

SAKARYA ÜNİVERSİTESI BİLGİSAYAR VE BİLİŞİM BİLİMLERİ FAKÜLTESI VERİ TABANI VE YÖNETİM SİSTEMLERİ DÖNEM ÖDEVİ ŞULE BETÜL BUDAK B201210028 B Grubu sule.budak@ogr.sakarya.edu.tr

ARALIK 2022

TANITIM:

Online oyunların kullanıcılar tarafından alınması ve şirketler tarafından oyun yüklenmesine dayanan veritabanı sistemi.

is Kurallari:

Müşteri ve şirket olmak üzere iki tür kullanıcı bulunur.

Her kullanıcının kullanıcı ID'si, kullanıcı adı ve şifresi bulunmaktadır.

Şirketlerin ID'leri, isimleri bulunur.

Şirketler yöneticisi ve çalışanları bulunur.

Her çalışanın iletişim bilgisi bulunur.

İletişim bilgileri mail, telefon ve adresten oluşur.

Telefonların ID'leri ve numaraları bulunmaktadır.

Adreslerin bölge kodları, bölge isimleri ve şehir numaraları bulunur.

Müşterilerin kullanıcı ID'leri, isimleri, soyisimleri, mail adresleri ve rol kodları bulunur.

Rollerin rol kodları ve rol isimleri bulunur.

Oyunların oyun ID'leri, isimleri, yayınlanma tarihleri, şirketleri, müşterileri, türleri, platformları ve sponsorları bulunur.

Sponsorların sponsor ID'leri ve isimleri bulunur.

Oyun platformlarının platform ID'leri ve isimleri bulunur.

Tarihlerin gün, ay ve yıl ibareleri bulunur.

Türlerin ID'leri ve isimleri bulunur.

Kullanıcılar yalnızca müşteri ya da şirket olabilir.

Şirketler bir CEO tarafından yönetilmek zorundadır ve bir CEO birden fazla şirketi yönetemez.

Şirketlerde çok sayıda çalışan bulunur, bir çalışan birden fazla şirkette çalışamaz.

Her çalışanın yalnızca bir iletişim bilgisi bulunmak zorundadır, bir iletişim bilgisi birden fazla çalışana ait olamaz.

Bir telefon yalnızca bir iletişim bilgisine ait olmak zorundadır ve iletişim bilgisi birden fazla telefon bilgisi barındıramaz.

Adresler birden fazla iletişim bilgisine ait olamaz ve bir iletişim bilgisi birden fazla adres bulunduramaz.

Bir şirket çok sayıda fazla oyun üretebilir fakat bir oyun birden fazla şirkete ait olamaz.

Bir müşteri birden fazla oyun alabilir ve bir oyun birden fazla müşteriye sahip olabilir.

Her müşteri çok sayıda role sahip olabilir, bir rol birden fazla müşteriye ait olabilir.

Her oyunun yalnız bir yayınlanma tarihi vardır ve bir yayınlanma tarihi birden fazla oyuna ait olabilir.

Oyunlar bir ya da çok sayıda türe sahip olabilir, bir tür çok sayıda oyuna ait olabilir.

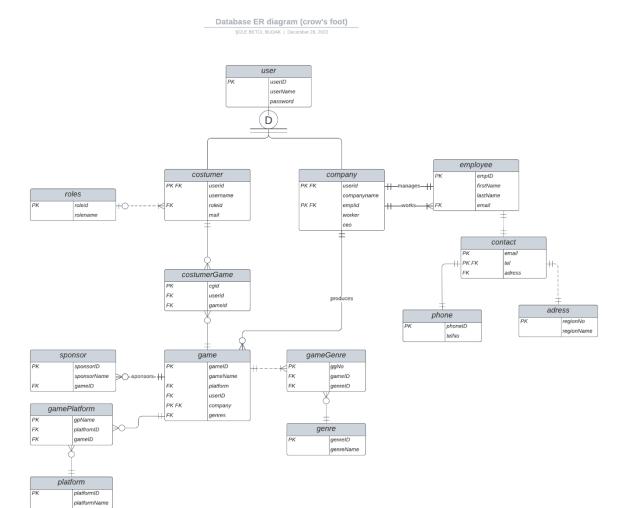
Oyunların çok sayıda sponsoru olabilir, bir sponsor birden fazla oyuna sponsor olamaz.

