**Lab 4 - Chapter 7 Batch processing and the job entry subsystem (20 marks)**

**7.9.2 Using a utility program in a job**

z/OS has a utility program named IEBGENER to copy data. It uses four DD statements:

* SYSIN for control statements. We can code DD DUMMY for this statement, because we do not have any control statements for this job.
* SYSPRINT for messages from the program. Use SYSOUT=\* for this lab.
* SYSUT1 for the input data.
* SYSUT2 for the output data.

The basic function of the program is to copy the data set pointed to by SYSUT1 to the data set pointed to by SYSUT2. Both must be sequential data sets or members of a library.

The program automatically obtains the data control block (DCB) attributes from the input data set and applies them to the output data set. Write the JCL for a job to list the *yourid*.JCL(TEST1) member to SYSOUT=\*. Your JCL should contain a JOB card as well with the NOTIFY=&SYSUID parameter.

Copy and paste the JCL from your completed *yourid*.JCL(TEST1) member (6 marks).

000001 //KC03CCA JOB 1,'YUHSUAN',NOTIFY=&SYSUID

000002 //STEP1 EXEC PGM=IEBGENER

000003 //SYSIN DD DUMMY

000004 //SYSPRINT DD SYSOUT=\*

000005 //SYSUT1 DD DISP=SHR,DSN=KC03CCA.JCL(TEST4)

000006 //SYSUT2 DD SYSOUT=\*

**7.9.3 Examining the TSO logon JCL**

The password panel of the TSO logon process contains the name of the JCL procedure used to create a TSO session. There are several procedures with different characteristics. At Marist these JCL procedures can be found in 'SYS1.MARIST.PROCLIB'.

Look at the IKJACCNT and answer the following questions.

What is the name of the basic TSO program that is executed? (1 mark)

IKJEFT01

Why are there so many DD statements? Notice the concatenation. (1 mark)

These DD statements are used to reference to the data set name.

**7.9.4 Exploring the master catalog**

Go to ISPF option 6 and perform the following steps:

1. Use a LISTC LEVEL(SYS1) command for a basic listing of all the SYS1 data sets in the master catalog. Note that they are either NONVASM or CLUSTER (and associated DATA and INDEX entries). The CLUSTERs are for VSAM data sets. Copy and paste the first few lines of the LISTC output. (1 mark)

NONVSAM ------- SYS1.AACBCNTL

IN-CAT --- MASTERV.CATALOG

NONVSAM ------- SYS1.AADFMAC1

IN-CAT --- MASTERV.CATALOG

NONVSAM ------- SYS1.AADRLIB

IN-CAT --- MASTERV.CATALOG

NONVSAM ------- SYS1.AADRYLIB

IN-CAT --- MASTERV.CATALOG

NONVSAM ------- SYS1.AAXREXEC

IN-CAT --- MASTERV.CATALOG

2. Use the PA1 (Esc) key to end the listing.

3. Use a LISTC LEVEL(SYS1) ALL command for a more extended listing.

Note the VOLSER and device type data for the NONVSAM data sets. This is

the basic information in the catalog. Copy and paste all the information for a single NONVSAM data set. (1 mark)

NONVSAM ------- SYS1.AACBCNTL

IN-CAT --- MASTERV.CATALOG

HISTORY

DATASET-OWNER-----(NULL) CREATION--------2014.303

RELEASE----------------2 EXPIRATION------0000.000

ENCRYPTIONDATA

DATA SET ENCRYPTION-----(NO)

VOLUMES

VOLSER------------VDMVSB DEVTYPE------X'3010200F' FSEQN---------

---------0

ASSOCIATIONS--------(NULL)

ATTRIBUTES

4. Use LISTC LEVEL(yourid) to view your cataloged datasets. What is the user catalog your datasets are cataloged in? (1 mark)

USERCAT.KCTR2

**7.9.5 Using SDSF**

From the ISPF Primary Option Menu, locate and select the System Display and Search Facility (SDSF). This utility allows you to display output data sets. The ISPF Primary Option Menu typically includes more selections than those listed on first panel, with instructions about how to display the additional selections.

Submit the IEBGENER JCL job you created in 'yourid.JCL(TEST1)'. This will provide a job listing for these exercises.

While viewing the output listing, assume that you want to save it permanently to a data set for later viewing. At the command input line, enter PRINT D. A window prompts you to enter a data set name in which to save it. You can use an already existing data set or create a new one.

For this example, create a new data set by entering 'yourid.IEBGENER.LIST'. In the disposition field, enter NEW. Press Enter to return to the previous panel. Note that the top right of the panel displays PRINT OPENED. This means you can now print the listing. On the command input, enter PRINT. Displayed at the top right of the panel will be the number of lines printed (xxx LINES PRINTED). This means the listing has now been placed in the data set that you created. On the command line, enter PRINT CLOSE. At the top right of the panel, you should now see PRINT CLOSED.

