CSE3055 Database Systems Report

Prepared for: CSE3055 Database Systems Term Project

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Students

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Customer

- Name: Eksim Holding
- Website: https://www.eksim.com.tr
- Address: Altunizade, Ord. Prof. Dr. Fahrettin Kerim Gökay Cd. No:36, 34662 Üsküdar/İstanbul
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Project Description

The purpose of this project is to design a database system and turning it into a website for a project of Eksim Holding. The name of the project is “Request Portal” and the chosen database system technology is MSSQL. After creating a database system for the project, every employee of this company will be able to enter different kind of requests. These requests will be sent to managers of the employee and it will be approved or rejected. Employee will see the state of his/her request. Firstly, we used MSSQL to implement the database. After determining the entities and their relationships, we first draw a mapping diagram and then we built our database system. In the next step of the project, we will be creating our web project for this database system.

Scope

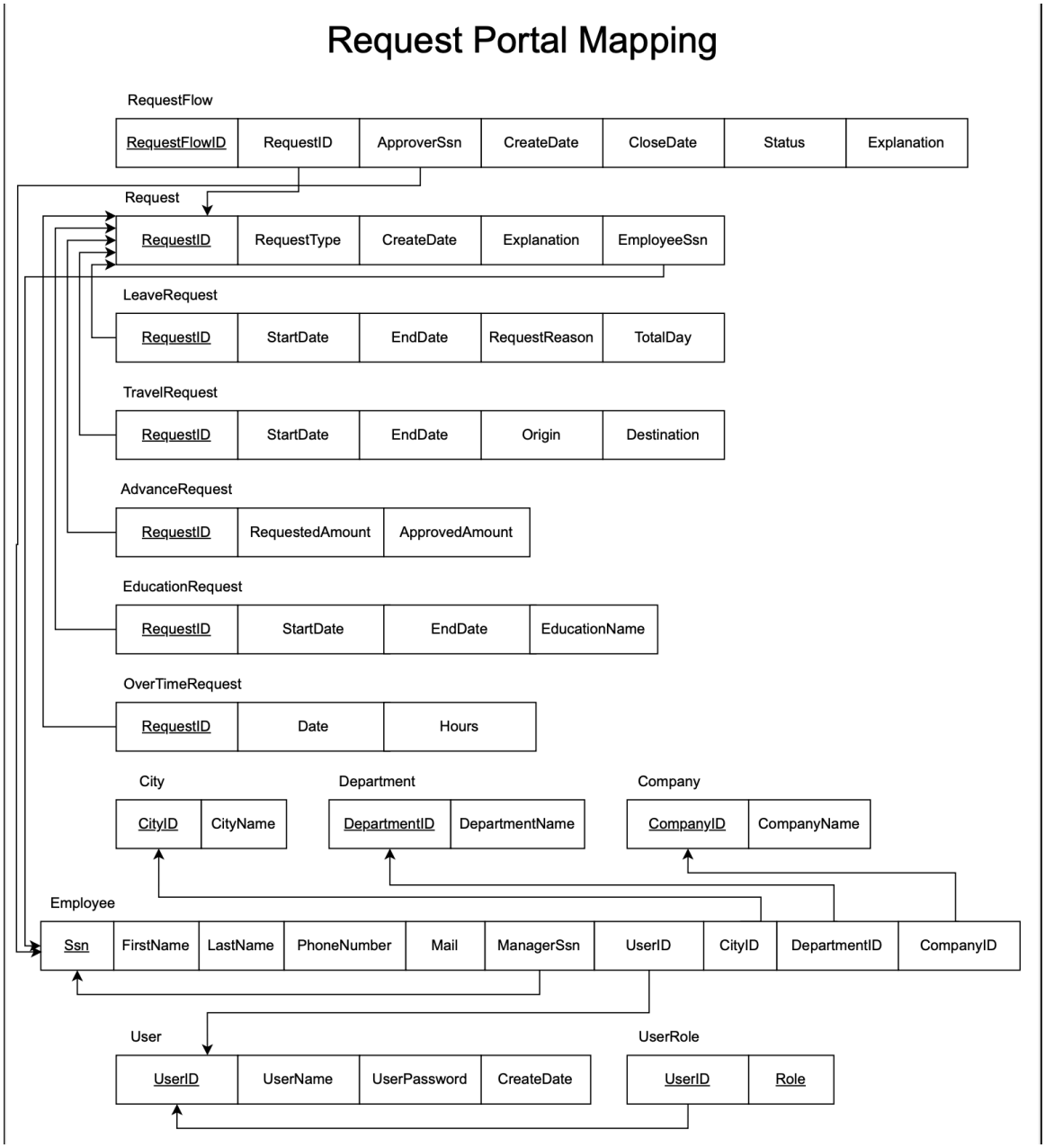
With this project idea, Eksim Holding employees will be able to send their request to their managers. In addition, all employee related informations will be kept via this database and can be controlled easily. All business processes will be included from our Requirement Analysis Report document. While implementing the database system in MSSQL, we tried to apply all business processes but also we will also have some of them in our web project.

