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WITHROW & TERRANOVA, P.L.L.C. 106 Pinedale Springs Way Cary, NC 27511			KIM, SANG H	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* BHARGAV SENJALIA

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Appeal 2018-007765<sup>1</sup>  
Application 13/168,525  
Technology Center 2100

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Before MAHSHID D. SAADAT, JOHNNY A. KUMAR, and  
JOHN A. EVANS, *Administrative Patent Judges*.

KUMAR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner’s decision to reject claims 1, 2, 4, 6–8, 10, 12, 13, 15, 17, 18, 20 and 21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

Claim 1 is illustrative of the claimed subject matter:

1. A method for presenting data, comprising:

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Bhargav Senjalia. Appeal Br. 1.

presenting, by a computing device, in a user interface, user-selectable entity labels identifying a plurality of different entity types modeled in a database, each entity type modeled in the database by a corresponding entity structure;

receiving, by the computing device, input identifying at least two selected entity types of the plurality of different entity types;

accessing, by the computing device, a plurality of entity instance relationship sets, each entity instance relationship set identifying a relationship between entity instances of at least three different entity types of the plurality of different entity types, the at least three different entity types including the at least two selected entity types, the plurality of entity instance relationship sets identifying a same relationship between same entity instances of the at least two selected entity types multiple times, the entity instances of each entity type being maintained in the corresponding entity structure;

selecting, from the plurality of entity instance relationship sets, only those entity instance relationship sets that identify a relationship between entity instances of the one or more selected entity types to form a subset of entity instance relationship sets, wherein only a single entity instance relationship set is selected for each different identified relationship between entity instances of the at least two selected entity types; and

for each entity instance relationship set in the subset, presenting, in the user interface, attribute data from each of the entity instances identified as having a relationship in the each entity instance relationship set.

## REFERENCES<sup>2</sup>

The prior art relied upon by the Examiner is:

<b>Name</b>	<b>Reference</b>	<b>Date</b>
Crim	US 2010/0161644 A1	June 24, 2010
Gill	US 2010/0299348 A1	Nov. 25, 2010

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<sup>2</sup> All citations herein to patent and pre-grant publication references are by reference to the first named inventor only.

## REJECTION

The Examiner rejects claims 1, 2, 4, 6–8, 10, 12, 13, 15, 17, 18, 20 and 21 under 35 U.S.C. § 103 as being unpatentable over the combination of Gill and Crim. Final Act. 5–20.

## OPINION

We have reviewed the Examiner’s rejections in light of Appellant’s Appeal Brief and Reply Brief arguments.

Appellant raises the following arguments in contending that the Examiner erred in rejecting claims 1 and 18 under 35 U.S.C. § 103.

Appellant’s recited embodiments utilize sets of information, referred to in Appellant’s specification and claims as “*entity instance relationship sets*,” that are neither taught nor suggested by either Gill or Crim. Because many of the steps recited in claim 1 utilize the recited entity instance relationship sets, those steps are likewise not taught or suggested by either Gill or Crim. Appellant’s claims do not merely recite the existence of entity instance relationship sets; the claims also explicitly recite what they are.

Appeal Br. 15.

Appellant notes that Figure 4C of Gill is a **search result**. In other words, it is an example of what might be displayed in response to the input of a certain search query. Gill discloses that Figure 4C “depicts a portion of an interface displaying the **data items of interest found based on search conditions specified** for attributes of primary and/or secondary entities in one embodiment” (Gill, para. 0013) (emphasis added). Thus, Gill does not disclose the existence of “*entity instance relationship sets*” upon which processing may be performed. Gill discloses the results of a search result.

