BİLGİSAYAR VE BİLİŞİM FAKÜLTESİ
BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ
VERİTABANI YÖNETİM SİSTEMLERİ PROJE RAPORU

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2-B Grubu

UYGULAMANIN KISA TANITIMI

Yaptığım uygulama postresql, c# dilini ve form elemanlarını içeren sinema otomasyonudur. Uygulamayı sadece sinema gişesindeki personelin kullanımı için tasarladım. Bu uygulamada film ekle butonuna tıkladığımızda; vizyondaki filmleri görebiliriz, Vizyondaki filmleri güncelleyebiliriz, vizyona film ekleyip çıkarabiliriz. Film ara butonuna tıkladığımızda vizyondaki film listesindeki filmleri buluruz. Bilet sat butonuna tıkladığımızda ise boş koltuklardan istediğimizi, izlemek istenilen filmi, bilet tipini (öğrenci, tam), bilet tarihi ve seans saatini, bilet numarasını belirtip bilet kesebiliyoruz.

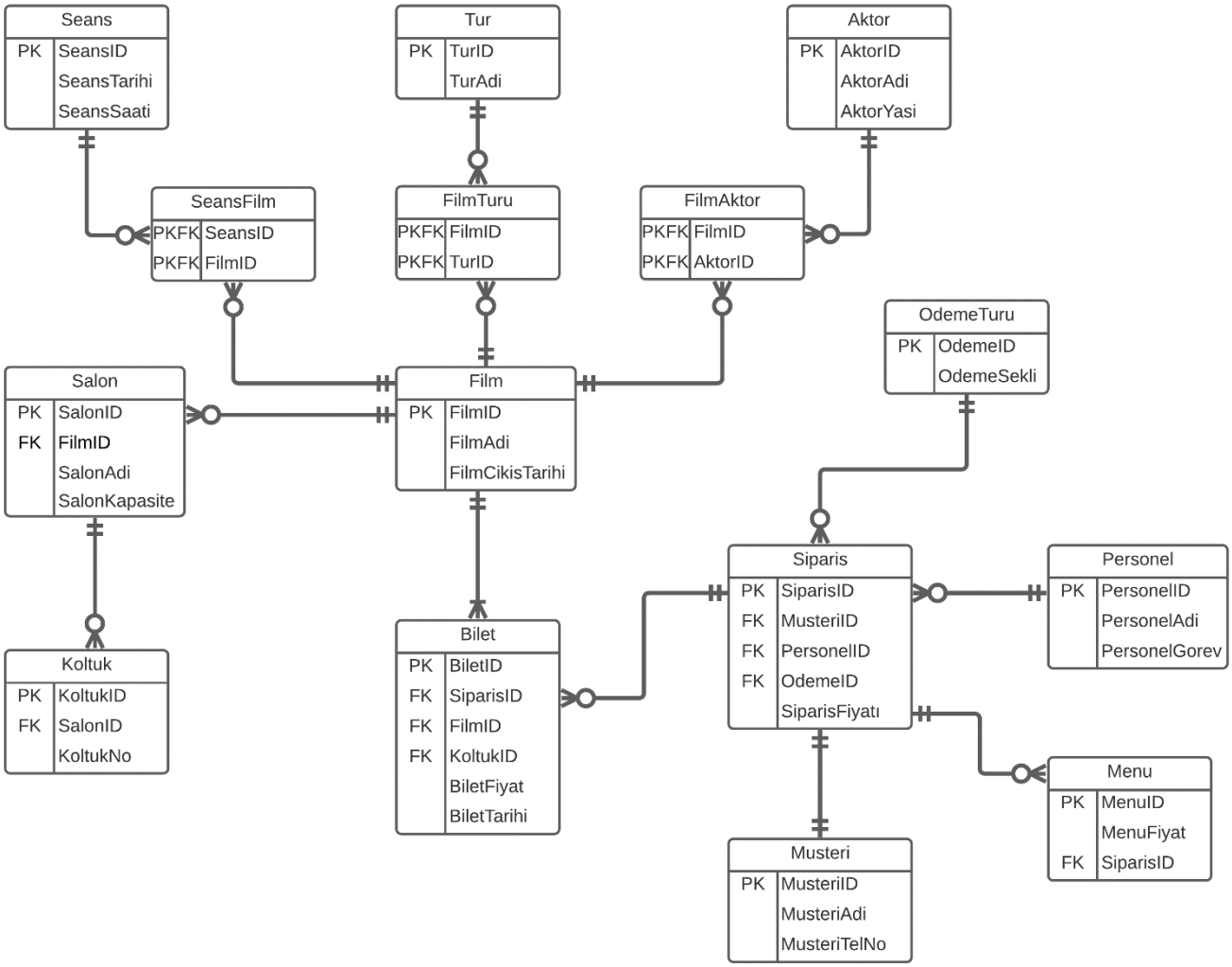
İŞ KURALLARI

- Programı kullanan kişi sinemada çalışan kasiyerdir.
- Kasiyer; film ekleyebilir, vizyondaki filmleri güncelleyebilir, film silebilir.
- Kasiyer vizyondaki filmleri arayabilir.
- Bir türe ait birden çok film olabilir.
- Bir filmin birçok türü olabilir.
- Bir aktör birçok filmde olabilir.
- Bir filmde birçok aktör olabilir.
- Bir bilet bir filme aittir.
- Bir film birçok bilete aittir.
- Bir filmin birçok salonu olabilir
- Bir salonun bir filmi olabilir.
- Bir salonda birçok koltuk olabilir.
