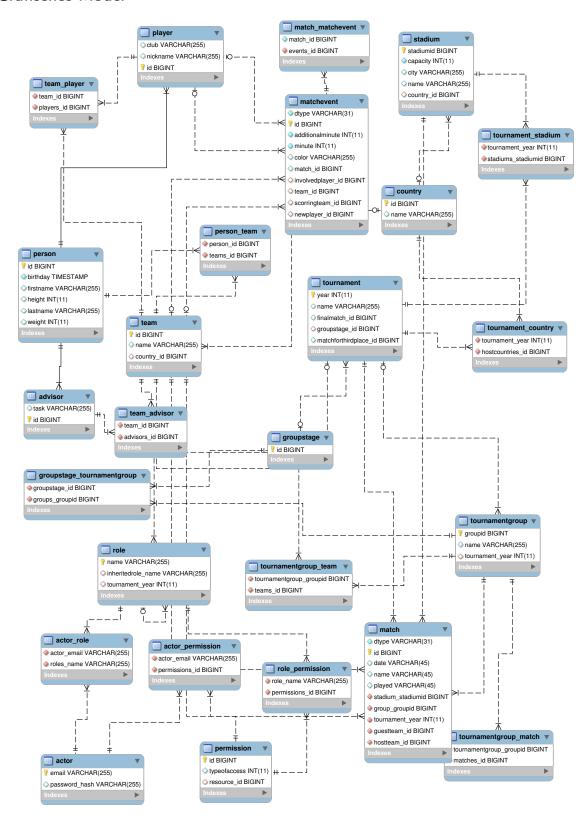
relationales Schema

Grafisches Model



OR-Mapper Vorgehensweise

Wir haben uns entschieden mit *Hibernate* zu Arbeiten. Dabei wurde ausgehend von einem Java-Objektmodell ein relationales Modell erstellt. In unserem Build-Prozess (mittels *Maven*) wird das Schema jedesmal regeneriert und in die Datenbank exportiert. Ein Snapshot der Datenbank inklusive *Stored Procedure* zur Turniererstellung folgt unten.

Alle Testdaten werden von unserer GUI-Anwendung automatisch generiert und in der Datenbank persistiert. Die Turniererstellung aus dem Programm heraus ist sowohl über die *Stored Procedure* als über Java-Methoden generiert möglich.

SQL (Postgres)

```
-\ PostgreSQL\ database\ dump
 5 SET statement timeout = 0;
  SET client encoding = 'UTF8';
   \begin{tabular}{ll} \bf SET & \tt standard\_conforming\_strings = off; \\ \end{tabular} 
  SET check_function_bodies = false;
  \mathbf{SET} \ \mathtt{client\_min\_messages} \ = \ \mathtt{warning} \ ;
  SET escape_string_warning = off;
  SET search_path = public, pg_catalog;
14 ALTER TABLE ONLY public.role_permission DROP CONSTRAINT fkf8a569386ac4edcc;
15 ALTER TABLE ONLY public.role_permission DROP CONSTRAINT fkf8a56938401023a7;
16 ALTER TABLE ONLY public.stadium DROP CONSTRAINT fkf21d53ddfcf4fc9d;
17 ALTER TABLE ONLY public.matchevent DROP CONSTRAINT fke491d7f5df1dd7b0;
18 ALTER TABLE ONLY public.matchevent DROP CONSTRAINT fke491d7f5db6578d7;
  ALTER TABLE ONLY public.matchevent DROP CONSTRAINT fke491d7f5c7168977
20 ALTER TABLE ONLY public.matchevent DROP CONSTRAINT fke491d7f56a9e6294;
21 ALTER TABLE ONLY public matchevent DROP CONSTRAINT fke491d7f560766fd;
22 ALTER TABLE ONLY public.match_match_DROP CONSTRAINT fkd7c3a68b884bbd1
23 ALTER TABLE ONLY public.match_match DROP CONSTRAINT fkd7c3a68b1fd58223;
24 ALTER TABLE ONLY public.team_player DROP CONSTRAINT fkd4e5f703db6578d7;
ALTER TABLE ONLY public.team_player DROP CONSTRAINT fkd4e5f70318f27aa6;
ALTER TABLE ONLY public.actor_permission DROP CONSTRAINT fkcf243699d36f2a65;
27 ALTER TABLE ONLY public.actor_permission DROP CONSTRAINT fkcf243699401023a7;
ALTER TABLE ONLY public match matchevent DROP CONSTRAINT fkbfc93acfdcc26853;
ALTER TABLE ONLY public match matchevent DROP CONSTRAINT fkbfc93acf60766fd;
30 ALTER TABLE ONLY public.tournamentgroup_team DROP CONSTRAINT fkb7678b26d57db48a;
31 ALTER TABLE ONLY public.tournamentgroup_team DROP CONSTRAINT fkb7678b26cdc8c6de;
ALTER TABLE ONLY public.tournament_stadium DROP CONSTRAINT fkabf317a7db034f8f;
33 ALTER TABLE ONLY public.tournament stadium DROP CONSTRAINT fkabf317a774b12939;
34 ALTER TABLE ONLY public.team_advisor DROP CONSTRAINT fka1d587deea5528a;
  ALTER TABLE ONLY public.team advisor DROP CONSTRAINT fka1d587dedb6578d7;
36 ALTER TABLE ONLY public.player DROP CONSTRAINT fk8ea387019b9d8d6d;
37 ALTER TABLE ONLY public.tournamentgroup DROP CONSTRAINT fk6372df674b12939;
ALTER TABLE ONLY public.groupstage_tournamentgroup DROP CONSTRAINT fk62cd5967d361fb7;
38 ALTER TABLE ONLY public.groupstage_tournamentgroup DROP CONSTRAINT fk62cd596526daa28;
40 ALTER TABLE ONLY public.permission DROP CONSTRAINT fk57f7a1ef94470e9c;
41 ALTER TABLE ONLY public .tournament_country DROP CONSTRAINT fk5625b3409a553667;
42 ALTER TABLE ONLY public .tournament_country DROP CONSTRAINT fk5625b34074b12939;
43 ALTER TABLE ONLY public.person team DROP CONSTRAINT fk49fd4907ce781a97;
44 ALTER TABLE ONLY public.person_team DROP CONSTRAINT fk49fd4907cdc8c6de;
45 ALTER TABLE ONLY public.match DROP CONSTRAINT fk46ae9a5f0ec562f;
46 ALTER TABLE ONLY public .match DROP CONSTRAINT fk46ae9a5e2487ff;
47 ALTER TABLE ONLY public.match DROP CONSTRAINT fk46ae9a5d4eaebd3;
48 ALTER TABLE ONLY public .match DROP CONSTRAINT fk46ae9a574b12939;
49 ALTER TABLE ONLY public .match DROP CONSTRAINT fk46ae9a515c9d2b6;
50 ALTER TABLE ONLY public.tournament DROP CONSTRAINT fk3b743609fcd043a4;
```

```
51 | ALTER TABLE ONLY public.tournament DROP CONSTRAINT fk3b7436097d361fb7;
ALTER TABLE ONLY public.tournament DROP CONSTRAINT fk3b74360966de6d99;

ALTER TABLE ONLY public.tournamentgroup_match DROP CONSTRAINT fk3525aa1cd57db48a;
54 ALTER TABLE ONLY public.tournamentgroup_match DROP CONSTRAINT fk3525aa1c2801c0aa;
55 ALTER TABLE ONLY public.team DROP CONSTRAINT fk27b67dfcf4fc9d;
56 ALTER TABLE ONLY public.role DROP CONSTRAINT fk26f496da563832;
57 ALTER TABLE ONLY public . role DROP CONSTRAINT fk26f49674b12939;
ALTER TABLE ONLY public.actor_role DROP CONSTRAINT fk26e2d0c0e4a0b3e5;
4LTER TABLE ONLY public.actor_role DROP CONSTRAINT fk26e2d0c0d36f2a65;
60 ALTER TABLE ONLY public.advisor DROP CONSTRAINT fk1fc9f7a09b9d8d6d;
61 ALTER TABLE ONLY public.tournamentgroup_team DROP CONSTRAINT
        tournamentgroup_team_teams_id_key;
62 ALTER TABLE ONLY public.tournamentgroup DROP CONSTRAINT tournamentgroup pkey;
63 ALTER TABLE ONLY public .tournamentgroup match DROP CONSTRAINT
        tournamentgroup_match_matches_id_key;
64 ALTER TABLE ONLY public.tournament DROP CONSTRAINT tournament_pkey;
65 ALTER TABLE ONLY public.team DROP CONSTRAINT team_pkey;
ALTER TABLE ONLY public.team_advisor DROP CONSTRAINT team_advisor_advisors_id_key;
ALTER TABLE ONLY public.stadium DROP CONSTRAINT stadium_pkey;
68 ALTER TABLE ONLY public.role DROP CONSTRAINT role_pkey;
69 ALTER TABLE ONLY public role permission DROP CONSTRAINT
        role\_permission\_permissions\_id\_key
70 ALTER TABLE ONLY public.resource DROP CONSTRAINT resource pkey;
71 ALTER TABLE ONLY public.player DROP CONSTRAINT player_pkey;
72 ALTER TABLE ONLY public.person DROP CONSTRAINT person_pkey;
73 ALTER TABLE ONLY public.permission DROP CONSTRAINT permission_pkey;
ALTER TABLE ONLY public matchevent DROP CONSTRAINT matchevent pkey;

ALTER TABLE ONLY public match DROP CONSTRAINT match pkey;
76 ALTER TABLE ONLY public match matchevent DROP CONSTRAINT match matchevent events id key;
77 ALTER TABLE ONLY public.groupstage_tournamentgroup DROP CONSTRAINT
        groupstage_tournamentgroup_groups_groupid_key
78 ALTER TABLE ONLY public groupstage DROP CONSTRAINT groupstage pkey;
79 ALTER TABLE ONLY public.country DROP CONSTRAINT country_pkey;