Oyunlar çok sayıda platformda bulunabilir, bir platformda çok sayıda oyun bulunabilir.

ILIŞKİSEL ŞEMA – METİNSEL GÖSTERİM:

```
user ( userID : integer ,password : string )
costumer ( userID : integer, username : string, mail : string, roleID: integer)
roles ( userID : integer, roleName : string )
company ( userID : integer, companyName : string , empID : integer )
employee ( emplD : integer, firstName : string, lastName : string, email : string)
contact ( email : string, tel : string, adress : string )
phone ( phoneID : integer, telNo: string )
adress ( regionNo : integer, regionName : string )
costumerGame (cgID: integer, userID: integer, gameID: integer)
game ( gameID : integer, gameName : string, userID : integer, company : integer,
genres : string, platform : string)
sponsor ( spondorID : integer, soponsorName : string, gameID : integer)
gamePlatform ( gpName : integer, platformID: integer, gameID : integer)
platform ( platformID : integer, platformName : string )
gameGenre ( ggNo : integer, gameID: integer, genreID : integer )
genre ( genreID : integer, genreName : string )
```

VARLIK BAĞINTI MODELİ – CROW'S FOOT:



SQL iFADELERI: -- PostgreSQL database dump -- Dumped from database version 15.1 -- Dumped by pg_dump version 15.1 -- Started on 2022-12-28 02:21:12 SET statement_timeout = 0; SET lock_timeout = 0; SET idle_in_transaction_session_timeout = 0; SET client_encoding = 'UTF8'; SET standard_conforming_strings = on; SELECT pg_catalog.set_config('search_path', '', false); SET check_function_bodies = false; SET xmloption = content; SET client_min_messages = warning; SET row_security = off; -- TOC entry 231 (class 1255 OID 16774) -- Name: creatorinfo(); Type: FUNCTION; Schema: public; Owner: postgres

CREATE FUNCTION public.creatorinfo() RETURNS TABLE(game text, company text)

LANGUAGE plpgsql

AS \$\$
begin
RETURN QUERY
select game.gamename, company.companyname from company left join game on game.companyid=company.userid;
end;
\$\$;
ALTER FUNCTION public.creatorinfo() OWNER TO postgres;
TOC entry 230 (class 1255 OID 16769)
Name: employeeinfo(); Type: FUNCTION; Schema: public; Owner: postgres
$\label{lem:creater} CREATE FUNCTION public.employeeinfo() RETURNS TABLE (userid integer, company name text, firstnam text, lastnam text) \\$
LANGUAGE plpgsql
AS \$\$
begin
RETURN QUERY
select company.userid, company.companyname, firstname, lastname from company left join employee on company.empid=employee.empid;
end;
\$\$;
ALTER FUNCTION public.employeeinfo() OWNER TO postgres;

