PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5689186

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ASHISH MITTAL	08/22/2019
DIPTIKALYAN SAHA	08/16/2019
PRIYANKA AGRAWAL	08/21/2019
MANASA MARKANDEYA JAMMI	08/27/2019

RECEIVING PARTY DATA

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION
Street Address:	NEW ORCHARD ROAD
City:	ARMONK
State/Country:	NEW YORK
Postal Code:	10504

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16552557

CORRESPONDENCE DATA

Fax Number: (412)741-9292

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.

Phone: 412-741-8400

Email: assignments@ferencelaw.com
Correspondent Name: FERENCE & ASSOCIATES LLC

Address Line 1: 409 BROAD STREET

Address Line 4: PITTSBURGH, PENNSYLVANIA 15143

ATTORNEY DOCKET NUMBER:	P201810043US01 (790.391)
NAME OF SUBMITTER:	JENNIFER L. FARONE
SIGNATURE:	/Jennifer L. Farone/
DATE SIGNED:	08/27/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 8

source=790-391-Oath-Declaration-Assignment-EXECUTED#page1.tif

PATENT REEL: 050184 FRAME: 0694

505642380

source=790-391-Oath-Declaration-Assignment-EXECUTED#page2.tif	
source=790-391-Oath-Declaration-Assignment-EXECUTED#page3.tif	
source=790-391-Oath-Declaration-Assignment-EXECUTED#page4.tif	
source=790-391-Oath-Declaration-Assignment-EXECUTED#page5.tif	
source=790-391-Oath-Declaration-Assignment-EXECUTED#page6.tif	
source=790-391-Oath-Declaration-Assignment-EXECUTED#page7.tif	
source=790-391-Oath-Declaration-Assignment-EXECUTED#page8.tif	

PATENT REEL: 050184 FRAME: 0695

IBM DOCKET NUMBER: **P201810043US01** (790.391)

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

Title of Invention: MULTI-AGENT CONVERSATIONAL AGENT FRAMEWORK

As a below named inventor, I hereby declare that:			
This declaration is directed to the attached application, or (if following box is checked):			
[] United States application or PCT international application numberfiled on			
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.			
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, the undersigned inventor(s) has/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, a corporation of New York having a place of business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and each undersigned inventor desires to grant to IBM, the 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, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the 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, each undersigned inventor hereby authorizes and requests 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, the 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

IBM DOCKET NUMBER: **P201810043US01** (790.391)

the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees 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.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants 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.

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:	<u> </u>	Date:22/Aug/2019	
(1) Legal Name of Inv	entor: Ashish Mittal		
Signature:		Date:	
(2) Legal Name of Inv	ventor: Diptikalyan Saha		
Signature:		Date:	
(3) Legal Name of Inv	entor: Priyanka Agrawal		
Signature:		Date:	
(4) Legal Name of Inv	/entor: Manasa Markandeya Jammi		

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

Title of Invention: MULTI-AGENT CONVERSATIONAL AGENT FRAMEWORK

As a below named inventor, I hereby declare that:
This declaration is directed to the attached application, or (if following box is checked):
[] United States application or PCT international application number filed on
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
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, the undersigned inventor(s) has/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, a corporation of New York having a place of business at Armonk. New York (herein referred to as "IBM"), desires to acquire, and each undersigned inventor desires to grant to IBM, the 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, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the 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, each undersigned inventor hereby authorizes and requests 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, the 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 the undersigned had this Assignment not been made; and each undersigned inventor agrees 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.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants 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.

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:	
(1) Legal Name of Inventor: Ashish Mittal Signature: Or Kalyan La	Date:	18/2019
(2) Legal Name of Inventor: Diptikalyan Saha		
Signature:	Date:	
(3) Legal Name of Inventor: Priyanka Agrawal		
Signature:	Date:	

(4) Legal Name of Inventor: Manasa Markandeya Jammi

DECLARATION (37 C F.R. 163) FOR ETHLITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C F.R. 1.76) AND ASSIGNMENT

The althorough MULTI-AGENT CONVERSATIONAL AGENT FRANCISCORE

As a fiction manual microson is benefit designed by
The declaration is directed to the attached application or of following two is checked.
Finited States application or PC1 international application number
The advised entitled application was made as authorized to be attack by the
behave that I am the original inventor or an original joint inventor of a channel invention in the application
have reviewed and understand the contents of the application, including the claims
am aware of the duty to disclose to the United States Patent and Trademark Office all information nows to me to be material to patentability as defined in 37 CFR Section 1-56.
and the second section of the section of the second section of the section of the second section of the section of th

Who seas the understand inventorial has have made cardin inventions, improvements, and its order to decrease the first invention is disclosed in the above dentified patent application and for the general to the EPA Diocet number provided above in the header of the decreasent.

