



T.C.

**MARMARA UNIVERSITY
FACULTY of ENGINEERING
COMPUTER ENGINEERING DEPARTMENT**

CSE 3055 – Database Systems Homework IV Report

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I hereby swear that the work done on this homework is totally my own; and on my honor, I have neither given nor received any unauthorized and/or inappropriate assistance for this homework. I understand that by the school code, violation of these principles will lead to a zero grade and is subject to harsh discipline issues.

22 November 2020

1.b) -- age computed column

```
ALTER TABLE dbo.STAFF ADD age AS DATEDIFF(YY, birthDate, GETDATE())
```

-- part 1: problem b

```
alter table dbo.STUDENT add constraint df_city default 'İstanbul' for city
```

```
alter table dbo.STUDENT add constraint df_postalCode default '34722' for  
postalCode
```

2.a)

```
SELECT s.fName, s.lName, s.birthDate, s.city  
FROM STUDENT s
```

	fName	lName	birthDate	city
1	Açıl	Tan	1985-05-10 00:00:00	Ankara
2	Ahmet	Canverir	1986-05-10 00:00:00	Ankara
3	Asu	Çelebi	1987-05-10 00:00:00	İstanbul
4	Ayhan	Altan	1988-05-10 00:00:00	Antalya
5	Ayla	Aslan	1989-12-20 00:00:00	İstanbul
6	Betül	Karaer	1990-12-20 00:00:00	İzmir
7	Bora	Çakır	1991-12-20 00:00:00	Ankara
8	Bulut	Kara	1992-12-28 00:00:00	İzmir
9	Canan	Alan	1993-12-28 00:00:00	Antalya
10	Cavit	Kalay	1994-12-28 00:00:00	Antalya
11	Cemal	Şahin	1995-12-28 00:00:00	İstanbul
12	Cenker	Sağlam	1989-09-17 00:00:00	Hatay
13	Çiçek	Bali	1990-09-17 00:00:00	Ankara
14	Cihan	Demir	1991-09-17 00:00:00	İstanbul
15	Deniz	Akın	1992-09-17 00:00:00	Sakarya
16	Derin	Çelik	1993-09-17 00:00:00	Ankara
17	Dursun	Karad...	1994-09-17 00:00:00	İzmir
18	Eda	Damla...	1987-06-14 00:00:00	İzmir
19	Emre	Arsoy	1988-06-14 00:00:00	Ankara
20	Engin	Altan	1989-06-14 00:00:00	Antalya
21	Engin	Günay...	1990-06-14 00:00:00	Ankara
22	Eylem	Duran	1991-06-14 00:00:00	İzmir
23	Fulya	Büyük	1992-06-14 00:00:00	Ankara
24	Gönül	Yazmaz	1993-06-14 00:00:00	Ankara
25	Güler	Sevimli	1994-06-14 00:00:00	Antalya
26	Gulist...	Çakaner	1995-06-14 00:00:00	İzmir
27	Hasan	Ali	1996-06-14 00:00:00	İzmir
28	Kadriye	Yılmaz	1985-05-03 00:00:00	İstanbul
29	Kismet	Çabacı	1986-05-03 00:00:00	Ankara
30	Meh...	Canalır	1987-05-03 00:00:00	Sakarya
31	Mery...	Uzer	1988-05-03 00:00:00	Ankara
32	Murat	Şirin	1989-05-03 00:00:00	İstanbul
33	Must...	Acar	1990-05-03 00:00:00	Ankara

34	Onur	Akkanak	1991-05-03 00:00:00	İstanbul
35	Orçun	Çakaner	1992-05-03 00:00:00	İzmir
36	Oya	Onur	1993-05-03 00:00:00	Ankara
37	Özkan	Ertunç	1994-05-03 00:00:00	İzmir
38	Polat	Margaz	1995-05-03 00:00:00	Hatay
39	Şahika	Arsoy	1984-07-23 00:00:00	Ankara
40	Şebn...	Ak	1985-07-23 00:00:00	İzmir
41	Sedef	Tulum	1986-07-23 00:00:00	Ankara
42	Şehn...	Güven	1987-07-23 00:00:00	İzmir
43	Selah...	Çakaner	1988-07-23 00:00:00	Hatay
44	Sercan	Demirer	1989-07-23 00:00:00	İzmir
45	Sevgi	Can	1990-07-23 00:00:00	İstanbul
46	Sümer	Ezgü	1991-07-23 00:00:00	Antalya
47	Suzan	Kardeş	1992-07-23 00:00:00	Ankara
48	Temel	Aktaş	1987-08-11 00:00:00	İzmir
49	Tuğçe	Yılmaz	1988-08-11 00:00:00	İzmir
50	Turgay	Batbat	1989-08-11 00:00:00	Ankara
51	Vasfiye	Tey	1990-08-11 00:00:00	Sakarya
52	Yağm...	Özden	1991-08-11 00:00:00	Ankara
53	Zeynep	İncesa...	1992-08-11 00:00:00	İzmir