-- TOC entry 235 (class 1255 OID 16784)

```
-- Name: employeename(); Type: FUNCTION; Schema: public; Owner: postgres
CREATE FUNCTION public.employeename() RETURNS trigger
  LANGUAGE plpgsql
  AS $$
declare
leng integer;
begin
leng:=(select length(firstname)from employee order by empid desc limit 1);
return new;
end;
$$;
ALTER FUNCTION public.employeename() OWNER TO postgres;
-- TOC entry 234 (class 1255 OID 16779)
-- Name: gamename(); Type: FUNCTION; Schema: public; Owner: postgres
CREATE FUNCTION public.gamename() RETURNS trigger
  LANGUAGE plpgsql
  AS $$
declare
leng integer;
begin
leng:=(select length(gamename)from game order by gameid desc limit 1);
return new;
end;
```

```
ALTER FUNCTION public.gamename() OWNER TO postgres;
-- TOC entry 232 (class 1255 OID 16775)
-- Name: gamers(); Type: FUNCTION; Schema: public; Owner: postgres
CREATE FUNCTION public.gamers() RETURNS TABLE(game text, gamer text)
  LANGUAGE plpgsql
  AS $$
begin
RETURN QUERY
select game.gamename, costumer.username from game left join costumer on
game.userid=costumer.userid;
end;
$$;
ALTER FUNCTION public.gamers() OWNER TO postgres;
-- TOC entry 236 (class 1255 OID 16786)
-- Name: genre(); Type: FUNCTION; Schema: public; Owner: postgres
CREATE FUNCTION public.genre() RETURNS trigger
  LANGUAGE plpgsql
  AS $$
```

```
declare
leng integer;
begin
leng:=(select length(genrename)from genre order by genreid desc limit 1);
return new;
end;
$$;
ALTER FUNCTION public.genre() OWNER TO postgres;
SET default_tablespace = ";
SET default_table_access_method = heap;
-- TOC entry 215 (class 1259 OID 16530)
-- Name: company; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.company (
  userid integer NOT NULL,
  companyname text,
  empid integer
);
ALTER TABLE public.company OWNER TO postgres;
-- TOC entry 229 (class 1255 OID 16764)
```

```
-- Name: oyungetir(text); Type: FUNCTION; Schema: public; Owner: postgres
CREATE FUNCTION public.oyungetir(isim text) RETURNS TABLE(namecolumn public.company)
  LANGUAGE plpgsql
  AS $$
begin
return query
  select
  gamename,
       gameid,
       userid
       from game
where gamename like isim;
end;
$$;
ALTER FUNCTION public.oyungetir(isim text) OWNER TO postgres;
-- TOC entry 233 (class 1255 OID 16780)
-- Name: username(); Type: FUNCTION; Schema: public; Owner: postgres
CREATE FUNCTION public.username() RETURNS trigger
  LANGUAGE plpgsql
  AS $$
declare
leng integer;
begin
```

```
leng:=(select length(username)from costumer order by userid desc limit 1);
return new;
end;
$$;
ALTER FUNCTION public.username() OWNER TO postgres;
-- TOC entry 219 (class 1259 OID 16556)
-- Name: adress; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.adress (
  regionno integer NOT NULL,
  regionname text
);
ALTER TABLE public.adress OWNER TO postgres;
-- TOC entry 217 (class 1259 OID 16544)
-- Name: contact; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.contact (
  email text NOT NULL,
  tel integer,
  adress integer
```

```
);
ALTER TABLE public.contact OWNER TO postgres;
-- TOC entry 220 (class 1259 OID 16563)
-- Name: costumer; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.costumer (
  userid integer NOT NULL,
  username text,
  mail text,
  roleid integer
);
ALTER TABLE public.costumer OWNER TO postgres;
-- TOC entry 222 (class 1259 OID 16577)
-- Name: costumergame; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.costumergame (
  cgid integer NOT NULL,
  userid integer,
  gameid integer
);
```

```
ALTER TABLE public.costumergame OWNER TO postgres;
-- TOC entry 216 (class 1259 OID 16537)
-- Name: employee; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.employee (
  empid integer NOT NULL,
  firstname text,
  lastname text,
  email text
);
ALTER TABLE public.employee OWNER TO postgres;
-- TOC entry 223 (class 1259 OID 16582)
-- Name: game; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.game (
  gameid integer NOT NULL,
  gamename text,
  userid integer,
  companyid integer,
  genreid integer,
```

platforms integer

);

```
ALTER TABLE public.game OWNER TO postgres;
-- TOC entry 227 (class 1259 OID 16727)
-- Name: gamegenre; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.gamegenre (
  ggid integer NOT NULL,
  gameid integer,
  genreid integer
);
ALTER TABLE public.gamegenre OWNER TO postgres;
-- TOC entry 228 (class 1259 OID 16732)
-- Name: gameplatform; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.gameplatform (
  gpid integer NOT NULL,
  platformid integer,
  gameid integer
);
```

