Department of Statistics & Computer Science
University of Kelaniya
ACADEMIC YEAR – 2022/2023
COSC 22083/BECS 22243 -Database Management Systems

Preparation 01

SQL Login Instructions:

- Use the provided SQL Plus login string on your EKeL page to connect to the server.

- **Replace** both **Username** and **Password** in the string with your student number in the following format:

    Ex: Username: ps21xxx/ ec21xxx
            Password: ps21xxx/ ec21xxx

Table Creation and Data Population:

- **Create the following tables** in your assigned Oracle DBMS account and **populate them with the given data**.

- **Important:** Execute the **COMMIT** statement after inserting data into each table to save changes permanently.

Part Table

PNO	PNAME	PRICE	COLOR	WEIGHT	CITY
P1	NUT	20.00	RED	12	COLOMBO
P2	BOLT	14.00	GREEN	17	KANDY
P3	SCREW	14.00	BLUE	17	MATHARA
P4	SCREW	11.00	RED	14	COLOMBO
P5	CAM	150.00	BLUE	12	KANDY
P6	COG	12.00	RED	19	COLOMBO

Project Table

JNO	JNAME	CITY
J1	SORTER	KANDY
J2	PUNCH	MATARA
J3	READER	JAFFNA
J4	CONSOLE	JAFFNA
J5	COLLATOR	COLOMBO
J6	VIDEO	GALLE
J7	TAPE	COLOMBO

Supplier Table

SNO	SNAME	STATUS	CITY
S1	SAMAN	20	COLOMBO
S2	JAGATH	10	KANDY
S3	ANIL	30	KANDY
S4	GAMINI	20	COLOMBO
S5	BALA	30	JAFFNA

SPJ Table

SNO	PNO	JNO	QTY
S1	P1	J1	200
S1	P2	J4	700
S2	P3	J2	200
S2	P3	J3	200
S2	P3	J4	500
S2	P3	J5	600
S2	P3	J6	400
S2	P3	J7	800
S2	P5	J2	100
S3	P3	J3	200
S3	P4	J4	500
S4	P2	J1	300
S4	P2	J4	300
S5	P1	J2	1000
S5	P2	J2	200
S5	P2	J4	100
S5	P3	J4	1200
S5	P4	J4	800
S5	P5	J4	400
S5	P5	J5	500
S5	P5	J7	100
S5	P6	J2	200

Cover the following sql queries that are included in the sql part 01

01. Get part numbers for all parts.
02. Get the supplier number, name, status and location of all suppliers.
03. Get the part numbers for all parts currently being supplied.
04. Get supplier numbers for suppliers in Kandy with >20 status value.
05. Get suppliers whose location is known, i.e. not null.
06. Find the parts which are located in Colombo and have weight greater than 15.
07. Find the suppliers who have status values between 10 and 20.
08. Get the details of suppliers who are either located in Colombo or in Jaffna.

09. For each part in Colombo get the name and its weight in Kilograms.
10. Get the supplier number and the status for suppliers in Kandy, in descending order of the status.
11. Get all suppliers whose name has 'A' as its second character.
12. Retrieve the part names that start with letter C.
13. Retrieve the surnames of suppliers whose name begins with any vowels.
14. Retrieve the surnames of suppliers whose name begin with any letter A to P.
15. Retrieve the surnames of suppliers who have an even number as the first character of their status.
16. Get the total number of suppliers.
17. Get the total number of suppliers currently supplying parts.
18. Find the maximum and minimum weight of parts.
19. Find the number of shipments for part P2.
20. Find the average price of parts located in Colombo.
21. Get the average price of the parts which are located in all cities other than 'Matara'.
22. For each part currently being supplied, get the part number and the total quantity supplied for that part.
23. For each supplier and each part, get the total quantity supplied of this part by this supplier.
24. For each part supplied, get the number of suppliers currently supplying that part.
25. For each part supplied, get the number of shipments for that part.
26. For each supplier and each part, get the number of projects that the supplier is currently supplying with the part.
27. Get the part numbers for all parts supplied in more than one shipment.
28. Calculate the average weight of the parts located in Colombo and located in Kandy.
29. For each part, the total quantity supplied is greater than 1000, get the part number and the maximum quantity of that part supplied.
30. For the above query, order the result in increasing quantity value.
31. For the above query exclude all the shipments which has quantity less than 200.

Submission Guidelines:

- Prepare a Word document named "PS/XXXX/XXX_Preparation01" or "EC/XXXX/XXX_Preparation01".
- Include the following elements:
  - **Cover Page**.
  - **Header** with your student number, Tutorial Name and course code.
  - **Source codes and screenshots** of your work.
  - **Footer** with page number.

- **Deadline for Submission**: On or before **3rd of November 2024**.