

Total Marks: 05

Obtained Marks:

Database Systems

Assignment # 02

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Reg Number: 01-134192-0307 BSCS-4B

Instructions:

Copied or shown assignments will be marked zero.

Late submissions will result in marks deduction.

Hand written assignments are not acceptable. Similar assignments will be marked as -10

Q1: Given the following relation tables, write SQL queries for each user response?

CUSTOMER	PRODUCT	ORDER	SUPPLIER
Id \rightarrow	Id \rightarrow	Id \rightarrow	Id \rightarrow
FirstName	ProductName	OrderDate	CompanyName
LastName	SupplierId	OrderNumber	ContactName
City	UnitPrice	CustomerId	City
Country	Package	TotalAmount	Country
Phone	IsDiscontinued		Phone
			Fax

i) List all products between \$10 and \$20

```
Select * FROM PRODUCT WHERE (UnitPrice Between 'S10' AND 'S20');
```

ii) Update the city to Sydney for supplier Pavlova, Ltd.

```
UPDATE supplier SET City = "Sydney" WHERE CompanyName = "Pavlova, Ltd"
```

iii) List all orders from January 2015 to June 2016 with customer information

```
SELECT ORDER.id as order_id, ORDER.TotalAmount, ORDER.OrderDate,
CUSTOMER.FirstName, CUSTOMER.LastName , CUSTOMER.City, CUSTOMER.Phone,
CUSTOMER.Country FROM ORDER INNER JOIN CUSTOMER ON ORDER.CustomerId=
CUSTOMER.Id WHERE (ORDER.OrderDate BETWEEN '2015-01-01' AND '2016-06-01' )
```

iv) List all products that start with 'Cha' or 'Chan' and have one more character.

```
SELECT * FROM PRODUCT WHERE ProductName LIKE 'cha%' OR 'chan%'
```

v) List all customers that are from the same countries as the suppliers.

SELECT CUSTOMER.*FROM CUSOMER INNER JOIN SUPPLIER ON
CUSTOMER.Country = SUPPLIER.Country

Q2: According to the following relational diagram, what would be an output table if you:

EMPLOYEE

Fname	Minit	Lname	Ssn	Bdate	Address	Sex	Salary	Super_ssn	Dno
John	B	Smith	123456789	1965-01-09	731 Fondren, Houston, TX	M	30000	333445555	5
Franklin	T	Wong	333445555	1955-12-08	638 Voss, Houston, TX	M	40000	888665555	5
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle, Spring, TX	F	25000	987654321	4
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry, Bellaire, TX	F	43000	888665555	4
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	M	38000	333445555	5
Joyce	A	English	453453453	1972-07-31	5631 Rice, Houston, TX	F	25000	333445555	5
Ahmad	V	Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	M	25000	987654321	4
James	E	Borg	888665555	1937-11-10	450 Stone, Houston, TX	M	55000	NULL	1

DEPARTMENT

Dname	Dnumber	Mgr_ssn	Mgr_start_date
Research	5	333445555	1988-05-22
Administration	4	987654321	1995-01-01
Headquarters	1	888665555	1981-06-19

DEPT_LOCATIONS

Dnumber	Dlocation
1	Houston
4	Stafford
5	Bellaire
5	Sugarland
5	Houston

WORKS_ON

Essn	Pno	Hours
123456789	1	32.5
123456789	2	7.5
666884444	3	40.0
453453453	1	20.0
453453453	2	20.0
333445555	2	10.0
333445555	3	10.0
333445555	10	10.0
333445555	20	10.0
999887777	30	30.0
999887777	10	10.0
987987987	10	35.0
987987987	30	5.0
987654321	30	20.0
987654321	20	15.0
888665555	20	NULL

PROJECT

Pname	Pnumber	Plocation	Dnum
ProductX	1	Bellaire	5
ProductY	2	Sugarland	5
ProductZ	3	Houston	5
Computerization	10	Stafford	4
Reorganization	20	Houston	1
Newbenefits	30	Stafford	4

DEPENDENT

Essn	Dependent_name	Sex	Bdate	Relationship
333445555	Alice	F	1986-04-05	Daughter
333445555	Theodore	M	1983-10-25	Son
333445555	Joy	F	1958-05-03	Spouse
987654321	Abner	M	1942-02-28	Spouse
123456789	Michael	M	1988-01-04	Son
123456789	Alice	F	1988-12-30	Daughter
123456789	Elizabeth	F	1967-05-05	Spouse

- a) Retrieve the birth date and address of the employee(s) whose name is 'John B. Smith'

Bdate	Address
1964-01-09	731 Fondren,Houston, TX

- b) Retrieve the name and address of all employees who work for the Research department.

Fname	Address
John	731 Fondren,Houston,TX
Franklin	638 Voss, Houston,TX
Ramesh	975Fire Oak,Humble,TX
Joyce	5631 Rice,Houston,TX

- c) For every project located in 'Stafford', list the project number, the controlling department number, and the department manager's last name, address, and birth date.

Pnumber	Dnum	Lname	Address	Bdate
10	4	<u>Wallace</u>	291 Berry,Bellaire,TX	1941-06-20

- d) For each employee, retrieve the employee's first and last name and the first and last name of his or her immediate supervisor.

E.Fname	E.Lname	S.Fname	S.Lname
John	Smith	Franklin	Wong
Franklin	Wong	James	Borg
Alicia	Zelaya	Jennifer	Wallace
Jennifer	Wallace	James	Borg
Ramesh	Narayan	Franklin	Wong
Joyce	English	John	Smith
Ahmad	Jabbar	Jennifer	Wallace
James	Borg		

- e) Select all EMPLOYEE Ssn

Ssn
123456789
333445555
999887777
987654321
666884444
453453453
987987987
888665555

- f) Select all combinations of EMPLOYEE Ssn and DEPARTMENT Dname in the database.

Ssn	Dname
123456789	Research
333445555	Research
999887777	Research
987654321	Research
666884444	Research
453453453	Research
987987987	Research
888665555	Research
123456789	Administrator
333445555	Administrator
999887777	Administrator
987654321	Administrator
666884444	Administrator
453453453	Administrator
987987987	Administrator
888665555	Administrator
123456789	Headquarters
333445555	Headquarters
999887777	Headquarters
987654321	Headquarters
666884444	Headquarters
453453453	Headquarters

987987987	Headquarters
888665555	Headquarters

