Department:Computer Engineering & Applications

Subject: Database Management System Lab (CSE3083)

ASSIGNMENT 03

NAME -- ROHAN KUMAR

SEC -- C
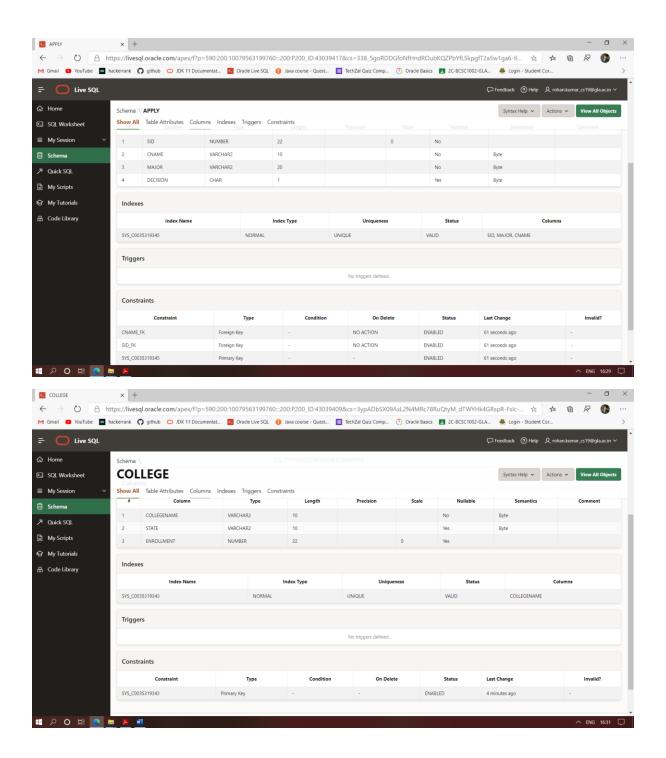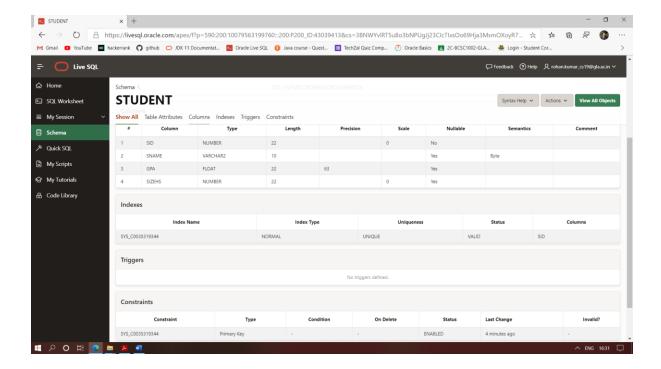
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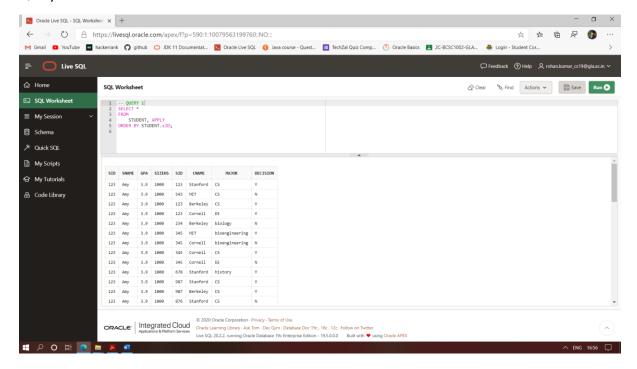
DATE – 11 AUGUST 2020

Course: B.Tech. (CSE)

Year: 2nd   Semester : 3rd

SUBMITTED TO – DR. NEERAJ GUPTA

Live SQL

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Schema \ APPLY

Syntax Help Actions View All Objects

Show All Table Attributes Columns Indexes Triggers Constraints

	Column	Type	Length	Precision	Scale	Nullable	Semantics	Comment
1	SID	NUMBER	22		0	No		
2	CNAME	VARCHAR2	10			No	Byte	
3	MAJOR	VARCHAR2	20			No	Byte	
4	DECISION	CHAR	1			Yes	Byte	

Indexes

Index Name	Index Type	Uniqueness	Status	Columns
SYS_C0035319345	NORMAL	UNIQUE	VALID	SID, MAJOR, CNAME

Triggers

No triggers defined.

