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Enrollment No – BT21GCS161

Dimensional and NoSQL Databases

Assignment 06(I)

Question –

DDBMS (Distribution Database Management System)

Create a schema for banking System for Horizontal Fragmentation

Horizontal Fragmentation

- Horizontal fragmentation is typically used to distribute data across multiple nodes in a distributed database system
- Divides table by Rows

Table: Account Information

{Fragmented based on account types (e.g., savings, current, loans)}

Column Name	Data type	Description
Account Holder Name	<i>Varchar</i>	<i>full Name</i>
Phone No.	<i>Integer</i>	<i>Customer Phone number</i>
Account ID	<i>Integer</i>	<i>Unique Account Identifier (primary Key)</i>
Account Type	<i>Varchar</i>	<i>Type of account customer want</i>
Address	<i>Varchar</i>	<i>Permeant Address of the customer</i>
Balance	<i>Integer</i>	<i>Amount Balance</i>
Home Branch	<i>Varchar</i>	<i>Location of Branch</i>
Account Opening Date	<i>Date</i>	<i>Date of account created</i>

Fragmentation Criteria:

Fragment 1: Savings Account

Fragment 2: Current Account

Fragment 3: Pension Account

Fragment 4: Fixed Deposit Account

Fragment 5: Loan Account

Account Holder Name	AccountID	PhoneNo	Account Type	Address	Balance	Home Branch	Account Opening Date
Aryan	9960765259	8274252345	Saving Acc.	Kalyan	2000	Thane	19-Jan-2022
Raja	9246727582	8385637322	Saving Acc.	Kalyan	1500	Thane	22-Aug-2021
Soham	8374773932	9376458337	Current Acc.	Faridabad	2500	Faridabad	24-Feb-2019
Aniket	9214739275	8265820256	Saving Acc.	Mumbai	5000	Navi Mumbai	20-Jan-2019
Anil	9264813622	8932652347	Pension Acc.	Delhi	80000	Old Delhi	25-jan-2015
Arvind	9832568263	9982569823	Fixed Deposit Acc.	Gandhi Nagar	80000	Delhi	31-Jan-2019
Monit	9174914112	8273491323	Loan Acc.	Amritsar	5000	Amritsar	22-may-2022
Ranjeev	9275982232	7258256233	Current Acc.	Faridabad	1500	Faridabad	22-Dec-2018

Fragment 1: Savings Account

Account Holder Name	AccountID	PhoneNo	Account Type	Address	Balance	Home Branch	Account Opening Date
Aryan	9960765259	8274252345	Saving Acc.	Kalyan	2000	Thane	19-Jan-2022
Raja	9246727582	8385637322	Saving Acc.	Kalyan	1500	Thane	22-Aug-2021
Aniket	9214739275	8265820256	Saving Acc.	Mumbai	5000	Navi Mumbai	20-Jan-2019

Fragment 2: Current Account

Account Holder Name	AccountID	PhoneNo	Account Type	Address	Balance	Home Branch	Account Opening Date
Soham	8374773932	9376458337	Current Acc.	Faridabad	2500	Faridabad	24-Feb-2019
Ranjeev	9275982232	7258256233	Current Acc.	Faridabad	1500	Faridabad	22-Dec-2018

Fragment 3: Pension Account

Account Holder Name	AccountID	PhoneNo	Account Type	Address	Balance	Home Branch	Account Opening Date
Anil	9264813622	8932652347	Pension Acc.	Delhi	80000	Old Delhi	25-jan-2015

Fragment 4: Fixed Deposit Account

<i>Account Holder Name</i>	<i>AccountID</i>	<i>PhoneNo</i>	<i>Account Type</i>	<i>Address</i>	<i>Balance</i>	<i>Home Branch</i>	<i>Account Opening Date</i>
<i>Arvind</i>	<i>9832568263</i>	<i>9982569823</i>	<i>Fixed Deposit Acc.</i>	<i>Gandhi Nagar</i>	<i>80000</i>	<i>Delhi</i>	<i>31-Jan-2019</i>

Fragment 5: Loan Account

<i>Account Holder Name</i>	<i>AccountID</i>	<i>PhoneNo</i>	<i>Account Type</i>	<i>Address</i>	<i>Balance</i>	<i>Home Branch</i>	<i>Account Opening Date</i>
<i>Monit</i>	<i>9174914112</i>	<i>8273491323</i>	<i>Loan Acc.</i>	<i>Amritsar</i>	<i>5000</i>	<i>Amritsar</i>	<i>22-may-2022</i>