- Bir koltuk bir salonda olabilir.
- Bir sipariş birçok bilet içerebilir.
- Bir bilet bir siparişe aittir.
- Bir ödeme türü birçok siparişin olabilir.
- Bir sipariş bir ödeme türünün olabilir.
- Bir personel birçok sipariş alabilir.
- Bir siparişi bir personel alabilir.
- Bir sipariş birçok menünün olabilir.
- Bir menü bir siparişin olabilir.

İLİŞKİSEL ŞEMA

- aktor(**aktor_id:int** , aktor_yasi:int , aktor_adi:varchar
- aktor_film(**aktor_id:int** , **film_id:int**)
- bilet(**bilet_id:int** ,film_id:int , bilet_fiyat:int , bilet_tarih:date , siparis_id:int , koltuk_no:text)
- film(**film_id:int** , film_cikis_tarihi:date , film_adi:varchar)
- film_turu(**film_id:int** , **tur_id:int**)
- koltuk(**koltuk_id:int** , koltuk_no:text , salon_id:int)
- menu(**menu_id:int** , menu_fiyat:int , siparis_id:int)
- müşteri(**müşteri_id:int** , müşteri_tel:text , müşteri_adi:varchar)
- odeme_turu(**odeme_id:int** , odeme_sekli:varchar)
- personel(**personel_id:int** , personel_adi:varchar , personel_gorevi:varchar)
- salon(**salon_id:int** , film_id:int , salon_adi:varchar , salon_kapasitesi:int)
- seans(**seans_id:int** , seans_saati:time , seans_tarihi:date)
- seans_film(**seans_id:int** , **film_id:int**)
- siparis(**siparis_id:int** , müşteri_id:int , odeme_id:int , personel_id:int , siparis_fiyat:int)
- tur(**tur_id:int** , tur_adi:varchar)

