PROMPT PART A: Subquery-Based SQL Queries

PROMPT '1. Find out the name, phone\_no and cust\_no of customer having Account\_no “A0004”';

SELECT NAME, PHONE\_NO, CUSTOMER.CUST\_NO

FROM CUSTOMER

WHERE CUST\_NO = (SELECT CUST\_NO FROM DEPOSITOR WHERE ACCOUNT\_NO = 'A0004');

PROMPT '2. Find out the name of the customer who has not taken any loan';

SELECT NAME

FROM CUSTOMER

WHERE CUST\_NO NOT IN (SELECT CUST\_NO FROM LOAN);

PROMPT '3. Find out the account\_no and Balance of customer with cust\_no = “C0010”';

SELECT ACCOUNT\_NO, BALANCE

FROM ACCOUNT

WHERE ACCOUNT\_NO IN (SELECT ACCOUNT\_NO FROM DEPOSITOR WHERE CUST\_NO = 'C0010');

PROMPT '4. Find out the branch\_city where “ASLESHA TIWARI” has taken a loan';

SELECT BRANCH\_CITY

FROM BRANCH

WHERE BRANCH\_CODE = (SELECT BRANCH\_CODE FROM LOAN WHERE CUST\_NO = (SELECT CUST\_NO FROM CUSTOMER WHERE NAME = 'ASLESHA TIWARI'));

PROMPT '5. Find out the installment details of customer named “ANKITA SINGH”';

SELECT \*

FROM INSTALLMENT

WHERE LOAN\_NO IN (

SELECT LOAN\_NO FROM LOAN

WHERE CUST\_NO = (SELECT CUST\_NO FROM CUSTOMER WHERE NAME = 'ANKITA SINGH')

);

PROMPT '6. Find out the branch name and branch city, in which “ABHIJIT MISHRA” has an account';

SELECT BRANCH\_NAME, BRANCH\_CITY

FROM BRANCH

WHERE BRANCH\_CODE IN (

SELECT BRANCH\_CODE FROM ACCOUNT

WHERE ACCOUNT\_NO IN (

SELECT ACCOUNT\_NO FROM DEPOSITOR

WHERE CUST\_NO = (SELECT CUST\_NO FROM CUSTOMER WHERE NAME = 'ABHIJIT MISHRA')

)

);

PROMPT '7. Create a table named ACCOUNT\_TYPE with ACCOUNT\_NO and TYPE only';

CREATE TABLE ACCOUNT\_TYPE AS

SELECT ACCOUNT\_NO, TYPE

FROM ACCOUNT

WHERE 1=0;

PROMPT '8. Insert into ACCOUNT\_TYPE the accounts with balance < 50000';

INSERT INTO ACCOUNT\_TYPE (ACCOUNT\_NO, TYPE)

SELECT ACCOUNT\_NO, TYPE FROM ACCOUNT WHERE BALANCE < 50000;

PROMPT '9. Update type to FD in ACCOUNT\_TYPE for customer with CUST\_NO = C0007';

UPDATE ACCOUNT\_TYPE

SET TYPE = 'FD'

WHERE ACCOUNT\_NO IN (

SELECT ACCOUNT\_NO FROM DEPOSITOR WHERE CUST\_NO = 'C0007'

);

PROMPT '10. Delete from ACCOUNT\_TYPE the accounts with balance < 20000';

DELETE FROM ACCOUNT\_TYPE

WHERE ACCOUNT\_NO IN (

SELECT ACCOUNT\_NO FROM ACCOUNT WHERE BALANCE < 20000

);

PROMPT '11. Find account\_no with balance greater than some FD accounts';

SELECT ACCOUNT\_NO

FROM ACCOUNT

WHERE BALANCE > SOME (SELECT BALANCE FROM ACCOUNT WHERE TYPE = 'FD');

PROMPT '12. Find account\_no with balance greater than all FD accounts';

SELECT ACCOUNT\_NO

FROM ACCOUNT

WHERE BALANCE > ALL (SELECT BALANCE FROM ACCOUNT WHERE TYPE = 'FD');

PROMPT '13. Branches where some loans are taken (EXISTS)';

SELECT \* FROM BRANCH B

WHERE EXISTS (

SELECT 1 FROM LOAN L WHERE L.BRANCH\_CODE = B.BRANCH\_CODE

);

PROMPT '14. Loans for which no installment is paid (NOT EXISTS)';

SELECT \* FROM LOAN L

WHERE NOT EXISTS (

SELECT 1 FROM INSTALLMENT I WHERE I.LOAN\_NO = L.LOAN\_NO

);

PROMPT '15. Increase balance with CASE';

