

Assembler BootCamp Exercise No. 1

This little exercise can help you understand how programs are executed, and the differences between instructions and data.

Type in the following program:

```
ABCLAB1  CSECT
          L      1,12(0,15)      Instruction
          DC     F'1343287296'    Decimal Data
          BC     B'1111',0(0,15)  Instruction
          DC     F'454100990'     Decimal Data
          END   ABCLAB1
```

\$ENTRY

and save it as ABCLAB1.ASM. Then, run it with ASSIST/I.

(If you don't see your program in memory, look at the ABCLAB1.PRT file to see if there were any assembly errors. If so, correct them and try again.)

Your final assembly listing will look something like this:

```
000000                                1 ABCLAB1  CSECT
000000 5810 F00C                        0000C  2          L      1,12(0,15)      Instruction
000004 5010F000                        3          DC     F'1343287296'    Decimal Data
000008 47F0 F000                        00000  4          BC     B'1111',0(0,15)  Instruction
00000C 1B1107FE                        5          DC     F'454100990'     Decimal Data
                                           6          END   ABCLAB1
```

Now, step through the program. What happens at each step?

Which parts of the program are instructions, and which are data? When?