graph_githubAdvisory

```sql
1
2  --node vul:
3  DROP TABLE IF EXISTS test.t_tmp_node_vul_github;
4  ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
5  CREATE TABLE test.t_tmp_node_vul_github AS
6  WITH wt_severity AS
7  (
8  SELECT tmp.id  AS id , jsonb_agg(tmp.severity_val) AS severity
9  FROM (
10   SELECT
11 --         CASE  severity.value ->> 'type'  WHEN 'CVSS_V3'AS severity_type,
12 --        severity.value ->> 'type' AS severity_type,
13         jsonb_build_object(
14                         CASE split_part(severity.value ->> 'score', '/',1)
15                             WHEN 'CVSS:3.1' THEN 'cvssV3_1'
16                             WHEN 'CVSS:3.0' THEN 'cvssV3_0'
17                             WHEN 'CVSS:4.0' THEN 'cvssV4_0'
18                             ELSE 'cvssV2_0' END , jsonb_build_object('vectorString', severity.value ->> 'sc
19                                                     'version', split_part( split_part(sev
20                                                     'baseScore', NULL,
21                                                     'attackVector', NULL,
22                                                     'baseSeverity', NULL,
23                                                     'confidentialityImpact', NULL,
24                                                     'integrityImpact', NULL,
25                                                     'availabilityImpact', NULL,
26                                                     'userInteraction', NULL,
27                                                     'attackComplexity', NULL,
28                                                     'privilegesRequired',NULL,
29                                                     'scope', null
30                                                     ) ) AS severity_val,
31        oos.vul_msg ->> 'id' AS id
32     FROM test.github_advisory oos,
33     jsonb_array_elements(oos.vul_msg -> 'severity') severity )tmp
34  GROUP BY tmp.id
35  )
36 -- ,
37 -- wt_osv_credit AS
38 --(
39 --  SELECT cre_ot.id, jsonb_build_object('identifier', array_agg( cre_ot.source_msg), 'discovery', null) AS sou
40 --  FROM
41 --  (
42 --      SELECT
43 --        DISTINCT  credit->>'name' AS source_msg, t.vul_msg ->> 'id' AS id --, credit -> 'contact'
44 --      FROM
45 --          test.github_advisory t,
46 --          jsonb_array_elements(t.vul_msg->'credits') AS credit
47 --      WHERE
48 --          credit->>'type' = 'FINDER' OR
49 --          NOT credit ? 'type'
```

```sql
50  --     )cre_ot
51  --     GROUP BY cre_ot.id
52  --)
53  SELECT nextval('cve_graph_seq') AS seq, tmp.*, ws.severity, '{}'::jsonb AS source
54  FROM
55  (
56      SELECT oos.vul_msg ->> 'id' AS id,
57             COALESCE(oos.vul_msg ->> 'aliases','') AS aliases,
58             jsonb_build_object('title', COALESCE(oos.vul_msg ->> 'summary',''), 'details',  oos.vul_msg ->> 'det
59             jsonb_build_object('type', NULL, 'cweId', coalesce(COALESCE(oos.vul_msg -> 'database_specific' ->> '
60             jsonb_build_object( 'published', oos.vul_msg ->> 'published',
61                                 'lastModified', oos.vul_msg ->> 'modified', 'datePublic', null) AS time_info,
62  --         oos.ecosys AS ecosys,
63  --         oos.osv_msg ->> 'schema_version' AS schema_version,
64  --         COALESCE (oos.osv_msg ->> 'database_specific','{}') AS database_specific ,
65  --         osv_msg AS msg