Constraints

Constraint	Type	Condition	On Delete	Status	Last Change	Invalid?
CNAME_FK	Foreign Key	-	NO ACTION	ENABLED	61 seconds ago	-
SID_FK	Foreign Key	-	NO ACTION	ENABLED	61 seconds ago	-
SYS_C0035319345	Primary Key	-	-	ENABLED	61 seconds ago	

ENG 16:29

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Schema \

COLLEGE

Syntax Help Actions View All Objects

Show All Table Attributes Columns Indexes Triggers Constraints

#	Column	Type	Length	Precision	Scale	Nullable	Semantics	Comment
1	COLLEGENAME	VARCHAR2	10			No	Byte	
2	STATE	VARCHAR2	10			Yes	Byte	
3	ENROLLMENT	NUMBER	22		0	Yes		

Indexes

Index Name	Index Type	Uniqueness	Status	Columns
SYS_C0035319343	NORMAL	UNIQUE	VALID	COLLEGENAME

Triggers

No triggers defined.

Constraints

Constraint	Type	Condition	On Delete	Status	Last Change	Invalid?
SYS_C0035319343	Primary Key	-	-	ENABLED	4 minutes ago	-

ENG 16:31

Query 1:--


```
1  -- QUERY 1
2  SELECT *
3  FROM
4      STUDENT, APPLY
5  ORDER BY STUDENT.sID;
6
```

SID	SNAME	GPA	SIZEHS	SID	CNAME	MAJOR	DECISION
123	Amy	3.9	1000	123	Stanford	CS	Y
123	Amy	3.9	1000	543	MIT	CS	N
123	Amy	3.9	1000	123	Berkeley	CS	Y
123	Amy	3.9	1000	123	Cornell	EE	Y
123	Amy	3.9	1000	234	Berkeley	biology	N
123	Amy	3.9	1000	345	MIT	bioengineering	Y
123	Amy	3.9	1000	345	Cornell	bioengineering	N
123	Amy	3.9	1000	345	Cornell	CS	Y
123	Amy	3.9	1000	345	Cornell	EE	N
123	Amy	3.9	1000	678	Stanford	history	Y
123	Amy	3.9	1000	987	Stanford	CS	Y
123	Amy	3.9	1000	987	Berkeley	CS	Y
123	Amy	3.9	1000	876	Stanford	CS	N

QUERY 2:-


```
1   --QUERY 2
2   SELECT
3       STUDENT.sID, STUDENT.GPA, APPLY.cName,APPLY.major
4   FROM STUDENT
5       INNER JOIN APPLY ON STUDENT.sID = APPLY.sID
6   ORDER BY STUDENT.sID;
7   |
8   --BY CARTESIAN-
9   SELECT
10      STUDENT.sID, STUDENT.GPA, APPLY.cName, APPLY.major
11  FROM STUDENT,
12      APPLY
13  WHERE STUDENT.sID = APPLY.sID
14  ORDER BY STUDENT.sID;
```

SID	GPA	CNAME	MAJOR
123	3.9	Berkeley	CS
123	3.9	Stanford	CS
123	3.9	Cornell	EE
123	3.9	Stanford	EE
234	3.6	Berkeley	biology
345	3.5	Cornell	CS
345	3.5	Cornell	EE
345	3.5	Cornell	bioengineering
345	3.5	MIT	bioengineering
543	3.4	MIT	CS
678	3.8	Stanford	history

QUERY 3 –


```
1   --QUERY 3
2   SELECT
3       Apply.sID, Apply.cName, Apply.major, Apply.decision
4   FROM APPLY
5       INNER JOIN COLLEGE ON APPLY.cName = COLLEGE.collegeName
6   WHERE College.state = 'CA'
7   ORDER BY APPLY.sID;
8   --BY CARTESIAN
9   SELECT
10      Apply.sID, Apply.cName, Apply.major, Apply.decision
11  FROM APPLY,
12      COLLEGE
13  WHERE APPLY.cName = COLLEGE.collegeName
14      AND College.state = 'CA'
15  ORDER BY APPLY.sID;|
```

SID	CNAME	MAJOR	DECISION
123	Stanford	CS	Y
123	Stanford	EE	N
123	Berkeley	CS	Y
234	Berkeley	biology	N
678	Stanford	history	Y
765	Stanford	history	Y
876	Stanford	CS	N
987	Stanford	CS	Y
987	Berkeley	CS	Y

