:
Dsname Level . . . ZXP.PUBLIC
Volume serial . . . _____

Data set list options
Initial View
1 1. Volume
    2. Space
    3. Attrib
    4. Total
Enter "/" to
/ Confirm Da
/ Confirm Me
/ Include Ad
/ Display Ca
/ Display To
```

Once inside, scroll around the list of all the data sets using the function keys - F7, F8, F10 and F11.

Press F3 once to go back to the main Data Set List Utility screen.

Now type **ZXP.PUBLIC** on the "Dsname Level" input field and press Enter.

Notice now, that since you are more specific with our data set name, fewer data sets appear.

This is performing the same dataset filtering that you have been using in VSCode with the Zowe extension.

DSN11230303-0754

6 VIEW, EDIT, BROWSE AND MORE

```
      _end  _ptions  _view  _utilities  _omputers
DSLIST - Data Sets Matching ZXP.PUBLIC
Command ==> _____
Command - Enter "/" to select action
-----
          ZXP.PUBLIC.EXEC
          ZXP.PUBLIC.INPUT
v _      ZXP.PUBLIC.JCL
          ZXP.PUBLIC.SAMPDATA
          ZXP.PUBLIC.SOURCE
***** End of Data Set
```

When you need to drill deeper into a dataset or its members, you will type a command to the left of the dataset/member.

Select **ZXP.PUBLIC.JCL** by typing in **v** to the left of it and pressing Enter.

You are now looking at the members within ZXP.PUBLIC.JCL. Select the member **JCL2** for viewing - type **s** to its left.

Hint: If you don't see JCL2 on the first screen, you may need to scroll down through the list until you find it.

DSN11230303-07/54

7 MEMBER VIEW OR JCL2

```
1  //JCL2    JOB 1
2  //*****
3  //COBRUN  EXEC IGYWCL
4  //COBOL.SYSIN DD DSN=ZXP.PUBLIC.SOURCE(CBL0001),
5  //LKED.SYSLMOD DD DSN=&SYSUID..LOAD(CBL0001),DISP=
6  //*****
7  // IF RC = 0 THEN
8  //*****
9  //RUN      EXEC PGM=CBL0001
10 //STEPLIB  DD DSN=&SYSUID..LOAD,DISP=SHR
11 //FNAMES   DD DSN=ZXP.PUBLIC.INPUT(FNAMES),DISP=
12 //LNAMES   DD DSN=ZXP.PUBLIC.INPUT(LNAMES),DISP=
13 //COMBINED DD DSN=&SYSUID..OUTPUT(NAMES),DISP=SH
14 //SYSOUT   DD SYSOUT=*,OUTLIM=15000
```

You can now see inside this member - notice the JCL written within.

Do you remember trying to fix the DD name problem in this JCL back in the *JCL1* Fundamentals challenge?

Now press F3 or F12 as many times as needed to get you back to the “Utility Selection Panel”

8 GET FAMILIAR WITH THE OLD

Select the option for the **Data Set** panel.

You are going to allocate (create) a new data set, but before you do that, take a look at the properties of a dataset you already have.

On the "Name . . ." line, type in '**ZXP.PUBLIC.JCL**' including the single quotes, and press Enter.

```
ISPFLIBRARY
Enter Data Set Information
ISPFLIBRARY:
Project . . . _____ Enter "/" to
Group . . . _____ / Confirm
Type . . . _____

Other Partitioned, Sequential or VSAM Data Set
Name . . . . . 'zxp.public.jcl'
Volume Serial . . . _____ (If not cat
Data Set Password . . . _____ (If passwor
```

Look at the fields and values like record format, record length and block size. These are properties that make up a data set and you will be using them to create your new dataset.

To learn more details about these fields and what they mean, check out: [Allocate Data Set Options](#)

9 USE THE OLD FOR THE NEW

Press F3. You should now be back to the *Data Set Utility* screen.

In the option prompt, type *a* for “Allocate”. Tab down to *Name* and type in **new.jcl**.

Press Enter.

You should see a new screen for *Allocate New Data Set*

```
Data Set Name . . . : Z99994.NEW.JCL
Management class . . . _____ (Blank
Storage class . . . _____ (Blank
Volume serial . . . VPWRKD (Blank
Device type . . . _____ (Gener
Data class . . . _____ (Blank
Space units . . . TRACK (BLKS,
                        or RE
Average record unit _____ (M, K,
Primary quantity . . 5 (In ab
Secondary quantity 5 (In ab
Directory blocks . . 0 (Zero
Record format . . . FB
Record length . . . 80
Block size . . . 32720
Data set name type LIBRARY (LIBRA
Data set version . . : 1 EXTRE
```

Since you are creating a new data set with the same type as the dataset just viewed, the fields for the new dataset have been copied over.

You can change the fields for any new dataset you create, but for this example, just keep them the same.

Press Enter again, and you should see “Data set allocated” in the top right corner of the screen.

How do I directly access a panel?

There are multiple ways to access panels, without always having to start from the ISPF Primary Option Menu.

If you are in the ISPF Primary Option Menu: Click on an option with your cursor and press Enter
Type where you want to go on Option prompt line (example: to enter Utilities, type 3)

You can also directly access any panel without being in the ISPF Primary Option Menu. Let's say you want to access Dslist (like you did in step 4). To quickly get there, type **=3.4** in the option prompt line of your current panel or screen, to go directly to the Dslist panel.

You can (generally) do this for any option/panel combination.

10 READY, SET, LET'S COPY

