

CSE4252

DATABASES FOR BIG DATA

LABORATORY ASSIGNMENTS



DEPARTMENT OF COMPUTER SCIENCE
INSTITUTE OF TECHNICAL EDUCATION AND RESEARCH
SIKSHA 'O' ANUSANDHAN
(DEEMED TO BE UNIVERSITY)
BHUBANESWAR, ODISHA

CONTENTS:

1. Assignment (3): Create Collections continued

Assignment (3)

Objective of this Assignment:

To create collections by combining below table
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Questions:

1. Combine the below tables to create 1 or 2 collections

<i>CUSTOMER</i>			
<i>CUST_NO</i>	<i>NAME</i>	<i>PHONE_NO</i>	<i>CITY</i>
C0001	RAJ ANAND SINGH	9861258466	DELHI
C0002	ANKITA SINGH	9879958651	BANGALORE
C0003	SOUMYA JHA	9885623344	MUMBAI
C0004	ABHIJIT MISHRA	9455845425	MUMBAI
C0005	YASH SARAF	9665854585	KOLKATA
C0006	SWAROOP RAY	9437855466	CHENNAI
C0007	SURYA NARAYAN PRADHAN	9937955212	GUGAON
C0008	PRANAV PRAVEEN	9336652441	PUNE
C0009	STUTI MISRA	7870266534	DELHI
C0010	ASLESHA TIWARI		MUMBAI

ACCOUNT

<i>ACCOUNT_NO</i>	<i>TYPE</i>	<i>BALANCE</i>	<i>BRANCH_CODE</i>
A0001	SB	200000	B003
A0002	SB	15000	B002
A0003	CA	850000	B004
A0004	CA	35000	B004
A0005	FD	28500	B005
A0006	FD	550000	B005
A0007	SB	48000	B001
A0008	SB	7200	B002
A0009	SB	18750	B003
A0010	FD	99000	B004

DEPOSITOR

<i>ACCOUNT_NO</i>	<i>CUST_NO</i>
A0001	C0003
A0001	C0004
A0002	C0004
A0003	C0006
A0004	C0006
A0005	C0001
A0005	C0002
A0006	C0010
A0007	C0009
A0008	C0008
A0009	C0007
A0010	C0006

LOAN

<i>LOAN-NO</i>	<i>CUST_NO</i>	<i>AMOUNT</i>	<i>BRANCH_CODE</i>
L0001	C0005	3000000	B006
L0002	C0001	50000	B005
L0003	C0002	8000000	B004
L0004	C0010	100000	B004
L0005	C0009	9500000	B005
L0006	C0008	25000	B006

BRANCH

<i>BRANCH_CODE</i>	<i>BRANCH_NAME</i>	<i>BRANCH_CITY</i>
B001	JANAKPURI BRANCH	DELHI
B002	CHANDNICHOWK BRANCH	DELHI
B003	JUHU BRANCH	MUMBAI
B004	ANDHERI BRANCH	MUMBAI
B005	SALT LAKE BRANCH	KOLKATA
B006	SRIRAMPURAM BRANCH	CHENNAI

INSTALLMENT

<i>LOAN_NO</i>	<i>INST_NO</i>	<i>INST_AMOUNT</i>
L0005	1	500000
L0002	1	10000
L0003	1	50000
L0004	1	20000
L0005	2	500000
L0006	1	30000
L0002	2	10000
L0002	3	10000
L0003	2	50000
L0004	2	20000

Write the expression for the following set of queries in MongoDB, based on the above set of schemas.

- Find out the name, phone_no and cust_no of customer having Account_no “A0004”.
- Find out the loan_amount and branch code of customer named “YASH SARAF”.

- c) Find out the name of the customer who has not taken any loan.
- d) Find out the account_no and Balance of customer with cust_no = "C0010".
- e) Find out the branch_city where "ASLESHA TIWARI" has taken a loan.
- f) Find out the installment details of customer named "ANKITA SINGH".
- g) Find out the branch name and branch city, in which "ABHIJIT MISHRA" has an account.
- h) Insert the account no and type from ACCOUNT table into the ACCOUNT_TYPE table whose balance is less than 50000.
- i) UPDATE the account type to FD in ACCOUNT_TYPE table for the customer with CUST_NO equal to C0007.
- j) Delete from ACCOUNT_TYPE table the details of account whose balance is less than 20000.
- k) Find out the name of the customers who have both an account and loan at the bank.
- l) Find out the name of all customers who have a loan at the bank but don't have an account at the bank.
- m) Find out the name of the customers having more than one account.
- n) Find out the details of the account having same type and branch_code as the account_no A0001.
- p) Display the name of the customers and their number of accounts, who have more than one account.
- q) Display the branch codes and average account balance of those branches where the average account balance is greater than 60000.
- r) Find out the account_no that has greater balance than some accounts of type FD.
- s) Find out the account_no that has greater balance than all accounts of type FD.
- t) Display the details of the branch in which some loans are taken.
- u) Display the details of the loan for which no instalments are paid.
- v) Increase all accounts with balance over 80000 by 6%, and all other accounts receive 5%.

2. Write the expression for the following set of queries in Mongo DB, based on the set of schemas.

- a) Find out the Loan_nos where the loans are taken from any branch with branch_city =MUMBAI.
- b) Find the Type of the accounts available in any branch with branch_city =DELHI.
- c) Find out the Name and Ph_no of customers who have account balance more than 100000.

- d) Find out Installment_no and Installment amount of customer with Name= RAJ ANAND SINGH.
- e) Find out the Name of the customers who do not have account of Type=SB.
- f) Find out the Name of the customers who have paid installments of Amount 50000 against his/her loan.
- g) Find out the Ph_no of customers having account at branch with Branch_name equal to SALT LAKE.
- h) Find out the Branch_name and Branch_city where customer with Name=ABHIJIT MISHRA has his account.
- i) Find out the Types of account and the account Balance of customer with Name='SWAROOP RAY'
- j) Display the name and the number of accounts of the customers, who have more than one account.
- ✓) Find all the account_no with the maximum balance.
- ✓) Find all branch codes where the total balance is greater than the average of the total balance at all departments.