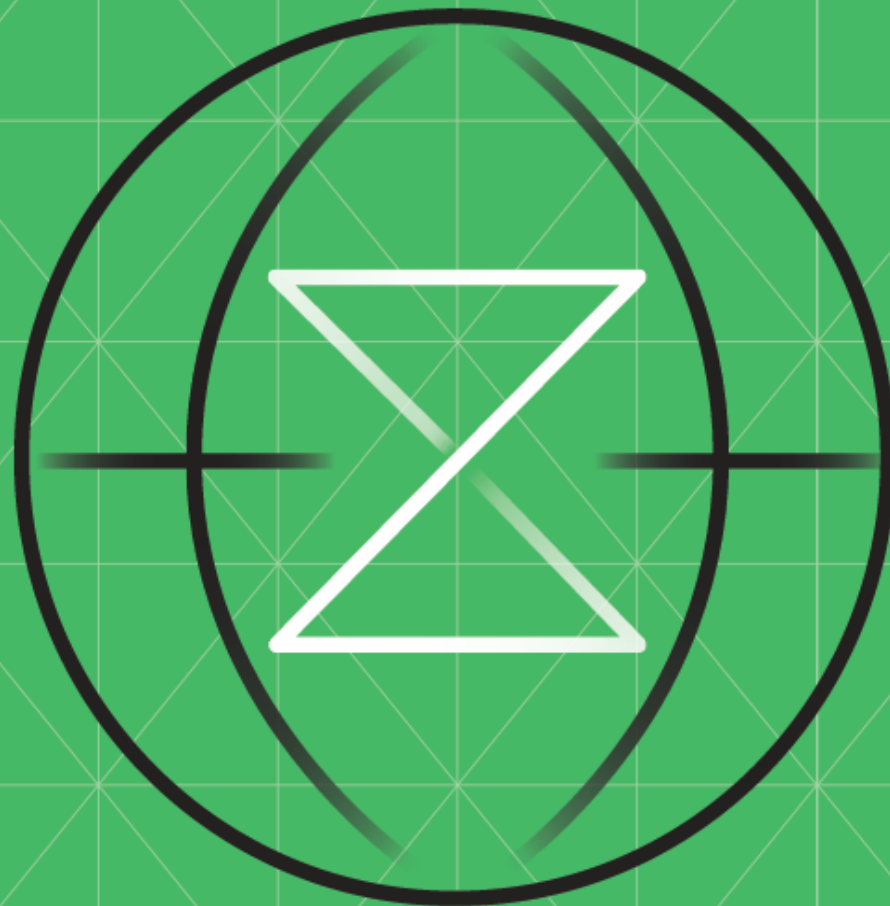


RACF2

Dive deeper into z/OS security

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CONTINUED JOURNEY ON RACF

Building off the fundamentals learned in RACF1 and diving deeper into the journey of becoming a RACF administrator.

THE CHALLENGE

In this challenge, we will continue to develop your knowledge in RACF while introducing you to new terms like groups and ICH408I errors.

BEFORE YOU BEGIN

Make sure you have completed RACF1. You will also be using a 3270 terminal for this challenge and Db2. If you have not completed the TS0 or Db2 challenges, please complete those first.

INVESTMENT

Steps	Duration
06	90 minutes

1 RACF ADMINISTRATION

In the last challenge, you learned about subjects vs. objects and how to set up profiles for data sets and users.

Our goal for these RACF challenges is to introduce you to a lot of RACF encompasses and learn about what a RACF administrator can do.

While we can't offer you full access to be your own RACF admin on this IBM zSystems, we hope to provide you that access in the near future with more RACF challenges.

1.1 UNTIL THEN...

We are going to build upon what you have learned in the first challenge while providing new information on RACF. Let's get started!

RACF|230222-1424

2 LET'S GO ON A SCAVENGER HUNT

In this challenge, we are going to put together a lot of the things you have learned in the previous RACF challenge as well as other challenges like TS0 and Db2. For this scavenger hunt, we will playing off of two characters, Mr. Peabody & Sherman.

2.0.1 Here Are Your Overall Steps For The Challenge:

Steps	Description
1	Use RACF to discover which groups you are a part of and which objects you have access to
2	Figure out why you can't access certain data sets and learn how to gain access rights through RACF
3	Finish the scavenger hunt and submit your CHKRACF2 job