2.b)

```
SELECT stu.fName as StudentFName, stu.lName as StudentLName, d.dName, stf.fName as
AdvisorFName, stf.lName as AdvisorLName
FROM STUDENT stu inner join DEPARTMENT d on stu.deptCode=d.deptCode
inner join STAFF stf on d.deptCode=stf.deptCode
ORDER BY dName ASC, StudentFName
```

	StudentFName	StudentLName	dName	AdvisorFName	AdvisorLName
1	Açıl	Tan	Computer Engineering	Zuhal	Meral
2	Açıl	Tan	Computer Engineering	Alim	Sönmez
3	Açıl	Tan	Computer Engineering	İsmet	Kararlı
4	Açıl	Tan	Computer Engineering	Salih	Bayrak
5	Açıl	Tan	Computer Engineering	Zeynep	Şahin
6	Ahmet	Canverir	Computer Engineering	Zuhal	Meral
7	Ahmet	Canverir	Computer Engineering	Alim	Sönmez
8	Ahmet	Canverir	Computer Engineering	İsmet	Kararlı
9	Ahmet	Canverir	Computer Engineering	Salih	Bayrak
10	Ahmet	Canverir	Computer Engineering	Zeynep	Şahin
11	Asu	Çelebi	Computer Engineering	Zuhal	Meral
12	Asu	Çelebi	Computer Engineering	Alim	Sönmez
13	Asu	Çelebi	Computer Engineering	İsmet	Kararlı
14	Asu	Çelebi	Computer Engineering	Salih	Bayrak
15	Asu	Çelebi	Computer Engineering	Zeynep	Şahin
16	Ayhan	Altan	Computer Engineering	Zuhal	Meral
17	Ayhan	Altan	Computer Engineering	Alim	Sönmez
18	Ayhan	Altan	Computer Engineering	İsmet	Kararlı
19	Ayhan	Altan	Computer Engineering	Salih	Bayrak
20	Ayhan	Altan	Computer Engineering	Zeynep	Şahin
21	Ayla	Aslan	Computer Engineering	Zuhal	Meral
22	Ayla	Aslan	Computer Engineering	Alim	Sönmez
23	Ayla	Aslan	Computer Engineering	İsmet	Kararlı
24	Ayla	Aslan	Computer Engineering	Salih	Bayrak
25	Ayla	Aslan	Computer Engineering	Zeynep	Şahin
26	Betül	Karaer	Computer Engineering	Zuhal	Meral
27	Betül	Karaer	Computer Engineering	Alim	Sönmez
28	Betül	Karaer	Computer Engineering	İsmet	Kararlı
29	Betül	Karaer	Computer Engineering	Salih	Bayrak
30	Betül	Karaer	Computer Engineering	Zeynep	Şahin
31	Bora	Çakır	Computer Engineering	Zuhal	Meral
32	Bora	Çakır	Computer Engineering	Alim	Sönmez
33	Bora	Çakır	Computer Engineering	İsmet	Kararlı
34	Bora	Çakır	Computer Engineering	Salih	Bayrak
35	Bora	Çakır	Computer Engineering	Zeynep	Şahin
36	Bulut	Kara	Computer Engineering	Zuhal	Meral
37	Bulut	Kara	Computer Engineering	Alim	Sönmez
38	Bulut	Kara	Computer Engineering	İsmet	Kararlı
39	Bulut	Kara	Computer Engineering	Salih	Bayrak
40	Bulut	Kara	Computer Engineering	Zeynep	Şahin
41	Canan	Alan	Computer Engineering	Zuhal	Meral
42	Canan	Alan	Computer Engineering	Alim	Sönmez
43	Canan	Alan	Computer Engineering	İsmet	Kararlı
44	Canan	Alan	Computer Engineering	Salih	Bayrak
45	Canan	Alan	Computer Engineering	Zeynep	Şahin
46	Cavit	Kalay	Computer Engineering	Zuhal	Meral
47	Cavit	Kalay	Computer Engineering	Alim	Sönmez
48	Cavit	Kalay	Computer Engineering	İsmet	Kararlı
49	Cavit	Kalay	Computer Engineering	Salih	Bayrak
50	Cavit	Kalay	Computer Engineering	Zeynep	Şahin
51	Cemal	Şahin	Computer Engineering	Zuhal	Meral
52	Cemal	Şahin	Computer Engineering	Alim	Sönmez
53	Cemal	Şahin	Computer Engineering	İsmet	Kararlı
54	Cemal	Şahin	Computer Engineering	Salih	Bayrak
55	Cemal	Şahin	Computer Engineering	Zeynep	Şahin
56	Cenker	Sağlam	Computer Engineering	Zuhal	Meral
57	Cenker	Sağlam	Computer Engineering	Alim	Sönmez
58	Cenker	Sağlam	Computer Engineering	İsmet	Kararlı
59	Cenker	Sağlam	Computer Engineering	Salih	Bayrak
60	Cenker	Sağlam	Computer Engineering	Zeynep	Şahin
61	Cihan	Demir	Computer Engineering	Zuhal	Meral
62	Cihan	Demir	Computer Engineering	Alim	Sönmez
63	Cihan	Demir	Computer Engineering	İsmet	Kararlı
64	Cihan	Demir	Computer Engineering	Salih	Bayrak
65	Cihan	Demir	Computer Engineering	Zeynep	Şahin
66	Çiçek	Bali	Computer Engineering	Zuhal	Meral
67	Çiçek	Bali	Computer Engineering	Alim	Sönmez
68	Çiçek	Bali	Computer Engineering	İsmet	Kararlı
69	Çiçek	Bali	Computer Engineering	Salih	Bayrak
70	Çiçek	Bali	Computer Engineering	Zeynep	Şahin
71	Deniz	Akın	Computer Engineering	Zuhal	Meral
72	Deniz	Akın	Computer Engineering	Alim	Sönmez
73	Deniz	Akın	Computer Engineering	İsmet	Kararlı
74	Deniz	Akın	Computer Engineering	Salih	Bayrak

