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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
ROBERTA COCHRANE	12/04/2017	
MANISH SETHI	12/03/2017	
BALAJI VISWANATHAN	12/04/2017	

RECEIVING PARTY DATA

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City:	ARMONK	
State/Country:	NEW YORK	
Postal Code:	10504	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15830620

CORRESPONDENCE DATA

Fax Number: (866)415-0983

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.

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Address Line 2: STE 230

Address Line 4: ALLEN, TEXAS 75013

ATTORNEY DOCKET NUMBER:	IN820161697US01	
NAME OF SUBMITTER: RAFFI GOSTANIAN		
SIGNATURE: /Raffi Gostanian/		
DATE SIGNED:	12/04/2017	
This document serves as an Oath/Declaration (37 CFR 1.63).		

Total Attachments: 4

source=IN820161697US01 IBM SignedDeclaration Assignment#page1.tif source=IN820161697US01_IBM_SignedDeclaration_Assignment#page2.tif

PATENT REEL: 044288 FRAME: 0913 504669696

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PATENT REEL: 044288 FRAME: 0914 IBM Docket No.: IN820161697US01

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

DETECTING PHANTOM ITEMS IN DISTRIBUTED REPLICATED DATABASE

As	a I	belov	v named	and	und	ersigned	inven	tor, I	here	by (iec.	lare	tha	ıt:	
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[X] United States application or PCT international application number_	15830620	filed
on December 4, 2017		

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

This declaration is directed to the attached application, or (if following box is checked):

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, 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; International Business Machines Corporation, 1 New Orchard Road, Armonk, NY, 10504.

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to 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 the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, 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 the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

> PATENT REEL: 044288 FRAME: 0915

IBM Docket No.: IN\$20161697US01

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE 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 the ASSIGNEE, 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.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of Inventor: Roberta Co	chrane	n die eine Gebeurger von der Einstellung in der Gebeurger
Signature: <u>[4]</u>	ha.c	
(2) Legal Name of Inventor; Manish Sethi		
Signature 17 August 17 August 18 Aug	<mark>w</mark> ani da kata da kata wa kata wa kata wa kata kata kata	un en la
(3) Legal Name of Inventor: Balaji Viswan	von Light en State en Albert e Light en Albert	tafir nasagi kilo Kabala Paga berasa da basi Paga nggalat kilo basi sa basi basi basi basi nasa kilo basi Paga nggalaga sa sa sa nasa nasa basi sa
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IBM Docket No.: IN820161697US01

(1) Legal Name of Inventor: Roberta Cochrane

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and an 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 the ASSIGNEE, 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.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Signature:	Date:	····
(2) Legal Name of Inventor: Manish Sethi Signature	Date: Dec. 3	<u> 2017</u>
(3) Legal Name of Inventor: Balaji Viswanathan		
Chambridge	Tyora-	

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IBM Docke: No.: IN820161697US01

(1) Legal Name of Inventor; Roberta Cochrane

Lackingwiedge my prior and ongoing oblightions to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and an 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 the ASSIGNEE, 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.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1991 by fine or imprisonment of not more than five (5) years, or both.

Signame	Date:
(2) Legal Name of Inventor. Manish Sathi	
Signature	Data: 1100 1100 1100 1100 1100 1100 1100 11
(3) Legal Name of Inventor: Balaji Viswanathan	
Signature	Date: 4 755 2013

PATENT REEL: 044288 FRAME: 0918

RECORDED: 12/04/2017