507873434 04/25/2023

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7920564

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RUEDIGER KARL	12/04/2019
MIHNEA ANDREI	12/04/2019
JUCHANG LEE	12/03/2019
STEFAN BAEUERLE	12/04/2019
SEYEONG BAE	12/03/2019
JOO YEON LEE	12/05/2019

RECEIVING PARTY DATA

Name:	SAP SE	
Street Address:	DIETMAR-HOPP-ALLEE 16	
City:	WALLDORF	
State/Country:	GERMANY	
Postal Code:	D-69190	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	18137693

CORRESPONDENCE DATA

Fax Number: (503)595-5301

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: 5035955300

Email: ryan.heck@klarquist.com

KLARQUIST SPARKMAN, LLP / RYAN A. HECK **Correspondent Name:**

121 SW SALMON STREET, SUITE 1600 Address Line 1:

Address Line 2: ONE WORLD TRADE CENTER Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	8880-103577-03
NAME OF SUBMITTER:	RYAN A HECK
SIGNATURE:	/Ryan A Heck/
DATE SIGNED:	04/25/2023

Total Attachments: 6 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif source=Assignment#page5.tif source=Assignment#page6.tif

ASSIGNM ENT

For valuable consideration, I, Ruediger Karl,

hereby assign to

SAP SE, a corporation of Europe having a place of business at Dietmar-Hopp-Allee 16, 69190 Walldorf, Germany

and its successors, and assigns (collectively, the ASSIGNEE) my entire right, title and interest throughout the world in the inventions and improvements in a patent document entitled:

VIRTUAL DATABASE TABLES WITH UPDATABLE LOGICAL TABLE POINTERS

which is found in the:

US patent application filed on: December 13, 2019

under Application No. 16/713,850

I authorize and request the attorneys of record or the attorney filing the application to insert into this assignment the filing date and serial number of the application when known. This assignment includes the foregoing patent application or patent, as well as continuations and divisionals of said application, all legal equivalents in any country, and all patents issuing from such legal equivalents; all patents, utility models, and design registrations granted by any jurisdiction for any of said inventions and improvements; and the right to claim priority based on the filing date of the foregoing patent application or patent under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes. I authorize the Assignee to apply in all countries in my name or in its own name for patents, utility models, and design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements. I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with this assignment. I hereby state and agree that no assignment, sale, agreement, or encumbrance has been or will be made or entered into that would conflict with this assignment. I further agree for myself and my heirs, legal representatives, and assigns to provide to the Assignee promptly upon its request and at its expense all pertinent facts and docum ents relating to any of said inventions and improvements or said patents and legal equivalents as m ay be known and accessible to me and to testify as to the same in any interference, litigation, or proceeding relating thereto; and I agree promptly to perform such lawful acts and to sign such further applications, assignments, statements, and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Inventor's Signature:

| Rediger | Fart | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 | 12/4/2019 |

ASSIGNM ENT

For valuable consideration, I, Mihnea ANDREI,

hereby assign to

SAP SE, a corporation of Europe having a place of business at Dietmar-Hopp-Allee 16, 69190 Walldorf, Germany

and its successors, and assigns (collectively, the ASSIGNEE) my entire right, title and interest throughout the world in the inventions and improvements in a patent document entitled:

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Inventor's Signature:

Miline ANDREI

12/4/2019

Mihnea ANDREI

ASSIGNM ENT

For valuable consideration, I, Juchang Lee,

hereby assign to

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Inventor's Signature:

Juchang Lee

12/3/2019

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For valuable consideration, I, Stefan Baeuerle,

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Inventor's Signature:

Stefan Baewerle

12/4/2019

Stefan Baeuerle

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For valuable consideration, I, Seyeong Bae,

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Inventor's Signature:

Seyeong Bae

12/3/2019

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> PATENT REEL: 063437 FRAME: 0795

RECORDED: 04/25/2023