

Appendix
B

WORKSHOP

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1 Running a Simple Job

Exercise 1

1. Create JCL, submit it for processing, and review the results.
 - 1.1. The JCL will contain one step that copies data contained in the jobstream (in-stream data) to the printer.
2. In order to examine the results, use Outlist (option 3.8 in ISPF), SDSF, IOF or EJES.
3. The single step should use the utility IEBGENER to copy from the in-stream data to a printer.
4. The input dataset for ddname SYSUT1 is in-stream and will contain the following data:

RECORD 1 TEST IN-STREAM DATA
RECORD 2 TEST IN-STREAM DATA
RECORD 3 TEST IN-STREAM DATA
5. The output needs to be sent to the system TSO held queue.
 - 5.1. Each installation will have a different queue letter.
 - 5.2. It will be necessary to determine the SYSOUT queue letter for the TSO held queue at the installation.
6. Ensure that the JOB card includes the appropriate parameters for the installation; especially the CLASS and MSGCLASS.
7. Upon completion of the exercise, delete all the held output.

Exercise 2

1. Create a two step job.
 - 1.1. Each step will use the IEBGENER utility.
2. The first step copies uid.SYSED.DATA into uid.SYSED2.DATA.
 - 2.1. Both datasets are existing datasets.
3. The second step copies in-stream data into uid.SYSED2.DATA.
 - 3.1. It overwrites the existing data.
4. Confirm that both steps have executed successfully.

2 Using Existing Datasets

Exercise 1

1. Code and execute the JCL to list the contents of a catalog for a TSO high level qualifier.
 - 1.1. Perform this using the IEHLIST utility.
2. In the input control card, specify the disk drive volume where the dataset resides.
 - 2.1. This information can be obtained from 3.4 in ISPF.
3. Display the results to the TSO held queue.

Exercise 2

1. Code and execute the JCL for concatenating two datasets and print all the records in both datasets.
2. Perform this using the IEBGENER utility.
 - 2.1. The input will be the two datasets supplied in the course setup instructions.
3. The output will be the TSO held queue.

3 Creating Datasets

Exercise 1

1. Create a set of JCL which performs the following:

Step 1:

- 1.1. Use IEFBR14 to create a new disk dataset with the following characteristics:

```
Data Set Name: uid.FUNDS.DATA
Disposition: Cataloged data set.
Space: 10 tracks primary space.
       5 tracks secondary space.
Attributes: Record length is 110, block size should be determined
by the operating system.
Every record is a fixed size.
```

Step 2:

- 1.2. Use IEBGENER to load 5 records into the file.
The first 5 characters of the content will be the identifying key to the record.

Step 3:

- 1.3. Sort the file with the Funds data on the first 5 characters in ascending order and store it into a new dataset.

Step 4:

- 1.4. Print the sorted new dataset using IEBGENER.

Step 5:

- 1.5. Delete the sorted new dataset.

4 Non-sequential Dataset

Exercise 1

1. Use IEHLIST to display a list of all the members in the PDS.
2. Use IEBCOPY to compress the dataset.
3. Use IEBGENER to print a single member in the PDS.
4. Use the IEBCOPY utility to copy a single member from _____ into a new second dataset _____.
 - 4.1. If the member exists in the second dataset, replace it.
 - 4.2. The new dataset should be a PDS with 10 directory blocks and the same attributes as the input dataset.
5. In another step, compress the output dataset.
6. List the VTOC for volume _____.
7. Use IEHPROGM to delete a single file from the volume.
 - 7.1. The name of the dataset to be scratched is _____.
8. Create a stream of JCL to perform the following:
9. Use IEFBR14 to create a PDS with the following attributes:

Record length: 80
Block size: Determined by the operating system.
Space: 20 tracks primary space.
10 tracks secondary space
Directory entries: 40
10. Use IEBGENER to create a member in the PDS.
 - 10.1. The content of the member should be a few records.
11. Make a determination on and provide the values in the records.
 - 11.1. List all members in a PDS using IEHLIST.
 - 11.2. The PDS name is _____ and the volume is _____.

Exercise 2

1. Create a stream of JCL to perform the following six tasks:
 - 1.1. Create a VSAM KSDS with the following characteristics:

Record Length: 100
Key position 1-5
Ten tracks primary, zero tracks secondary

- 1.2. Load the VSAM dataset with data.

The data should have key data that is unique and sorted.
Use this sample data:

```
11111Turkey
22222Greece
33333London
44444Ireland
```
- 1.3. Print all records in the VSAM dataset using IDCAMS.
- 1.4. Print the first records in the VSAM dataset using IDCAMS.
- 1.5. Delete a single record in the VSAM dataset using IDCAMS.
- 1.6. Delete the entire VSAM dataset.

5 Running Complex Jobs

Exercise 1

1. Code a JOB that has the following characteristics:
 - 1.1. In the JOB card, limit the amount of CPU processing to 10 seconds.
 - 1.2. In the JOB card, limit the amount of memory to 4 megabytes.
 - 1.3. The job only has to run an IEFBR14 in a single job step.
2. Execute the job.
3. Rerun the job and scan for syntax error.
4. Submit the job; but do not execute it.

Exercise 2

1. Create a job that performs the following:
 - 1.1. Create a new dataset.
 - 1.2. Use IEBGENER to load the dataset within-stream data.
 - 1.3. Use IEBGENER to backup the dataset to another new dataset.

Exercise 3

1. Using the JCL stream from the previous exercise, restart the job from the sequence - 1.3.
 - 1.1. Delete the dataset: _____.
 - 1.2. Recreate the dataset _____ with these attributes:

VSAM KSDS
11 character key starting in the first column.
Fixed record length of 163.
One cylinder of primary and one cylinder of secondary space.

2. Load the VSAM dataset with the contents of _____.
3. Run a LISTCAT on the VSAM dataset and display all the attributes.

6 Procedures

Exercise 1

1. Code an in-stream procedure that will perform the following tasks.
 - 1.1. Use IEFBR14 to create a new dataset with the following characteristics:

Record Length: 80
Record format: fixed
Block size determined by the operating system.
Primary space should be a symbolic variable with a default of 5.
Space units should be tracks.
Dataset name should have a symbolic variable for the high level qualifier.

- 1.2. Use IEBGENER to populate the new dataset created in 1.1.
 - 1.2.1. Use a DD override to SYSUT1 to supply the data.
- 1.3. Use IEBGENER to print the dataset.
 - 1.3.1. Set the region of this step with an EXEC override.
- 1.4. Print all the members in the PDS that are being stored in the JCL.
 - 1.4.1. Use the IEBPTPCH utility.
 - 1.4.2. This job will be comprised of five steps:

Step 1	Create a GDG using IDCAMS. The GDG will have a limit of 3 entries and will scratch the oldest entry.
Step 2	Use the IEBGENER utility and copy the data into a new generation in a GDG.
Step 3	Use IEBGENER to backup into another generation the dataset that has been created.
Step 4	Use IEBGENER to backup into another generation the dataset created in the previous step.
Step 5	Perform a LISTCAT of the GDG.