ALTER TABLE ONLY public.advisor DROP CONSTRAINT advisor_pkey;

ALTER TABLE ONLY public.actor_role DROP CONSTRAINT actor_role_roles_name_key;
82 ALTER TABLE ONLY public.actor DROP CONSTRAINT actor_pkey;
83 ALTER TABLE ONLY public.actor_permission DROP CONSTRAINT
        actor_permission_permissions_id_key;
84 DROP TABLE public.tournamentgroup_team;
85 DROP TABLE public.tournamentgroup_match;
DROP TABLE public.tournamentgroup;
87 DROP TABLE public.tournament_stadium;
88 DROP TABLE public.tournament_country;
89 DROP TABLE public.tournament;
90 DROP TABLE public.team_player;
91 DROP TABLE public.team_advisor;
92 DROP TABLE public.role_permission;
93 DROP TABLE public.role;
94 DROP TABLE public.resource;
95 DROP TABLE public.person_team;
96 DROP TABLE public . person;
97 DROP TABLE public.permission;
98 DROP TABLE public . matchevent;
99 DROP TABLE public.match_matchevent;
100 DROP TABLE public.match_match;
101 DROP TABLE public.match;
102 DROP SEQUENCE public.hibernate_sequence;
103 DROP TABLE public groupstage tournamentgroup;
DROP TABLE public.advisor;
105 DROP TABLE public.actor_role;
106 DROP TABLE public.actor_permission;
107 DROP TABLE public.actor;
108 DROP FUNCTION public.getstadiumsforcountry(bigint);
109 DROP TABLE public . stadium;
110 DROP FUNCTION public.getplayer();
111 DROP TABLE public . player;
DROP FUNCTION public getnextsequence();
113 DROP FUNCTION public getcountry();
```

```
114 DROP TABLE public.country;
115 DROP FUNCTION public generateteam();
116 DROP TABLE public.team;
117 DROP FUNCTION public.generatematch(bigint, bigint, bigint);
118 DROP FUNCTION public.generateknockouttree(integer, bigint);
DROP FUNCTION public.generategroupstage();
120 DROP TABLE public groupstage;
{\tt 121} \ | \ \textbf{DROP} \ \ \text{FUNCTION} \ \ \text{public.generate group matches} \ ( \ \text{bigint} \ ) \ ;
122 DROP FUNCTION public.createchampionship(integer, text);
DROP FUNCTION public.concat(character varying, bigint);
DROP FUNCTION public.concat(character varying, integer);
125 DROP PROCEDURAL LANGUAGE plpgsql;
126 DROP SCHEMA public;
127
128
     - Name: public; Type: SCHEMA; Schema: -; Owner: postgres
129
130
   CREATE SCHEMA public;
131
132
134 ALTER SCHEMA public OWNER TO postgres;
135
136
   --- Name: plpqsql; Type: PROCEDURAL LANGUAGE; Schema: -; Owner: postqres
137
138
139
140 CREATE PROCEDURAL LANGUAGE plpgsql;
141
142
143 ALTER PROCEDURAL LANGUAGE plpgsql OWNER TO postgres;
144
   \mathbf{SET} \ \operatorname{search\_path} \ = \ \operatorname{public} \ , \ \ \operatorname{pg\_catalog} \ ;
145
146
147
      {\it Name: concat(character\ varying\ ,\ integer);\ Type:\ FUNCTION;\ Schema:\ public;\ Owner:}
148
149
150
   CREATE FUNCTION concat (character varying, integer) RETURNS character varying
151
        LANGUAGE plpgsql
152
153
        AS \$_\$
154
        return $1 || ' ' || chr(49 + (\$2\%119));
155
   FND
156
157
   $ $;
158
159
   ALTER FUNCTION public.concat(character varying, integer) OWNER TO postgres;
160
161
162
     - Name: concat(character varying, bigint); Type: FUNCTION; Schema: public; Owner:
163
        postgres
164
165
   CREATE FUNCTION concat (character varying, bigint) RETURNS character varying
166
        LANGUAGE plpgsql
167
168
        AS \$_\$
169
        return $1 || ' ' || chr(CAST(49 + ($2\%119) AS INT));
170
171 END
172
   $ $;
173
174
175 ALTER FUNCTION public.concat(character varying, bigint) OWNER TO postgres;
176
177
   -- Name: createchampionship(integer, text); Type: FUNCTION; Schema: <math>public; Owner:
178
        postgres
```

```
179
180
   CREATE FUNCTION createchampionship (integer, text) RETURNS void
181
       LANGUAGE plpgsql
182
       AS $_$
183
   DECLARE
184
        yearParam ALIAS FOR $1;
185
        nameParam ALIAS FOR $2;
186
187
        host country%ROWTYPE;
        currentStadium stadium%ROWTYPE;
188
        groupStage groupstage%ROWTYPE;
189
190
        finalId bigint;
   BEGIN
191
        RAISE NOTICE 'Creating a new tournament';
192
193
       -Generiert die K.O.-Phase
194
195
        finalId := getNextSequence();
       INSERT INTO match(id, name, played, dtype)
VALUES (finalId, 'Finale', false, 'KnockoutMatch');
196
197
        PERFORM generateKnockoutTree(1, finalId);
198
199
        -- Generiert \ die \ Gruppenphase
200
        groupStage := generateGroupStage();
201
202
203
        --- Speichert das Turnier ab
        INSERT INTO tournament (year, name, finalmatch_id, groupstage_id)
204
        VALUES (yearParam, nameParam, finalId, groupStage.id);
205
206

    Set a random host country

207
208
        host := getCountry();
209
        INSERT INTO "tournament_country" VALUES (yearParam, host.id);
210
^{211}
         - Set 8 random stadiums
       FOR currentStadium IN SELECT * FROM getStadiumsForCountry(host.id) LOOP
212
            INSERT INTO tournament stadium VALUES (yearParam, currentStadium.stadiumid);
213
214
       END LOOP;
215
     RETURN;
216 END;
   $_$;
217
218
219
   ALTER FUNCTION public.createchampionship(integer, text) OWNER TO postgres;
220
221
222
     - Name: generategroupmatches(bigint); Type: FUNCTION; Schema: public; Owner: postgres
223
224
225
   CREATE FUNCTION generategroupmatches (bigint) RETURNS void
226
227
       LANGUAGE plpgsql
       AS $_$
228
   DECLARE
229
        groupId ALIAS FOR $1;
230
231
        numberOfTeams int;
        currentTeam team%ROWTYPE;
232
        teams team [];
233
        i int;
234
235
        j int;
   BEGIN
236
237
        SELECT COUNT(*) INTO numberOfTeams
238
239
       FROM tournament group team
240
       WHERE tournamentgroup_groupid = groupId;
241
     -- Test ob genuegend Teams in der Gruppe sind
242
        if (numberOfTeams < 4) THEN
243
            RAISE EXCEPTION 'at least 4 teams have to be in a group';
244
            RETURN:
245
       END IF;
246
```

```
247
248
        -- Erstellt ein Array aus dem Teams der Gruppe
249
250
        teams := '{}';
        FOR current Team IN
251
252
            SELECT t.*
            FROM team t
253
            254
255
            WHERE tournamentgroup_groupid = groupId
256
            teams := array_append(teams, currentTeam);