Entities & Definitions

- City: Cities in Turkey where employees live.
- Department: Departments of the Eksim that employees work
- Company: Eksim Holding owns many companies and each employee works in one of these companies.
- User: User information for each employee to login to the Request Portal.
- Request: General informations stored in the Request entity for each request of the employees like create date of the request and explanation of the request.

- RequestFlow: Each request has a flow that contains when it's submitted to an approver and when it's accepted or rejected with an explanation.
- LeaveRequest: This is for employee leave requests.
- TravelRequest: This is for employee travel requests.
- AdvanceRequest: This is for employee advance requests.
- EducationRequest: This is for employee education requests.
- OverTimeRequest: This is for employee over time requests.

Using these entities we drew a mapping as in below:



With this drawing we decided our tables and their relationships. All tables, primary and foreign keys can be seen in this drawing.

Tables

City

Description: It stores cities of Turkey.

Column Name	Data Type	Properties
CityID	int	Primary Key, Identity(1, 1)
CityName	nvarchar(50)	

Department

Description: It stores departments of the Eksim Holding.

Column Name	Data Type	Properties
DepartmentID	int	Primary Key, Identity(1, 1)
DepartmentName	nvarchar(50)	

Company

Description: It stores companies of the Eksim Holding.

Column Name	Data Type	Properties
CompanyID	int	Primary Key, Identity(1, 1)
CompanyName	nvarchar(50)	

Users

Description: It stores user login information of the employees.

Column Name	Data Type	Properties
UserID	int	Primary Key, Identity(1, 1)
UserName	nvarchar(25)	
UserPassword	nvarchar(25)	
CreateDate	smalldatetime	

UserRole

Description: It stores user role information of the users.

Column Name	Data Type	Properties
UserID	int	Foreign Key References Users (UserID)
UserRole	nvarchar(25)	

Employee

Description: It stores user role information of the users.

Column Name	Data Type	Properties
Ssn	int	Primary Key
FirstName	nvarchar(25)	
LastName	nvarchar(25)	
PhoneNumber	nvarchar(15)	
Mail	nvarchar(50)	
ManagerSsn	int	Foreign Key References Employee (Ssn)
UserID	int	Foreign Key References Users (UserID)
CityID	int	Foreign Key References City (CityID)
DepartmentID	int	Foreign Key References Department (DepartmentID)
CompanyID	İnt	Foreign Key References Company (CompanyID)

Request

Description: It stores employee requests.

Column Name	Data Type	Properties
RequestID	int	Primary Key, Identity (1, 1)
RequestType	tinyint	
CreateDate	smalldatetime	Default Current_Timestamp
Explanation	nvarchar(250)	
EmployeeSsn	int	

RequestFlow

Description: It stores employee requests's flows.

Column Name	Data Type	Properties
RequestFlowID	int	Primary Key, Identity (1, 1)
RequestID	tinyint	Index IX_RequestID Nonclustered, Foreign Key References Request (RequestID)
ApproverSsn	int	Foreign Key References Employee (Ssn)
CreateDate	smalldatetime	Default Current_Timestamp
CloseDate	smalldatetime	
Status	tinyint	
Explanation	nvarchar(250)	

LeaveRequest

Description: It stores extra informations of leave requests.