75	Deniz	Akın	Computer Engineering	Zeynep	Şahin
76	Derin	Çelik	Computer Engineering	Zuhal	Meral
77	Derin	Çelik	Computer Engineering	Alim	Sönmez
78	Derin	Çelik	Computer Engineering	İsmet	Kararlı
79	Derin	Çelik	Computer Engineering	Salih	Bayrak
80	Derin	Çelik	Computer Engineering	Zeynep	Şahin
81	Dursun	Karadağ	Computer Engineering	Zuhal	Meral
82	Dursun	Karadağ	Computer Engineering	Alim	Sönmez
83	Dursun	Karadağ	Computer Engineering	İsmet	Kararlı
84	Dursun	Karadağ	Computer Engineering	Salih	Bayrak
85	Dursun	Karadağ	Computer Engineering	Zeynep	Şahin
86	Eda	Damla Aktaş	Computer Engineering	Zuhal	Meral
87	Eda	Damla Aktaş	Computer Engineering	Alim	Sönmez
88	Eda	Damla Aktaş	Computer Engineering	İsmet	Kararlı
89	Eda	Damla Aktaş	Computer Engineering	Salih	Bayrak
90	Eda	Damla Aktaş	Computer Engineering	Zeynep	Şahin
91	Emre	Arsoy	Computer Engineering	Zuhal	Meral
92	Emre	Arsoy	Computer Engineering	Alim	Sönmez
93	Emre	Arsoy	Computer Engineering	İsmet	Kararlı
94	Emre	Arsoy	Computer Engineering	Salih	Bayrak
95	Emre	Arsoy	Computer Engineering	Zeynep	Şahin
96	Engin	Altan	Computer Engineering	Zuhal	Meral
97	Engin	Altan	Computer Engineering	Alim	Sönmez
98	Engin	Altan	Computer Engineering	İsmet	Kararlı
99	Engin	Altan	Computer Engineering	Salih	Bayrak
100	Engin	Altan	Computer Engineering	Zeynep	Şahin
101	Engin	Günaydın	Computer Engineering	Zuhal	Meral
102	Engin	Günaydın	Computer Engineering	Alim	Sönmez
103	Engin	Günaydın	Computer Engineering	İsmet	Kararlı
104	Engin	Günaydın	Computer Engineering	Salih	Bayrak
105	Engin	Günaydın	Computer Engineering	Zeynep	Şahin
106	Eylem	Duran	Computer Engineering	Zuhal	Meral
107	Eylem	Duran	Computer Engineering	Alim	Sönmez
108	Eylem	Duran	Computer Engineering	İsmet	Kararlı
109	Eylem	Duran	Computer Engineering	Salih	Bayrak
110	Eylem	Duran	Computer Engineering	Zeynep	Şahin
111	Fulya	Büyük	Computer Engineering	Zuhal	Meral
112	Fulya	Büyük	Computer Engineering	Alim	Sönmez
113	Fulya	Büyük	Computer Engineering	İsmet	Kararlı
114	Fulya	Büyük	Computer Engineering	Salih	Bayrak
115	Fulya	Büyük	Computer Engineering	Zeynep	Şahin
116	Gönül	Yazmaz	Computer Engineering	Zuhal	Meral
117	Gönül	Yazmaz	Computer Engineering	Alim	Sönmez
118	Gönül	Yazmaz	Computer Engineering	İsmet	Kararlı
119	Gönül	Yazmaz	Computer Engineering	Salih	Bayrak
120	Gönül	Yazmaz	Computer Engineering	Zeynep	Şahin
121	Gulistan	Çakaner	Computer Engineering	Zuhal	Meral
122	Gulistan	Çakaner	Computer Engineering	Alim	Sönmez
123	Gulistan	Çakaner	Computer Engineering	İsmet	Kararlı
124	Gulistan	Çakaner	Computer Engineering	Salih	Bayrak
125	Gulistan	Çakaner	Computer Engineering	Zeynep	Şahin
126	Güler	Sevimli	Computer Engineering	Zuhal	Meral
127	Güler	Sevimli	Computer Engineering	Alim	Sönmez
128	Güler	Sevimli	Computer Engineering	İsmet	Kararlı
129	Güler	Sevimli	Computer Engineering	Salih	Bayrak
130	Güler	Sevimli	Computer Engineering	Zeynep	Şahin
131	Hasan	Ali	Computer Engineering	Zuhal	Meral
132	Hasan	Ali	Computer Engineering	Alim	Sönmez
133	Hasan	Ali	Computer Engineering	İsmet	Kararlı
134	Hasan	Ali	Computer Engineering	Salih	Bayrak
135	Hasan	Ali	Computer Engineering	Zeynep	Şahin
136	Kadriye	Yılmaz	Computer Engineering	Zuhal	Meral
137	Kadriye	Yılmaz	Computer Engineering	Alim	Sönmez
138	Kadriye	Yılmaz	Computer Engineering	İsmet	Kararlı
139	Kadriye	Yılmaz	Computer Engineering	Salih	Bayrak
140	Kadriye	Yılmaz	Computer Engineering	Zeynep	Şahin
141	Kismet	Çabacı	Computer Engineering	Zuhal	Meral
142	Kismet	Çabacı	Computer Engineering	Alim	Sönmez
143	Kismet	Çabacı	Computer Engineering	İsmet	Kararlı
144	Kismet	Çabacı	Computer Engineering	Salih	Bayrak
145	Kismet	Çabacı	Computer Engineering	Zeynep	Şahin
146	Mehmet	Canalır	Computer Engineering	Zuhal	Meral
147	Mehmet	Canalır	Computer Engineering	Alim	Sönmez
148	Mehmet	Canalır	Computer Engineering	İsmet	Kararlı