VARLIK BAĞINTI MODELİ



SQL İFADELERİ

```
--
-- PostgreSQL database dump
--

-- Dumped from database version 13.1
-- Dumped by pg_dump version 13.1

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;

SET default_tablespace = '';

SET default_table_access_method = heap;

--
-- Name: aktor; Type: TABLE; Schema: public; Owner: postgres
--
```

```
CREATE TABLE public.aktor (
    aktor_id integer NOT NULL,
    aktor_adi character varying NOT NULL,
    aktor_yasi integer NOT NULL
);


ALTER TABLE public.aktor OWNER TO postgres;

--
-- Name: aktor_film; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.aktor_film (
    film_id integer NOT NULL,
    aktor_id integer NOT NULL
);


ALTER TABLE public.aktor_film OWNER TO postgres;

--
-- Name: bilet; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.bilet (
    bilet_id integer NOT NULL,
```

```
    siparis_id integer,
    film_id integer,
    bilet_fiyat integer NOT NULL,
    bilet_tarih date NOT NULL,
    koltuk_no text NOT NULL
);


ALTER TABLE public.bilet OWNER TO postgres;

--
-- Name: film; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.film (
    film_id integer NOT NULL,
    film_adi character varying NOT NULL,
    film_cikis_tarihi character varying NOT NULL
);


ALTER TABLE public.film OWNER TO postgres;

--
-- Name: film_turu; Type: TABLE; Schema: public; Owner: postgres
--
```

```
CREATE TABLE public.film_turu (
    film_id integer NOT NULL,
    tur_id integer NOT NULL
);


ALTER TABLE public.film_turu OWNER TO postgres;

--
-- Name: koltuk; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.koltuk (
    koltuk_id integer NOT NULL,
    koltuk_no integer NOT NULL,
    salon_id integer NOT NULL
);


ALTER TABLE public.koltuk OWNER TO postgres;

--
-- Name: menu; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.menu (
    menu_id integer NOT NULL,
```

```
    menu_fiyat integer NOT NULL,
    siparis_id integer NOT NULL
);


ALTER TABLE public.menu OWNER TO postgres;

--
-- Name: musteri; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.musteri (
    musteri_id integer NOT NULL,
    musteri_adi character varying NOT NULL,
    musteri_tel text NOT NULL
);


ALTER TABLE public.musteri OWNER TO postgres;

--
-- Name: odeme_turu; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.odeme_turu (
    odeme_id integer NOT NULL,
    odeme_sekli character varying NOT NULL
```

```
);


ALTER TABLE public.odeme_turu OWNER TO postgres;

--
-- Name: personel; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.personel (
    personel_id integer NOT NULL,
    personel_adi character varying NOT NULL,
    personel_gorevi character varying NOT NULL
);


ALTER TABLE public.personel OWNER TO postgres;

--
-- Name: salon; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.salon (
    salon_id integer NOT NULL,
    salon_adi character varying NOT NULL,
    salon_kapasitesi integer NOT NULL,
    film_id integer NOT NULL
```

```
);


ALTER TABLE public.salon OWNER TO postgres;

--
-- Name: seans; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.seans (
    seans_id integer NOT NULL,
    seans_tarihi date NOT NULL,
    seans_saati timestamp with time zone NOT NULL
);


ALTER TABLE public.seans OWNER TO postgres;

--
-- Name: seans_film; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.seans_film (
    film_id integer NOT NULL,
    seans_id integer NOT NULL
);
```

```
ALTER TABLE public.seans_film OWNER TO postgres;

--
-- Name: siparis; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.siparis (
    siparis_id integer NOT NULL,
    musteri_id integer NOT NULL,
    personel_id integer NOT NULL,
    odeme_id integer NOT NULL,
    siparis_fiyat integer NOT NULL
);


ALTER TABLE public.siparis OWNER TO postgres;

--
-- Name: tur; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.tur (
    tur_id integer NOT NULL,
    tur_adi character varying NOT NULL
);
```

```
ALTER TABLE public.tur OWNER TO postgres;


--

-- Data for Name: aktor; Type: TABLE DATA; Schema: public; Owner:
postgres

--




--

-- Data for Name: aktor_film; Type: TABLE DATA; Schema: public; Owner:
postgres

--




--

-- Data for Name: bilet; Type: TABLE DATA; Schema: public; Owner:
postgres

--


INSERT INTO public.bilet VALUES
        (15, NULL, NULL, 20, '2020-10-15', 'B4'),
        (52, NULL, NULL, 10, '2021-05-12', 'A3'),
        (25, NULL, NULL, 20, '2020-01-15', 'B4');
```

--

-- Data for Name: film; Type: TABLE DATA; Schema: public; Owner: postgres

--

INSERT INTO public.film VALUES

(2, 'Inception', '20/05/2010'),

(4, 'Prestige', '13/10/2006'),

(5, 'Who am i ?', '17/10/2015'),

(1, 'Coach Carter', '01/01/2005'),

(3, 'Green Book', '15/10/2010'),

(6, 'ABUU2', '2021-05-12 00:00:00');

--

-- Data for Name: film_turu; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Data for Name: koltuk; Type: TABLE DATA; Schema: public; Owner: postgres