66            ('{"impact_info":{"impacts":null, "impactScore":null},
67             "solution_info":[],
68             "exploit_info":{"exploitable":null, "exploits":null, "exploit_url":null, "exploitabilityScore":null
69             "PoC_info":{"PoC_available":null, "PoC":null, "PoC_url":null},
70             "patch_info":{"patch_available":null, "patch_url":null},
71             "report_status":' || CASE WHEN (oos.vul_msg -> 'database_specific' ->> 'github_reviewed') = 'true'
72      FROM test.github_advisory oos
73  )tmp
74  LEFT JOIN wt_severity ws
75       ON ws.id = tmp.id ;
76  --LEFT JOIN wt_osv_credit oc
77  --     ON oc.id = tmp.id ;
78
79
80
81  DELETE FROM test.dws_graph_node_vul WHERE vul_source = 'GITHUB';
82  ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
83  INSERT INTO test.dws_graph_node_vul
84  SELECT nextval('cve_graph_seq') AS seq, tmp.*
85  FROM
86  (
87  SELECT  DISTINCT  id ,  aliases , source, description ,weakness, severity, time_info,  vul_status, 'GITHUB' AS
88  )tmp ;
89
90  SELECT *FROM test.t_tmp_node_vul_GITHUB LIMIT 10
91
92
93
94  --
95  ----node:: SecurityNotice  create
96  --SELECT oos.osv_msg ->> 'id' AS osv_id, related.value ->> 0 AS related
97  --FROM warehouse.ods_osv_source_df oos,
98  --    jsonb_array_elements(oos.osv_msg -> 'related') related
99
100 --node CWE merge
101 DROP TABLE IF EXISTS test.t_tmp_graph_node_cwe_GITHUB;
102 CREATE TABLE test.t_tmp_graph_node_cwe_GITHUB AS
103 SELECT oos.vul_msg ->> 'id' AS id , cwe_ids.value ->> 0 AS cwe_id
104 FROM test.github_advisory oos,
105     jsonb_array_elements(oos.vul_msg -> 'database_specific' -> 'cwe_ids') cwe_ids;
106
107
```

```sql
108   DELETE FROM test.dws_graph_node_cwe WHERE vul_source = 'GITHUB';
109   ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
110   INSERT INTO test.dws_graph_node_cwe
111     SELECT nextval('cve_graph_seq') AS seq, tmp.*
112     FROM (
113       SELECT   DISTINCT cwe_id, 'GITHUB'   FROM   test.t_tmp_graph_node_cwe_GITHUB
114     )tmp;
115
116
117
118
119
120   DELETE FROM test.dws_graph_relationships_cwe WHERE vul_source = 'GITHUB';
121   ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
122   INSERT INTO test.dws_graph_relationships_cwe
123     SELECT nextval('cve_graph_seq') AS seq, tmp.*
124     FROM (
125       SELECT   DISTINCT id, cwe_id , '' AS cwe_type, '' AS cwe_desc , 'GITHUB' AS vul_source  FROM   test.t_tmp_g
126     )tmp;
127
128
129
130
131
132   DROP TABLE IF EXISTS test.t_tmp_graph_node_refs_GITHUB;
133   CREATE TABLE test.t_tmp_graph_node_refs_GITHUB AS
134   SELECT oos.vul_msg ->> 'id' AS id, refs.value ->> 'type' AS ref_type, refs.value ->> 'url' AS ref_url
135   FROM test.github_advisory oos,
136       jsonb_array_elements(oos.vul_msg -> 'references') refs  ;
137
138
139
140   DELETE FROM test.dws_graph_node_refs WHERE vul_source = 'GITHUB';
141   ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
142   INSERT INTO test.dws_graph_node_refs
143     SELECT nextval('cve_graph_seq') AS seq, tmp.*
144     FROM (
145       SELECT   DISTINCT ref_url, 'GITHUB' AS source  FROM   test.t_tmp_graph_node_refs_GITHUB
146     )tmp;
147
148
149    DELETE FROM test.dws_graph_relationships_refs WHERE vul_source = 'GITHUB';
150   ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
151   INSERT INTO test.dws_graph_relationships_refs
152     SELECT nextval('cve_graph_seq') AS seq, tmp.*
153     FROM (
