Bangladesh University of Business and Technology

LAB REPORT

Experiment Date :
Experiment No : 02
Course Title : Database System
Course Code : CSE 208
Experiment Name:

Submitted By:

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Program : B.Sc. in CSE

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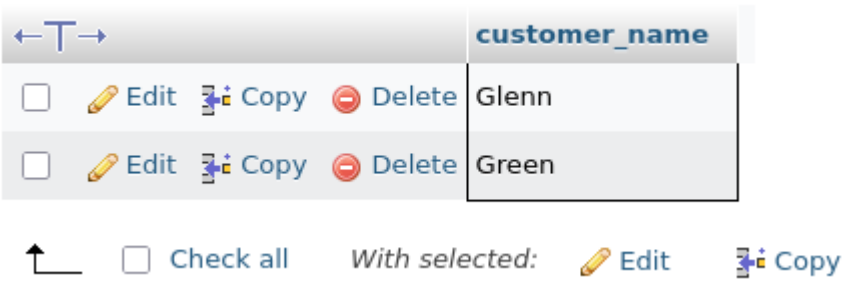
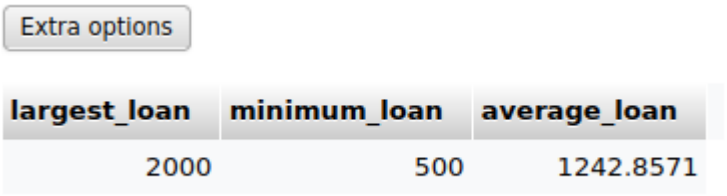
Date of Submission :

Q1.Find the names of all customers whose name start with "G".
Ans:-
Code:- SELECT customer_name FROM customer_relation WHERE customer_name LIKE 'G%';
Output:-

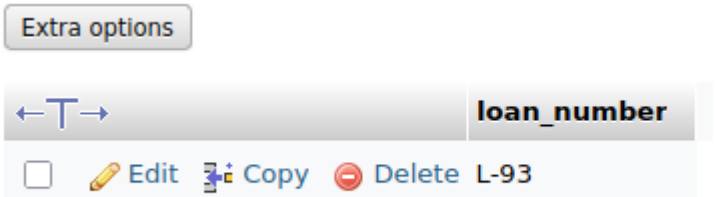


Q2.Find the largest , minimum and average loan amount in the “Loan” relation.
Ans:-
Code:- SELECT
MAX(amount) AS largest_loan,
MIN(amount) AS minimum_loan,
AVG(amount) AS average_loan
FROM
loan_relation;
Output:-



Q3. Find the total number of customer from "Customer" relation.
Ans:-
Code:- SELECT COUNT(*) AS total_customers FROM customer_relation;
Output:-

Q4. Find the loan number of those loans with loan amounts between 400 and 800.
Ans:-
Code:- SELECT loan_number FROM loan_relation WHERE amount BETWEEN 400 AND 800;
Output:-



Q5. Find the names of all customers whose name ends with "s".
Ans:
Code:SELECT customer_name FROM customer_relation WHERE customer_name LIKE '%s';
Output:

Extra options

	customer_name
Edit Copy Delete	Adams
Edit Copy Delete	Brooks
Edit Copy Delete	Hayes
Edit Copy Delete	Jones
Edit Copy Delete	Williams

Q6. Find the names of all customers whose name has a "o" in 2nd position.
Ans:
Code:SELECT customer_name FROM customer_relation WHERE customer_name LIKE '_o%';
Output:

Extra options

	customer_name
Edit Copy Delete	Johnson
Edit Copy Delete	Jones

Q7. Find the names of all customers whose name has a "o" in any position except 1st and last letter.
Ans:
Code:SELECT customer_name FROM customer_relation WHERE customer_name LIKE '_%o%_' AND customer_name NOT LIKE 'o%' AND customer_name NOT LIKE '%o';
Output:

Extra options

	customer_name
Edit Copy Delete	Brooks
Edit Copy Delete	Johnson
Edit Copy Delete	Jones

Q8. Find the length of the name of all customers from "Customer" relation.
Ans:
Code:SELECT customer_name, LENGTH(customer_name) AS name_length
FROM customer_relation;
Output:

	customer_name	name_length
Edit Copy Delete	Adams	5
Edit Copy Delete	Brooks	6
Edit Copy Delete	Curry	5
Edit Copy Delete	Glenn	5
Edit Copy Delete	Green	5
Edit Copy Delete	Hayes	5
Edit Copy Delete	Johnson	7
Edit Copy Delete	Jones	5
Edit Copy Delete	Lindsay	7
Edit Copy Delete	Smith	5
Edit Copy Delete	Turner	6
Edit Copy Delete	Williams	8

Q9. Find the first three characters of each customer name from "customer" relation.
Ans:
Code:SELECT customer_name, LEFT(customer_name, 3) AS first_three_chars
FROM customer_relation;
Output:

←T→	customer_name	first_three_chars
Edit Copy Delete	Adams	Ada
Edit Copy Delete	Brooks	Bro
Edit Copy Delete	Curry	Cur
Edit Copy Delete	Glenn	Gle
Edit Copy Delete	Green	Gre
Edit Copy Delete	Hayes	Hay
Edit Copy Delete	Johnson	Joh
Edit Copy Delete	Jones	Jon
Edit Copy Delete	Lindsay	Lin
Edit Copy Delete	Smith	Smi
Edit Copy Delete	Turner	Tur
Edit Copy Delete	Williams	Wil

Q10. Find the total number of loans from "Loan" relation from each branch.
Ans:
Code:SELECT branch_name, COUNT(*) AS total_loans FROM loan_relation GROUP BY branch_name;
Output:

branch_name	total_loans
Downtown	2
Mianus	1
Perryrdge	1
Perryridge	1
Redwood	1
Round Hill	1

Q11. Find the 2nd letter of `customer_city` for the branch `Downtown`.
Ans:
Code:
```
SELECT
        SUBSTRING(cr.cutomer_city, 2, 1) AS second_letter_city
    FROM
        customer_relation cr
    JOIN
        borrower_relation br ON cr.customer_name = br.customer_name
    JOIN
        loan_relation lr ON br.loan_number = lr.loan_number
    WHERE
        lr.branch_name = 'Downtown';
```
Output:

second_letter_city
a
a
r

Q12. Retrieve loan details for customers whose names contain "it" anywhere.
Ans:
Code:
```
SELECT lr.* FROM loan_relation lr JOIN borrower_relation br ON lr.loan_number = br.loan_number JOIN customer_relation cr ON br.customer_name = cr.customer_name WHERE cr.customer_name LIKE '%it%';
```
Output:

loan_number	branch_name	amount
L-11	Round Hill	900
L-23	Redwood	2000