Introduction to Databases (CSE 3151)

**Assignment 4: Table creation using Database Constraints**

1. **Create the Tables for the following descriptions using the constraints as specified.**
2. Table Name - Customer

|  |  |
| --- | --- |
| **Column Name** | **Constraint Description** |
| CUST\_NO | - Primary key  - Must be 5 character long & start with letter ‘C’ |
| NAME | NOT NULL |
| PHONE\_NO |  |
| CITY | NOT NULL |

Ans-

1. Table Name - Account

|  |  |
| --- | --- |
| **Column Name** | **Constraint Description** |
| ACCOUNT\_NO | - Primary key  - Must be 5 character long & start with letter ‘A’ |
| TYPE | -Types - ‘SB’, ‘FD’, ‘CA’ |
| BALANCE | - Must be < 10000000 |
| BRANCH\_CODE | - Foreign Key, Refers Table Branch |

Ans-

1. Table Name - Depositor

|  |  |
| --- | --- |
| **Column Name** | **Constraint Description** |
| CUST\_NO | - Foreign Key, Refers Table Customer  - Primary Key |
| ACCOUNT\_NO | - Foreign Key, Refers Table Account  - Primary Key |

Ans-

1. Table Name - Loan

|  |  |
| --- | --- |
| **Column Name** | **Constraint Description** |
| LOAN\_NO | - Primary key  - Must be 5 character long & start with letter ‘L’ |
| CUST\_NO | - Foreign Key, Refers Table Customer |
| AMOUNT | - Must be > 1000 |
| BRANCH\_CODE | - Foreign Key, Refers Table Branch |

Ans-

1. Table Name - Branch

|  |  |
| --- | --- |
| **Column Name** | **Constraint Description** |
| BRANCH\_CODE | - Primary key |
| BRANCH\_NAME | - NOT NULL |
| BRANCH\_CITY | - Any Metro City of India - Delhi, Mumbai, Kolkata, Chennai |

Ans-

1. Table Name - Installment

|  |  |
| --- | --- |
| **Column Name** | **Constraint Description** |
| INST\_NO | - Primary key  -Must be <= 10 |
| LOAN\_NO | - Primary Key  - Foreign Key, Refers Table Loan |
| INST\_AMOUNT | - NOT NULL |

Ans-

**2. Insert the records to the tables as specified:**

a) Table Name - Customer

|  |  |  |  |
| --- | --- | --- | --- |
| ***CUSTOMER*** | | | |
| **CUST\_NO** | **NAME** | **PHONE\_NO** | **CITY** |
| 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 | 9937955212 | GURGAON |
| C0008 | PRANAV PRAVEEN | 9336652441 | PUNE |
| C0009 | STUTI MISRA | 7870266534 | DELHI |
| C0010 | ASLESHA TIWARI |  | MUMBAI |

Ans-

b) Table Name - Account

|  |  |  |  |
| --- | --- | --- | --- |
| ***ACCOUNT*** | | | |
| **ACCOUNT\_NO** | **TYPE** | **BALANCE** | **BRANCH\_CODE** |
| 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 |

Ans-

c) Table Name - Depositor

|  |  |
| --- | --- |
| ***DEPOSITOR*** | |
| ***CUST\_NO*** | **ACCOUNT\_NO** |
| C0003 | A0001 |
| C0004 | A0001 |
| C0004 | A0002 |
| C0006 | A0003 |
| C0006 | A0004 |
| C0001 | A0005 |
| C0002 | A0005 |
| C0010 | A0006 |
| C0009 | A0007 |
| C0008 | A0008 |
| C0007 | A0009 |
| C0006 | A0010 |

Ans-

d) Table Name - Loan

|  |  |  |  |
| --- | --- | --- | --- |
| ***LOAN*** | | | |
| **LOAN\_NO** | **CUST\_NO** | **AMOUNT** | **BRANCH\_CODE** |
| L0001 | C0005 | 3000000 | B006 |
| L0002 | C0001 | 50000 | B005 |
| L0003 | C0002 | 8000000 | B004 |
| L0004 | C0010 | 100000 | B004 |
| L0005 | C0009 | 9500000 | B005 |
| L0006 | C0008 | 25000 | B006 |

Ans-

e) Table Name - Branch

|  |  |  |
| --- | --- | --- |
| ***BRANCH*** | | |
| **BRANCH\_CODE** | **BRANCH\_NAME** | **BRANCH\_CITY** |
| B001 | JANAKPURI BRANCH | DELHI |
| B002 | CHANDNICHOWK BRANCH | DELHI |
| B003 | JUHU BRANCH | MUMBAI |
| B004 | ANDHERI BRANCH | MUMBAI |
| B005 | SALTLAKE BRANCH | KOLKATA |
| B006 | SRIRAMPURAM BRANCH | CHENNAI |

Ans-

1. Table Name - Installment

|  |  |  |
| --- | --- | --- |
| ***INSTALLMENT*** | | |
| **INST\_NO** | **LOAN\_NO** | **INST\_AMOUNT** |
| 1 | L0005 | 500000 |
| 1 | L0002 | 10000 |
| 1 | L0003 | 50000 |
| 1 | L0004 | 20000 |
| 2 | L0005 | 500000 |
| 1 | L0005 | 500000 |
| 1 | L0006 | 3000 |
| 2 | L0002 | 10000 |
| 3 | L0002 | 10000 |
| 2 | L0003 | 50000 |
| 2 | L0004 | 20000 |

Ans-