UPDATE ACCOUNT

SET BALANCE = BALANCE +

CASE

WHEN BALANCE > 80000 THEN BALANCE \* 0.06

ELSE BALANCE \* 0.05

END;

PROMPT PART B: Join-Based SQL Queries

PROMPT '1. Loan\_nos for loans from branches in MUMBAI';

SELECT LOAN\_NO FROM LOAN

JOIN BRANCH ON LOAN.BRANCH\_CODE = BRANCH.BRANCH\_CODE

WHERE BRANCH\_CITY = 'MUMBAI';

PROMPT '2. Account types in branches in DELHI';

SELECT DISTINCT TYPE FROM ACCOUNT

JOIN BRANCH ON ACCOUNT.BRANCH\_CODE = BRANCH.BRANCH\_CODE

WHERE BRANCH\_CITY = 'DELHI';

PROMPT '3. Name and Ph\_no of customers with account balance > 100000';

SELECT DISTINCT CUSTOMER.NAME, CUSTOMER.PHONE\_NO

FROM CUSTOMER

JOIN DEPOSITOR ON CUSTOMER.CUST\_NO = DEPOSITOR.CUST\_NO

JOIN ACCOUNT ON DEPOSITOR.ACCOUNT\_NO = ACCOUNT.ACCOUNT\_NO

WHERE BALANCE > 100000;

PROMPT '4. Installments of customer RAJ ANAND SINGH';

SELECT INST\_NO, INST\_AMOUNT

FROM INSTALLMENT

JOIN LOAN ON INSTALLMENT.LOAN\_NO = LOAN.LOAN\_NO

JOIN CUSTOMER ON LOAN.CUST\_NO = CUSTOMER.CUST\_NO

WHERE NAME = 'RAJ ANAND SINGH';

PROMPT '5. Customers without SB type account';

SELECT DISTINCT NAME

FROM CUSTOMER

WHERE CUST\_NO NOT IN (

SELECT CUST\_NO FROM DEPOSITOR D JOIN ACCOUNT A ON D.ACCOUNT\_NO = A.ACCOUNT\_NO WHERE TYPE = 'SB'

);

PROMPT '6. Customers who paid 50000 as installment';

SELECT DISTINCT NAME

FROM CUSTOMER

JOIN LOAN ON CUSTOMER.CUST\_NO = LOAN.CUST\_NO

JOIN INSTALLMENT ON LOAN.LOAN\_NO = INSTALLMENT.LOAN\_NO

WHERE INST\_AMOUNT = 50000;

PROMPT '7. Phone numbers of customers having account at SALTLAKE branch';

SELECT PHONE\_NO FROM CUSTOMER

JOIN DEPOSITOR ON CUSTOMER.CUST\_NO = DEPOSITOR.CUST\_NO

JOIN ACCOUNT ON DEPOSITOR.ACCOUNT\_NO = ACCOUNT.ACCOUNT\_NO

JOIN BRANCH ON ACCOUNT.BRANCH\_CODE = BRANCH.BRANCH\_CODE

WHERE BRANCH\_NAME = 'SALTLAKE BRANCH';

PROMPT '8. Branch name and city where ABHIJIT MISHRA has an account';

SELECT BRANCH\_NAME, BRANCH\_CITY

FROM BRANCH

JOIN ACCOUNT ON BRANCH.BRANCH\_CODE = ACCOUNT.BRANCH\_CODE

JOIN DEPOSITOR ON ACCOUNT.ACCOUNT\_NO = DEPOSITOR.ACCOUNT\_NO

JOIN CUSTOMER ON DEPOSITOR.CUST\_NO = CUSTOMER.CUST\_NO

WHERE CUSTOMER.NAME = 'ABHIJIT MISHRA';

PROMPT '9. Account types and balance for SWAROOP RAY';

SELECT TYPE, BALANCE

FROM ACCOUNT

JOIN DEPOSITOR ON ACCOUNT.ACCOUNT\_NO = DEPOSITOR.ACCOUNT\_NO

JOIN CUSTOMER ON DEPOSITOR.CUST\_NO = CUSTOMER.CUST\_NO

WHERE CUSTOMER.NAME = 'SWAROOP RAY';

PROMPT '10. Branch codes with total balance > average total balance';

WITH BRANCH\_BALANCE AS (

SELECT BRANCH\_CODE, SUM(BALANCE) AS TOTAL\_BAL

FROM ACCOUNT

GROUP BY BRANCH\_CODE

),

AVG\_BALANCE AS (

SELECT AVG(TOTAL\_BAL) AS AVG\_BAL FROM BRANCH\_BALANCE

)

SELECT BRANCH\_CODE

FROM BRANCH\_BALANCE, AVG\_BALANCE

WHERE TOTAL\_BAL > AVG\_BAL;