--

INSERT INTO public.koltuk VALUES

(1, 1, 1),

(2, 2, 1),

(3, 3, 1),

(4, 4, 1),

(5, 5, 1),

(6, 6, 1),

(7, 7, 1),

(8, 8, 1),

(9, 9, 1),

(10, 10, 1),

(11, 11, 1),

(12, 12, 1);

--

-- Data for Name: menu; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Data for Name: musteri; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Data for Name: odeme_turu; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Data for Name: personel; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Data for Name: salon; Type: TABLE DATA; Schema: public; Owner: postgres

--

INSERT INTO public.salon VALUES

	(1, 'salon1', 12, 1);

--

-- Data for Name: seans; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Data for Name: seans_film; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Data for Name: siparis; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Data for Name: tur; Type: TABLE DATA; Schema: public; Owner: postgres

--

--

-- Name: aktor Aktor_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres

--

```
ALTER TABLE ONLY public.aktor
    ADD CONSTRAINT "Aktor_pkey" PRIMARY KEY (aktor_id);
```

```
--
-- Name: bilet Bilet_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.bilet
    ADD CONSTRAINT "Bilet_pkey" PRIMARY KEY (bilet_id);


--
-- Name: film Film_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.film
    ADD CONSTRAINT "Film_pkey" PRIMARY KEY (film_id);


--
-- Name: koltuk Koltuk_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.koltuk
    ADD CONSTRAINT "Koltuk_pkey" PRIMARY KEY (koltuk_id);
```

```
--

-- Name: menu Menu_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres

--


ALTER TABLE ONLY public.menu

    ADD CONSTRAINT "Menu_pkey" PRIMARY KEY (menu_id);



--

-- Name: musteri Musteri_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres

--


ALTER TABLE ONLY public.musteri

    ADD CONSTRAINT "Musteri_pkey" PRIMARY KEY (musteri_id);



--

-- Name: odeme_turu OdemeTuru_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres

--


ALTER TABLE ONLY public.odeme_turu

    ADD CONSTRAINT "OdemeTuru_pkey" PRIMARY KEY (odeme_id);
```

--

-- Name: personel Personel_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.personel

    ADD CONSTRAINT "Personel_pkey" PRIMARY KEY (personel_id);

--

-- Name: salon Salon_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.salon

    ADD CONSTRAINT "Salon_pkey" PRIMARY KEY (salon_id);

--

-- Name: seans_film SeansFilm_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.seans_film

    ADD CONSTRAINT "SeansFilm_pkey" PRIMARY KEY (film_id, seans_id);

--

```
-- Name: seans Seans_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.seans
    ADD CONSTRAINT "Seans_pkey" PRIMARY KEY (seans_id);



--
-- Name: siparis Siparis_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.siparis
    ADD CONSTRAINT "Siparis_pkey" PRIMARY KEY (siparis_id);



--
-- Name: tur Tur_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.tur
    ADD CONSTRAINT "Tur_pkey" PRIMARY KEY (tur_id);



--
```

-- Name: aktor_film unique_AktorFilm_FilmID; Type: CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.aktor_film

    ADD CONSTRAINT "unique_AktorFilm_FilmID" PRIMARY KEY (aktor_id);

--

-- Name: film_turu unique_FilmTuru_FilmID; Type: CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.film_turu

    ADD CONSTRAINT "unique_FilmTuru_FilmID" PRIMARY KEY (film_id, tur_id);

--

-- Name: siparis unique_Siparis_MusteriID; Type: CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.siparis

    ADD CONSTRAINT "unique_Siparis_MusteriID" UNIQUE (musteri_id);

--

```
-- Name: aktor_film unique_aktor_film_film_id; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.aktor_film
    ADD CONSTRAINT unique_aktor_film_film_id UNIQUE (film_id);



--
-- Name: index_SalonID; Type: INDEX; Schema: public; Owner: postgres
--

CREATE INDEX "index_SalonID" ON public.salon USING btree (salon_id);



--
-- Name: aktor_film aktor-to-aktorFilm; Type: FK CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.aktor_film
    ADD CONSTRAINT "aktor-to-aktorFilm" FOREIGN KEY (aktor_id) REFERENCES public.aktor(aktor_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;



--
-- Name: aktor_film film-to-AktorFilm; Type: FK CONSTRAINT; Schema: public; Owner: postgres
```