Column Name	Data Type	Properties
RequestID	int	Primary Key, Foreign Key References Request (RequestID)
StartDate	smalldatetime	
EndDate	smalldatetime	
RequestReason	nvarchar(250)	
TotalDay	int	Computed Column As Datediff(day, StartDate, EndDate)

TravelRequest

Description: It stores extra informations of travel requests.

Column Name	Data Type	Properties
RequestID	int	Primary Key, Foreign Key References Request (RequestID)
StartDate	smalldatetime	
EndDate	smalldatetime	
Origin	nvarchar(50)	
Destination	nvarchar(50)	

AdvanceRequest

Description: It stores extra informations of advance requests.

Column Name	Data Type	Properties
RequestID	int	Primary Key, Foreign Key References Request (RequestID)
RequestedAmount	smallmoney	Check (RequestedAmount > 0)
ApprovedAmount	smallmoney	Check (ApprovedAmount >= 0)

EducationRequest

Description: It stores extra informations of education requests.

Column Name	Data Type	Properties
RequestID	int	Primary Key, Foreign Key References Request (RequestID)
StartDate	smalldatetime	
EndDate	smalldatetime	
EducationName	nvarchar(150))	

OverTimeRequest

Description: It stores extra informations of over time requests.

Column Name	Data Type	Properties
RequestID	int	Primary Key, Foreign Key References Request (RequestID)
Date	smalldatetime	
Hours	int	

Views

GetRequestWithFlow_View

Definition: It gets requests with flow informations.

Code & Output:

```
CREATE VIEW GetRequestWithFlow_View AS
SELECT
    r.RequestID,
    r.RequestType,
    r.EmployeeSsn,
    r.CreateDate AS 'RequestCreateDate',
    r.Explanation AS 'RequestExplanation',
    rf.RequestFlowID,
    rf.ApproverSsn,
    rf.CreateDate AS 'FlowCreateDate',
    rf.CloseDate AS 'FlowCloseDate',
    rf.Explanation AS 'FlowExplanation',
    rf.Status AS 'FlowStatus'
FROM Request r
JOIN RequestFlow rf
ON r.RequestID = rf.RequestID;
```

```
11  SELECT * FROM GetRequestWithFlow_View
```

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Results | Messages

	RequestID	RequestType	EmployeeSsn	RequestCreateDate	RequestExplanation	RequestFlowID	ApproverSsn	FlowCreateDate	FlowCloseDate	FlowExplanation	FlowStatus
1	1	1	20	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	1	10	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
2	2	2	21	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	2	11	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
3	3	3	22	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	3	12	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
4	4	4	23	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	4	13	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
5	5	5	24	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	5	14	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
6	6	1	25	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	6	15	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
7	7	2	20	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	7	10	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
8	8	3	21	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	8	11	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
9	9	4	22	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	9	12	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
10	10	5	23	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	10	13	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
11	11	1	24	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	11	14	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
12	12	2	25	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	12	15	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
13	13	3	20	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	13	10	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
14	14	4	21	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	14	11	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
15	15	5	22	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	15	12	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
16	16	1	23	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	16	13	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
17	17	2	24	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	17	14	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
18	18	3	25	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	18	15	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
19	19	4	20	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	19	10	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
20	20	5	21	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	20	11	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
21	21	1	22	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	21	12	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
22	22	2	23	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	22	13	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
23	23	3	24	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	23	14	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
24	24	4	25	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	24	15	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1
25	25	5	20	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	25	10	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1

GetLeaveRequest_View

Definition: It gets leave requests.

Code & Output:

```sql
CREATE VIEW GetLeaveRequest_View AS
SELECT
    r.*,
    lr.StartDate,
    lr.EndDate,
    lr.RequestReason,
    lr.TotalDay
FROM Request r
JOIN LeaveRequest lr ON lr.RequestID = r.RequestID
WHERE r.RequestType = 1;
```

```sql
13  SELECT * FROM GetLeaveRequest_View
14
```

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Results | Messages

	RequestID	RequestType	CreateDate	Explanation	EmployeeSsn	StartDate	EndDate	RequestReason	TotalDay
1	1	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	20	2023-01-02 00:00:00	2023-01-09 00:00:00	Hastalik	7
2	6	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	25	2023-01-03 00:00:00	2023-01-10 00:00:00	Babalik Izni	7
3	11	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	24	2023-01-04 00:00:00	2023-01-11 00:00:00	Cenaze	7
4	16	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	23	2023-01-05 00:00:00	2023-01-12 00:00:00	Dogum	7
5	21	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	22	2023-01-06 00:00:00	2023-01-13 00:00:00	Süt Izni	7

GetTravelRequest_View

Definition: It gets travel requests.

