

```
mysql> # Joshi,Kunal
mysql> # Database Homework
mysql> # Section ISTE230.01
mysql> # Professor Habermas - Office (GOL) 2443
mysql> # EMAIL kj4732@rit.edu
mysql> select 'ISTE-230-01', 'HW05' as "Joshi,Kunal Deepak",curdate() as
"Today's Date";
-----
select 'ISTE-230-01', 'HW05' as "Joshi,Kunal Deepak",curdate() as "Today's
Date"
-----
```

```
+-----+-----+-----+
| ISTE-230-01 | Joshi,Kunal Deepak | Today's Date |
+-----+-----+-----+
| ISTE-230-01 | HW05                | 2019-11-10   |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> -- use jobs database
mysql> use jobs;
Database changed
mysql> #Question1
mysql> -- Question1 UNION
mysql> select companyname, division, listing from interview where
listing="y"
-> UNION
-> select companyname, division, listing from interview where
listing="n";
-----
select companyname, division, listing from interview where listing="y"
UNION
select companyname, division, listing from interview where listing="n"
-----
```

```
+-----+-----+-----+
| companyname                | division                | listing |
+-----+-----+-----+
| Acme Information Source     | Customer Support        | y       |
| Ajax Software, Inc.        | Production              | y       |
| Ajax Software, Inc.        | RandD                   | y       |
| Bay Software Inc.          | Production              | y       |
| Mountainside Magic Software | Management              | y       |
| Mountainside Magic Software | Customer Support        | y       |
| Focused Applications, Inc.  | Production              | y       |
| Georgia Software Design    | RandD                   | y       |
| ApplDesign                 | RandD                   | y       |
| Long Island Apps, Inc.     | Development             | y       |
| Manhattan-Made Software    | Customer Support        | y       |
| Manhattan-Made Software    | Payroll                 | y       |
| Nantucket Applications, Inc. | RandD                   | y       |
| PennState Programming, Inc. | Management              | y       |
| Buffalo Software Assoc.    | Payroll                 | y       |
| Braddock Information Assoc. | Payroll                 | n       |
| Vegas Programming and Design | Development             | n       |
| Cameron Industries         | Management              | n       |
| Cameron Industries         | Customer Support        | n       |
| CCC Software               | Production              | n       |
| DC Security Applications    | RandD                   | n       |
| Davis-Klein Software       | RandD                   | n       |
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| Flordia Software Designs      | RandD          | n          |
| Rochester Software Design    | Development    | n          |
| Jersey Computer Services     | Customer Support | n          |
| Flordia Software Designs     | Development    | n          |
| Sandy Hook Software          | Development    | n          |
| Virginia Software Industries | Production     | n          |
+-----+-----+-----+
28 rows in set (0.00 sec)

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```

mysql> #Question2
mysql> -- Question2 by using inner join and USING keyword
mysql> select  companyname, division, statecode from employer inner join
interview
-> using(companyname, division);

```

```

-----
select  companyname, division, statecode from employer inner join
interview
using(companyname, division)
-----

```

```

+-----+-----+-----+
| companyname      | division      | statecode |
+-----+-----+-----+
| Acme Information Source | Customer Support | OH        |
| Ajax Software, Inc.   | Production     | CA        |
| Ajax Software, Inc.   | RandD          | CA        |
| ApplDesign           | RandD          | AL        |
| Bay Software Inc.     | Production     | CA        |
| Braddock Information Assoc. | Payroll       | MA        |
| Buffalo Software Assoc. | Payroll       | NY        |
| Cameron Industries    | Customer Support | TX        |
| Cameron Industries    | Management     | TX        |
| CCC Software          | Production     | NY        |
| Davis-Klein Software  | RandD          | NY        |
| DC Security Applications | RandD          | VA        |
| Flordia Software Designs | Development    | FL        |
| Flordia Software Designs | RandD          | FL        |
| Focused Applications, Inc. | Production    | SC        |
| Georgia Software Design | RandD          | GA        |
| Jersey Computer Services | Customer Support | NJ        |
| Long Island Apps, Inc. | Development    | NY        |
| Manhattan-Made Software | Customer Support | NY        |
| Manhattan-Made Software | Payroll       | NY        |
| Mountainside Magic Software | Customer Support | CO        |
| Mountainside Magic Software | Management     | CO        |
| Nantucket Applications, Inc. | RandD        | MA        |
| PennState Programming, Inc. | Management    | PA        |
| Rochester Software Design | Development    | NY        |
| Sandy Hook Software    | Development    | CT        |
| Vegas Programming and Design | Development    | NV        |
| Virginia Software Industries | Production     | VA        |
+-----+-----+-----+
28 rows in set (0.00 sec)