--

ALTER TABLE ONLY public.aktor_film

ADD CONSTRAINT "film-to-AktorFilm" FOREIGN KEY (film_id) REFERENCES public.film(film_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: bilet film-to-bilet; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.bilet

ADD CONSTRAINT "film-to-bilet" FOREIGN KEY (film_id) REFERENCES public.film(film_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: film_turu film-to-filmTuru; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.film_turu

ADD CONSTRAINT "film-to-filmTuru" FOREIGN KEY (film_id) REFERENCES public.film(film_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: salon film-to-salon; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.salon

    ADD CONSTRAINT "film-to-salon" FOREIGN KEY (film_id) REFERENCES public.film(film_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: seans_film film-to-seansFilm; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.seans_film

    ADD CONSTRAINT "film-to-seansFilm" FOREIGN KEY (film_id) REFERENCES public.film(film_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: siparis musteri-to-siparis; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.siparis

```
    ADD CONSTRAINT "musteri-to-siparis" FOREIGN KEY (musteri_id)
REFERENCES public.musteri(musteri_id) MATCH FULL ON UPDATE
CASCADE ON DELETE CASCADE;




--

-- Name: siparis odeme-to-siparis; Type: FK CONSTRAINT; Schema: public;
Owner: postgres

--


ALTER TABLE ONLY public.siparis

    ADD CONSTRAINT "odeme-to-siparis" FOREIGN KEY (odeme_id)
REFERENCES public.odeme_turu(odeme_id) MATCH FULL ON UPDATE
CASCADE ON DELETE CASCADE;




--

-- Name: siparis personel-to-siparis; Type: FK CONSTRAINT; Schema:
public; Owner: postgres

--


ALTER TABLE ONLY public.siparis

    ADD CONSTRAINT "personel-to-siparis" FOREIGN KEY (personel_id)
REFERENCES public.personel(personel_id) MATCH FULL ON UPDATE
CASCADE ON DELETE CASCADE;




--

-- Name: koltuk salon-to-koltuk; Type: FK CONSTRAINT; Schema: public;
Owner: postgres
```

--

ALTER TABLE ONLY public.koltuk

ADD CONSTRAINT "salon-to-koltuk" FOREIGN KEY (salon_id) REFERENCES public.salon(salon_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: seans_film seans-to-seansFilm; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.seans_film

ADD CONSTRAINT "seans-to-seansFilm" FOREIGN KEY (seans_id) REFERENCES public.seans(seans_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: bilet siparis-to-bilet; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.bilet

ADD CONSTRAINT "siparis-to-bilet" FOREIGN KEY (siparis_id) REFERENCES public.siparis(siparis_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: menu siparis-to-menu; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.menu

    ADD CONSTRAINT "siparis-to-menu" FOREIGN KEY (siparis_id) REFERENCES public.siparis(siparis_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- Name: film_turu tur-to-filmTuru; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.film_turu

    ADD CONSTRAINT "tur-to-filmTuru" FOREIGN KEY (tur_id) REFERENCES public.tur(tur_id) MATCH FULL ON UPDATE CASCADE ON DELETE CASCADE;