149	Mehmet	Canalır	Computer Engineering	Salih	Bayrak
150	Mehmet	Canalır	Computer Engineering	Zeynep	Şahin
151	Meryem	Uzer	Environmental Engin...	Yeşim	Çatı
152	Meryem	Uzer	Environmental Engin...	Suat	Yol
153	Meryem	Uzer	Environmental Engin...	Fikret	Ağaç
154	Murat	Şirin	Environmental Engin...	Yeşim	Çatı
155	Murat	Şirin	Environmental Engin...	Suat	Yol
156	Murat	Şirin	Environmental Engin...	Fikret	Ağaç
157	Mustafa	Acar	Environmental Engin...	Yeşim	Çatı
158	Mustafa	Acar	Environmental Engin...	Suat	Yol
159	Mustafa	Acar	Environmental Engin...	Fikret	Ağaç
160	Onur	Akkanak	Environmental Engin...	Yeşim	Çatı
161	Onur	Akkanak	Environmental Engin...	Suat	Yol
162	Onur	Akkanak	Environmental Engin...	Fikret	Ağaç
163	Orçun	Çakaner	Environmental Engin...	Yeşim	Çatı
164	Orçun	Çakaner	Environmental Engin...	Suat	Yol
165	Orçun	Çakaner	Environmental Engin...	Fikret	Ağaç
166	Oya	Onur	Environmental Engin...	Yeşim	Çatı
167	Oya	Onur	Environmental Engin...	Suat	Yol
168	Oya	Onur	Environmental Engin...	Fikret	Ağaç
169	Özkan	Ertunç	Environmental Engin...	Yeşim	Çatı
170	Özkan	Ertunç	Environmental Engin...	Suat	Yol
171	Özkan	Ertunç	Environmental Engin...	Fikret	Ağaç
172	Polat	Margaz	Environmental Engin...	Yeşim	Çatı
173	Polat	Margaz	Environmental Engin...	Suat	Yol
174	Polat	Margaz	Environmental Engin...	Fikret	Ağaç
175	Sedef	Tulum	Environmental Engin...	Yeşim	Çatı
176	Sedef	Tulum	Environmental Engin...	Suat	Yol
177	Sedef	Tulum	Environmental Engin...	Fikret	Ağaç
178	Şahika	Arsoy	Environmental Engin...	Yeşim	Çatı
179	Şahika	Arsoy	Environmental Engin...	Suat	Yol
180	Şahika	Arsoy	Environmental Engin...	Fikret	Ağaç
181	Şebnem	Ak	Environmental Engin...	Yeşim	Çatı
182	Şebnem	Ak	Environmental Engin...	Suat	Yol
183	Şebnem	Ak	Environmental Engin...	Fikret	Ağaç
184	Şehnaz	Güven	Environmental Engin...	Yeşim	Çatı
185	Şehnaz	Güven	Environmental Engin...	Suat	Yol