```
Menu  RefList  Utilities  Help
Move/Copy Utility
Option ==>
C Copy data set or member(s)      CP Copy and print
M Move data set or member(s)      MP Move and print
Specify "From" Data Set below, then press Enter key
From ISPF Library:
Project . . . . . (--- Options C and CP only ---)
Group . . . . .
Type . . . . .
Member . . . . . (Blank or pattern for member list,
                  "*" for all members)
From Other Partitioned or Sequential Data Set:
Name . . . . .
Volume Serial . . . . . (If not cataloged)
Data Set Password . . . . . (If password protected)
```

Now that you have created a new partitioned dataset, you can fill it with members. To make this easy, copy members from an existing dataset into the new one.

Navigate to the Move/Copy option from the Utility panel.

You can do this by making your way back to the ISPF Primary Option Menu, typing in "3", and then "3" - alternatively, from whatever screen you are currently in, you can enter **=3.3** in the Option line.

You should now be in the Move/Copy Utility. You will now copy members from your **INPUT** dataset into your new dataset (**NEW.JCL**).

11 COPY IT OVER

```
Menu  RefList  Utilities  Help
Move/Copy Utility
Option ==> c
C  Copy data set or member(s)      CP Copy and print
M  Move data set or member(s)     MP Move and print
Specify "From" Data Set below, then press Enter key
From ISPF Library:
Project . . . _____ (--- Options C and CP only
Group . . . _____ . . . _____ .
Type . . . _____
Member . . . _____ (Blank or pattern for me
                        "*" for all members)
From Other Partitioned or Sequential Data Set:
Name . . . _____ 'z99994.input(*)'
Volume Serial . . . _____ (If not cataloged)
Data Set Password . . . _____ (If password protected)
```

On the option line in the Move/Copy Utility screen, type **c** for Copy.

! Do not press Enter yet !.

Tab or click over to *Name*.

Type in the dataset name '[z99994].input(*)' with single quotes. (make sure to use ****your*** userid, NOT z99994 !

Now press Enter.

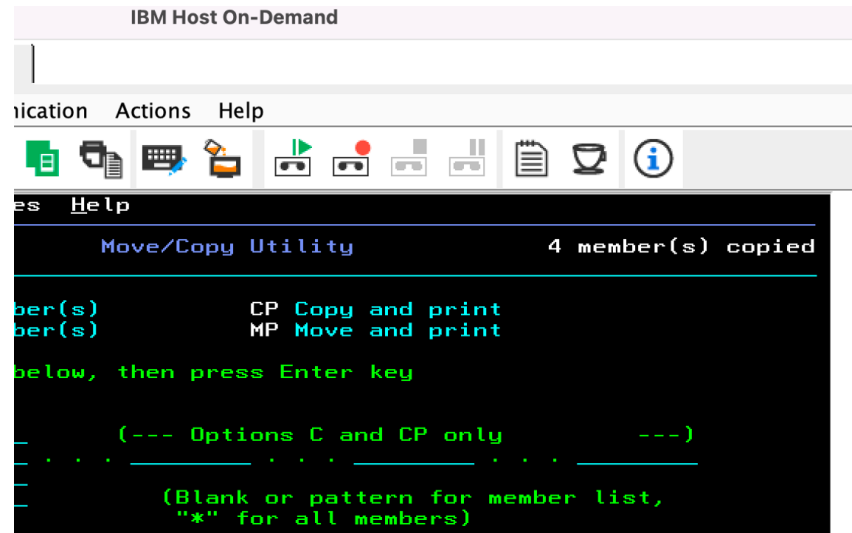
The (*) means you want to include all the members from the dataset.

You should now see a new panel that looks very similar to the previous one.

Next to *Name*, type in your newly allocated dataset '**[z99994].jcl.new**'

What is the difference between the screens? In the first screen you are stating where to copy FROM (the “source”), and the second screen is where you are copying TO (the “target”).

12 CHECK YOUR MEMBERS



Press Enter, and on the top right of your screen, you should see **X members copied** in the top right corner.

Just how many members were copied over?

If you want to check to make sure it's correct, go into the source dataset to see how many members it has.

Do you see the same members in the target dataset ?

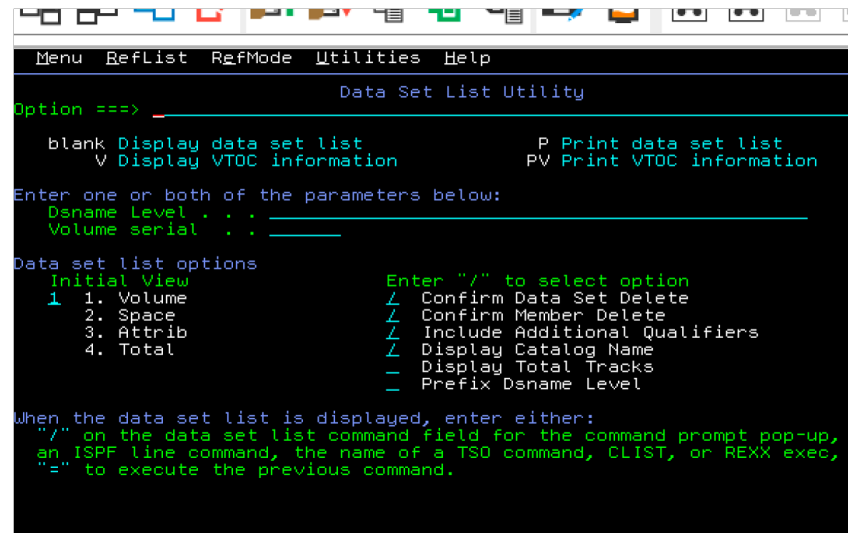
If you do, great job! You've successfully allocated a new data set and copied members from an existing dataset into it.

Now let's look at how you can delete datasets - it's simpler than you might think!

13 LET'S GO DELETING

You have created and copied datasets. Now it is time to delete a few.

Go back to the **Utility** panel and select the **Dslist** option.