--

-- PostgreSQL database dump complete

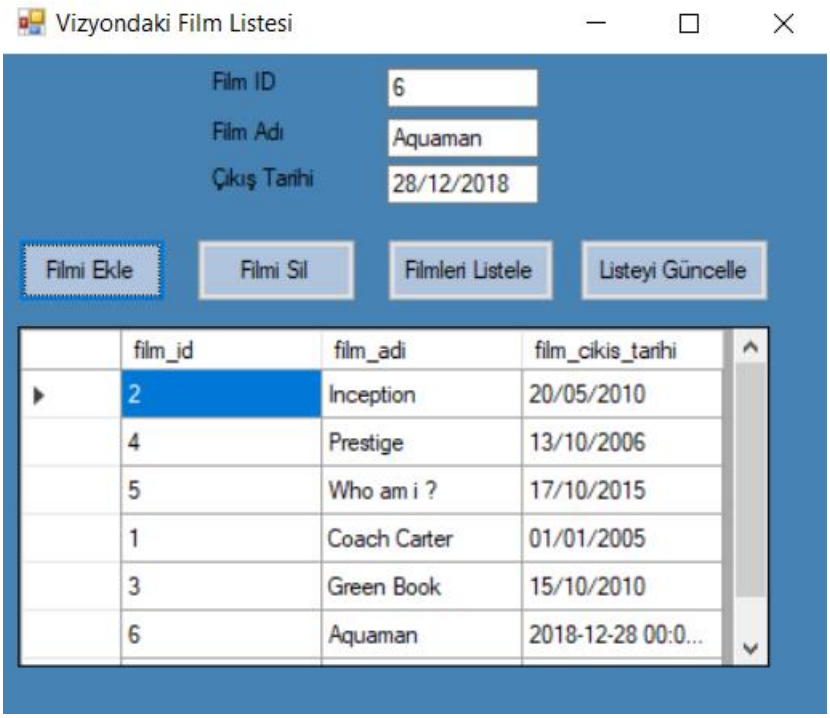
--

KOMUTLARIN ÇALIŞTIĞINA DAİR EKRAN GÖRÜNTÜLERİ

Aşağıdaki ekran görüntüsünde vizyondaki film listemin ilk hali görünmektedir.

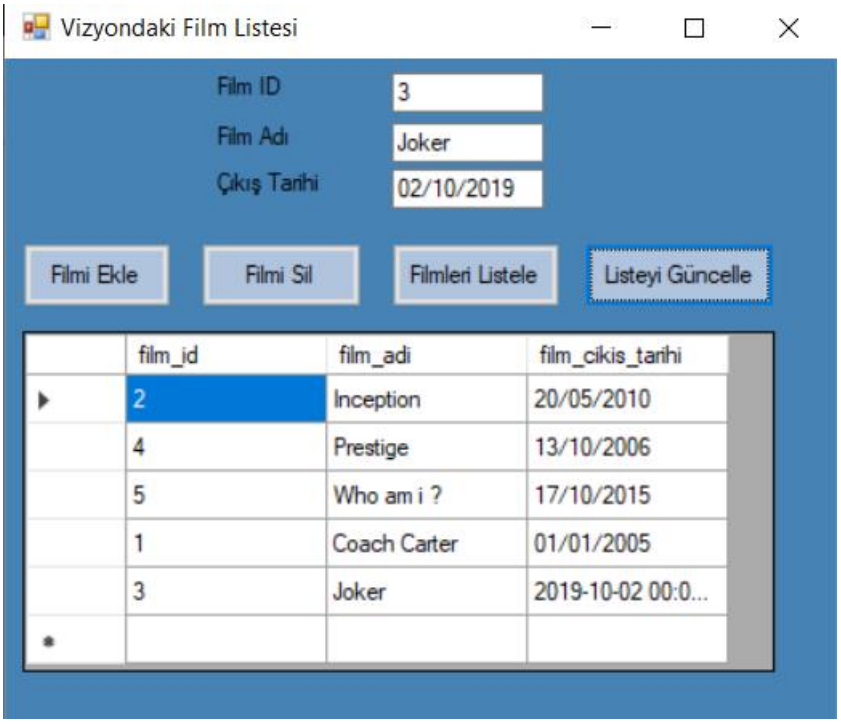
	film_id	film_adi	film_cikis_tarihi
1	1	Coach Carter	01/01/2005
2	2	Inception	20/05/2010
3	3	Green Book	15/10/2010
4	4	Prestige	13/10/2006
5	5	Who am i ?	17/10/2015