```

```

mysql> -- Question2 by using WHERE clause
mysql> select emp.companyname, emp.division, statecode from employer emp,
interview ivw where emp.companyname=ivw.companyname and
-> emp.division=ivw.division;
-----

```

```
select emp.companyname, emp.division, statecode from employer emp,
interview ivw where emp.companyname=ivw.companyname and
emp.division=ivw.division
```

```
-----
```

companyname	division	statecode
Acme Information Source	Customer Support	OH
Ajax Software, Inc.	Production	CA
Ajax Software, Inc.	RandD	CA
ApplDesign	RandD	AL
Bay Software Inc.	Production	CA
Braddock Information Assoc.	Payroll	MA
Buffalo Software Assoc.	Payroll	NY
Cameron Industries	Customer Support	TX
Cameron Industries	Management	TX
CCC Software	Production	NY
Davis-Klein Software	RandD	NY
DC Security Applications	RandD	VA
Flordia Software Designs	Development	FL
Flordia Software Designs	RandD	FL
Focused Applications, Inc.	Production	SC
Georgia Software Design	RandD	GA
Jersey Computer Services	Customer Support	NJ
Long Island Apps, Inc.	Development	NY
Manhattan-Made Software	Customer Support	NY
Manhattan-Made Software	Payroll	NY
Mountainside Magic Software	Customer Support	CO
Mountainside Magic Software	Management	CO
Nantucket Applications, Inc.	RandD	MA
PennState Programming, Inc.	Management	PA
Rochester Software Design	Development	NY
Sandy Hook Software	Development	CT
Vegas Programming and Design	Development	NV
Virginia Software Industries	Production	VA

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28 rows in set (0.00 sec)
```

```
mysql> #Question3
```

```
mysql> -- Question3 by using NOT IN keyword
```

```
mysql> select * from STATE where statecode not in (select statecode from
EMPLOYER);
```

```
-----
```

```
select * from STATE where statecode not in (select statecode from
EMPLOYER)
```

```
-----
```

statecode	description
AK	ALASKA
AR	ARKANSAS
AS	AMERICAN SAMOA
AZ	ARIZONA
DC	DISTRICT OF COLUMBIA
DE	DELAWARE
FM	FEDERATED STATES OF MICRONESIA
GU	GUAM
HI	HAWAII

IA	IOWA
ID	IDAHO
IL	ILLINOIS
IN	INDIANA
KS	KANSAS
KY	KENTUCKY
LA	LOUISIANA
MD	MARYLAND
ME	MAINE
MH	MARSHALL ISLANDS
MN	MINNESOTA
MO	MISSOURI
MP	NORTHERN MARIANA ISLANDS
MS	MISSISSIPPI
MT	MONTANA
NC	NORTH CAROLINA
ND	NORTH DAKOTA
NE	NEBRASKA
NH	NEW HAMPSHIRE
NM	NEW MEXICO
OK	OKLAHOMA
OR	OREGON
PR	PUERTO RICO
PW	PALAU
RI	RHODE ISLAND
SD	SOUTH DAKOTA
TN	TENNESSEE
UT	UTAH
VI	VIRGIN ISLANDS
VT	VERMONT
WA	WASHINGTON
WI	WISCONSIN
WV	WEST VIRGINIA
WY	WYOMING

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43 rows in set (0.00 sec)

mysql> -- Question3 by using NOT EXISTS keyword

mysql> select statecode, description from STATE st where not
exists(select statecode from EMPLOYER emp where
st.statecode=emp.statecode);

select statecode, description from STATE st where not exists(select
statecode from EMPLOYER emp where st.statecode=emp.statecode)

statecode	description
AK	ALASKA
AR	ARKANSAS
AS	AMERICAN SAMOA
AZ	ARIZONA
DC	DISTRICT OF COLUMBIA
DE	DELAWARE
FM	FEDERATED STATES OF MICRONESIA
GU	GUAM
HI	HAWAII
IA	IOWA
ID	IDAHO

IL	ILLINOIS
IN	INDIANA
KS	KANSAS
KY	KENTUCKY
LA	LOUISIANA
MD	MARYLAND
ME	MAINE
MH	MARSHALL ISLANDS
MN	MINNESOTA
MO	MISSOURI
MP	NORTHERN MARIANA ISLANDS
MS	MISSISSIPPI
MT	MONTANA
NC	NORTH CAROLINA
ND	NORTH DAKOTA
NE	NEBRASKA
NH	NEW HAMPSHIRE
NM	NEW MEXICO
OK	OKLAHOMA
OR	OREGON
PR	PUERTO RICO
PW	PALAU
RI	RHODE ISLAND
SD	SOUTH DAKOTA
TN	TENNESSEE
UT	UTAH
VI	VIRGIN ISLANDS
VT	VERMONT
WA	WASHINGTON
WI	WISCONSIN
WV	WEST VIRGINIA
WY	WYOMING