Code & Output:

```sql
CREATE VIEW GetTravelRequest_View AS
SELECT
    r.*,
    tr.StartDate,
    tr.EndDate,
    tr.Origin,
    tr.Destination
FROM Request r
JOIN TravelRequest tr ON tr.RequestID = r.RequestID
WHERE r.RequestType = 2;
```

```sql
15  SELECT * FROM GetTravelRequest_View
```

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Results | Messages

	RequestID	RequestType	CreateDate	Explanation	EmployeeSsn	StartDate	EndDate	Origin	Destination
1	2	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	21	2023-01-02 00:00:00	2023-01-09 00:00:00	Tekirdag	Malatya
2	7	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	20	2023-01-03 00:00:00	2023-01-10 00:00:00	Izmir	Mugla
3	12	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	25	2023-01-04 00:00:00	2023-01-11 00:00:00	Edirne	Kars
4	17	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	24	2023-01-05 00:00:00	2023-01-12 00:00:00	Rize	Trabzon
5	22	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	23	2023-01-06 00:00:00	2023-01-13 00:00:00	Ankara	Adana

GetAdvanceRequest_View

Definition: It gets advance requests.

Code & Output:

```
CREATE VIEW GetAdvanceRequest_View AS
SELECT
    r.*,
    ar.RequestedAmount,
    ar.ApprovedAmount
FROM Request r
JOIN AdvanceRequest ar ON ar.RequestID = r.RequestID
WHERE r.RequestType = 3;
```

```
17  SELECT * FROM GetAdvanceRequest_View
18
```

100 %

Results | Messages

	RequestID	RequestType	CreateDate	Explanation	EmployeeSsn	RequestedAmount	ApprovedAmount
1	3	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	22	100.00	NULL
2	8	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	21	200.00	NULL
3	13	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	20	300.00	NULL
4	18	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	25	400.00	NULL
5	23	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	24	500.00	NULL

GetEducationRequest_View

Definition: It gets education requests.

Code & Output:

```
CREATE VIEW GetEducationRequest_View AS
SELECT
    r.*,
    er.StartDate,
    er.EndDate,
    er.EducationName
FROM Request r
JOIN EducationRequest er ON er.RequestID = r.RequestID
WHERE r.RequestType = 4;
```

```
19  SELECT * FROM GetEducationRequest_View
```

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Results | Messages

	RequestID	RequestType	CreateDate	Explanation	EmployeeSsn	StartDate	EndDate	EducationName
1	4	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	23	2023-01-02 00:00:00	2023-01-09 00:00:00	Excel Egitimi
2	9	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	22	2023-01-03 00:00:00	2023-01-10 00:00:00	PowerPoint Egitimi
3	14	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	21	2023-01-04 00:00:00	2023-01-11 00:00:00	Word Egitimi
4	19	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	20	2023-01-05 00:00:00	2023-01-12 00:00:00	Programlama Egitimi
5	24	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	25	2023-01-06 00:00:00	2023-01-13 00:00:00	Kariyer Planlamasi Egitimi

GetOverTimeRequest_View

Definition: It gets over time requests.

Code & Output:

```
CREATE VIEW GetOverTimeRequest_View AS
SELECT
    r.*,
    otr.Date,
    otr.Hours
FROM Request r
JOIN OverTimeRequest otr ON otr.RequestID = r.RequestID
WHERE r.RequestType = 5;
```

```
21  SELECT * FROM GetOverTimeRequest_View
22
```

100 %

Results | Messages

	RequestID	RequestType	CreateDate	Explanation	EmployeeSsn	Date	Hours
1	5	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	24	2023-01-02 00:00:00	1
2	10	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	23	2023-01-03 00:00:00	2
3	15	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	22	2023-01-04 00:00:00	3
4	20	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	21	2023-01-05 00:00:00	1
5	25	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	20	2023-01-06 00:00:00	2

GetEmployee_View

Definition: It gets employee informations.

