506752299 07/07/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LENGNING LIU	06/29/2021
WILLIAM MOHABBATI	06/30/2021
JOERG DERUNGS	06/30/2021
TANUJA MACHINENI	06/30/2021
MANU MEDIGESI SHIVAKUMAR	06/29/2021
SIDDHESH RAMESH SURVE	06/30/2021

RECEIVING PARTY DATA

Name:	MICROSOFT TECHNOLOGY LICENSING, LLC
Street Address:	ONE MICROSOFT WAY
City:	REDMOND
State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17362957

CORRESPONDENCE DATA

Fax Number:

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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 314-302-1451

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Correspondent Name: BARTA, JONES & FOLEY, P.C. (PATENT GROUP

Address Line 1: 3308 PRESTON ROAD

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Address Line 4: PLANO, TEXAS 75093

ATTORNEY DOCKET NUMBER:	410189-US-NP
NAME OF SUBMITTER:	HOLLI L. TEMPLETON
SIGNATURE:	/Holli L. Templeton/
DATE SIGNED:	07/07/2021

PATENT REEL: 056767 FRAME: 0828

Total Attachments: 12 source=410189-US-NP_Assignments#page1.tif source=410189-US-NP_Assignments#page2.tif source=410189-US-NP_Assignments#page3.tif source=410189-US-NP_Assignments#page4.tif source=410189-US-NP_Assignments#page5.tif source=410189-US-NP_Assignments#page6.tif source=410189-US-NP_Assignments#page7.tif source=410189-US-NP_Assignments#page8.tif source=410189-US-NP_Assignments#page9.tif source=410189-US-NP_Assignments#page10.tif source=410189-US-NP_Assignments#page11.tif source=410189-US-NP_Assignments#page11.tif

PATENT REEL: 056767 FRAME: 0829

I Lengning LIU ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "DATA AGGREGATION IN A HIERARCHY FOR QUERY EXECUTION" ("APPLICATION"), which:

| Will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC., One Microsoft Way, Redmond, Washington 98052

MS Docket No.: 410189-US-NP

(ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed on <u>June 29, 2021</u> and given Application No. <u>17/362,957</u> by the following Office <u>"US - United States Patent and Trademark Office"</u>; this APPLICATION's Application No., filing date, and Office, when known;

was filed on <u>and was given Application</u>

No by the following Office "US - United

No ______ by the following Office "<u>US - United</u>

<u>States Patent and Trademark Office</u>";

Microsoft Technology Licensing, LLC, a Washington limited liability con

Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

Application No.	Filing Date	Office

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Inventor's Signature

Lengning LIU

Printed Name in English

6/29/202

MS Docket No.: 410189-US-NP

Date

Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT MS Docket No.: 410189-US-NP

I <u>William MOHABBATI</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled " <u>DATA AGGREGATION IN A HIERARCHY FOR QUERY EXECUTION</u> " ("APPLICATION"), which:			
ASSIGNEE'S legal LLC., One Mic (ASSIGNEE'S LEC parentheses (filed No. <u>17/362,957</u> Patent and Trader	ASSIGNOR hereby auth representative, Microsoft rosoft Way, Redmond, GAL REPRESENTATIVES), donlune 29, 2021 by the following Officmark Office"; this APPLICATICE, when known;	Technology Licensing, Washington 98052 to insert here in and given Application ce <u>"US – United States</u>	
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ivellein	6/30/2021
Inventor's Signature	Date
William MOHABBATI	
Printed Name in English	Printed Name in Native Language
	(if other than English)

filing date, and Office, when known;

MS Docket No.: 410189-US-NP I Joerg DERUNGS ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "DATA AGGREGATION IN A HIERARCHY FOR QUERY EXECUTION" ("APPLICATION"), which: oxtimes will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC., One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in

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hventor's Signature	6/30/2021 Date
Joerg DERUNGS Printed Name in English	Printed Name in Native Language (if other than English)

filing date, and Office, when known;

I <u>Tanuja MACHINENI</u> ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "<u>DATA AGGREGATION IN A HIERARCHY FOR QUERY EXECUTION</u>" ("APPLICATION"), which:

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tanığa	06/30/2021
Inventor's Signature	Date
Tanuja MACHINENI	
Printed Name in English	Printed Name in Native Language
	(if other than English)

PATENT ASSIGNMENT MS Docket No.: 410189-US-NP

l <u>Manu Medigesi SHIVA</u>	KUMAR ("ASSIGNOR") am	the original inventor or an		
original joint inventor of subje	ct matter ("INVENTION") o	disclosed and/or claimed in a		
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was filed on	and was gi	ven Application		
	by the following C			
	Trademark Office";	omee <u>os omee</u>		
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Mannins	29th June 2021
Inventor's Signature	Date
Manu Medigesi SHIVAKUMAR	
Printed Name in English	Printed Name in Native Language
	(if other than English)

I Siddhesh Ramesh SURVE ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "DATA AGGREGATION IN A HIERARCHY FOR QUERY EXECUTION" ("APPLICATION"), which: oxtimes will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC., One Microsoft Way, Redmond, Washington (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed on June 29, 2021 and given Application No. <u>17/362,957</u> by the following Office "US - United States" Patent and Trademark Office"; this APPLICATION's Application No., filing date, and Office, when known; was filed on _____and was given Application No _____ by the following Office "US – United States Patent and Trademark Office"; Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES")): ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPI ICATION DERIVATIVES after they are known:

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Page 1 of 2

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SRJums	6/30/21
Inventor's Signature	Date
Siddhesh Ramesh SURVE	
Printed Name in English	Printed Name in Native Language
	(if other than English)