ALTER TABLE public.gameplatform OWNER TO postgres;

```
-- TOC entry 226 (class 1259 OID 16613)
-- Name: genre; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.genre (
  genreid integer NOT NULL,
  genrename text
);
ALTER TABLE public.genre OWNER TO postgres;
-- TOC entry 218 (class 1259 OID 16551)
-- Name: phone; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.phone (
  phoneid integer NOT NULL,
  telno integer
);
ALTER TABLE public.phone OWNER TO postgres;
-- TOC entry 225 (class 1259 OID 16601)
-- Name: platform; Type: TABLE; Schema: public; Owner: postgres
```

```
CREATE TABLE public.platform (
  platformid integer NOT NULL,
  platformname text
);
ALTER TABLE public.platform OWNER TO postgres;
-- TOC entry 221 (class 1259 OID 16570)
-- Name: roles; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.roles (
  roleid integer NOT NULL,
  rolename text
);
ALTER TABLE public.roles OWNER TO postgres;
-- TOC entry 224 (class 1259 OID 16589)
-- Name: sponsor; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.sponsor (
  sponsorid integer NOT NULL,
  sponsorname text,
  gameid integer
```

```
);
ALTER TABLE public.sponsor OWNER TO postgres;
-- TOC entry 214 (class 1259 OID 16523)
-- Name: users; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.users (
  userid integer NOT NULL,
  passwords text
);
ALTER TABLE public.users OWNER TO postgres;
-- TOC entry 3452 (class 0 OID 16556)
-- Dependencies: 219
-- Data for Name: adress; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.adress (regionno, regionname) FROM stdin;
55
       Tokyo
56
       France
57
       California
\.
```

```
-- TOC entry 3448 (class 0 OID 16530)
-- Dependencies: 215
-- Data for Name: company; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.company (userid, companyname, empid) FROM stdin;
1
       That Game Company 1
2
       Ubisoft 2
3
       Square Enix
                      3
\.
-- TOC entry 3450 (class 0 OID 16544)
-- Dependencies: 217
-- Data for Name: contact; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.contact (email, tel, adress) FROM stdin;
yosuke@gmail.com
                      813
                              55
yves@gmail.com
                      33
                              56
jenova@gmail.com
                      38
                              57
\.
-- TOC entry 3453 (class 0 OID 16563)
-- Dependencies: 220
-- Data for Name: costumer; Type: TABLE DATA; Schema: public; Owner: postgres
```

```
stepping@gmail.com 9
1
       stepping
2
       yoru yoru@gmail.com
3
       senknight
                      senknight@gmail.com 9
\.
-- TOC entry 3455 (class 0 OID 16577)
-- Dependencies: 222
-- Data for Name: costumergame; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.costumergame (cgid, userid, gameid) FROM stdin;
\.
-- TOC entry 3449 (class 0 OID 16537)
-- Dependencies: 216
-- Data for Name: employee; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.employee (empid, firstname, lastname, email) FROM stdin;
1
       Jenova Chen jenova@gmail.com
2
       Yves
              Guillemot
                             yves@gmail.com
3
       Yosuke Matsuda
                             yosuke@gmail.com
١.
```

COPY public.costumer (userid, username, mail, roleid) FROM stdin;

```
-- TOC entry 3456 (class 0 OID 16582)
-- Dependencies: 223
-- Data for Name: game; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.game (gameid, gamename, userid, companyid, genreid, platforms) FROM stdin;
1
       Sky Children of the Light
                                            1 1
2
       Assassins Creed 1
                             2
                                     2
                                            2
                                            2
4
       Assassins Creed 2
                             2
3
       Tomb Raider 3
                                            3
                                     3
\.
-- TOC entry 3460 (class 0 OID 16727)
-- Dependencies: 227
-- Data for Name: gamegenre; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.gamegenre (ggid, gameid, genreid) FROM stdin;
\.
-- TOC entry 3461 (class 0 OID 16732)
-- Dependencies: 228
-- Data for Name: gameplatform; Type: TABLE DATA; Schema: public; Owner: postgres
```