Code & Output:

```sql
CREATE VIEW GetEmployee_View AS
SELECT
    e.Ssn,
    e.FirstName + ' ' + e.LastName AS FullName,
    e.PhoneNumber,
    e.Mail,
    mngr.FirstName + ' ' + mngr.LastName AS ManagerName,
    u.UserName,
    u.UserPassword,
    c.CityName,
    co.CompanyName,
    d.DepartmentName
FROM Employee e
LEFT JOIN Employee mngr
    ON e.ManagerSsn = mngr.Ssn
LEFT JOIN Users u
    ON e.UserID = u.UserID
LEFT JOIN City c
    ON e.CityID = c.CityID
LEFT JOIN Company co
    ON e.CompanyID = co.CompanyID
LEFT JOIN Department d
    ON e.DepartmentID = d.DepartmentID;
```

```sql
SELECT * FROM GetEmployee_View
```

100 %

Results | Messages

	Ssn	FullName	PhoneNumber	Mail	ManagerName	UserName	UserPassword	CityName	CompanyName	DepartmentName
1	1	Özde Acarkan	905461342341	ozde.acarkan@hotmail.com	NULL	ozde.acarkan	12345	ADANA	Dedas	Insan Kaynaklari
2	2	Atahan Adanir	905465262960	atahan.adanir@hotmail.com	NULL	atahan.adanir	12345	ADIYAMAN	Depsas	Muhasebe
3	3	Bestami Agiragaç	905463136783	bestami.agiragaç@hotmail.com	NULL	bestami.agiragaç	12345	AFYONKARAHISAR	Eksun Gida	Pazarlama
4	4	Aykanat Agiroglu	905462705997	aykanat.agiroglu@hotmail.com	NULL	aykanat.agiroglu	12345	AGRI	4Tek Iletisim	Finans
5	5	Sennur Agnar	905463126649	sennur.agnar@hotmail.com	NULL	sennur.agnar	12345	AMASYA	Eksim Yatirim	AR-GE
6	6	Lemis Akküt	905467546153	lemis.akkut@hotmail.com	NULL	lemis.akkut	12345	ANKARA	Iltek Enerji	Halkla Iliskiler
7	7	Nüket Aksan	905466714648	nuket.aksan@hotmail.com	NULL	nuket.aksan	12345	ANTALYA	Bati Hatti Dogalgaz	Hukuk
8	8	Senem Aksevim	905462841721	senem.aksevim@hotmail.com	NULL	senem.aksevim	12345	ARTVIN	Incesu Gayrimenkul	Yönetim
9	9	Aysen Aksoy	905464471873	aysen.aksoy@hotmail.com	NULL	aysen.aksoy	12345	AYDIN	Altinapa	Üretim
10	10	Pekcan Aksöz	905462823468	pekcan.aksoz@hotmail.com	NULL	pekcan.aksoz	12345	BALIKESIR	Kök Elektrik	Enerji
11	11	Ilma Aldag	905464050530	ilma.aldag@hotmail.com	Özde Acarkan	ilma.aldag	12345	BILECIK	Dedas	Insan Kaynaklari
12	12	Kutlu Alibeyoglu	905462480701	kutlu.alibeyoglu@hotmail.com	Atahan Adanir	kutlu.alibeyoglu	12345	BINGÖL	Depsas	Muhasebe
13	13	Hiba Alpugan	905464923669	hiba.alpugan@hotmail.com	Bestami Agiragaç	hiba.alpugan	12345	BITLIS	Eksun Gida	Pazarlama
14	14	Mazlum Altan	905465229910	mazlum.altan@hotmail.com	Aykanat Agiroglu	mazlum.altan	12345	BOLU	4Tek Iletisim	Finans
15	15	Saba Atmaca	905461646044	saba.atmaca@hotmail.com	Sennur Agnar	saba.atmaca	12345	BURDUR	Eksim Yatirim	AR-GE
16	16	Çisem Atok	905469226338	cisem.atok@hotmail.com	Lemis Akküt	cisem.atok	12345	BURSA	Iltek Enerji	Halkla Iliskiler
17	17	Edip Attila	905462118717	edip.attila@hotmail.com	Nüket Aksan	edip.attila	12345	ÇANAKKALE	Bati Hatti Dogalgaz	Hukuk
18	18	Almina Avci	905463923126	almina.avci@hotmail.com	Senem Aksevim	almina.avci	12345	ÇANKIRI	Incesu Gayrimenkul	Yönetim
19	19	Saime Aviandi	905469199542	saime.aviandi@hotmail.com	Aysen Aksoy	saime.aviandi	12345	ÇORUM	Altinapa	Üretim
20	20	Nehar Avsar	905467420808	nehar.avsar@hotmail.com	Pekcan Aksöz	nehar.avsar	12345	DENIZLI	Kök Elektrik	Enerji
21	21	Kerime Aydogan	905462000172	kerime.aydogan@hotmail.com	Ilma Aldag	kerime.aydogan	12345	DIYARBAKIR	Dedas	Insan Kaynaklari
22	22	Hami Aydogdu	905467588851	hami.aydogdu@hotmail.com	Kutlu Alibeyoglu	hami.aydogdu	12345	EDIRNE	Depsas	Muhasebe
23	23	Tolga Aygen	905466172697	tolga.aygen@hotmail.com	Hiba Alpugan	tolga.aygen	12345	ELAZIG	Eksun Gida	Pazarlama
24	24	Günes Aykan	905463032123	gunes.aykan@hotmail.com	Mazlum Altan	gunes.aykan	12345	ERZINCAN	4Tek Iletisim	Finans
25	25	Adem Ayvacik	905462334060	adem.ayvacik@hotmail.com	Saba Atmaca	adem.ayvacik	12345	ERZURUM	Eksim Yatirim	AR-GE

