**G07:** Find concepts that have a relationship with a given concept

For a concept identifier entered as the input parameter, the query lists all existing relationships with other concepts. The resulting output includes:

* Type of relationship (including both relationship ID and description)
* Details of the other concept to which the relationship has been defined
* Polarity of the relationship

o    Polarity of “Relates to” implies the input concept is the first concept or CONCEPT\_ID\_1 of the relationship

o    Polarity of “Is Related by” implies the input concept is the second concept or CONCEPT\_ID\_2 of the relationship

In vocabulary Version 4.0 and above all relationships are bi-directional, ie. all relationships are repeated as a mirrored version, where CONCEPT\_ID\_1 and CONCEPT\_ID\_2 are swapped and the inverse relationship ID is provided.

**Sample query:**

SELECT 'Relates to' relationship\_polarity, CR.relationship\_ID, RT.relationship\_name, D.concept\_Id concept\_id, D.concept\_Name concept\_name, D.concept\_Code concept\_code, D.concept\_class\_id concept\_class\_id, D.vocabulary\_id concept\_vocab\_ID, VS.vocabulary\_name concept\_vocab\_name

FROM concept\_relationship CR, concept A, concept D, vocabulary VA, vocabulary VS, relationship RT

WHERE CR.concept\_id\_1 = A.concept\_id

AND A.vocabulary\_id = VA.vocabulary\_id

AND CR.concept\_id\_2 = D.concept\_id

AND D.vocabulary\_id = VS.vocabulary\_id

AND CR.relationship\_id = RT.relationship\_ID

AND A.concept\_id = 192671

AND sysdate BETWEEN CR.valid\_start\_date

AND CR.valid\_end\_date

UNION ALL SELECT 'Is related by' relationship\_polarity, CR.relationship\_ID, RT.relationship\_name, A.concept\_Id concept\_id, A.concept\_name concept\_name, A.concept\_code concept\_code, A.concept\_class\_id concept\_class\_id, A.vocabulary\_id concept\_vocab\_ID, VA.Vocabulary\_Name concept\_vocab\_name

FROM concept\_relationship CR, concept A, concept D, vocabulary VA, vocabulary VS, relationship RT

WHERE CR.concept\_id\_1 = A.concept\_id

AND A.vocabulary\_id = VA.vocabulary\_id

AND CR.concept\_id\_2 = D.concept\_id

AND D.vocabulary\_id = VS.vocabulary\_id

AND CR.relationship\_id = RT.relationship\_ID

AND D.concept\_id = 192671

AND sysdate BETWEEN CR.valid\_start\_date

AND CR.valid\_end\_date;

**Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Example** | **Mandatory** | **Notes** |
| Concept ID | 192671 | Yes | GI - Gastrointestinal hemorrhage |
| As of date | Sysdate | No | Valid record as of specific date. Current date – sysdate is a default |

**Output:**

|  |  |
| --- | --- |
| **Field** | **Description** |
| Relationship\_Polarity | Polarity of the relationship with the input concept as a reference:   * “Relates to”: Indicates input concept is CONCEPT\_ID\_1 or the first concept of the relationship * “Is Related by”: Indicates input concept |
| Relationship\_ID | Identifier for the type of relationship |
| Relationship\_Name | Name of the type of relationship |
| Concept\_ID | Unique identifier of the concept related to the input concept |
| Concept\_Name | Name of the concept related to the input concept |
| Concept\_Code | Concept code of concept related to the input concept |
| Concept\_Class | Concept Class of concept related to the input concept |
| Concept\_Vocab\_ID | ID of the vocabulary the related concept is derived from |
| Concept\_Vocab\_Name | Name of the vocabulary the related concept is derived from |

**Sample output record:**

|  |  |
| --- | --- |
| **Field** | **Value** |
| Relationship\_Polarity | Is Related to |
| Relationship\_ID | 125 |
| Relationship\_Name | MedDRA to SNOMED-CT equivalent (OMOP) |
| Concept\_ID | 35707864 |
| Concept\_Name | Gastrointestinal haemorrhage |
| Concept\_Code | 10017955 |
| Concept\_Class | Preferred Term |
| Concept\_Vocab\_ID | 15 |
| Concept\_Vocab\_Name | MedDRA |