257
258
       END LOOP;
259
        Laesst jede Mannschaft einmal gegen alle anderen Manschaften antreten
260
261
        FOR i IN 1..4 LOOP
            FOR j IN (i+1)...4 LOOP
262
                 PERFORM \ generateMatch(teams[i].id\ ,\ teams[j].id\ ,\ groupId);
^{263}
            END LOOP;
264
       END LOOP;
265
266
        return;
267
268
269 END
270 $_$;
271
272
273 ALTER FUNCTION public.generategroupmatches(bigint) OWNER TO postgres;
274
SET default tablespace = '';
276
277
   SET default_with_oids = false;
278
279
    - Name: groupstage; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
280
281
282
   CREATE TABLE groupstage (
283
        {\rm id}\ {\rm bigint}\ {\rm \color{red}NOT}\ {\rm \color{blue}NULL}
284
285
286
287
   ALTER TABLE public groupstage OWNER TO postgres;
288
289
290
     - Name: generategroupstage(); Type: FUNCTION; Schema: public; Owner: postgres
291
292
293
   CREATE FUNCTION generategroupstage() RETURNS groupstage
294
295
        LANGUAGE plpgsql
        AS $$
296
   DECLARE
297
298
        stageId int;
299
        stage groupstage;
300
        currentTeam team;
        currentGroup tournamentgroup;
301
        currentGroupId bigint;
302
303
        i int;
304
        j int;
   BEGIN
305
306
        stageId := getNextSequence();
307
         \textbf{INSERT INTO} \ \ \texttt{groupstage} \ \ \textbf{VALUES} \ \ (\ \texttt{stageId} \ ) \ ; \\
308
309
          - Fuer alle 8 Gruppen
310
        FOR i IN 1..8 LOOP
311
            currentGroupId := getNextSequence();
312
313
314
            INSERT INTO tournament group (groupid, name)
```

```
315
            VALUES (currentGroupId, concat('Gruppe', 10));
316
             generiere 4 Mannschaften
317
            FOR j IN 1..4 LOOP
318
                currentTeam := generateTeam();
319
320
                INSERT INTO tournamentgroup_team (tournamentgroup_groupid, teams_id)
321
                VALUES (currentGroupId, currentTeam.id);
322
           END LOOP;
323
324
           INSERT INTO groupstage tournamentgroup VALUES (stageId, currentGroupId);
325
326
327
       -- und trage die Gruppenspiele ein
           PERFORM generateGroupMatches(currentGroupId);
328
329
       END LOOP;
330
331
       SELECT * INTO stage FROM groupstage WHERE id = stageId;
332
333
334
        return stage;
335
336 END
337
   $$:
338
339
340
   ALTER FUNCTION public.generategroupstage() OWNER TO postgres;
341
342
      Name: generateknockouttree(integer, bigint); Type: FUNCTION; Schema: public; Owner:
343
        postgres
344
345
346 CREATE FUNCTION generateknockouttree(integer, bigint) RETURNS void
       LANGUAGE plpgsql
347
       AS $_$
348
349
   DECLARE
        height ALIAS FOR $1;
350
        nodeId ALIAS FOR $2;
351
        matchId1 bigint;
352
        matchId2 bigint;
353
        newHeight int;
354
        knockoutMatchType varchar;
355
   BEGIN
356
357
        Rekursions anker \\
        IF (height > 3) THEN
358
           RETURN:
359
360
        ELSIF (height = 1) THEN
                                  'Halbfinale';
            knockoutMatchType :=
361
362
       ELSIF (height = 2) THEN
                                   'Viertelfinale';
363
            knockoutMatchType \,:=\,
       ELSIF (height = 3) THEN
364
            knockoutMatchType \ := \ 'Achtelfinale';
365
366
       END IF;
367
368
       - Erstellen zweier Kindspiele
369
370
       matchId1 := getNextSequence();
       INSERT INTO match(id, name, played, dtype)
371
       VALUES (matchId1, knockoutMatchType, false, 'KnockoutMatch');
372
373
374
       matchId2 := getNextSequence();
375
       INSERT INTO match(id, name, played, dtype)
       VALUES (matchId2, knockoutMatchType, false, 'KnockoutMatch');
376
377
        Hinzufuegen zum Baum
378
       INSERT INTO match_match(match_id, childs_id) VALUES (nodeId, matchId1);
379
       INSERT INTO match_match(match_id, childs_id) VALUES (nodeId, matchId2);
380
381
```

```
382
      - rekursiver Aufruf
       newHeight := height + 1;
383
       PERFORM generateKnockoutTree(newHeight, matchId1);
384
385
       PERFORM generateKnockoutTree(newHeight, matchId2);
386
       RETURN;
387
388 END;
   $_$;
389
390
391
   ALTER FUNCTION public generateknockouttree (integer, bigint) OWNER TO postgres;
392
393
394
      Name: generatematch(bigint, bigint, bigint); Type: FUNCTION; Schema: public; Owner:
395
        postgres
396
397
   CREATE FUNCTION generatematch (bigint, bigint, bigint) RETURNS void
398
       LANGUAGE plpgsql
399
       AS $_$
400
   DECLARE
401
       hostTeam\ ALIAS\ FOR\ \$1;
402
       guestTeam ALIAS FOR $2;
403
        groupId ALIAS FOR $3;
404
405
        matchId bigint;
        i int;
406
   BEGIN
407
408
       matchId := getNextSequence();
409
410
       INSERT INTO match(id, hostteam_id, guestteam_id, played, dtype, group_groupid)
411
       VALUES (matchId, hostTeam, guestTeam, false, 'GroupMatch', groupId);
412
       INSERT INTO tournamentgroup_match
413
       VALUES (groupId, matchId);
414
415 END
416
   $ $;
417
418
   ALTER FUNCTION public.generatematch(bigint, bigint, bigint) OWNER TO postgres;
419
420
421
     - Name: team; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
422
423
424
   CREATE TABLE team (
425
       id bigint NOT NULL,
426
427
       name character varying (255),
       country_id bigint
428
429
   );
430
431
   ALTER TABLE public.team OWNER TO postgres;
432
433
434
     - Name: generateteam(); Type: FUNCTION; Schema: public; Owner: postgres
435
436
437
   CREATE FUNCTION generateteam () RETURNS team
438
       LANGUAGE\ plpgsql
439
       AS $$
440
   DECLARE
441
442
        i int;
443
        j int;
       sequenceValue int;
444
445
        playerId int;
        selectedTeam Team%ROWTYPE;
446
   BEGIN
447
448
       SELECT id INTO i FROM getCountry();
```

```
449
        sequenceValue := getNextSequence();
450
451
        INSERT INTO team VALUES (sequenceValue, concat ('Musterteam', sequenceValue), i);
452
        SELECT * INTO selected Team FROM team WHERE id = sequence Value;
453
454
        FOR j IN 1..23 LOOP
455
            SELECT id INTO playerId FROM getPlayer();
456
457