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. . . The search results of Figure 4C show two data items, “Last Name” and “First Name” that come from a **single** “contacts” entity (Gill, Fig. 4B). The search results of Figure 4C also display a data item from a **second** entity “Accounts.” Gill explicitly discloses “Display area 490 depicts the details of interest such as the values of the attributes ‘Last Name’, and ‘First Name’ of the **primary entity** ‘Contacts’ and the attribute ‘Account Name’ of the **secondary entity** ‘Accounts’” (Gill, para. 0080)(emphasis added). Thus, Figure 4C, in contrast to the Patent Office’s assertion, does **NOT** disclose a “*relationship between entity instances of at least **three** different entity types,*” because it merely discloses the relationship between **two** entity types. Two is not the same as three, and Appellant has specifically recited “*three.*”

Appeal Br. 16–17.

The Examiner responds to Appellant’s argument and expands his reasoning as follows:

First, Gill teaches a search graphical user interface for a customer relationship management (CRM) system supported by data modeled in a relationship database [**Abstract**]. To further describe the teachings, Gill provides an example of a relationship among three different tables in **Fig. 6** - “Contact”, “Account” and “Service Request” (illustrated is “SR”), with each of tables 510, 520 and 530 in database 500 representing a corresponding entity type [**Para 0087**] and the rows of the table representing the instances of the entity type [**Para 0086**]. The instance relationships are established by linking together based on an appropriate combination of primary and foreign keys within the tables [**Para 0092**]. This proves that Gill passes the first test of having a relationship among at least three different entity types. Secondly, by using the keys that in the three tables, one with ordinary skill in art can rewrite entity instances of Fig. 6 in an extended format shown below. . . .Accordingly, Examiner asserts that Gill sufficiently teaches the claimed “**entity instance relationship sets**”.

...

First, Appellant argues that Gill's entity instance relationship set is only from a search result and not processing/selecting is performed. However, the claim does not specify how the selection is made, and certainly does not exclude a query system to perform the functions stated in the claims. Besides the fact that Gill teaches a search query tool to select a subset of relationship instances, Gill describes a database backend such as a schema and metadata of a relational database in which the structure of relationships are stored [**Fig. 5, Para 0095 and 0096**], reciting “Metadata 550 contains data specifying the details/attributes of entity types (such as “Contacts”, “Accounts”, “Service Requests”, etc.) defined in the CRM system, the relationship between the entity types ... a CRM application (or query tool 150) retrieves the desired entity types and their attributes (values) from data 500 (based on metadata 550) and generates memory objects corresponding to the entity types and entity instances in memory 560”. As such, Examiner interprets that metadata and schema of the Gill's system store the data for “entity instance relationship sets”.. . .

Examiner introduced the Crim reference to strengthen the rejection, since Crim's teaching is more explicit. Crim describes an architecture of a database where such relationship tables are stored, reciting, “the database architecture 700 provides a data abstraction between one or more source tables 706a-706n and user actions relating to the source tables 706” [**Para 0072**] and “an example background table 800 that can be used to store relationship information. In some implementations, the background tables 708 can be created by joining one or more source tables 706 to specify data relationships” [**Para 0076**]. As illustrated in **Fig. 8** of Crim, Examiner notes that each instance of the background table illustrated as Table 800 in Fig. 8 is unique with no duplicate instance.

Ans. 4–7.

We agree with the Examiner that Gill and Crim teach the claimed entity instance relationship sets under the broadest reasonable interpretation of the claim language consistent with the Specification.

Regarding claims 4, 8, 10, 13, 15, and 21, although Appellant raises additional arguments for patentability (App. Br. 19–24), we find that the Examiner has established the references teach or suggest the claim limitations by a preponderance of the evidence and sufficiently rebutted in the Answer each of the arguments. Ans. 8–10. Therefore, we adopt the Examiner’s findings and underlying reasoning, which are incorporated herein by reference.

### CONCLUSION

The Examiner has not erred in rejecting claims 1, 2, 4, 6–8, 10, 12, 13, 15, 17, 18, 20 and 21 as being unpatentable under 35 U.S.C. § 103.

### DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 2, 4, 6–8, 10, 12, 13, 15, 17, 18, 20, 21	103	Gill, Crim	1, 2, 4, 6–8, 10, 12, 13, 15, 17, 18, 20, 21	

### TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

**AFFIRMED**