1)Film Ekleme



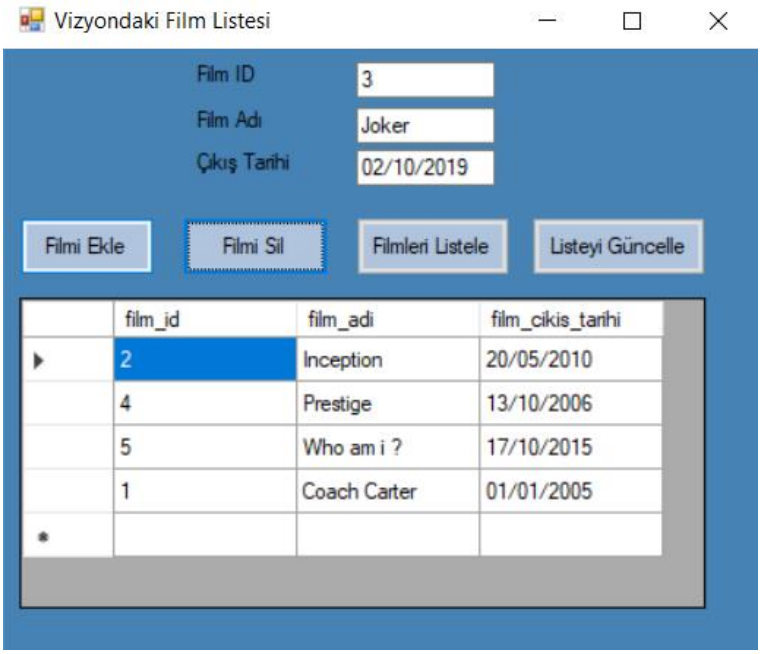
	film_id	film_adi	film_cikis_tarihi
1	1	Coach Carter	01/01/2005
2	2	Inception	20/05/2010
3	3	Green Book	15/10/2010
4	4	Prestige	13/10/2006
5	5	Who am i ?	17/10/2015
6	6	Aquaman	2018-12-28 00:00:00

2)Film Güncelleme



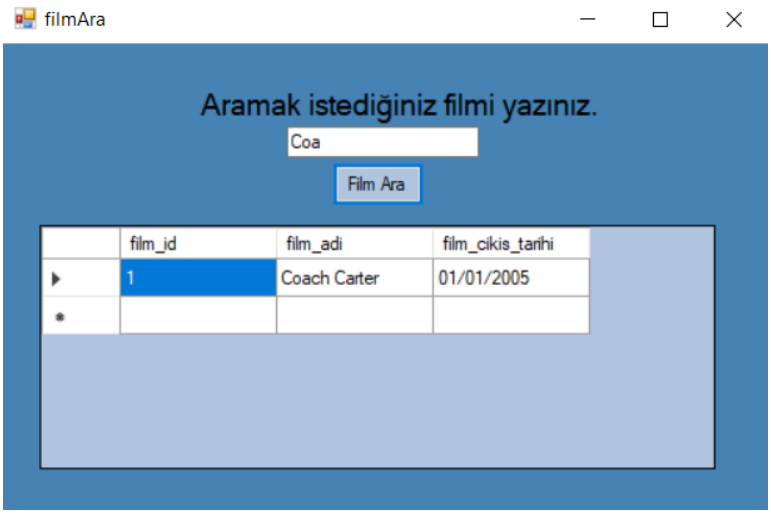
	film_id	film_adi	film_cikis_tarihi
1	1	Coach Carter	01/01/2005
2	2	Inception	20/05/2010
3	3	Joker	2019-10-02 00:00:00
4	4	Prestige	13/10/2006
5	5	Who am i ?	17/10/2015