GetUserRole_View

Definition: It gets user login and role informations.

Code & Output:

```
CREATE VIEW GetUserRole_View AS
SELECT
    u.UserID,
    u.UserName,
    u.UserPassword,
    u.CreateDate,
    ur.Role
FROM Users u
JOIN UserRole ur
    ON u.UserID = ur.UserID;
```

```
25  SELECT * FROM GetUserRole_View
```

100 %

Results | Messages

	UserID	UserName	UserPassword	CreateDate	Role
1	1	ozde.acarkan	12345	2022-12-30 17:11:00	User
2	2	atahan.adanir	12345	2022-12-30 17:11:00	User
3	3	bestami.agiragaç	12345	2022-12-30 17:11:00	User
4	4	aykanat.agiroglu	12345	2022-12-30 17:11:00	User
5	5	sennur.agnar	12345	2022-12-30 17:11:00	User
6	6	lemis.akkut	12345	2022-12-30 17:11:00	User
7	7	nuket.aksan	12345	2022-12-30 17:11:00	User
8	8	senem.aksevim	12345	2022-12-30 17:11:00	User
9	9	aysen.aksoy	12345	2022-12-30 17:11:00	User
10	10	pekcan.aksoz	12345	2022-12-30 17:11:00	User
11	11	ilma.aldag	12345	2022-12-30 17:11:00	User
12	12	kutlu.alibeyoglu	12345	2022-12-30 17:11:00	User
13	13	hiba.alpugan	12345	2022-12-30 17:11:00	User
14	14	mazlum.altan	12345	2022-12-30 17:11:00	User
15	15	saba.atmaca	12345	2022-12-30 17:11:00	User
16	16	cisem.atok	12345	2022-12-30 17:11:00	User
17	17	edip.attila	12345	2022-12-30 17:11:00	User
18	18	almina.avci	12345	2022-12-30 17:11:00	User
19	19	saime.aviandi	12345	2022-12-30 17:11:00	User
20	20	nehar.avsar	12345	2022-12-30 17:11:00	User
21	21	kerime.aydogan	12345	2022-12-30 17:11:00	User
22	22	hami.aydogdu	12345	2022-12-30 17:11:00	User
23	23	tolga.aygen	12345	2022-12-30 17:11:00	User
24	24	gunes.aykan	12345	2022-12-30 17:11:00	User
25	25	adem.ayvacik	12345	2022-12-30 17:11:00	User

Stored Procedures

GetWaitingRequestWithManagerSsn_Sp

Definition: It gets flows for given manager SSN.