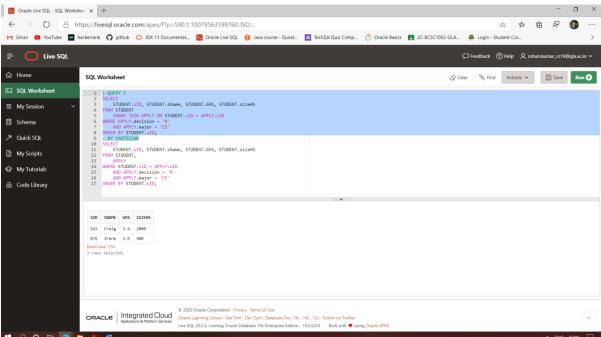## QUERY 4 –

QUERY 5--

QUERY 6—

```
1  --QUERY 6
2  SELECT
3      STUDENT.sID, STUDENT.sName, STUDENT.GPA, STUDENT.sizeHS,
4      Apply.cName, Apply.major, Apply.decision
5  FROM STUDENT
6      INNER JOIN APPLY ON STUDENT.sID = APPLY.sID
7      INNER JOIN COLLEGE ON COLLEGE.collegeName = APPLY.cName
8  WHERE COLLEGE.state = 'NY'
9  ORDER BY STUDENT.sID;
10 --BY CARTESIAN
11 SELECT
12     Student.sID, Student.sName, Student.GPA, Student.sizeHS,
13     Apply.cName, Apply.major, Apply.decision
14 FROM Student,
15     Apply,
16     College
17 WHERE Student.sID = Apply.sID
18     AND Apply.cName = College.collegeName
19     AND College.state = 'NY';
```

SID	SNAME	GPA	SIZEHS	CNAME	MAJOR	DECISION
123	Amy	3.9	1000	Cornell	EE	Y
345	Craig	3.5	500	Cornell	bioengineering	N
345	Craig	3.5	500	Cornell	CS	Y
345	Craig	3.5	500	Cornell	EE	N
765	Jay	2.9	1500	Cornell	history	N
765	Jay	2.9	1500	Cornell	psychology	Y

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QUERY 7—


```
1  --QUERY 7
2  SELECT *
3  FROM
4      STUDENT
5  WHERE STUDENT.sID NOT IN (
6      SELECT DISTINCT sID
7      FROM APPLY
8      );
9  |
```

SID	SNAME	GPA	SIZEHS
567	Edward	2.9	2000
654	Amy	3.9	1000
456	Doris	3.9	1000
789	Gary	3.4	800

Download CSV
4 rows selected.

QUERY 8--


```
1  --QUERY 8
2  SELECT
3      COLLEGE.collegeName
4  FROM
5      COLLEGE
6  WHERE COLLEGE.collegeName NOT IN (
7          SELECT DISTINCT cName
8          FROM APPLY
9      );
10
```

COLLEGENAME

Harvard

Download CSV

QUERY 9-


```
1  --QUERY 9
2  SELECT sID
3  FROM APPLY
4  GROUP BY sID
5  HAVING COUNT(sID) = 1;
```

SID

234

543

678

Download CSV
3 rows selected.

QUERY 10—

```
1  --QUERY 10
2  SELECT DISTINCT
3      STUDENT.sName, STUDENT.GPA
4  FROM STUDENT
5      INNER JOIN APPLY ON STUDENT.sID = APPLY.sID
6      INNER JOIN COLLEGE ON APPLY.cName = COLLEGE.collegeName
7  WHERE enrollment < 25000;
8  --BY CARTESIAN
9  SELECT DISTINCT
10     STUDENT.sName, STUDENT.GPA
11 FROM
12     STUDENT, APPLY, College
13 WHERE STUDENT.sID = APPLY.sID
14     AND APPLY.cName = COLLEGE.collegeName
15     AND COLLEGE.enrollmeNT < 25000;
16
```

SNAME	GPA
Craig	3.4
Amy	3.9
Helen	3.7
Craig	3.5
Fay	3.8
Jay	2.9
Irene	3.9

Download CSV

QUERY 11--


```
1  --QUERY 11
2  SELECT DISTINCT
3      sID1.sID, sID2.sID
4  FROM STUDENT sID1
5      INNER JOIN STUDENT sID2 ON sID1.GPA = sID2.GPA
6  WHERE sID1.sID != sID2.sID
7      AND sID1.sID > sID2.sID;
```

SID	SID
456	123
876	123
654	123
876	456
654	456
765	567
876	654
789	543