Enterprise Computing Solutions - Education Services

TRAINING OFFERING

Vous pouvez nous joindre ici

.

Email: training.ecs.fr@arrow.com
Phone: 01 49 97 50 00

Programming for IBM InfoSphere Streams V4 with SPL - SPVC

CODE:	DURÉE:	PRIX H.T.:
2W724G	32 Hours	€1,200.00

Description

This course is designed to teach the you about the Streams Processing Language. It will begin with the basic concepts of InfoSphere Streams and the basic Streams Processing Language
operators used in a Streams program. You will learn how to access data from an external source using the Source type operators and write an output stream using the Sink type operators.
You will then learn how and when to use the various Stream operators, like the Functor, Punctor, Aggregation, Sort, Join, Split, Barrier, Delay, and Switch operators. Lab exercises will use the InfoSphere Streams IDE that is based upon Eclipse as the development and testing environment, but the you will get the opportunity to invoke the compilation of a Streams program from the command line as well. In the labs you will be given the choice to develop the applications using the SPL Graphical Editor, introduced in Version 3, that allows drag and drop or the original SPL Editor that is text based.
The second half of the course shows how to control the placement of processing elements and the debugging capabilities of the Streams Processing Language. You will learn about consistent regions and how to use them to process tuples at-least-once.
You will be introduced to the various toolkits supplied with InfoSphere Streams and work with data mining and database toolkits in a lab.
Finally, you will be shown how to extend the Streams Processing Language through the development of user-defined functions and both generic and non-generic primitive operators. Both C++ and Java non-generic primitive operators are covered.
If you are enrolling in a Self Paced Virtual Classroom or Web Based Training course, before you enroll, please review the **Self-Paced Virtual Classes and Web-Based Training Classes** on our Terms and Conditions page, as well as the system requirements, to ensure that your system meets the minimum requirements for this course.
http://www.ibm.com/training/terms

Objectifs

- Explain how operators observe data on streams to create other streams
- Define the format for both the built-in Source and a Sink edge adapter operators
- List the types of URIs supported by Source and Sink operators
- Explain the use of sliding and tumbling windows in the Streams Processing Language
- Describe how to control the timing of tuples using the Delay operator
- Explain the use of the following operators: Functor, Punctor, Split, Join, Aggregation, Sort, Barrier, and Delay
- Explain the preprocessing capabilities of the Streams Processing Language and how those capabilities are used to generate Streams source code
- Explain how Streams uses Consistent Regions to ensure at-least-once processing
- Describe how to use the Streams debugging capabilities
- Explain how to control the placement of operators onto processing specific nodes and how to fuse operators into specific processing elements
- List the toolkits supplied with InfoSphere Streams
- Explain how to debug a Streams application
- Describe how to create a user-defined function
- List the steps necessary to create an SPL non-generic primitive operator written in C++
- Explain how to create an SPL non-generic primitive operator written in Java
- Describe how to create an SPL generic primitive operator

Audience

This basic course is designed for those who are planning on developing InfoSphere Streams applications.

Prérequis

There are no prerequisites are required; however, use of an Eclipse-based tool would be beneficial as well as exposure to the C++, Java, and Perl languages.

Programme

- Unit 1 - InfoSphere Streams Overview
- Unit 2 - Streams Processing Language Basics
- Unit 3 - Streams Processing Language Development
- Unit 4 - SPL Programming Introduction
- Unit 5 - Adapter Operators
- Unit 6 - Relational and Utility Operators: The Journey Begins
- Unit 7 - Windowing and Joins
- Unit 8 - Punctuation, Aggregation and Sorting
- Unit 9 - Timing and Coordination
- Unit 10 - Lists, Sets, and Maps
- Unit 11 - Consistent Regions
- Unit 12 - Resources, Partitions, and Other Configs
- Unit 13 - Debugging
- Unit 14 - Toolkits
- Unit 15 - SPL Functions
- Unit 16 - SPL C++ Non-generic Primitive Operators
- Unit 17 - SPL Java Non-generic Primitive Operators
- Unit 18 - SPL Generic Primitive Operators

Dates de session

Sur demande. Merci de nous contacter

Informations Complémentaires

Cette formation est également disponible sous forme de formation sur site. Veuillez nous contacter pour en savoir plus.