Code & Output:

```
CREATE PROCEDURE GetWaitingRequestWithManagerSsn_Sp
    @ManagerSsn int
AS
SELECT
    rf.*,
    r.RequestType,
    r.CreateDate AS 'RequestCreateDate',
    r.Explanation AS 'RequestExplanation',
    r.EmployeeSsn
FROM RequestFlow rf
LEFT JOIN Request r
    ON rf.RequestID = r.RequestID
WHERE rf.ApproverSsn = @ManagerSsn;
```

```
EXEC GetWaitingRequestWithManagerSsn_Sp 10
```

100 %

Results | Messages

	RequestFlowID	RequestID	ApproverSsn	CreateDate	CloseDate	Status	Explanation	RequestType	RequestCreateDate	RequestExplanation	EmployeeSsn
1	1	1	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	20
2	7	7	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	20
3	13	13	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	20
4	19	19	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	20
5	25	25	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	20

GetRequestWithEmployeeSsn_Sp

Definition: It gets requests for given employee SSN.

Code & Output:

```
CREATE PROCEDURE GetRequestWithEmployeeSsn_Sp
    @EmployeeSsn int
AS
SELECT
    r.*,
    e.FirstName + ' ' + e.LastName AS 'EmployeeFullName'
FROM Request r
LEFT JOIN Employee e
    ON r.EmployeeSsn = e.Ssn
WHERE EmployeeSsn = @EmployeeSsn;

CREATE PROCEDURE GetRequestAndFlowWithRequestID_Sp
    @RequestID int
AS
SELECT *
FROM GetRequestWithFlow_View
WHERE RequestID = @RequestID;
```

```
EXEC GetRequestWithEmployeeSsn_Sp 20
```

100 %

Results | Messages

	RequestID	RequestType	CreateDate	Explanation	EmployeeSsn	EmployeeFullName
1	1	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	20	Nehar Avsar
2	7	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	20	Nehar Avsar
3	13	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	20	Nehar Avsar
4	19	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	20	Nehar Avsar
5	25	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	20	Nehar Avsar

GetRequestAndFlowWithRequestID_Sp

Definition: It gets request and its flow for given request id.

Code & Output:

```
CREATE PROCEDURE GetRequestAndFlowWithRequestID_Sp
    @RequestID int
AS
SELECT *
FROM GetRequestWithFlow_View
WHERE RequestID = @RequestID;
```

```
EXEC GetRequestAndFlowWithRequestID_Sp 5
```

100 %

Results | Messages

	RequestID	RequestType	EmployeeSsn	RequestCreateDate	RequestExplanation	RequestFlowID	ApproverSsn	FlowCreateDate	FlowCloseDate	FlowExplanation	FlowStatus
1	5	5	24	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	5	14	2022-12-30 17:46:00	2022-12-30 17:46:00	NULL	1

GetEmployeeWithSsn_Sp

Definition: It gets employee information for given employee SSN.

Code & Output:

```
CREATE PROCEDURE GetEmployeeWithSsn_Sp
    @EmployeeSsn int
AS
SELECT *
FROM GetEmployee_View
WHERE Ssn = @EmployeeSsn;
```

```
EXEC GetEmployeeWithSsn_Sp 12
```

100 %

Results | Messages

	Ssn	FullName	PhoneNumber	Mail	ManagerName	UserName	UserPassword	CityName	CompanyName	DepartmentName
1	12	Kutlu Alibeyoglu	905462480701	kutlu.alibeyoglu@hotmail.com	Atahan Adanir	kutlu.alibeyoglu	12345	BINGÖL	Depsas	Muhasebe

GetEmployeeAndUserWithSsn_Sp

Definition: It gets employee and user information for given employee SSN.