COPY public.gameplatform (gpid, platformid, gameid) FROM stdin;

```
\.
-- TOC entry 3459 (class 0 OID 16613)
-- Dependencies: 226
-- Data for Name: genre; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.genre (genreid, genrename) FROM stdin;
3
       adventure
2
        action
1
       indie
\.
-- TOC entry 3451 (class 0 OID 16551)
-- Dependencies: 218
-- Data for Name: phone; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.phone (phoneid, telno) FROM stdin;
38
       \N
33
       \N
813
       \N
\.
-- TOC entry 3458 (class 0 OID 16601)
```

```
-- Dependencies: 225
-- Data for Name: platform; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.platform (platformid, platformname) FROM stdin;
1
       windows
2
       linux
3
       macos
\.
-- TOC entry 3454 (class 0 OID 16570)
-- Dependencies: 221
-- Data for Name: roles; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.roles (roleid, rolename) FROM stdin;
       cat
\.
-- TOC entry 3457 (class 0 OID 16589)
-- Dependencies: 224
-- Data for Name: sponsor; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.sponsor (sponsorid, sponsorname, gameid) FROM stdin;
1
       xcompany
2
       ycompany
                       2
```

```
3
       zcompany
\.
-- TOC entry 3447 (class 0 OID 16523)
-- Dependencies: 214
-- Data for Name: users; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.users (userid, passwords) FROM stdin;
1
       123
2
       1234
3
       12345
\.
-- TOC entry 3252 (class 2606 OID 16562)
-- Name: adress adress_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.adress
  ADD CONSTRAINT adress_pkey PRIMARY KEY (regionno);
-- TOC entry 3239 (class 2606 OID 16536)
-- Name: company company_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
```

ADD CONSTRAINT company_pkey PRIMARY KEY (userid); -- TOC entry 3246 (class 2606 OID 16550) -- Name: contact_ontact_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres ALTER TABLE ONLY public.contact ADD CONSTRAINT contact_pkey PRIMARY KEY (email); -- TOC entry 3254 (class 2606 OID 16569) -- Name: costumer_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres ALTER TABLE ONLY public.costumer ADD CONSTRAINT costumer_pkey PRIMARY KEY (userid); -- TOC entry 3260 (class 2606 OID 16581) -- Name: costumergame costumergame_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres ALTER TABLE ONLY public.costumergame

ADD CONSTRAINT costumergame_pkey PRIMARY KEY (cgid);

ALTER TABLE ONLY public.company

```
-- TOC entry 3243 (class 2606 OID 16543)
-- Name: employee employee_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.employee
  ADD CONSTRAINT employee_pkey PRIMARY KEY (empid);
-- TOC entry 3267 (class 2606 OID 16588)
-- Name: game game_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.game
  ADD CONSTRAINT game_pkey PRIMARY KEY (gameid);
-- TOC entry 3278 (class 2606 OID 16731)
-- Name: gamegenre gamegenre_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.gamegenre
  ADD CONSTRAINT gamegenre_pkey PRIMARY KEY (ggid);
-- TOC entry 3282 (class 2606 OID 16736)
-- Name: gameplatform_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
```

ADD CONSTRAINT gameplatform_pkey PRIMARY KEY (gpid); -- TOC entry 3274 (class 2606 OID 16619) -- Name: genre genre_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres ALTER TABLE ONLY public.genre ADD CONSTRAINT genre_pkey PRIMARY KEY (genreid); -- TOC entry 3250 (class 2606 OID 16555) -- Name: phone phone_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres ALTER TABLE ONLY public.phone ADD CONSTRAINT phone_pkey PRIMARY KEY (phoneid); -- TOC entry 3272 (class 2606 OID 16607) -- Name: platform_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres ALTER TABLE ONLY public.platform ADD CONSTRAINT platform_pkey PRIMARY KEY (platformid);

