Practical B3 Query Using Select Statement Without Where Clause

Objectives of this practical

- List contents from a relation by either using short cut (*) or by specifying specific attribute names for display
- Remove duplicated rows from output
- List column(attribute) names for output with meaningful aliases
- Sort rows in the output result table

1. Write two different SQL statements to display all columns and all rows of the Staff relation.

Expected result

	Staff_No	Staff_Name	Supervisor	Date_Of_Birth	Grade	Marital_Status	Pay	Allowance	Hourly_Rate	Gender	Citizenship	Join_Yr	Dept_Cd	Type_Of_Employment	Highest_Qln	Designation
1	S001	Anita	T002	1950-01-21	L1	D	7070.00	1000.00	NULL	F	Singapore	1996	DMIT	FT	Phd	Director
2	S002	Apple	S001	1952-08-30	L1	S	6660.00	700.00	NULL	F	Korea	1980	DMIT	FT	BSc	Deputy Director
3	S003	Charles	S001	1954-11-05	L2	M	5890.00	600.00	NULL	M	Malaysia	1990	DMIT	FT	BComp	Deputy Director
4	S004	Dawn	S002	1956-02-21	L2	D	5200.00	200.00	NULL	F	Singapore	1982	DMIT	FT	MTech	Section Head
5	S005	Edison	S002	1958-08-06	L3	W	4970.00	100.00	NULL	M	Taiwan	1988	DMIT	FT	MBA	Section Head
6	S006	Fann	T002	1960-09-18	L1	M	7600.00	900.00	NULL	F	Malaysia	1978	SB	FT	ACA	Director
7	S007	Gideon	S006	1962-10-10	L2	M	6000.00	600.00	NULL	M	Malaysia	1995	SB	FT	MPA	Deputy Director
8	S008	Lionel	S007	1968-01-19	L3	D	5100.00	100.00	NULL	M	Singapore	1989	SB	FT	CFA	Section Head
9	S009	Lee	S008	1965-01-26	L5A	D	NULL	NULL	120.00	F	India	1997	SB	PT	CPA	Lecturer
10	S010	Jason	S008	1968-11-30	L5	M	NULL	NULL	100.00	M	China	1999	SB	PT	BBA	Lecturer
11	S011	Andy	S007	1970-11-08	L3	M	5340.00	150.00	NULL	M	Thailand	2000	SB	FT	BA	Section Head
12	S012	Edwin	S011	1975-09-09	L4	M	4950.00	NULL	NULL	M	Hong Ko...	2001	SB	FT	MA	Lecturer
13	S017	Titus	S004	1960-03-19	L4A	S	2000.00	NULL	NULL	M	Singapore	1985	DMIT	FT	MBIT	Lecturer
14	S018	Derrick	S005	1971-09-05	L5A	S	3000.00	NULL	NULL	M	Singapore	2007	DMIT	FT	MCM	Senior Lecturer
15	S019	Eleanor	S004	1965-01-01	L4	S	NULL	NULL	120.00	F	China	2008	DMIT	PT	BSE	Lecturer
16	S020	Florence	S005	1968-01-01	L4	S	NULL	NULL	100.00	F	China	2008	DMIT	PT	BDM	Lecturer
17	T001	Bruce	NULL	1960-05-15	SSD	S	9000.00	2000.00	NULL	M	Singapore	2008	PO	FT	BComp	Principal
18	T002	Ruth	T001	1949-07-25	SSE	D	8500.00	1500.00	NULL	F	Singapore	1974	DPO	FT	BSc	Deputy Principal

2. Write the SQL statement to list the citizenship of all staff. Display the results in descending order of citizenship.

Expected result

	citizenship
1	Thailand
2	Taiwan
3	Singapore
4	Singapore
5	Singapore
6	Singapore
7	Singapore
8	Singapore
9	Singapore
10	Malaysia
11	Malaysia
12	Malaysia
13	Korea
14	India
15	Hong Kong
16	China
17	China
18	China

3. Write the SQL statement to list different citizenships of the staff. Do not display duplicate citizenship.

Expected result

	citizenship
1	China
2	Hong Kong
3	India
4	Korea
5	Malaysia
6	Singapore
7	Taiwan
8	Thailand

4. Write the SQL statement to list the staff name and date of birth of all staff. Rename the staff name column as 'Name of Staff' using the **AS** keyword and date of birth as Date-of-

Birth **without using the AS** keyword when specifying column aliases. Display the results from oldest to youngest staff.

Expected result

	Name of Staff	Date-of-birth
1	Ruth	1949-07-25
2	Anita	1950-01-21
3	Apple	1952-08-30
4	Charles	1954-11-05
5	Dawn	1956-02-21
6	Edison	1958-08-06
7	Titus	1960-03-19
8	Bruce	1960-05-15
9	Fann	1960-09-18
10	Gideon	1962-10-10
11	Eleanor	1965-01-01
12	Lee	1965-01-26
13	Florence	1968-01-01
14	Lionel	1968-01-19
15	Jason	1968-11-30
16	Andy	1970-11-08
17	Derrick	1971-09-05
18	Edwin	1975-09-09

5. Write the SQL statement to display all columns of all departments, sorted in descending order of department code. You must use column number instead of column name in the order by clause.

Expected result

	Dept_Cd	Dept_Name	HOD	No_Of_Staff	Max_Staff_Strength	Budget	Expenditure	HOD_Start_Date
1	SB	School of Business	S006	86	90	80000.00	88000.00	1996-10-01
2	PO	Principal's office	T001	4	4	7500.00	NULL	2008-01-01
3	DPO	Deputy Principal's Office	T002	3	3	6000.00	NULL	NULL
4	DMIT	School of Digital Media and Infocomm Technology	S001	82	92	90000.00	45000.00	2009-04-01

6. Write the SQL statement to list the department code and staff name of all staff. First, sort the result in descending order of department code. For staff working in the same department, display the results in descending order of staff name.

Expected result

	dept_cd	staff_name
1	SB	Lionel
2	SB	Lee
3	SB	Jason
4	SB	Gideon
5	SB	Fann
6	SB	Edwin
7	SB	Andy
8	PO	Bruce
9	DPO	Ruth
10	DMIT	Titus
11	DMIT	Florence
12	DMIT	Eleanor
13	DMIT	Edison
14	DMIT	Derrick
15	DMIT	Dawn
16	DMIT	Charles
17	DMIT	Apple
18	DMIT	Anita

Optional Questions:

7. Write the SQL statement to list department name and head of department start date of all departments. Re-label the list department name as Department_Name and head of department start date as HOD_ Appointment_Date. Do not use the quotes in your aliases.

8. Write the SQL statement to display all columns (using the wild card *) and all rows/ of the department_relation. Sort the result in descending order of the staff number in each department. You must use column number instead of column name in the order by clause.