

Workshop 15.2 - Finish Coding TABLES01

- Copy **DDS0001.LEARN.COBOL(TABLES01)** to your TSO-ID and copy the file: **DDS0001.LEARN.EMP1.PROJ** to your TSO-ID
 - If you are using your own TSO/ISPF system I will send you the program and input file
 - Again, look carefully at the 3 areas of COBOL table handling code
- **Debug the program:**
 - You will need a new **//EMP1PROJ DD** card in your **COBUCLD JCL**
 - If you are using your own ISPF system:
 - Allocate EMPFILE as an: **80 Byte, Sequential Data Set**
 - Copy the data records emailed to your new file: **TSOID.LEARN.EMP.PROJ**
- **Finish coding paragraphs: 100 → 500** Using the comments embedded in the program source

400-TOTAL-PROJ-EXPENSE.

- Create a W-S field (**A111-TOT**).
- Loop thru the table. For Project A111 - **Add** (NBR-DAYS * PER-DAY-BILLING) + (NBR-OT * HOUR-OT-RATE) **to A111-TOT**.

```
EMP-NBR-DAYS-ON-PROJ
EMP-NBR-OT-HOURS
EMP-PER-DAY-BILLING-RATE
EMP-PER-HOUR-OT-RATE
```

500-TOTAL-ALL-PROJECTS-EXPENSE.

- Create a W-S field (COST-CALC).
- Use this computation to calc all expenses →
- Move COST-CALC to a numeric-edited field

```
COMPUTE COST-CALC =
  FUNCTION SUM(EMP-NBR-DAYS-ON-PROJ(ALL)) *
  (FUNCTION SUM(EMP-PER-DAY-BILLING-RATE(ALL)))
  +
  FUNCTION SUM(EMP-NBR-OT-HOURS(ALL)) *
  (FUNCTION SUM(EMP-PER-HOUR-OT-RATE(ALL)))
```

Is this a valid computation for calculating all expenses?
That's OK - your program is not going into production

Optional Workshop(s) 15.5 - PERFORM VARYING Table Searches

Study a little SQL: https://www.w3schools.com/sql/sql_where.asp - Spend 20-30 minutes on the SELECT/FROM/WHERE statements (If you already know SQL - don't bother). Back to COBOL. *For years your company has resisted moving their data store to DB2. ☹ And instead have asked developers to code SELECT/FROM/WHERE using table handling. So in order to do COBOL work; Enhance TABLES01 to answer the following questions (You will need to study the data file associated with TABLES01 in the JCL, in order to test your work)*

1. How **many** Programmer/Analysts work on project '**A111**' and are from NC?
2. Is the COBOL alphanumeric comparison **case sensitive**? If it is, how can you make a search not case-sensitive?
3. Who's the **highest paid Programmer/Analyst**?
4. Who is the DBA (**Database Admin**) for project '**C222**'?
5. List all of the employees who work on a project where the name ends in '**333**' - eg. A333, B333, D333, etc.
6. Can Kandace Springs program in COBOL?

Optional/Advanced/Challenge Workshop:

1. Use a RefMod and String/Unstring statement to create the following name output for the report:
 - M. Hudak, A. Gupta, I. Krugs
2. In SQL WHERE clauses there are three common operators: BETWEEN, IN & LIKE. Create a new paragraph for each of these, and emulate their behavior with COBOL tables and PERFORM VARYING:
 - BETWEEN/Range Conditional, IN/OR conditional, LIKE/RefMod