Now let us look at the data set you created, '*yourid.*IEBGENER.LIST', and view the listing. Go to =3.4 and enter your user ID. A listing of all your data sets should appear. Locate '*yourid*.IEBGENER.LIST' and enter a B next to it in the command area. You should see the listing exactly as it appeared when you were using SDSF. Copy and paste all of the text from the first View/Browse screen that is displayed. (2 marks)

BROWSE KC03CCA.IEBGENER.LIST Line 0000000000 Col 001 080

Command ===> Scroll ===> PAGE

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Top of Data \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

J E S 2 J O B L O G -- S Y S T E M 2 9 6 4 -- N O D E

09.35.54 JOB08368 ---- WEDNESDAY, 17 MAR 2021 ----

09.35.54 JOB08368 IRR010I USERID KC03CCA IS ASSIGNED TO THIS JOB.

09.35.54 JOB08368 ICH70001I KC03CCA LAST ACCESS AT 09:33:16 ON WEDNESDAY, MARC

09.35.54 JOB08368 $HASP373 KC03CCAS STARTED - INIT 2 - CLASS A - SYS

09.35.54 JOB08368 $HASP395 KC03CCAS ENDED - RC=0000

------ JES2 JOB STATISTICS ------

17 MAR 2021 JOB EXECUTION DATE

6 CARDS READ

83 SYSOUT PRINT RECORDS

0 SYSOUT PUNCH RECORDS

8 SYSOUT SPOOL KBYTES

0.00 MINUTES EXECUTION TIME

1 //KC03CCAS JOB 1,'YUHSUAN',NOTIFY=&SYSUID

IEFC653I SUBSTITUTION JCL - 1,'YUHSUAN',NOTIFY=KC03CCA

2 //STEP1 EXEC PGM=IEBGENER

3 //SYSIN DD DUMMY

4 //SYSPRINT DD SYSOUT=\*

5 //SYSUT1 DD DISP=SHR,DSN=KC03CCA.JCL(TEST4)

6 //SYSUT2 DD SYSOUT=\*

ICH70001I KC03CCA LAST ACCESS AT 09:33:16 ON WEDNESDAY, MARCH 17, 2021

IEFA111I KC03CCAS IS USING THE FOLLOWING JOB RELATED SETTINGS:

SWA=ABOVE,TIOT SIZE=32K,DSENQSHR=DISALLOW,GDGBIAS=JOB

IEF236I ALLOC. FOR KC03CCAS STEP1

You can now return to SDSF ST and purge (P) your listing, because you now have a permanent copy.

Return to the main SDSF panel and enter LOG to display a log of all activity in the system. Here, you can see much the information that the Operations Staff might see. For example, at the bottom of the list, you might see the outstanding Reply messages to which an operator can reply. Enter /D R,R,CN=(ALL) to display outstanding messages for all consoles. Note that operator commands from the SDSF LOG command must be preceded by a forward slash (/) so that it is recognized as a system command.

Scroll to the bottom to see results. Copy and paste the results of the command. (1 mark)

RESPONSE=S0W1

IEE112I 09.47.21 PENDING REQUESTS 175

RM=0 IM=0 CEM=0 EM=0 RU=0 IR=0 NOAMRF

NO MESSAGES OUTSTANDING

Now, enter M in the command input and press F7; this will display the top of the log. Type F and your user ID to display the first entry associated with your user ID. Most likely this will be when you logged onto TSO. Next, enter F *youridX*, where X represents one of the jobs you submitted above. Here you should see your job being received into the JES2 internal reader, and following that a few lines indicating the status of your job as it runs. Perhaps you might see a JCL error, or *youridX* started | ended.

Copy and paste the message indicating your job is being received into a JES2 internal reader. (1 mark)

$HASP100 KC03CCAM ON INTRDR YUHSUAN FROM TSU09747

KC03CCA

IRR010I USERID KC03CCA IS ASSIGNED TO THIS JOB.

ICH70001I KC03CCA LAST ACCESS AT 02:57:02 ON THURSDAY, MARCH 18, 2021

$HASP373 KC03CCAM STARTED - INIT 2 - CLASS A - SYS 2964

$HASP395 KC03CCAM ENDED - RC=0000

SE '03.12.51 JOB09836 $HASP165 KC03CCAM ENDED AT SVSCJES2 MAXCC=0000',

LOGON,USER=(KC03CCA)

Enter ULOG from the SDSF Primary Options Menu to display your user log. The responses to any operator commands you enter will be displayed here. From the ULog panel enter the following operator commands and answer the following questions from using the response messages displayed.

**/D A,L -** This lists all active jobs in the system. What is the maximum number of VTAM users allowed? (1 mark).

100

**/D U,,,A80,24** This lists currently online DASD VOLUMES. What is the Unit address and device type of the first unit displayed? (2 marks)

UNIT TYPE STATUS VOLSER VOLSTATE SS

0B00 3390 F-NRD /RSDNT 0

**/D PARMLIB** - displays the PARMLIB concatenation at IPL time. How many datasets were defined in the PARMLIB concatenation? (1 mark)

4 DATA SETS

ENTRY FLAGS VOLUME DATA SET

1 S VPMVSD VENDOR.PARML

2 S VTMVSG SVTSC.PARMLI

3 S VTLVL0 LVL0.PARMLIB

4 S VIMVSB SYS1.PARMLIB

**/D IPLINFO** - displays information about the last time the system was IPLed. What is the address and volume serial number of the device used to IPL the System? (1 marks).

IPL DEVICE: ORIGINAL(01000) CURRENT(01000) VOLUME(VIMVSB)