             \textbf{INSERT INTO} \ \ \text{team\_player VALUES} \ \ (\ \text{selectedTeam.id} \ , \ \ \text{playerId} \ ) \ ; 
            INSERT INTO person_team VALUES (playerId, selectedTeam.id);
458
       END LOOP;
459
460
        return selected Team;
461
462 END
463
464
465
   ALTER FUNCTION public.generateteam() OWNER TO postgres;
466
467
468
     - Name: country; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
469
470
471
   CREATE TABLE country (
472
        id bigint NOT NULL,
473
474
        name character varying (255)
475
476
477
   ALTER TABLE public.country OWNER TO postgres;
478
479
480
     - Name: getcountry(); Type: FUNCTION; Schema: public; Owner: postgres
481
482
483
   CREATE FUNCTION getcountry() RETURNS SETOF country
484
       LANGUAGE plpgsql
485
       AS $$
486
   DECLARE
487
        selectedRow Country%ROWTYPE;
488
489
        n int := 0;
490
        SELECT COUNT(*) INTO n FROM Country;
491
492
        IF(n < 1) THEN
            INSERT INTO Country VALUES (getNextSequence(), 'DummyLand');
493
       END IF;
494
495
        SELECT * INTO selected Row FROM Country ORDER BY RANDOM() LIMIT 1;
496
497
        RETURN NEXT selected Row;
   END
498
   $$;
499
500
501
   ALTER FUNCTION public.getcountry() OWNER TO postgres;
502
503
504
   --- Name: getnextsequence(); Type: FUNCTION; Schema: public; Owner: postgres
505
506
507
   CREATE FUNCTION getnextsequence() RETURNS bigint
508
       LANGUAGE sql
509
510
        AS $$
        SELECT nextval ('hibernate_sequence') FROM hibernate_sequence;
511
   $$:
512
513
514
ALTER FUNCTION public.getnextsequence() OWNER TO postgres;
516
```

```
517
      Name: player; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
518
519
520
   CREATE TABLE player (
521
522
        club character varying (255)
        nickname character varying (255),
523
       id bigint NOT NULL
524
525
526
527
   ALTER TABLE public.player OWNER TO postgres;
528
529
530
531
     - Name: getplayer(); Type: FUNCTION; Schema: public; Owner: postgres
532
533
   CREATE FUNCTION getplayer() RETURNS player
534
       LANGUAGE plpgsql
535
       AS $$
536
   DECLARE
537
        createdPlayer Player%ROWTYPE;
538
        sequenceValue bigint;
539
   BEGIN
540
        sequenceValue := getNextSequence();
541
542
       INSERT INTO person (id, firstname, lastname)
543
544
       VALUES (sequenceValue, concat ('Vorname', sequenceValue), concat ('Nachname',
            sequenceValue));
545
546
       INSERT INTO player (id, nickname, club)
       VALUES (sequenceValue, concat ('Nick', sequenceValue), 'FC Seehaeusl');
547
548
       SELECT * INTO created Player FROM player WHERE id = sequence Value;
549
550
551
        return createdPlayer;
   END
552
553
   $$;
554
555
   ALTER FUNCTION public.getplayer() OWNER TO postgres;
556
557
558
   -- Name: stadium; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
559
560
561
562
   CREATE TABLE stadium (
       stadiumid bigint NOT NULL,
563
564
        capacity integer NOT NULL,
        city character varying (255),
565
       name character varying (255),
566
567
        country_id bigint
568
569
570
   ALTER TABLE public.stadium OWNER TO postgres;
571
572
573
     - Name: getstadiumsforcountry(bigint); Type: FUNCTION; Schema: public; Owner: postgres
574
575
576
   CREATE FUNCTION getstadiumsforcountry(bigint) RETURNS SETOF stadium
577
       LANGUAGE plpgsql
578
       AS $_$
579
   DECLARE
580
        countryId ALIAS FOR $1;
581
       selectedRow Stadium%ROWTYPE;
582
583
       n\ \mathbf{int}\ :=\ 0\,;
```

```
584
      i int;
   BEGIN
585
       SELECT COUNT(*) INTO n FROM Stadium WHERE country id = countryId;
586
       IF(n < 8) THEN
587
            FOR i IN 1..(8-n) LOOP
588
                INSERT INTO Stadium VALUES (getNextSequence(), 500, concat('Dummystadt',i),
589
                     concat('Dummystadion',i), countryId);
           END LOOP;
590
       END IF;
591
592
       FOR selected Row IN SELECT * FROM stadium ORDER BY RANDOM() LIMIT 8 LOOP
593
594
            return next selectedRow;
       END LOOP;
595
596
597
        return;
598 END
599 $_$;
600
601
   ALTER FUNCTION public.getstadiumsforcountry(bigint) OWNER TO postgres;
603
604
    - Name: actor; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
605
606
607
   CREATE TABLE actor (
608
        email character varying (255) NOT NULL,
609
610
        password_hash character varying(255)
611
612
613
   ALTER TABLE public . actor OWNER TO postgres;
614
615
616
     - Name: actor permission; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
617
618
619
   CREATE TABLE actor_permission (
620
        actor_email character varying(255) NOT NULL
621
        permissions_id bigint NOT NULL
622
623
624
625
   ALTER TABLE public.actor_permission OWNER TO postgres;
626
627
628
629
    -\ Name:\ actor\_\ role;\ Type:\ TABLE;\ Schema:\ public;\ Owner:\ postgres;\ Tablespace:
630
631
   CREATE TABLE actor role (
632
        actor email character varying (255) NOT NULL,
633
634
        roles_name character varying(255) NOT NULL
635
636
637
   ALTER TABLE public.actor role OWNER TO postgres;
638
639
640
    - Name: advisor; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
641
642
643
644 CREATE TABLE advisor (
        task character varying (255),
645
        id bigint NOT NULL
646
647
   );
648
649
650 ALTER TABLE public.advisor OWNER TO postgres;
```

```
651
652
       Name: \ groupstage\_tournament group; \ Type: \ TABLE; \ Schema: \ public; \ Owner: \ postgres; \\
653
        Table space:\\
654
655
   CREATE TABLE groupstage_tournamentgroup (
656
        {\tt groupstage\_id~bigint} \  \, {\tt NOT~NULL},
657
658
        groups_groupid bigint NOT NULL
   );
659
660
   ALTER TABLE public.groupstage tournamentgroup OWNER TO postgres;
662
663
664
     - Name: hibernate sequence; Type: SEQUENCE; Schema: public; Owner: postgres
665
666
667
   CREATE SEQUENCE hibernate_sequence
668
        START WITH 1
669
        INCREMENT BY 1
670
671
       NO MAXVALUE
       NO MINVALUE
672
        CACHE 1;
673
674
675
676 ALTER TABLE public. hibernate sequence OWNER TO postgres;