ALTER TABLE ONLY public.gameplatform

```
-- TOC entry 3258 (class 2606 OID 16576)
-- Name: roles roles_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.roles
  ADD CONSTRAINT roles_pkey PRIMARY KEY (roleid);
-- TOC entry 3270 (class 2606 OID 16595)
-- Name: sponsor sponsor_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.sponsor
  ADD CONSTRAINT sponsor_pkey PRIMARY KEY (sponsorid);
-- TOC entry 3237 (class 2606 OID 16529)
-- Name: users users_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.users
  ADD CONSTRAINT users_pkey PRIMARY KEY (userid);
-- TOC entry 3240 (class 1259 OID 16625)
-- Name: fki_company.employee.fk; Type: INDEX; Schema: public; Owner: postgres
```

```
CREATE INDEX "fki_company.employee.fk" ON public.company USING btree (empid);
-- TOC entry 3247 (class 1259 OID 16637)
-- Name: fki_contact.adress.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_contact.adress.fk" ON public.contact USING btree (adress);
-- TOC entry 3248 (class 1259 OID 16643)
-- Name: fki_contact.phone.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_contact.phone.fk" ON public.contact USING btree (tel);
-- TOC entry 3255 (class 1259 OID 16661)
-- Name: fki_costumer.roles.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_costumer.roles.fk" ON public.costumer USING btree (roleid);
-- TOC entry 3261 (class 1259 OID 16667)
```

```
-- Name: fki_costumergame.costumer.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_costumergame.costumer.fk" ON public.costumergame USING btree (userid);
-- TOC entry 3262 (class 1259 OID 16673)
-- Name: fki_costumergame.game.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_costumergame.game.fk" ON public.costumergame USING btree (gameid);
-- TOC entry 3244 (class 1259 OID 16631)
-- Name: fki_employee.contact.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_employee.contact.fk" ON public.employee USING btree (email);
-- TOC entry 3263 (class 1259 OID 16684)
-- Name: fki_game.company.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_game.company.fk" ON public.game USING btree (companyid);
```

```
-- TOC entry 3264 (class 1259 OID 16690)
-- Name: fki_game.genre.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_game.genre.fk" ON public.game USING btree (genreid);
-- TOC entry 3265 (class 1259 OID 16696)
-- Name: fki_game.platform.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_game.platform.fk" ON public.game USING btree (platforms);
-- TOC entry 3275 (class 1259 OID 16748)
-- Name: fki_gamegenre.game.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_gamegenre.game.fk" ON public.gamegenre USING btree (gameid);
-- TOC entry 3276 (class 1259 OID 16754)
-- Name: fki_gamegenre.genre; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_gamegenre.genre" ON public.gamegenre USING btree (genreid);
```

```
-- TOC entry 3279 (class 1259 OID 16742)
-- Name: fki_gameplatform.game.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_gameplatform.game.fk" ON public.gameplatform USING btree (platformid);
-- TOC entry 3280 (class 1259 OID 16760)
-- Name: fki_gameplatform.platform.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_gameplatform.platform.fk" ON public.gameplatform USING btree (platformid);
-- TOC entry 3268 (class 1259 OID 16714)
-- Name: fki_sponsor.game.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_sponsor.game.fk" ON public.sponsor USING btree (gameid);
-- TOC entry 3241 (class 1259 OID 16649)
-- Name: fki_user.company.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_user.company.fk" ON public.company USING btree (userid);
```


TOC entry 3256 (class 1259 OID 16655)
Name: fki_user.costumre.fk; Type: INDEX; Schema: public; Owner: postgres
CREATE INDEX "fki_user.costumre.fk" ON public.costumer USING btree (userid);

TOC entry 3301 (class 2620 OID 16785)
Name: employee testemployeename; Type: TRIGGER; Schema: public; Owner: postgres

CREATE TRIGGER testemployeename AFTER INSERT ON public.employee FOR EACH ROW EXECUTE FUNCTION public.employeename();
Torrement passiciemple (centime ())
TOC entry 3303 (class 2620 OID 16781)
Name: game testgamename; Type: TRIGGER; Schema: public; Owner: postgres
CREATE TRIGGER testgamename AFTER INSERT ON public.game FOR EACH ROW EXECUTE FUNCTION
<pre>public.gamename();</pre>
TOC entry 3304 (class 2620 OID 16787)
Name: genre testgenre; Type: TRIGGER; Schema: public; Owner: postgres

CREATE TRIGGER testgenre AFTER INSERT ON public.genre FOR EACH ROW EXECUTE FUNCTION public.genre();
TOC entry 3302 (class 2620 OID 16782)
Name: costumer testusername; Type: TRIGGER; Schema: public; Owner: postgres
CREATE TRIGGER testusername AFTER INSERT ON public.costumer FOR EACH ROW EXECUTE FUNCTION public.username();
TOC entry 3283 (class 2606 OID 16620)
Name: company company.employee.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.company
ADD CONSTRAINT "company.employee.fk" FOREIGN KEY (empid) REFERENCES public.employee(empid) NOT VALID;
TOC autin 2200 (alass 2000 OID 40022)
TOC entry 3286 (class 2606 OID 16632)
Name: contact contact.adress.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres

ALTER TABLE ONLY public.contact
ADD CONSTRAINT "contact.adress.fk" FOREIGN KEY (adress) REFERENCES public.adress(regionno) NOT VALID;

TOC entry 3287 (class 2606 OID 16638)
Name: contact contact.phone.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.contact
ADD CONSTRAINT "contact.phone.fk" FOREIGN KEY (tel) REFERENCES public.phone(phoneid) NOT VALID;
TOC entry 3288 (class 2606 OID 16656)
Name: costumer costumer.roles.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.costumer
ADD CONSTRAINT "costumer.roles.fk" FOREIGN KEY (roleid) REFERENCES public.roles(roleid) NOT VALID;

TOC entry 3290 (class 2606 OID 16662)
Name: costumergame costumergame.costumer.fk; Type: FK CONSTRAINT; Schema: public; Owner postgres

ALTER TABLE ONLY public.costumergame
ADD CONSTRAINT "costumergame.costumer.fk" FOREIGN KEY (userid) REFERENCES

public.costumer(userid) NOT VALID;

TOC entry 3291 (class 2606 OID 16668)
Name: costumergame costumergame.game.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.costumergame
ADD CONSTRAINT "costumergame.game.fk" FOREIGN KEY (gameid) REFERENCES public.game(gameid) NOT VALID;
TOC entry 3292 (class 2606 OID 16674)
Name: game costumergame.game.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.game
ADD CONSTRAINT "costumergame.game.fk" FOREIGN KEY (userid) REFERENCES public.costumer(userid) NOT VALID;

TOC entry 3285 (class 2606 OID 16626)
Name: employee employee.contact.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres

ALTER TABLE ONLY public.employee
ADD CONSTRAINT "employee.contact.fk" FOREIGN KEY (email) REFERENCES public.contact(email) NOT VALID;

TOC entry 3293 (class 2606 OID 16679)
Name: game game.company.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres

ALTER TABLE ONLY public.game
ADD CONSTRAINT "game.company.fk" FOREIGN KEY (companyid) REFERENCES public.company(userid) NOT VALID;

TOC entry 3294 (class 2606 OID 16685)
Name: game game.genre.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres

ALTER TABLE ONLY public.game
ADD CONSTRAINT "game.genre.fk" FOREIGN KEY (genreid) REFERENCES public.genre(genreid) NOT VALID;
TOC entry 3295 (class 2606 OID 16691)
Name: game game.platform.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.game
ADD CONSTRAINT "game.platform.fk" FOREIGN KEY (platforms) REFERENCES public.platform(platformid) NOT VALID;

TOC entry 3297 (class 2606 OID 16743)
Name: gamegenre gamegenre.game.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres

ALTER TABLE ONLY public.gamegenre
ADD CONSTRAINT "gamegenre.game.fk" FOREIGN KEY (gameid) REFERENCES public.game(gameid) NOT VALID;
TOC entry 3298 (class 2606 OID 16749)
Name: gamegenre gamegenre.genre; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.gamegenre
ADD CONSTRAINT "gamegenre.genre" FOREIGN KEY (genreid) REFERENCES public.genre(genreid) NOT VALID;
TOC entry 3299 (class 2606 OID 16737)
Name: gameplatform gameplatform.game.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.gameplatform
ADD CONSTRAINT "gameplatform.game.fk" FOREIGN KEY (platformid) REFERENCES public.platform(platformid) NOT VALID;
TOC entry 3300 (class 2606 OID 16755)
Name: gameplatform gameplatform.platform.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres

ALTER TABLE ONLY public.gameplatform
ADD CONSTRAINT "gameplatform.platform.fk" FOREIGN KEY (platformid) REFERENCES public.platform(platformid) NOT VALID;
, passes, passes, (passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, passes, pas
TOC entry 3296 (class 2606 OID 16709)
Name: sponsor sponsor.game.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.sponsor
ADD CONSTRAINT "sponsor.game.fk" FOREIGN KEY (gameid) REFERENCES public.game(gameid) NOT VALID;
TOC entry 3284 (class 2606 OID 16644)
Name: company user.company.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.company
ADD CONSTRAINT "user.company.fk" FOREIGN KEY (userid) REFERENCES public.users(userid) NOT VALID;

