

## PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT4076458

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DANIELE COSTANTE ZILIO	09/28/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	INTERNATIONAL BUSINESS MACHINES CORPORATION
<b>Street Address:</b>	NEW ORCHARD ROAD
<b>City:</b>	ARMONK
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	10504
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	13536343
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(310)556-7984
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	3105567983
<b>Email:</b>	skdrop@ipmatters.com
<b>Correspondent Name:</b>	KONRAD, RAYNES, DAVDA & VICTOR LLP
<b>Address Line 1:</b>	350 S. BEVERLY DR., STE 360
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<b>ATTORNEY DOCKET NUMBER:</b>	CA920070038US2 57.388C1
<b>NAME OF SUBMITTER:</b>	SELIN KASPARIAN
<b>SIGNATURE:</b>	/Selin Kasparian/
<b>DATE SIGNED:</b>	09/29/2016
<b>Total Attachments: 7</b>	
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**ASSIGNMENT**

Whereas, I,

- (1) **Ashraf ABOULNAGA** City of **Waterloo**  
State of **Ontario**
- (2) **Andrey BALMIN** City of **San Jose**  
State of **California**
- (3) **Kevin S. BEYER** City of **San Jose**  
State of **California**
- (4) **Iman ELGHANDOUR** City of **Waterloo**  
State of **Ontario**
- (5) **Fei Yen CHIANG** City of **Thornhill**  
State of **Ontario**
- (6) **Danny ZILIO** City of **Georgetown**  
State of **Ontario**
- (7) **Calisto Paul ZUZARTE** City of **Pickering**  
State of **Ontario**

have invented certain improvements in

**TITLE XML INDEX ADVISOR**

and executed a United States Patent Application therefor on the following dates:

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefore;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and all foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Application No/Filing Date: I/we hereby authorize and request the attorneys of IBM, and any law firm/attorney engaged by IBM to manage this patent application, to insert here in parentheses the filing date and application number of said application when known: (08/31/2007, 11/849,196).

Signed:

LOCATION

DATE

SIGNATURE

(1) Waterloo, Ontario

3 October 2007

A. A. Boulnaga  
Ashraf ABOULNAGA

(2) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Andrey BALMIN

(3) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Kevin S. BEYER

(4) \_\_\_\_\_

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\_\_\_\_\_  
Iman ELGHANDOUR

(5) \_\_\_\_\_

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Fei Yen CHIANG

(6) \_\_\_\_\_

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Danny ZILIO

(7) \_\_\_\_\_

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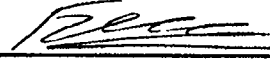
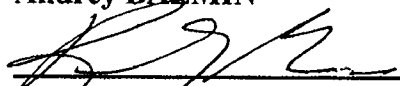
\_\_\_\_\_  
Calisto Paul ZUZARTE

Signed:

LOCATION

DATE

SIGNATURE

(1)	_____	_____	_____
(2)	<u>San Jose, CA</u>	<u>Sept 5, 2007</u>	<u>Ashraf ABOULNAGA</u> 
(3)	<u>San Jose, CA</u>	<u>10/3/2007</u>	<u>Andrey BALMIN</u>  <u>Kevin S. BEYER</u>
(4)	_____	_____	_____
(5)	_____	_____	_____
(6)	_____	_____	_____
(7)	_____	_____	_____

**Calisto Paul ZUZARTE**

Signed:

<u>LOCATION</u>	<u>DATE</u>	<u>SIGNATURE</u>
(1) _____	_____	Ashraf ABOULNAGA
(2) _____	_____	Andrey BALMIN
(3) _____	_____	Kevin S. BEYER
(4) <u>Waterloo, Ontario</u>	<u>Sept 26, 2007</u>	<u>Iman Elghandour</u> Iman ELGHANDOUR
(5) _____	_____	Fei Yen KU
(6) <u>Markham, Ont., CA</u>	<u>Sept. 5/07.</u>	<u>D. Zhu</u> Danny ZHU
(7) <u>MARKHAM, ONTARIO</u>	<u>SEPTEMBER 05, 2007</u>	<u>Calisto Paul</u> Calisto Paul ZUZARTE

Signed:

LOCATION

DATE

SIGNATURE

(1) \_\_\_\_\_

\_\_\_\_\_

Ashraf ABOULNAGA

(2) \_\_\_\_\_

\_\_\_\_\_

Andrey BALMIN

(3) \_\_\_\_\_

\_\_\_\_\_

Kevin S. BEYER

(4) \_\_\_\_\_

\_\_\_\_\_

Iman ELGHANDOUR

(5) Toronto, Ontario, Canada

Oct 3, 2007

Fei Yen Chiang  
Fei Yen CHIANG

(6) \_\_\_\_\_

\_\_\_\_\_

Danny ZILIO

(7) \_\_\_\_\_

\_\_\_\_\_

Calisto Paul ZUZARTE

ASSIGNMENT

Whereas, I, a below named and undersigned inventor, have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") in:

Title of the Invention: **INDEX SELECTION FOR XML DATABASE SYSTEMS**

and further identified by the IBM Docket Number provided above in the header of this Assignment, for which an application for a United States Patent was executed concurrently herewith or was filed having:

Application No.: 11/849,196 (insert series code /serial number here if required)

Whereas, International Business Machines Corporation, a corporation of New York having a place of business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and I desire to grant to IBM, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I ("ASSIGNOR") hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions; including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to IBM and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.



(1) Name of Inventor: Ashraf ABOULNAGA

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

(2) Name of Inventor: Audrey BALMIN

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

(3) Name of Inventor: Kevin S. BEYER

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

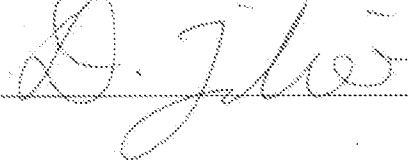
(4) Name of Inventor: Iman ELGHANDOUR

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

(5) Name of Inventor: Fei Yen CHIANG

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

(6) Name of Inventor: Daniele Costante ZILIO

SIGNATURE:  \_\_\_\_\_ DATE: Sept. 29/16

(7) Name of Inventor: Calisto Paul ZUZARTE

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_