677
678
     - \ \textit{Name: match; Type: TABLE; Schema: public; Owner: postgres; Tablespace:} \\
679
680
681
   CREATE TABLE match (
682
        dtype character varying (31) NOT NULL,
683
        id bigint NOT NULL,
684
685
        date timestamp without time zone,
        name character varying (255),
686
        played boolean NOT NULL,
687
        guestteam_id bigint,
688
        hostteam_id bigint
689
690
        stadium_stadiumid bigint,
        tournament year integer,
691
692
        group_groupid bigint
693
694
695
696
   ALTER TABLE public.match OWNER TO postgres;
697
698
    -- Name: match match; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
699
700
701
702
   CREATE TABLE match match (
        match_id bigint NOT NULL,
703
        childs_id bigint NOT NULL
704
   );
705
706
707
708 ALTER TABLE public.match match OWNER TO postgres;
709
710
   -- Name: match_matchevent; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
711
712
713
714 CREATE TABLE match_matchevent (
        match id bigint NOT NULL,
715
        events_id bigint NOT NULL
716
717 );
```

```
718
719
720 ALTER TABLE public.match_matchevent OWNER TO postgres;
721
722
   --- Name: matchevent; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
723
724
725
726 CREATE TABLE matchevent (
        dtype character varying (31) NOT NULL,
727
        id bigint NOT NULL,
728
729
        additionalminute integer NOT NULL,
        minute integer NOT NULL,
730
731
        color character varying (255),
732
        match_id bigint
        involvedplayer_id bigint,
733
734
        team_id bigint,
        scorringteam_id_bigint, newplayer_id_bigint
735
736
737
   );
738
739
   ALTER TABLE public.matchevent OWNER TO postgres;
740
741
742
   --- Name: permission; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
743
744
745
   CREATE TABLE permission (
746
747
        id bigint NOT NULL,
748
        typeofaccess integer,
        resource_id bigint
749
750
   );
751
752
753 ALTER TABLE public.permission OWNER TO postgres;
754
755
   --- Name: person; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
756
757
758
   CREATE TABLE person (
759
        id bigint NOT NULL,
760
761
        birthday timestamp without time zone,
        firstname character varying (255),
762
763
        height integer,
764
        lastname character varying (255),
        weight integer
765
766
   );
767
768
   ALTER TABLE public.person OWNER TO postgres;
769
770
771
   --- Name: person_team; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
772
773
774
   CREATE TABLE person team (
775
        person_id bigint NOT NULL,
776
777
        teams_id bigint NOT NULL
778
   );
779
780
781 ALTER TABLE public.person team OWNER TO postgres;
782
783
    - Name: resource; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
784
785
```

```
786
   CREATE TABLE resource (
787
       id bigint NOT NULL,
788
       key bytea,
789
       name character varying (255)
790
791
792
793
794
   ALTER TABLE public.resource OWNER TO postgres;
795
796
   --- Name: role; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
797
798
799
800
   CREATE TABLE role (
       name character varying (255) NOT NULL,
801
802
        inheritedrole_name character varying (255),
        tournament_year integer
803
804
805
806
807 ALTER TABLE public.role OWNER TO postgres;
808
809
   -- Name: role_permission; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
810
811
812
813
   CREATE TABLE role_permission (
       role name character varying (255) NOT NULL,
814
815
        permissions_id bigint NOT NULL
816
   );
817
818
   ALTER TABLE public.role permission OWNER TO postgres;
819
820
821
    --- Name: team advisor; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
822
823
824
   CREATE TABLE team_advisor
825
       team_id bigint NOT NULL,
826
        advisors_id bigint NOT NULL
827
828
   );
829
830
831 ALTER TABLE public.team_advisor OWNER TO postgres;
832
833
834
   --- Name: team_player; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
835
836
   CREATE TABLE team_player (
837
838
       team id bigint NOT NULL,
        players_id bigint NOT NULL
839
840
841
842
   ALTER TABLE public.team player OWNER TO postgres;
843
844
845
     - Name: tournament; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
846
847
848
   CREATE TABLE tournament (
849
       year integer NOT NULL,
850
851
       name character varying (255),
       finalmatch_id bigint,
852
853
       groupstage_id bigint,
```

```
854
       matchforthirdplace_id bigint
855
856
857
   ALTER TABLE public.tournament OWNER TO postgres;
858
859
860
    - Name: tournament country; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
861
862
863
864 CREATE TABLE tournament_country (
       tournament_year integer NOT NULL,
865
       hostcountries id bigint NOT NULL
866
867
   );
868
869
   ALTER TABLE public.tournament_country OWNER TO postgres;
870
871
872
   873
874
875
   CREATE TABLE tournament_stadium (
876
       tournament_year integer NOT NULL,
877
878
       stadiums_stadiumid bigint NOT NULL
879
   );
880
882 ALTER TABLE public.tournament stadium OWNER TO postgres;
883
884
    - Name: tournamentgroup; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
885
886
887
888 CREATE TABLE tournamentgroup (
889
       groupid bigint NOT NULL,
       name character varying (255),
890
       tournament_year integer
891
892
893
894
   ALTER TABLE public.tournamentgroup OWNER TO postgres;
895
896
897
      Name: tournamentgroup match; Type: TABLE; Schema: public; Owner: postgres; Tablespace
898
899
900
   \begin{cal} \textbf{CREATE TABLE} & tournament group\_match & ( \end{cal}
901
       tournamentgroup_groupid bigint NOT NULL,
902
       matches id bigint NOT NULL
903
904
   );
905
906
   ALTER TABLE public.tournamentgroup_match OWNER TO postgres;
907
908
909
    - Name: tournamentgroup team; Type: TABLE; Schema: public; Owner: postgres; Tablespace:
910
911
912
913 CREATE TABLE tournamentgroup_team (
       tournamentgroup_groupid bigint NOT NULL,
914
       teams_id bigint NOT NULL
915
   );
916
917
918