154       SELECT   DISTINCT  id, REF_url , REF_type AS tags, '' AS ref_desc , 'GITHUB' AS vul_source  FROM   test.t_t
155     )tmp;
156
157
158   --node component:
159       --if COALESCE(package_ecosys, package_name)
160
161   DROP TABLE IF EXISTS test.t_tmp_graph_node_component_GITHUB;
162   ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
163   CREATE TABLE test.t_tmp_graph_node_component_GITHUB AS
164   WITH wt_osv_tmp AS
165   (
```

```sql
166      SELECT  oos.vul_msg ->> 'id' AS id,
167              '-' AS component,
168              affecteds.value -> 'package' ->> 'ecosystem' AS package_ecosys_group, --vendor: *
169              affecteds.value -> 'package' ->> 'name' AS module_package, --AS component_name
170              affecteds.value -> 'package' ->> 'purl' AS repo_purl,
171              affecteds ->> 'ranges' AS affected_ranges,
172              affecteds ->> 'versions' AS affected_versions, --,
173              affecteds_ranges ->> 'type' AS affected_range_type,
174              affecteds_ranges ->> 'repo' AS affected_range_repo,
175 --          affecteds_ranges.value ->> 'database_specific' AS affected_range_database_specific,
176              affecteds_ranges ->> 'events' AS affected_range_events
177      FROM test.github_advisory oos,
178          jsonb_array_elements(oos.vul_msg -> 'affected') affecteds ,
179          jsonb_array_elements(affecteds.value -> 'ranges') affecteds_ranges
180 --          jsonb_array_elements(affecteds_ranges.value -> 'events') affected_events
181 ),
182 wt_osv_tmp1 AS
183 (
184          SELECT wot.id, wot.package_ecosys_group,
185            CASE WHEN wot.package_ecosys_group = 'Maven' THEN split_part(wot.module_package, ':', 1)
186                 WHEN wot.package_ecosys_group = 'Packagist' THEN split_part(wot.module_package, '/', 1)
187                 WHEN wot.package_ecosys_group = 'SwiftURL' THEN split_part(wot.module_package, '/', 2)
188                 WHEN wot.package_ecosys_group = 'GitHub Actions' THEN split_part(wot.module_package, '/', 1)
189                 ELSE '-'
190            END AS vendor,
191            '-' AS component,
192            CASE WHEN wot.package_ecosys_group = 'Maven' THEN split_part(wot.module_package, ':', 2)
193                 WHEN wot.package_ecosys_group = 'Packagist' THEN split_part(wot.module_package, '/', 2)
194                 WHEN wot.package_ecosys_group = 'SwiftURL' THEN split_part(wot.module_package, '/', 3)
195                 WHEN wot.package_ecosys_group = 'GitHub Actions' THEN split_part(wot.module_package, '/', 2)
196                 --GO 语言的 module_package 对应的是 go 官网的id ，可以通过id获取到package 的名称
197                 ELSE wot.module_package
198            END AS package,
199            wot.module_package,
200            wot.repo_purl, wot.affected_ranges, wot.affected_versions,  wot.affected_range_type,
201            wot.affected_range_repo,
202            split_part(wot.affected_range_repo, '/', 3) ~ '^git\.[a-zA-Z0-9_-]+\.org$' AS git_xxx_org_flag,
203            wot.affected_range_events
204          FROM wt_osv_tmp wot
205 )
206 SELECT tmp.*,  COALESCE(em.target_name, tmp.ecosystem_tmp) AS ecosystem
207 FROM
208 (
209     SELECT  ot.id,  coalesce(ot.package_ecosys_group, '*')  AS ecosystem_tmp, --AS platform
210             ot.affected_range_type,
211             ot.vendor,
212             ot.component,
213             ot.package,
214             ot.repo_purl  AS repo_url,