```
Menu RefList RefMode Utilities Help
Data Set List Utility
Option ==>
blank Display data set list          P Print data set list
V Display VTOC information          PV Print VTOC information
Enter one or both of the parameters below:
Dsname Level . . .
Volume serial . . .
Data set list options
Initial View
1 1. Volume                          / Confirm Data Set Delete
2. Space                            / Confirm Member Delete
3. Attrib                          / Include Additional Qualifiers
4. Total                            / Display Catalog Name
                                   / Display Total Tracks
                                   - Prefix Dsname Level
When the data set list is displayed, enter either:
"/" on the data set list command field for the command prompt pop-up,
an ISPF line command, the name of a TSO command, CLIST, or REXX exec, or
"=" to execute the previous command.
```

This screen should look familiar to you, as we were here when we wanted to view a list of data sets.

14 DELETE (X3)

```
Menu Options View Utilities Compilers Help
DSLST - Data Sets Matching Z99994
Command ==>
Command - Enter "/" to select action      Mess
-----
Z99994
Z99994.COMPLETE
Z99994.INPUT
Z99994.JCL
Z99994.JCL.NEW
Z99994.KEYS
Z99994.LOAD
Z99994.OUTPUT
Z99994.SEQDS
Z99994.SOURCE
Z99994.SPFLOG1.LIST
Z99994.SURPRISE
Z99994.S0W1.ISPF.ISPPROF
Z99994.S0W1.SPFLOG1.LIST
***** End of Data Set list *****
```

In ISPF, view a list of all of the datasets that start with your userid.

To delete a dataset, put your cursor to the left of the data set you want to delete and type **d**. Wait to press Enter until you have selected the datasets you want to delete.

If not already removed, select these three data sets to delete:

- SEQDS
- KEYS
- SURPRISE

15 CHECK IT OVER, SUBMIT JCL

Press Enter twice to confirm deletion and press F3.

Again, go back into the list of all the datasets under your userid.



```
s View Utilities Compilers Help
Confirm Delete Data set deleted
=> More: +
ame . : Z99994.SURPRISE
. . : ZXPM02
ate . : 2021/07/23
to select option
a set delete confirmation off
ns:
TER to confirm delete.
a set will be deleted and uncataloged.)
NCEL or EXIT to cancel delete.
F2=Split F3=Exit F7=Backward F8=Forward
F12=Cancel
***** End of Data Set list *****
```

Do you see the data sets you just deleted? If you do, redo the last step again.

If you don't see them, great work!

You have now successfully created, populated and deleted datasets.

Now make sure you submit the validation JCL for this challenge before logging off.

On the Option line, type `tso submit 'ZXP.PUBLIC.JCL(CHKTS03)'` and press Enter.

Alternatively, enter **=3.4** on the option line, change the Dslist Level to **ZXP.PUBLIC**, view the JCL dataset, and enter **submit** next to the **CHKTS03** member.

Sometimes it can be quicker to navigate to the the dataset or member you want than to type out a command with the whole dataset name (especially if you don't know or remember the exact names required)

Nice job - let's recap	Next up ...
<p>You now understand the basics of ISPF. You learned how to navigate ISPF and short cuts to help you master the system along the way. In this challenge you allocated, copied and deleted data sets in your userid.</p> <p>You have worked your way through datasets seen on VSCode on a 3270 emulator and understand VSCode and ISPF parallelism.</p>	<p>Go and check out the other TSO challenges and Extended modules for your continued journey on IBM Z Xplore.</p>