919 ALTER TABLE public.tournamentgroup_team OWNER TO postgres;
920
```

```
921
               \begin{tabular}{lll} \textit{Name:} & \textit{actor\_permission\_permissions\_id\_key;} & \textit{Type: CONSTRAINT;} & \textit{Schema: public; Owner: postgres;} & \textit{Tablespace:} \end{tabular}
922
923
924
       ALTER TABLE ONLY actor permission
925
                 ADD CONSTRAINT actor_permission_permissions_id_key UNIQUE (permissions_id);
926
927
928
929
         -- Name: actor pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
930
931
932
       ALTER TABLE ONLY actor
933
934
                ADD CONSTRAINT actor_pkey PRIMARY KEY (email);
935
936
937
               Name: actor role roles name key; Type: CONSTRAINT; Schema: public; Owner: postgres;
938
                  Tablespace:
939
940
       ALTER TABLE ONLY actor_role
941
                 ADD CONSTRAINT actor role roles name key UNIQUE (roles name);
942
943
944
945
946
               Name: advisor_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
947
948
949
       ALTER TABLE ONLY advisor
                 ADD CONSTRAINT advisor pkey PRIMARY KEY (id);
950
951
952
953
               Name: country_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
954
955
956
       ALTER TABLE ONLY country
957
                 ADD CONSTRAINT country pkey PRIMARY KEY (id);
958
959
960
961
962
              Name: groupstage_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
963
964
965
       ALTER TABLE ONLY groupstage
                \label{lem:add_constraint} \textbf{ADD CONSTRAINT} \ \ \texttt{groupstage\_pkey} \ \ \textbf{PRIMARY KEY} \ \ (\texttt{id}) \ ;
966
967
968
969
               Name:\ groupstage\_tournamentgroup\_groups\_groupid\_key;\ Type:\ CONSTRAINT;\ Schema:\ public and the property of the property 
970
                  ; Owner: postgres; Tablespace:
971
972
       ALTER TABLE ONLY groupstage tournament group
973
                 ADD CONSTRAINT groupstage tournamentgroup groups groupid key UNIQUE (groups groupid)
974
975
976
977
              {\it Name: match\_matchevent\_events\_id\_key; Type: CONSTRAINT; Schema: public; Owner: }
978
                  postgres; Tablespace:
979
980
       ALTER TABLE ONLY match matchevent
981
                ADD CONSTRAINT match_matchevent_events_id_key UNIQUE (events_id);
982
983
```

```
984
985
       Name: match pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
986
987
988
    ALTER TABLE ONLY match
989
        ADD CONSTRAINT match_pkey PRIMARY KEY (id);
990
991
992
993
       Name: matchevent pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
994
995
996
    ALTER TABLE ONLY matchevent
997
998
        ADD CONSTRAINT matchevent_pkey PRIMARY KEY (id);
999
1000
1001
     - Name: permission pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
1002
1003
1004
    ALTER TABLE ONLY permission
1005
        ADD CONSTRAINT permission _ pkey PRIMARY KEY (id);
1006
1007
1008
1009
       Name: person pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
1010
1011
1012
    ALTER TABLE ONLY person
1013
1014
        ADD CONSTRAINT person_pkey PRIMARY KEY (id);
1015
1016
1017
       Name: player pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
1018
1019
1020
    ALTER TABLE ONLY player
1021
        ADD CONSTRAINT player_pkey PRIMARY KEY (id);
1022
1023
1024
1025
       Name:\ resource\_pkey;\ Type:\ CONSTRAINT;\ Schema:\ public;\ Owner:\ postgres;\ Tablespace:
1026
1027
1028
    ALTER TABLE ONLY resource
1029
1030
        ADD CONSTRAINT resource_pkey PRIMARY KEY (id);
1031
1032
1033
       Name: role permission permissions id key; Type: CONSTRAINT; Schema: public; Owner:
1034
         postgres; Tablespace:
1035
1036
    ALTER TABLE ONLY role_permission
1037
        ADD CONSTRAINT role permission permissions id key UNIQUE (permissions id);
1038
1039
1040
1041
       Name:\ role\_\ pkey;\ Type:\ CONSTRAINT;\ Schema:\ public;\ Owner:\ postgres;\ Tablespace:
1042
1043
1044
    ALTER TABLE ONLY role
1045
        ADD CONSTRAINT role pkey PRIMARY KEY (name);
1046
1047
1048
1049
     -\ \textit{Name: stadium\_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace: \\
1050
```

```
1051
1052
    ALTER TABLE ONLY stadium
1053
        ADD CONSTRAINT stadium_pkey PRIMARY KEY (stadiumid);
1054
1055
1056
1057
       Name: team advisor advisors id key; Type: CONSTRAINT; Schema: public; Owner: postgres
1058
        ; Tablespace:
1059
1060
    ALTER TABLE ONLY team advisor
1061
        ADD CONSTRAINT team advisor advisors id key UNIQUE (advisors id);
1062
1063
1064
1065
       Name: team_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
1066
1067
1068
    ALTER TABLE ONLY team
1069
        ADD CONSTRAINT team pkey PRIMARY KEY (id);
1070
1071
1072
1073
       Name: tournament_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres; Tablespace:
1074
1075
1076
1077
    ALTER TABLE ONLY tournament
        ADD CONSTRAINT tournament pkey PRIMARY KEY (year);
1078
1079
1080
1081
       Name:\ tournament group\_match\_matches\_id\_key;\ Type:\ CONSTRAINT;\ Schema:\ public;\ Owner:
1082
        postgres; Tablespace:
1083
1084
    ALTER TABLE ONLY tournamentgroup match
1085
        ADD CONSTRAINT tournamentgroup _match _matches _id _key UNIQUE (matches _id);
1086
1087
1088
1089
       Name: tournamentgroup pkey; Type: CONSTRAINT; Schema: public; Owner: postgres;
1090
        Tablespace:
1091
1092
    ALTER TABLE ONLY tournament group
1093
1094
        ADD CONSTRAINT tournamentgroup _ pkey PRIMARY KEY (groupid);
1095
1096
1097
       Name: tournamentgroup team teams id key; Type: CONSTRAINT; Schema: public; Owner:
1098
        postgres; Tablespace:
1099
1100
    ALTER TABLE ONLY tournamentgroup_team
1101
        ADD CONSTRAINT tournamentgroup team teams id key UNIQUE (teams id);
1102
1103
1104
1105
       Name: fk1fc9f7a09b9d8d6d; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1106
1107
1108
    ALTER TABLE ONLY advisor
1109
        ADD CONSTRAINT fk1fc9f7a09b9d8d6d FOREIGN KEY (id) REFERENCES person(id);
1110
1111
1112
1113
     - Name: fk26e2d0c0d36f2a65; Type: FK CONSTRAINT; Schema: public; Owner: postgres