215             '' AS defaultstatus, '' AS collectionURL, jsonb_build_object('version_range', ot.affected_range_even
216             jsonb_build_object('version_range', '[]', 'version_list', '[]') AS unaffected_versions
217     FROM wt_osv_tmp1 ot
218     WHERE ot.affected_range_type <> 'GIT'
219     UNION ALL
220     SELECT  ot.id,  'GIT'  AS ecosystem_tmp, --AS platform
221             ot.affected_range_type,
222             CASE WHEN ot.git_xxx_org_flag = TRUE  THEN substring( split_part(ot.affected_range_repo, '/', 3) FRO
223                  WHEN regexp_replace(split_part(ot.affected_range_repo,'/',5), '\.git$','') = '' THEN '-'
```

```
224                ELSE   split_part(ot.affected_range_repo,'/',4)   END    AS vendor,
225              ot.component,
226              CASE WHEN ot.git_xxx_org_flag = TRUE   THEN regexp_replace( split_part(ot.affected_range_repo, '/', 4
227                   WHEN   regexp_replace(split_part(ot.affected_range_repo,'/',5), '\.git$','') = ''  THEN   ot.modul
228                   ELSE   regexp_replace(split_part(ot.affected_range_repo,'/',5), '\.git$','') END   AS package,
229              ot.affected_range_repo   AS repo_url,
230              '' AS defaultstatus, '' AS collectionURL, jsonb_build_object('version_range', ot.affected_range_even
231              jsonb_build_object('version_range', '[]', 'version_list', '[]') AS unaffected_versions
232        FROM wt_osv_tmp1 ot
233        WHERE ot.affected_range_type = 'GIT'
234  )tmp
235  LEFT JOIN test.dim_vul_ecosystem_map em
236          ON em.vul_source = 'GITHUB'
237          AND em.source_name = tmp.ecosystem_tmp;
238
239
240  UPDATE   test.t_tmp_graph_node_component_GITHUB t
241  SET ecosystem = 'GIT', package = 'curl',  vendor = 'curl' , repo_url = 'https://github.com/curl/curl.git'
242  WHERE split_part(id, '_', 1)  <> ecosystem
243  AND t.ecosystem = '*';
244
245
246  --SELECT DISTINCT ecosystem FROM test.t_tmp_graph_node_component_GITHUB LIMIT 100
247
248
249  DELETE FROM test.t_tmp_graph_node_component_GITHUB  WHERE package = ''
250
251  SELECT *FROM test.dws_graph_node_affected_component LIMIT 10
252
253  DELETE FROM test.dws_graph_node_affected_component WHERE vul_source = 'GITHUB';
254  ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
255  INSERT INTO test.dws_graph_node_affected_component
256    SELECT nextval('cve_graph_seq') AS seq, tmp.*
257    FROM (
258      SELECT   DISTINCT component, vendor, package, ecosystem, 'GITHUB' AS vul_source   FROM    test.t_tmp_graph_n
259    )tmp;
260
261
262
263
264
265
266  DELETE FROM test.dws_graph_relationships_affected_components WHERE vul_source = 'GITHUB';
267  ALTER SEQUENCE cve_graph_seq RESTART START WITH 1;
268  INSERT INTO test.dws_graph_relationships_affected_components
269    SELECT nextval('cve_graph_seq') AS seq, tmp.*
270    FROM (
271      SELECT   DISTINCT id, component, vendor, package, ecosystem, '' repo_url, '' AS platform,
272              '' AS collectionurl, '' AS defaultstatus, affected_versions, unaffected_versions, 'GITHUB' AS vul_
273    )tmp;
274
275
276
277    bash gen_graph_data.sh "GITHUB" "node" "affected_component"
278    bash neo4j_affected_component_node_load.sh "GITHUB" "0"
279    bash gen_graph_data.sh "GITHUB" "relationships" "affected_components"
280    bash neo4j_relationships_affected_components.sh "GITHUB" "0"
281
```

```
282
283    SELECT *FROM test.dws_graph_relationships_affected_components WHERE vul_source = 'GITHUB';
284
```