```

+-----+-----+
43 rows in set (0.00 sec)

```

```

mysql> #Question4
mysql> -- Question4 PROJECTION
mysql> select location,qtrcode from quarter;
-----
select location,qtrcode from quarter
-----

```

location	qtrcode
NY	19951
CA	19953
NY	19961
MA	19963
NY	19964

```

+-----+-----+
5 rows in set (0.00 sec)

```

```

mysql> #Question5
mysql> select * from quarter where qtrcode in("19951","19961");
-----
select * from quarter where qtrcode in("19951","19961")
-----

```

```

+-----+-----+-----+-----+

```

qtrcode	location	minsall	minhrs
19951	NY	11.00	40
19961	NY	12.00	30

2 rows in set (0.00 sec)

```
mysql> #Question6
mysql> -- Question6 by using inner join and USING keyword
mysql> select emp.companyname, emp.statecode , st.description from
EMPLOYER emp inner join STATE st
-> using(statecode);
-----
select emp.companyname, emp.statecode , st.description from EMPLOYER emp
inner join STATE st
using(statecode)
-----
```

companyname	statecode	description
ApplDesign	AL	ALABAMA
Ajax Software, Inc.	CA	CALIFORNIA
Ajax Software, Inc.	CA	CALIFORNIA
Bay Software Inc.	CA	CALIFORNIA
Bay Software Inc.	CA	CALIFORNIA
Mountainside Magic Software	CO	COLORADO
Mountainside Magic Software	CO	COLORADO
Sandy Hook Software	CT	CONNECTICUT
Flordia Software Designs	FL	FLORIDA
Flordia Software Designs	FL	FLORIDA
Georgia Software Design	GA	GEORGIA
Braddock Information Assoc.	MA	MASSACHUSETTS
Nantucket Applications, Inc.	MA	MASSACHUSETTS
Michigan Application Design	MI	MICHIGAN
Jersey Computer Services	NJ	NEW JERSEY
Vegas Programming and Design	NV	NEVADA
Buffalo Software Assoc.	NY	NEW YORK
CCC Software	NY	NEW YORK
Davis-Klein Software	NY	NEW YORK
Long Island Apps, Inc.	NY	NEW YORK
Manhattan-Made Software	NY	NEW YORK
Manhattan-Made Software	NY	NEW YORK
Midtown Software Development	NY	NEW YORK
Rochester Application Software	NY	NEW YORK
Rochester Software Design	NY	NEW YORK
Western New York Applications	NY	NEW YORK
Yankee Software	NY	NEW YORK
Yankee Software	NY	NEW YORK
Yankee Software	NY	NEW YORK
Acme Information Source	OH	OHIO
PennState Programming, Inc.	PA	PENNSYLVANIA
PSWD, Inc.	PA	PENNSYLVANIA
Focused Applications, Inc.	SC	SOUTH CAROLINA
Cameron Industries	TX	TEXAS
Cameron Industries	TX	TEXAS
DC Security Applications	VA	VIRGINIA
Virginia Software Industries	VA	VIRGINIA

37 rows in set (0.00 sec)

```
mysql> -- Question6 by using WHERE clause
mysql> select emp.companyname, emp.statecode , st.description from
EMPLOYER emp, STATE st
-> where emp.statecode=st.statecode;
-----
select emp.companyname, emp.statecode , st.description from EMPLOYER emp,
STATE st
where emp.statecode=st.statecode
-----
```

companyname	statecode	description
ApplDesign	AL	ALABAMA
Ajax Software, Inc.	CA	CALIFORNIA
Ajax Software, Inc.	CA	CALIFORNIA
Bay Software Inc.	CA	CALIFORNIA
Bay Software Inc.	CA	CALIFORNIA
Mountainside Magic Software	CO	COLORADO
Mountainside Magic Software	CO	COLORADO
Sandy Hook Software	CT	CONNECTICUT
Flordia Software Designs	FL	FLORIDA
Flordia Software Designs	FL	FLORIDA
Georgia Software Design	GA	GEORGIA
Braddock Information Assoc.	MA	MASSACHUSETTS
Nantucket Applications, Inc.	MA	MASSACHUSETTS
Michigan Application Design	MI	MICHIGAN
Jersey Computer Services	NJ	NEW JERSEY
Vegas Programming and Design	NV	NEVADA
Buffalo Software Assoc.	NY	NEW YORK
CCC Software	NY	NEW YORK
Davis-Klein Software	NY	NEW YORK
Long Island Apps, Inc.	NY	NEW YORK
Manhattan-Made Software	NY	NEW YORK
Manhattan-Made Software	NY	NEW YORK
Midtown Software Development	NY	NEW YORK
Rochester Application Software	NY	NEW YORK
Rochester Software Design	NY	NEW YORK
Western New York Applications	NY	NEW YORK
Yankee Software	NY	NEW YORK
Yankee Software	NY	NEW YORK
Yankee Software	NY	NEW YORK
Acme Information Source	OH	OHIO
PennState Programming, Inc.	PA	PENNSYLVANIA
PSWD, Inc.	PA	PENNSYLVANIA
Focused Applications, Inc.	SC	SOUTH CAROLINA
Cameron Industries	TX	TEXAS
Cameron Industries	TX	TEXAS
DC Security Applications	VA	VIRGINIA
Virginia Software Industries	VA	VIRGINIA

37 rows in set (0.00 sec)