186	Şehnaz	Güven	Environmental Engin...	Fikret	Ağaç
187	Selahattin	Çakaner	Industrial Enginnering	Soner	Nişancı
188	Selahattin	Çakaner	Industrial Enginnering	Ersin	Damar
189	Sercan	Demirer	Industrial Enginnering	Soner	Nişancı
190	Sercan	Demirer	Industrial Enginnering	Ersin	Damar
191	Sevgi	Can	Industrial Enginnering	Soner	Nişancı
192	Sevgi	Can	Industrial Enginnering	Ersin	Damar
193	Suzan	Kardeş	Industrial Enginnering	Soner	Nişancı
194	Suzan	Kardeş	Industrial Enginnering	Ersin	Damar
195	Sümer	Ezgü	Industrial Enginnering	Soner	Nişancı
196	Sümer	Ezgü	Industrial Enginnering	Ersin	Damar
197	Temel	Aktaş	Industrial Enginnering	Soner	Nişancı
198	Temel	Aktaş	Industrial Enginnering	Ersin	Damar
199	Tuğçe	Yılmaz	Industrial Enginnering	Soner	Nişancı
200	Tuğçe	Yılmaz	Industrial Enginnering	Ersin	Damar
201	Turgay	Batbat	Industrial Enginnering	Soner	Nişancı
202	Turgay	Batbat	Industrial Enginnering	Ersin	Damar
203	Vasfiye	Tey	Industrial Enginnering	Soner	Nişancı
204	Vasfiye	Tey	Industrial Enginnering	Ersin	Damar
205	Yağmur	Özden	Industrial Enginnering	Soner	Nişancı
206	Yağmur	Özden	Industrial Enginnering	Ersin	Damar
207	Zeynep	İncesaraç	Industrial Enginnering	Soner	Nişancı
208	Zeynep	İncesaraç	Industrial Enginnering	Ersin	Damar