Whereas, International Business Machines Corporation, a corporation of New York having a place of susiness at Armonk New York therein referred to as "IBM"), desires to acquire, and each undersigned in coordenies to grant to IBM, the entire worldwide right, title, and incress in and to the invention and maid to any and all patent applications and patents directed therein.

Now therefore for good and valuable consideration, the receipt and sufficiency thereof being tereby acknowledged, each undersigned inventor ("ASSKINOR") hereny sells or has sold, assigns or has assened, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above identified United States patent application, and any entrail 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 paradictions, including all divisions, continuations, revisions, resources, recommendations, including all divisions continuations, revisions resources excessions, counterparts, substitutes, and extensions thereof and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each underegned inventor herein authorizes and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and forcing patent authorizes to issue any longed States Patent, and forcing patent authorities to issue any longer patent, granted for the Invention to IBM, its successors, legal representatives, and assigns, the entire worldwide right title, and interest in and some the same to be hold and enjoyed by IBM, its successors, legal representatives, and assigns, the

the common which are and all such present our be expected to the out control of security has been been as the the control of t

recording to a Assignment of perfecting little to the Invention and all related patents and applications. It first is successed to displace matters and assigns who pever requested by IPM, its successive field representatives of Assign

Explain the production acknowledge of their prior and ongoing ordinations to self, as any and trained the mans and the first and and the fir

Charable acknowledge that any willful false datement made in this declaration is prinshable under 18 to 5.0 (300) by fine or impresonment or not more than true (5.0 years, or both

Suparus			D	ite	
Legal Name of h	ivenini Ashisi viilia				
Senature			D	atc	
Colored Numeral II	recitor Diptikalean	Sala			
	and the second				
**************************************				14 <u>41 Eu</u>	<u> </u>
	nventorii <mark>Privanka Ag</mark>	rated			
A CALL OF STREET	necessary and an expenses of				
Surreture				ate	
				-	

Company Company (1999) Names Markandeva Japani

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

Title of Invention: MULTI-AGENT CONVERSATIONAL AGENT FRAMEWORK

As a below named inventor, I hereby declare that:	ging and resolution as stated that it is a first of the first state of the state of
This declaration is directed to the attached application, or	(if following box is checked):
[] United States application or PCT international application on	
The above-identified application was made or authorized t	o be made by me.
. The first of the control of the co	of the application, including the claims.
I am aware of the duty to disclose to the United States known to me to be material to patentability as defined in 3'	Patent and Trademark Office all information 7 CFR Section 1.56.
Whereas, the undersigned inventor(s) has/have made cert (herein referred to as the "Invention") disclosed in the a identified by the IBM Docket Number provided above in the	ain inventions, improvements, and discoveries
	Cally Vork having a place of

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 each undersigned inventor desires to grant to IBM, the 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, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the 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, each undersigned inventor hereby authorizes and requests 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, the 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

IBM DOCKET NUMBER: P201810043US01 (790.391)

the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees 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.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants 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.

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:
(1) Legal Name of Inventor: Ashish Mittal	enkolokum laineen ja 1980 – 1994 – 1995 – 1996 – 19
Signature:	Date:
(2) Legal Name of Inventor: Diptikalyan Saha	The second that a second common the second s
Signature:	Date:
(3) Legal Name of Inventor: Priyanka Agrawal	ing di sakwaran dalah sakiran ang kilonggan kang dalah sakiran sakiran sakiran sakiran sakiran sakiran sakiran Sakiran sakwaran dalah sakiran
Signature: J. M. Manura	Date: 22/8/19
(4) Legal Name of Inventor: Manasa Markand	eya Jammi - Jammi - Ja

RECORDED: 08/27/2019