Assembler Language Coding Workshop

Duration: 5 Days Course Code: ES34G Delivery Method: Virtual Classroom

Overview:

This classroom hands-on lab course provides an introduction to the mainframe Assembler language. The course is designed to develop the skills appropriate to write and/or maintain programs and routines written in S/370 or S/390 Assembler Language. Emphasis is placed on enhancing skills in problem resolution through program check interruption analysis and dump reading.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

This course is designed for application programmers and/or beginning system programmers who code, maintain and/or debug application support programs or subroutines written in S/370 or S/390 Assembler Language.

Objectives:

- After this course participants should be able to:
- Recognize architectural features, such as instruction formats, data representation, storage addressing, and so on, which are significant to program analysis
- Identify point of program interruption, using the formatted system dump and elements of information such as the Program Status Word (PSW), the Instruction Length Code (ILC), the program's base register(s), and so on
- Identify appropriate standards for assembler programs in terms of program organization, register conventions, coding practices, documentation, and so on
- Code and debug assembler language programs which:
- Conform to standard linkage conventions using save area chaining
- Define and use various types of data definitions, including fixed point binary, character, hexadecimal, and packed decimal
- Employ standard macros such as CALL, SAVE, RETURN
- Use various Assembler Language statements such as CSECT, EQU, COPY, END
- Use both symbolic and explicit notational forms for instructions
- Use data literals appropriately, and explain the use of LTORG to direct positioning of the literal pool
- Create and use appropriate patterns for EDIT instructions

Prerequisites:

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Follow-on-Courses:

ES35G Advanced Assembler Language Coding Workshop

Content:

Day 1

- Welcome
- Unit 1 - Numbering systems
- Unit 2 - Mainframe architecture
- Unit 3 - Assembler syntax
- Overview of instructions: LA, LR, LTR, MVC, DS, DC
- Exercise 1 - 80/80 listing
- Exercise 1A - 80/80 listing

Day 2

- Exercise 1 review
- Unit 4 - Data definition statements
- Unit 5 - Fixed-point binary instructions
- Exercise 2 - Binary data

Day 3

- Exercise 2 review
- Unit 6 - Addressing, comparing, and branching
- Unit 7 - Data movement instructions
- Exercise 3 - Text handling

Day 4

- Exercise 3 review
- Unit 8 - Assembler pseudo instructions
- Unit 9 - Reading dumps
- Unit 10 - Packed decimal processing
- Exercise 4 - Packed data/editing

Day 5

- Exercise 4 review
- Unit 11 - Miscellaneous instructions
- Course wrap-up

Additional Information:

Official course book provided to participants

Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278

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