```

```
1115
1116
   ALTER TABLE ONLY actor role
1117
        ADD CONSTRAINT fk26e2d0c0d36f2a65 FOREIGN KEY (actor email) REFERENCES actor (email);
1118
1119
1120
1121
       Name: fk26e2d0c0e4a0b3e5; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1122
1123
1124
   ALTER TABLE ONLY actor role
1125
        ADD CONSTRAINT fk26e2d0c0e4a0b3e5 FOREIGN KEY (roles name) REFERENCES role (name);
1126
1127
1128
1129
       Name: fk26f49674b12939; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1130
1131
1132
   ALTER TABLE ONLY role
1133
        ADD CONSTRAINT fk26f49674b12939 FOREIGN KEY (tournament year) REFERENCES tournament (
1134
            year);
1135
1136
1137
    --- Name: fk26f496da563832; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1138
1139
1140
1141
    ALTER TABLE ONLY role
        ADD CONSTRAINT fk26f496da563832 FOREIGN KEY (inheritedrole name) REFERENCES role(
1142
            name);
1143
1144
1145
       Name: fk27b67dfcf4fc9d; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1146
1147
1148
   ALTER TABLE ONLY team
1149
        ADD CONSTRAINT fk27b67dfcf4fc9d FOREIGN KEY (country id) REFERENCES country(id);
1150
1151
1152
1153
       Name: fk3525aa1c2801c0aa; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1154
1155
1156
   ALTER TABLE ONLY tournamentgroup match
1157
        ADD CONSTRAINT fk3525aa1c2801c0aa FOREIGN KEY (matches id) REFERENCES match(id);
1158
1159
1160
1161
     - Name: fk3525aa1cd57db48a; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1162
1163
1164
1165
   ALTER TABLE ONLY tournament group match
        ADD CONSTRAINT fk3525aa1cd57db48a FOREIGN KEY (tournamentgroup groupid) REFERENCES
1166
            tournamentgroup (groupid);
1167
1168
1169
       Name: fk3b74360966de6d99; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1170
1171
1172
   ALTER TABLE ONLY tournament
1173
        ADD CONSTRAINT fk3b74360966de6d99 FOREIGN KEY (finalmatch id) REFERENCES match(id);
1174
1175
1176
1177
     - Name: fk3b7436097d361fb7; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1178
1179
```

```
1180
    ALTER TABLE ONLY tournament
1181
        ADD CONSTRAINT fk3b7436097d361fb7 FOREIGN KEY (groupstage id) REFERENCES groupstage(
1182
            id);
1183
1184
1185
       Name: fk3b743609fcd043a4; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1186
1187
1188
   ALTER TABLE ONLY tournament
1189
        ADD CONSTRAINT fk3b743609fcd043a4 FOREIGN KEY (matchforthirdplace id) REFERENCES
1190
            match(id);
1191
1192
1193
       Name: fk46ae9a515c9d2b6; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1194
1195
1196
    ALTER TABLE ONLY match
1197
        ADD CONSTRAINT fk46ae9a515c9d2b6 FOREIGN KEY (stadium stadiumid) REFERENCES stadium (
1198
            stadiumid);
1199
1200
1201
       Name: fk46ae9a574b12939; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1202
1203
1204
   ALTER TABLE ONLY match
1205
        ADD CONSTRAINT fk46ae9a574b12939 FOREIGN KEY (tournament year) REFERENCES tournament
1206
             (year);
1207
1208
1209
       Name: fk46ae9a5d4eaebd3; Type: FK CONSTRAINT; Schema: public; Owner: postqres
1210
1211
1212
   ALTER TABLE ONLY match
1213
        ADD CONSTRAINT fk46ae9a5d4eaebd3 FOREIGN KEY (group_groupid) REFERENCES
1214
            tournament group (groupid);
1215
1216
1217
       Name: fk46ae9a5e2487ff; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1218
1219
1220
1221
    ALTER TABLE ONLY match
        ADD CONSTRAINT fk46ae9a5e2487ff FOREIGN KEY (guestteam id) REFERENCES team(id);
1222
1223
1224
1225
       Name: fk46ae9a5f0ec562f; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1226
1227
1228
    ALTER TABLE ONLY match
1229
        ADD CONSTRAINT fk46ae9a5f0ec562f FOREIGN KEY (hostteam id) REFERENCES team(id);
1230
1231
1232
1233
       Name: fk49fd4907cdc8c6de; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1234
1235
1236
    ALTER TABLE ONLY person_team
1237
        ADD CONSTRAINT fk49fd4907cdc8c6de FOREIGN KEY (teams id) REFERENCES team(id);
1238
1239
1240
1241
     - Name: fk49fd4907ce781a97; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1242
```

```
1243
1244
   ALTER TABLE ONLY person team
1245
        ADD CONSTRAINT fk49 d4907ce781a97 FOREIGN KEY (person id) REFERENCES person(id);
1246
1247
1248
1249
       Name: fk5625b34074b12939; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1250
1251
1252
   ALTER TABLE ONLY tournament country
1253
        ADD CONSTRAINT fk5625b34074b12939 FOREIGN KEY (tournament year) REFERENCES
1254
            tournament (year);
1255
1256
1257
       Name: fk5625b3409a553667; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1258
1259
1260
    ALTER TABLE ONLY tournament country
1261
        ADD CONSTRAINT fk5625b3409a553667 FOREIGN KEY (hostcountries id) REFERENCES country (
1262
            id);
1263
1264
1265
       Name: fk57f7a1ef94470e9c; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1266
1267
1268
   ALTER TABLE ONLY permission
1269
        ADD CONSTRAINT fk57f7a1ef94470e9c FOREIGN KEY (resource id) REFERENCES resource(id);
1270
1271
1272
1273
       Name: fk62cd596526daa28; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1274
1275
1276
    ALTER TABLE ONLY groupstage tournamentgroup
1277
        ADD CONSTRAINT fk62cd596526daa28 FOREIGN KEY (groups groupid) REFERENCES
1278
            tournamentgroup (groupid);
1279
1280
1281
       Name: fk62cd5967d361fb7; Type: FK CONSTRAINT; Schema: public; Owner: postqres
1282
1283
1284
   ALTER TABLE ONLY groupstage_tournamentgroup
1285
1286
        ADD CONSTRAINT fk62cd5967d361fb7 FOREIGN KEY (groupstage_id) REFERENCES groupstage(
            id):
1287
1288
1289
       Name: fk6372df674b12939; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1290
1291
1292
    ALTER TABLE ONLY tournament group
1293
        ADD CONSTRAINT fk6372df674b12939 FOREIGN KEY (tournament year) REFERENCES tournament
1294
             (year);
1295
1296
1297
       Name: fk8ea387019b9d8d6d; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1298
1299
1300
   ALTER TABLE ONLY player
1301