Code & Output:

```
CREATE PROCEDURE GetEmployeeAndUserWithSsn_Sp
    @EmployeeSsn int
AS
SELECT
    gev.Ssn,
    gev.FullName,
    gev.PhoneNumber,
    gev.Mail,
    gev.ManagerName,
    gev.CityName,
    gev.CompanyName,
    gev.CompanyName,
    gurv.CreateDate AS 'UserCreateDate',
    gurv.Role AS 'UserRole'
FROM Employee e
LEFT JOIN GetEmployee_View gev
    ON e.Ssn = gev.Ssn
LEFT JOIN GetUserRole_View gurv
    ON e.UserID = gurv.UserID
WHERE e.Ssn = @EmployeeSsn;
```

```
9   EXEC GetEmployeeAndUserWithSsn_Sp 15
```

100 %

Results | Messages

	Ssn	FullName	PhoneNumber	Mail	ManagerName	CityName	CompanyName	CompanyName	UserCreateDate	UserRole
1	15	Saba Atmaca	905461646044	saba.atmaca@hotmail.com	Sennur Agnar	BURDUR	Eksim Yatirim	Eksim Yatirim	2022-12-30 17:11:00	User

Remaining Stored Procedures

Definition: They are all for inserting new data to the tables. One of them is for updating the flow status in RequestFlow.

Names: InsertCity_Sp, InsertCompany_Sp, InsertDepartment_Sp, InsertUser_Sp, InsertUserRole_Sp, InsertEmployee_Sp, InsertRequest_Sp, InsertRequestFlow_Sp, InsertLeaveRequest_Sp, InsertTravelRequest_Sp, InsertAdvanceRequest_Sp, InsertEducationRequest_Sp, InsertOverTimeRequest_Sp, UpdateRequestFlowStatus_Sp

Triggers

InsertFlowAfterInsertedRequest

Definition: It inserts new data to flow table after a request is inserted.

Code & Output:

```
CREATE TRIGGER InsertFlowAfterInsertedRequest ON Request
AFTER INSERT AS
BEGIN
    DECLARE
    @RequestId int,
    @ManagerSsn int,
    @Now smalldatetime = CURRENT_TIMESTAMP

    SELECT @RequestId = i.RequestID
    FROM inserted i;

    SELECT @ManagerSsn = e.ManagerSsn
    FROM inserted i
    LEFT JOIN Employee e
        ON i.EmployeeSsn = e.Ssn;

    EXEC InsertRequestFlow_Sp
    @RequestID = @RequestId,
    @ApproverSsn = @ManagerSsn,
    @CloseDate = @Now,
    @Status = 1,
    @Explanation = NULL
END;
```

Results Messages

	RequestID	RequestType	CreateDate	Explanation	EmployeeSsn
1	1	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	20
2	2	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	21
3	3	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	22
4	4	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	23
5	5	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	24
6	6	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	25
7	7	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	20
8	8	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	21
9	9	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	22
10	10	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	23
11	11	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	24
12	12	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	25
13	13	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	20
14	14	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	21
15	15	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	22
16	16	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	23
17	17	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	24
18	18	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	25
19	19	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	20
20	20	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	21
21	21	1	2022-12-30 17:46:00	Izin ihtiyacim bulunmaktadir.	22
22	22	2	2022-12-30 17:46:00	Seyahat ihtiyacim bulunmaktadir.	23
23	23	3	2022-12-30 17:46:00	Avans ihtiyacim bulunmaktadir.	24
24	24	4	2022-12-30 17:46:00	Egitim talebi ihtiyacim bulunmaktadir.	25
25	25	5	2022-12-30 17:46:00	Mesai talebi ihtiyacim bulunmaktadir.	20

INSERTED REQUEST DATA

	RequestFlowID	RequestID	ApproverSsn	CreateDate	CloseDate	Status	Explanation
1	1	1	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
2	2	2	11	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
3	3	3	12	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
4	4	4	13	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
5	5	5	14	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
6	6	6	15	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
7	7	7	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
8	8	8	11	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
9	9	9	12	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
10	10	10	13	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
11	11	11	14	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
12	12	12	15	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
13	13	13	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
14	14	14	11	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
15	15	15	12	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
16	16	16	13	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
17	17	17	14	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
18	18	18	15	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
19	19	19	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
20	20	20	11	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
21	21	21	12	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
22	22	22	13	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
23	23	23	14	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
24	24	24	15	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL
25	25	25	10	2022-12-30 17:46:00	2022-12-30 17:46:00	1	NULL

INSERTED FLOW DATA USING TRIGGER