RACF2|230222-1424

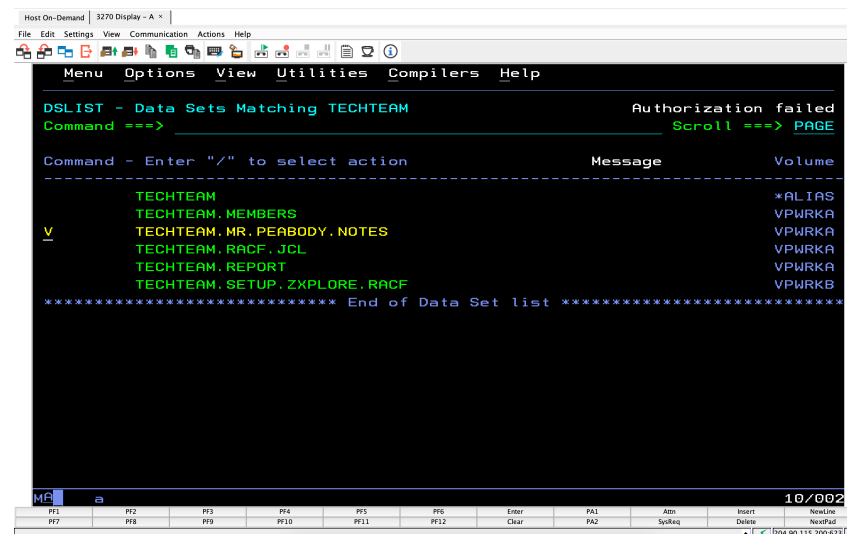
3 PART 1: FIGURE OUT ACCESS FAILURE REASONING

Mr. Peabody is the senior RACF administrator. Sherman (you), is an early career hire and is being mentored by Mr. Peabody to be a RACF administrator.

3.0.1 [TAKE ACTION]

To begin your training, Mr. Peabody tells you to view his notes that can be found under `TECHTEAM.MR.PEABODY.NOTES`.

You will find you might not be able to view these notes...why?



The screenshot shows a mainframe terminal window titled 'Host On-Demand | 3270 Display - A x'. The window has a menu bar with 'Menu', 'Options', 'View', 'Utilities', 'Compilers', and 'Help'. The main display area shows the following text:

```
DSLLIST - Data Sets Matching TECHTEAM          Authorization failed
Command ==>                                     Scroll ==> PAGE

Command - Enter "/" to select action          Message          Volume
-----
          TECHTEAM                           *ALIAS
          TECHTEAM.MEMBERS                   VPMRKA
          TECHTEAM.MR.PEABODY.NOTES          VPMRKA
          TECHTEAM.RACF.JCL                  VPMRKA
          TECHTEAM.REPORT                    VPMRKA
          TECHTEAM.SETUP.ZXPLORE.RACF        VPMRKB
          ***** End of Data Set list *****
```

At the bottom of the window, there is a status bar with the text '10/002' and a table of function keys (PF1 through PF12) and their corresponding actions (Enter, Clear, Attn, Insert, Delete, NewLine, NextPage).

Your first step is to look in the SDSF log to discover what your error was and why.

Hint: You will be working with ICH408I. Once you gain access into Mr. Peabody's notes, you will learn more about ICH408I and its importance with RACF.

3.1 YOUR TASKS:

1. View system log
2. Type `bottom` then `f 'ICH408I' prev`
3. Find your-zid with the ICH408I message (RACF violation) and read about it (hint: f5 to repeat find)
4. Observe the value for `ACCESS ALLOWED` for your-zid

4 PART 2: USE RACF GROUP PERMISSIONS TO GAIN ACCESS

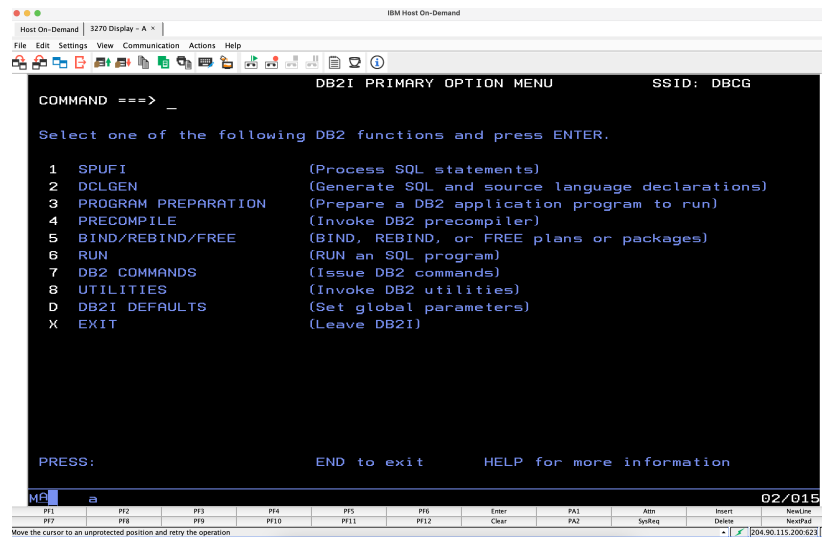
Even though you have discovered why you couldn't access Mr. Peabody's notes, it doesn't change the fact that you still need to view his notes to learn and complete the challenge!

How do we do this?

We are going to use Db2 and SQL on ISPF.