-- Name: costumer user.costumre.fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres

ALTER TABLE ONLY public.costumer

-- TOC entry 3289 (class 2606 OID 16650)

ADD CONSTRAINT "user.costumre.fk" FOREIGN KEY (userid) REFERENCES public.users(userid) NOT VALID;
Completed on 2022-12-28 02:21:12
PostgreSQL database dump complete

FONKSİYON VE TRIGGER AÇIKLAMALARI :

end;

\$\$;

-oyunların yapımcı şirketleriyle beraber isimleri döndürülür
CREATE FUNCTION public.creatorinfo() RETURNS TABLE(game text, company text)
LANGUAGE plpgsql
AS \$\$
begin
RETURN QUERY
select game.gamename, company.companyname from company left join game on game.companyid=company.userid;
end;
\$\$;
-işçilerin çalıştıkları şirketlerle beraber isimleri döndürülür
CREATE FUNCTION public.employeeinfo() RETURNS TABLE(userid integer, companyname text, firstnam text, lastnam text)
LANGUAGE plpgsql
AS \$\$
begin
RETURN QUERY
select company.userid, company.companyname, firstname, lastname from company left join employee on company.empid=employee.empid;

```
-oyunların isimleri ile çağırılması
CREATE FUNCTION public.oyungetir(isim text) RETURNS TABLE(namecolumn public.company)
  LANGUAGE plpgsql
  AS $$
begin
return query
  select
  gamename,
       gameid,
       userid
       from game
where gamename like isim;
end;
$$;
-oyuncuların aldıkları oyunlar oyun isimleriyle beraber döndürülür
CREATE FUNCTION public.gamers() RETURNS TABLE(game text, gamer text)
  LANGUAGE plpgsql
  AS $$
begin
RETURN QUERY
select game.gamename, costumer.username from game left join costumer on
game.userid=costumer.userid;
end;
$$;
```

-girilen son çalışanın isminin uzunluğu döndürülür

CREATE FUNCTION public.employeename() RETURNS trigger
LANGUAGE plpgsql
AS \$\$
declare
leng integer;
begin
leng:=(select length(firstname)from employee order by empid desc limit 1);
return new;
end;
\$\$;
CREATE TRIGGER testemployeename AFTER INSERT ON public.employee FOR EACH ROW EXECUTE FUNCTION public.employeename();
-son eklenen oyunun isminin uzunluğu döndürülür
CREATE FUNCTION public.gamename() RETURNS trigger
LANGUAGE plpgsql
AS \$\$
declare
leng integer;
begin
leng:=(select length(gamename)from game order by gameid desc limit 1);
return new;
end;
\$\$;
CREATE TRIGGER testgamename AFTER INSERT ON public.game FOR EACH ROW EXECUTE FUNCTION public.gamename();

-son eklenen rolün uzunluğu döndürülür

CREATE FUNCTION public.genre() RETURNS trigger
LANGUAGE plpgsql
AS \$\$
declare
leng integer;
begin
leng:=(select length(genrename)from genre order by genreid desc limit 1);
return new;
end;
\$\$;
CREATE TRIGGER testgenre AFTER INSERT ON public.genre FOR EACH ROW EXECUTE FUNCTION public.genre();
-son girilen oyuncunun isminin uzunluğu döndürülür
-son girilen oyuncunun isminin uzunlugu dondurulur
CREATE FUNCTION public.username() RETURNS trigger
LANGUAGE plpgsql
AS \$\$
declare
leng integer;
begin
leng:=(select length(username)from costumer order by userid desc limit 1);
return new;
end;
\$\$;
TT/

CREATE TRIGGER testusername AFTER INSERT ON public.costumer FOR EACH ROW EXECUTE FUNCTION public.username();

UYGULAMA KODLARI :

Veri tabanın uygulaması bulunmamaktadır