        ADD CONSTRAINT fk8ea387019b9d8d6d FOREIGN KEY (id) REFERENCES person(id);
1302
1303
1304
1305
```

```
- Name: fka1d587dedb6578d7;\; Type: FK CONSTRAINT; Schema: <math>public;\; Owner:\; postgres
1307
1308
    ALTER TABLE ONLY team advisor
1309
        ADD CONSTRAINT fka1d587dedb6578d7 FOREIGN KEY (team id) REFERENCES team(id);
1310
1311
1312
1313
1314
       Name: fka1d587deea5528a; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1315
1316
    ALTER TABLE ONLY team advisor
1317
        ADD CONSTRAINT fka1d587deea5528a FOREIGN KEY (advisors id) REFERENCES advisor(id);
1318
1319
1320
1321
       Name: fkabf317a774b12939; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1322
1323
1324
    ALTER TABLE ONLY tournament stadium
1325
        ADD CONSTRAINT fkabf317a774b12939 FOREIGN KEY (tournament year) REFERENCES
1326
            tournament (year);
1327
1328
1329
       Name: fkabf317a7db034f8f; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1330
1331
1332
   ALTER TABLE ONLY tournament stadium
1333
        ADD CONSTRAINT fkabf317a7db034f8f FOREIGN KEY (stadiums stadiumid) REFERENCES
1334
            stadium (stadiumid);
1335
1336
1337
       Name: fkb7678b26cdc8c6de; Type: FK CONSTRAINT; Schema: public; Owner: postqres
1338
1339
1340
   ALTER TABLE ONLY tournamentgroup_team
1341
        ADD CONSTRAINT fkb7678b26cdc8c6de FOREIGN KEY (teams id) REFERENCES team(id);
1342
1343
1344
1345
       Name: fkb7678b26d57db48a; Type: FK CONSTRAINT; Schema: public; Owner: postqres
1346
1347
1348
   ALTER TABLE ONLY tournamentgroup_team
1349
1350
        ADD CONSTRAINT fkb7678b26d57db48a FOREIGN KEY (tournamentgroup_groupid) REFERENCES
            tournamentgroup (groupid);
1351
1352
1353
       Name: fkbfc93acf60766fd; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1354
1355
1356
    ALTER TABLE ONLY match matchevent
1357
        ADD CONSTRAINT fkbfc93acf60766fd FOREIGN KEY (match id) REFERENCES match(id);
1358
1359
1360
1361
1362
       Name: fkbfc93acfdcc26853; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1363
1364
    ALTER TABLE ONLY match matchevent
1365
        ADD CONSTRAINT fkbfc93acfdcc26853 FOREIGN KEY (events id) REFERENCES matchevent(id);
1366
1367
1368
1369
       Name: fkcf243699401023a7; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1370
```

```
1371
1372
    ALTER TABLE ONLY actor permission
1373
         ADD CONSTRAINT fkc\overline{f}243699401023a7 FOREIGN KEY (permissions id) REFERENCES permission
1374
              (id);
1375
1376
1377
1378
        Name: fkcf243699d36f2a65; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1379
1380
    ALTER TABLE ONLY actor_permission
1381
        ADD CONSTRAINT fkcf243699d36f2a65 FOREIGN KEY (actor email) REFERENCES actor (email);
1382
1383
1384
1385
        Name: fkd4e5f70318f27aa6; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1386
1387
1388
    ALTER TABLE ONLY team player
1389
         ADD CONSTRAINT fkd4e5f70318f27aa6 FOREIGN KEY (players id) REFERENCES player(id);
1390
1391
1392
1393
     --- Name:\ fkd4e5f703db6578d7;\ Type:\ FK\ CONSTRAINT;\ Schema:\ public;\ Owner:\ postgres
1394
1395
1396
1397
    ALTER TABLE ONLY team player
        ADD CONSTRAINT fkd4e5f703db6578d7 FOREIGN KEY (team id) REFERENCES team(id);
1398
1399
1400
1401
       Name:\ \mathit{fkd7c3a68b1fd58223}\ ;\ \mathit{Type:}\ \mathit{FK}\ \mathit{CONSTRAINT};\ \mathit{Schema:}\ \mathit{public}\ ;\ \mathit{Owner:}\ \mathit{postgres}
1402
1403
1404
1405
    ALTER TABLE ONLY match match
         ADD CONSTRAINT fkd\overline{7}c3a68b1fd58223 FOREIGN KEY (match id) REFERENCES match(id);
1406
1407
1408
1409
       Name: fkd7c3a68b884bbd1; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1410
1411
1412
1413
    ALTER TABLE ONLY match_match
         ADD CONSTRAINT fkd\overline{7}c3a68b884bbd1 FOREIGN KEY (childs id) REFERENCES match(id);
1414
1415
1416
1417
       Name: fke491d7f560766fd; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1418
1419
1420
    ALTER TABLE ONLY matchevent
1421
1422
        ADD CONSTRAINT fke491d7f560766fd FOREIGN KEY (match id) REFERENCES match(id);
1423
1424
1425
    — Name: fke491d7f56a9e6294; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1426
1427
1428
    ALTER TABLE ONLY matchevent
1429
        ADD CONSTRAINT fke491d7f56a9e6294 FOREIGN KEY (scorringteam id) REFERENCES team(id);
1430
1431
1432
1433
      - Name: fke491d7f5c7168977; Type: FK CONSTRAINT; Schema: public; Owner: postgres
1434
1435
1436
1437 ALTER TABLE ONLY matchevent
```

```
ADD CONSTRAINT fke491d7f5c7168977 FOREIGN KEY (newplayer_id) REFERENCES player(id);
1438
1439
1440
1441
                 Name: fke491d7f5db6578d7; Type: FK CONSTRAINT; Schema: public; Owner: postqres
1442
1443
1444
         ALTER TABLE ONLY matchevent
1445
                    ADD CONSTRAINT fke491d7f5db6578d7 FOREIGN KEY (team_id) REFERENCES team(id);
1446
1447
1448
1449
              - Name: fke491d7f5df1dd7b0; Type: FK CONSTRAINT; Schema: public; Owner: postqres
1450
1451
1452
         ALTER TABLE ONLY matchevent
1453
                    ADD CONSTRAINT fke491d7f5df1dd7b0 FOREIGN KEY (involvedplayer_id) REFERENCES player (
1454
1455
1456
1457
                 Name:\ fkf21d53ddfcf4fc9d;\ Type:\ FK\ CONSTRAINT;\ Schema:\ public;\ Owner:\ postgres
1458
1459
1460
         ALTER TABLE ONLY stadium
1461
                    ADD CONSTRAINT fkf21d53ddfcf4fc9d FOREIGN KEY (country id) REFERENCES country(id);
1462
1463
1464
1465
                 Name:\ fkf8a56938401023a7;\ Type:\ FK\ CONSTRAINT;\ Schema:\ public;\ Owner:\ postgressing the property of t
1466
1467
1468
         ALTER TABLE ONLY role_permission
1469
                    ADD CONSTRAINT fkf8a56938401023a7 FOREIGN KEY (permissions id) REFERENCES permission
1470
                                (id);
1471
1472
1473
              - Name: fkf8a569386ac4edcc; \ Type: FK CONSTRAINT; Schema: public; Owner: postgres
1474
1475
1476
         ALTER TABLE ONLY role permission
1477
                    ADD CONSTRAINT fkf8a569386ac4edcc FOREIGN KEY (role name) REFERENCES role (name);
1478
1479
1480
1481
1482
                  PostgreSQL\ database\ dump\ complete
1483
```