**CICS**

**What is CICS:**

* **CICS (Customer Information Control System).** CICS is like an interface that is used to perform different transactions.
* It is a transaction processing system on z/OS.
* CICS is used to run application online.
* Many users can use the online application at the same time.
* Some common examples of CICS applications are Airline Ticket booking, ATM money withdrawal etc.
* CICS programs can be written in COBOL, JAVA, C, C++ etc. In this course we will use COBOL programs in CICS.
* BMS Maps work as the front end of the CICS applications. They are sent to the user using a program.
* A Transaction is started by giving a keyword on the CICS region.
* A transaction can be upto 4 letters in length.
* This keyword is linked to a program. Once the keyword is entered on the CICS region, the program linked to it will start executing.
* The application is now running and can be used for Airline booking, ATM money withdrawal etc.

**Create BMS Mapset:**

* BMS mapset is used to create screens on CICS application.
* Open PDS member, where we will create a mapset and the LRECL of the file should be 80.
* Mapset name can be max 7 characters.
* Map is similar like HTML, instead it is written in assembler code like HTML is written in HTML code.
* Parameters while creating mapset:
  + **HELOMAP:** Name of mapset
  + **DFHMSD:** MSD means Mapset definition. Defines starting and ending of the map
  + **X:** Is used for continuation
  + **HELLO:** Name of map
  + **DFHMDI:** This means our map is starting from here
  + **SIZE:** Size of map (rows, columns), (24,80) i.e full screen
  + **DFHMDF:** We are defining a field on the CICS screen
  + **ATTR=PROT:** Attribute is Protected, that means the ‘Hello World’ that is displayed we cannot overwrite it.

**HELOMAP DFHMSD TYPE=&SYSPARM, MODE=INOUT, TERM=3270, CTRL=FREEKB, X**

**STORAGE=AUTO, LANG=COBOL, TIOAPX=YES**

**HELLO DFHMDI SIZE=(24,80), LINE=1, COLUMN=1**

**DFHMDF POS=(1,1), INITIAL=’HELLO WORLD’, LENGTH=11, X**

**ATTR=PROT**

**DFSMSD TYPE=FINAL**

**END**

**Compile BMS Mapset:**

**//JOBCARD**

**//\***

**//PROCLIB JCLLIB ORDER=DFH320.CICS.SDFHPROC /\*Varies from system to system\*/**

**//STEP1 EXEC PROC=DFHMAPS, /\*Proc used to compile Maps\*/**

**// MAPNAME=’HELOMAP’ /\*Symbolic parameter\*/**

**// INDEX=’DFH320.CICS’**

**// MAPLIB=’DFH320.CICS.SDFHLOAD’ /\*Physical map (load mod) is stored\*/**

**// DSCTLIB=’DFH320.CICS.SDFHMAC’ /\*Symbolic map (copybook) stored\*/**

**//COPY.SYSUT1 DD DISP=SHR,DSN=NUHID.XXX.XXX(HELOMAP)**

**//SYSPRINT DD SYSOUT=\***

* **DFHMAPS:** (This is a procedure)
  + This proc is used to compile a map.
  + It creates physical map (load module) that contains executable codes.
  + It also creates a symbolic map (copybook) that contains the copybook of the BMS mapset created. We will use this copybook in our application program.

**Define, Install and Send a Mapset in CICS Region:**

* Give CICS command on start page
* To run this BMS mapset on CICS region, first we need to define it. So, give command as below
* **Define Mapset:**

**CEDA DEF MAPSET(MAPSET\_NAME) GROUP(GROUP\_NAME) -> Enter -> F3**

* **Install Mapset:**

**CEDA INSTALL MAPSET(MAPSET\_NAME) GROUP(GROUP\_NAME) -> Enter -> F3**

* **Send a Mapset:**

**CEDA SEND MAP(MAPSET\_NAME) -> Enter -> Enter**

**ATTRIBUTES IN BMS MAPS**