```
mysql> #Question7
mysql> -- Question7 LEFT JOIN
mysql> select st.description, emp.companyname from STATE st left join
EMPLOYER emp using(statecode);
-----
```

```
select st.description, emp.companyname from STATE st left join EMPLOYER
emp using(statecode)
```

```
-----
```

description	companyname
ALASKA	NULL
ALABAMA	ApplDesign
ARKANSAS	NULL
AMERICAN SAMOA	NULL
ARIZONA	NULL
CALIFORNIA	Ajax Software, Inc.
CALIFORNIA	Ajax Software, Inc.
CALIFORNIA	Bay Software Inc.
CALIFORNIA	Bay Software Inc.
COLORADO	Mountainside Magic Software
COLORADO	Mountainside Magic Software
CONNECTICUT	Sandy Hook Software
DISTRICT OF COLUMBIA	NULL
DELAWARE	NULL
FLORIDA	Flordia Software Designs
FLORIDA	Flordia Software Designs
FEDERATED STATES OF MICRONESIA	NULL
GEORGIA	Georgia Software Design
GUAM	NULL
HAWAII	NULL
IOWA	NULL
IDAHO	NULL
ILLINOIS	NULL
INDIANA	NULL
KANSAS	NULL
KENTUCKY	NULL
LOUISIANA	NULL
MASSACHUSETTS	Braddock Information Assoc.
MASSACHUSETTS	Nantucket Applications, Inc.
MARYLAND	NULL
MAINE	NULL
MARSHALL ISLANDS	NULL
MICHIGAN	Michigan Application Design
MINNESOTA	NULL
MISSOURI	NULL
NORTHERN MARIANA ISLANDS	NULL
MISSISSIPPI	NULL
MONTANA	NULL
NORTH CAROLINA	NULL
NORTH DAKOTA	NULL
NEBRASKA	NULL
NEW HAMPSHIRE	NULL
NEW JERSEY	Jersey Computer Services
NEW MEXICO	NULL
NEVADA	Vegas Programming and Design
NEW YORK	Buffalo Software Assoc.
NEW YORK	CCC Software
NEW YORK	Davis-Klein Software
NEW YORK	Long Island Apps, Inc.
NEW YORK	Manhattan-Made Software
NEW YORK	Manhattan-Made Software
NEW YORK	Midtown Software Development
NEW YORK	Rochester Application Software

NEW YORK	Rochester Software Design	
NEW YORK	Western New York Applications	
NEW YORK	Yankee Software	
NEW YORK	Yankee Software	
NEW YORK	Yankee Software	
OHIO	Acme Information Source	
OKLAHOMA	NULL	
OREGON	NULL	
PENNSYLVANIA	PennState Programming, Inc.	
PENNSYLVANIA	PSWD, Inc.	
PUERTO RICO	NULL	
PALAU	NULL	
RHODE ISLAND	NULL	
SOUTH CAROLINA	Focused Applications, Inc.	
SOUTH DAKOTA	NULL	
TENNESSEE	NULL	
TEXAS	Cameron Industries	
TEXAS	Cameron Industries	
UTAH	NULL	
VIRGINIA	DC Security Applications	
VIRGINIA	Virginia Software Industries	
VIRGIN ISLANDS	NULL	
VERMONT	NULL	
WASHINGTON	NULL	
WISCONSIN	NULL	
WEST VIRGINIA	NULL	
WYOMING	NULL	

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80 rows in set (0.00 sec)

mysql> notee