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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex Parte SHANE ROBERT VERMETTE

Appeal 2017-008997
Application 11/742,957
Technology Center 3600

Before MAHSHID D. SAADAT, JASON J. CHUNG, and
BETH Z. SHAW, *Administrative Patent Judges*.

SHAW, *Administrative Patent Judge.*

DECISION ON APPEAL[1]

Appellant[2] seeks our review under 35 U.S.C. § 134(a) of the Examiner's non-final rejection of claims 1–29, which represent all the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

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[1] Throughout this Decision we have considered the Appeal Brief filed February 23, 2017 ("App. Br."), Reply Brief filed June 6, 2017 ("Reply Br."), the Specification filed May 1, 2007 ("Spec."), the Examiner's Answer mailed April 6, 2017 ("Ans."), and the Non-Final Rejection mailed June 3, 2016 ("Non-Final Act.").

[2] Appellant identifies Oracle International Corporation as the real party in interest (App. Br. 3).

INVENTION

Appellant's invention is directed to analyzing nested hierarchies by normalizing a portion of the hierarchy as defined by a limiting factor for the hierarchy. Spec., Abstract.

Claim 1 is illustrative of the claims at issue and is reproduced below:

> 1. A method of obtaining information from a nested hierarchy of data stored in a database, the method comprising:
>
> defining, using a computer processor, levels of the nested hierarchy of data, wherein the nested hierarchy of data includes a first hierarchy of data which includes data for a plurality of projects which includes a first project including a task linking to a second project which is in a shallower level of the hierarchy of data than the second project, wherein the nested hierarchy of data includes a second hierarchy of data which includes a plurality of tasks, and
>
> wherein each of the plurality of tasks in the second hierarchy of data can only have one direct ancestor;
>
> assigning each of the plurality of projects to a shallowest possible level of the nested hierarchy of data in order to minimize a number of levels of the nested hierarchy of data to be analyzed and each of the plurality of tasks based on one or more ancestors of each task;
>
> analyzing the nested hierarchy of data to determine link data for each of the links between the plurality of projects and the plurality of tasks;
>
> distinguishing, using the computer processor, data for the nested hierarchy of data by separately indexing the data of each level of the nested hierarchy of data;
>
> normalizing, using the computer processor, task data for each project in a level of the nested hierarchy of data by adding the determined link data for each of the links between the plurality of projects and the plurality of tasks to a partially normalized table, wherein tasks in a level are only normalized if the tasks are in the same project;
>
> in response to receiving a request for task information for at least one of the plurality of tasks, for each level in the nested

> hierarchy of data, rolling up, using the computer processor, the normalized task data for each project at a current level;
>
> after rolling up the normalized task data for each project at the current level, rolling up, using the computer processor, project data for a project at the current level to any task at a shallower level that links to that project; and
>
> after rolling up data for the defined levels of the nested hierarchy of data, reporting, using the computer processor, the rolled up data in response to the request.

REJECTION

The Examiner rejected claims 1–29 under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Non-Final Act. 5–13.

CONTENTIONS AND ANALYSIS

Appellant argues the Examiner erred in rejecting claims 1–29 under 35 U.S.C. § 101. App. Br. 5–10; Reply Br. 2–4. The Examiner concludes the claims are directed to an abstract idea of a way to account for project and task data. Non-Final Act. 6. The Examiner concludes that the use of a computer to organize how project and task data is stored and retrieved "does not provide 'something more' in the way that the computer stores, retrieves, rolls up or reports the data because these are merely routine and nominal computer functions without providing 'something more' to make the abstract idea patent eligible." *Id.*

Appellant argues that the claims are not directed to the abstract idea of the hierarchy or the hierarchy itself. Reply Br. 3. Instead, Appellant argues, the claims are directed to an efficient way to handle the storage and access of information related to the hierarchy. *Id.* "Specifically, groupings in the hierarchy are used to identify how the data table can be partitioned and

partially normalized most efficiently." Reply Br. 3. We agree with Appellant.

We conclude that Appellant's claims are patent eligible as directed to a specific improvement (analyzing nested hierarchies by normalizing a portion of the hierarchy as defined by a limiting factor for the hierarchy) in a technological process. Our reviewing court has approved claims of this general character. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016). Although the Examiner concludes *Enfish* was directed to a new data structure and thus differs from the instant claims (Ans. 10), we disagree. Rather, as Appellant points out, in both *Enfish* and in the claims here, the way in which the data in the table is interpreted and handled is "a specific implementation of a solution to a problem in the software arts." *Enfish*, 822 F.3d 1338; Reply Br. 2. In *Enfish*, the data structure itself remained the same data table as before, but the software surrounding how the table was accessed was changed to interpret a column entry as a reference to a row. *Id.* Similarly, Appellant's claims do not change the actual data structure of the table, but rather, the software that governs how the data in the data structure is handled is changed. Reply Br. 2. In particular, Appellant's claims partition the data in the data structure and only partially normalize the table based on these partitions. *Id.*; Claim 1 ("normalizing, using the computer processor, task data for each project in a level of the nested hierarchy of data by adding the determined link data for each of the links between the plurality of projects and the plurality of tasks to a partially normalized table, wherein tasks in a level are only normalized if the tasks are in the same project"); *see also* Spec. ¶¶ 19, 20. In both *Enfish* and the claims here, a table is treated differently by a database management system

that governs how data is stored and interpreted in the table. Accordingly, the claims at issue are not directed to an abstract idea.

Similar to the *Enfish* decision, because the claims are not directed to an abstract idea under step one of the *Alice* analysis, we need not proceed to step two of that analysis. The claims here are eligible because they are directed to an improvement in the functioning of a computer analyzing nested hierarchies by normalizing a portion of the hierarchy as defined by a limiting factor for the hierarchy.

We note that because the claims are directed narrowly to analyzing nested hierarchies by normalizing a portion of the hierarchy as defined by a limiting factor for the hierarchy, any preemption is appropriately limited to Appellant's contribution to the art, and not to hierarchies or databases in general.

For these reasons, we do not sustain the rejection of claims 1–29 under 35 U.S.C. § 101.

DECISION

The decision of the Examiner to reject claims 1–29 is reversed.

REVERSED