3)Film Silme

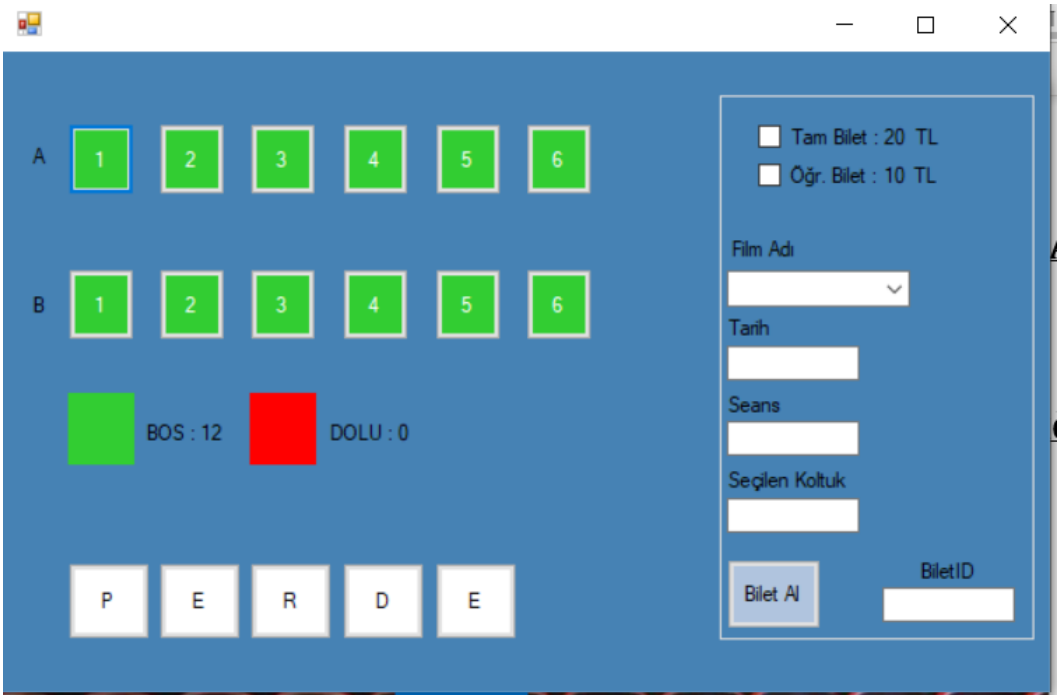


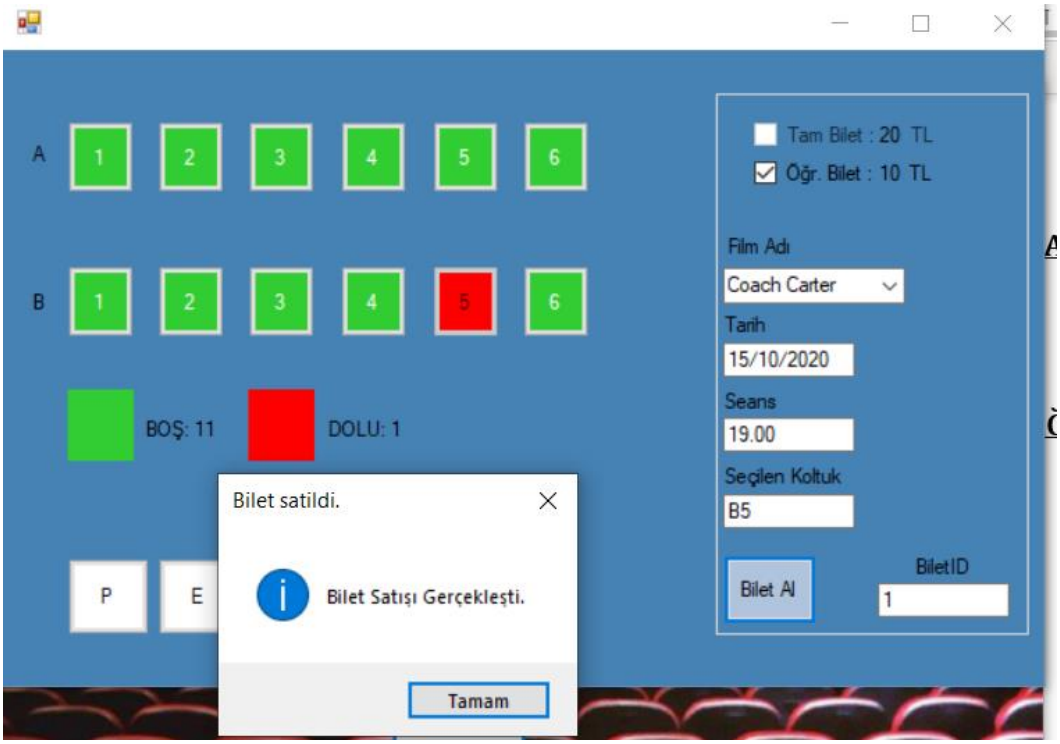
	film_id	film_adi	film_cikis_tarihi
1	1	Coach Carter	01/01/2005
2	2	Inception	20/05/2010
3	4	Prestige	13/10/2006
4	5	Who am i ?	17/10/2015

4)Film Arama



5)Bilet Sat





	bilet_id	siparis_id	film_id	bilet_fiyat	bilet_tarih	koltuk_no
1	1	<NULL>	<NULL>	10	2020-10-15	B5