4.1 YOUR TASKS:

- Type `=d2` in command line. This will take you to the Db2 Primary Option Menu. You've worked with Db2 in VS Code, here is a different view with ISPF.
- Look at your SSID in top right. This is your DB2 name. We want it to say DBCG. Change it to say DBCG in the global perimeters.
 1. Type `D` for default
 2. Find `DB2 Name`
 3. Change accordingly



- Process a SQL statement using SPUFI so you gain access to Mr. Peabody's data sets

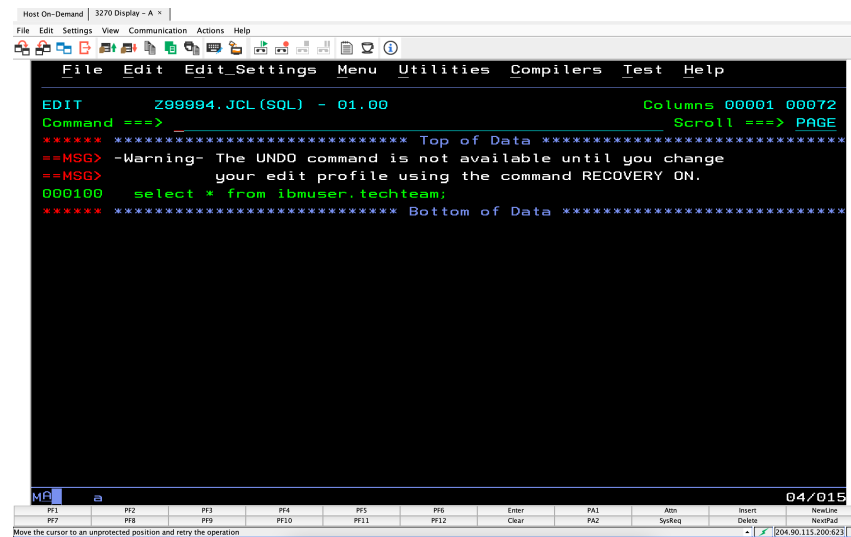
In DB2 Primary Option Menu, type which number will bring you to SPUFI. Then type the below in each respective section:

1. Data Set Name Input = JCL(SQL)
2. Data Set Name Output = DB2OUT
3. Change Defaults = NO
4. Hit enter twice

- You have now created a new member in your JCL data set.

Edit this data set by adding in two lines:

```
set current schema ibmuser;
select * from techteam;
```

TECHTIP:

In the screenshot above, I used a different command that gets the same results you will. The schema name is a short SQL identifier used as a qualifier in the name of schema objects and creates a logical grouping of these objects. You are setting your schema to `ibmuser` so that any future commands you run in SQL will know that is where you want to pull from. If you do not set the schema (like in the screenshot above), you will have to make sure you are specifying what data set you are pulling from. Otherwise, not setting the schema and saying `'select * from techteam'` will result in pulling from `your-zid.techteam`.

- Save and follow the steps at the bottom of your 3270 screen to run the SQL statement.
- View the instructions produced by the SQL statement. These instructions will tell you how to complete the rest of the scavenger hunt and successfully complete RACF2 challenge.

NOTES/HINTS:

- On the backend, we created the SQL statement for you to run. All you have to do is type in the right statement.

- Data Set Name Input: This is where we are putting the SQL statement you run. We used JCL because we know that every user has a JCL data set (ex. Every user has a zID.JCL data set). Once you run the SQL statement, you will find a member named SQL inside your-zid.JCL data set.

Remember: JCL(SQL) format is Data set(member)

- Data Set Name Output: This is where we are going to store the output of the SQL statement you run. If at any time, you want to view the output again (aka the instructions to successfully complete the scavenger hunt), you can go to `your-zid.DB2OUT` to see it again.

5 IF YOU GET STUCK:

- Go back to `your-zid.DB20UT` to view the instructions again.
- If you cannot view Mr. Peabody's data sets (in 3.4), make sure you ran `tso techteam` and answered the question correctly.
- Read Lessons 1 & 2 in Mr. Peabody's notes.

Lesson 1: A review of what you learned in RACF1

Lesson 2: Teaches you about ICH408I and its importance/meaning in RACF.

- For the final quiz, Lesson 1 and 2 will provide you with everything you need to know.
- To deepen your knowledge on RACF, look around at the other data sets within Mr. Peabody's Notes.

Looking towards the future:

- IBM Z Xplore Admin are working on providing you a system where you can be a RACF administrator and create security from scratch yourself
- In `TECHTEAM.SETUP`, you will view a lot of different things on how we set up IBM Z Xplore security. This includes everything we have to do to meet IBM production standards for the system so you can use IBM zSystems.

Example: You can see how your ID was created in the MAKEZID

Nice job - let's recap	Next up ...
You have dived deeper into RACF and have learned about one of the most common authorization errors, ICH408I.	Complete more Extended and Advanced challenges and stay tuned for more opportunities to learn about RACF.