2.c)

```
SELECT Distinct stu.fName, stu.lName
FROM STUDENT stu inner join DEPARTMENT d on stu.deptCode=d.deptCode
WHERE d.dName = 'Computer Engineering'
```

	fName	lName
1	Açıl	Tan
2	Ahmet	Canverir
3	Asu	Çelebi
4	Ayhan	Altan
5	Ayla	Aslan
6	Betül	Karaer
7	Bora	Çakır
8	Bulut	Kara
9	Canan	Alan
10	Cavit	Kalay
11	Cemal	Şahin
12	Cenker	Sağlam
13	Cihan	Demir
14	Çiçek	Bali
15	Deniz	Akın
16	Derin	Çelik
17	Dursun	Karad...
18	Eda	Damla...
19	Emre	Arsoy
20	Engin	Altan
21	Engin	Günay...
22	Eylem	Duran
23	Fulya	Büyük
24	Gönül	Yazmaz
25	Gulist...	Çakaner
26	Güler	Sevimli
27	Hasan	Ali
28	Kadriye	Yılmaz
29	Kismet	Çabacı
30	Meh...	Canalır

2.d)

```
SELECT *
FROM STUDENT stu
WHERE stu.fName like '%at%'
```

	studentID	fName	lName	birthDate	gender	addrDetails	city	postalCode	deptCode	advisorID
1	32	Murat	Şirin	1989-05-03 00:00:00	M	Address Details of Murat Şirin	İstanbul	34722	ENVE	6
2	38	Polat	Margaz	1995-05-03 00:00:00	M	Address Details of Polat Margaz	Hatay	34722	ENVE	7
3	43	Selahattin	Çakaner	1988-07-23 00:00:00	M	Address Details of Selahattin Çakaner	Hatay	34722	IE	8

2.e)

```
SELECT stf.staffID, stf.fName, stf.lName
FROM STAFF stf
WHERE stf.isMarried = 'True' and stf.age > 40 and stf.noOfChildren >= 2
ORDER BY stf.birthDate
```

	staffID	fName	lName
1	4	Salih	Bayrak
2	6	Yeşim	Çatı
3	8	Fikret	Ağaç
4	10	Ersin	Damar

2.f)

```
SELECT stu.studentID, stu.fName, stu.lName, d.dName, dip.dateOfGraduation
FROM STUDENT stu inner join DEPARTMENT d on stu.deptCode=d.deptCode
inner join DIPLOMA dip on stu.studentID=dip.studentID
WHERE dateOfGraduation > '2010-05-21'
```

	studentID	fName	lName	dName	dateOfGraduation
1	1	Açıl	Tan	Computer Engineering	2013-06-17 00:00:00
2	2	Ahmet	Canverir	Computer Engineering	2013-06-17 00:00:00
3	3	Asu	Çelebi	Computer Engineering	2013-06-17 00:00:00
4	4	Ayhan	Altan	Computer Engineering	2013-06-17 00:00:00
5	5	Ayla	Aslan	Computer Engineering	2013-06-17 00:00:00
6	12	Caner	Sağlam	Computer Engineering	2013-06-17 00:00:00
7	13	Çiçek	Bali	Computer Engineering	2013-06-17 00:00:00
8	14	Cihan	Demir	Computer Engineering	2014-06-17 00:00:00
9	15	Deniz	Akın	Computer Engineering	2014-06-17 00:00:00
10	31	Meryem	Uzer	Environmental Engineering	2014-06-17 00:00:00
11	32	Murat	Şirin	Environmental Engineering	2014-06-17 00:00:00
12	33	Mustafa	Acar	Environmental Engineering	2014-06-17 00:00:00
13	34	Onur	Akkanak	Environmental Engineering	2014-06-17 00:00:00
14	42	Şehnaz	Güven	Environmental Engineering	2014-06-17 00:00:00
15	43	Selah...	Çakaner	Industrial Engineering	2014-06-17 00:00:00
16	44	Sercan	Demirer	Industrial Engineering	2014-06-17 00:00:00
17	45	Sevgi	Can	Industrial Engineering	2014-06-17 00:00:00