Q1 : Write a Pseudo code for verify if number entered is prime number.

Declare Number as n

Counter = 2 to N

Enter number as N

For C = 2

If N Mod C = 0

Display Num is not prime

Else

Display Num is prime

Q2 : Write a Pseudo code for transferring amount from one account to another. [Should validate whether both accounts exists

Begin

Prompt & get status of account 1

Prompt & get status of account 2

Check if “Account 1 is active”

Check if “Account 2 is active”

If Account 1 = active then

Display Account is active

Else

Display account inactive

If Account 2 = active then

Display Account is active

Else

Display account inactive

Declare Account 1 as n

If Account 2 = 0+n then

Display “ Transaction successful”

Else

Display “ Transaction unsuccessful “

End if

---------------------------------------------------------------------------------------------------------------------

RDBMS

Q1. Write SQL Query to create following tables [DO NOT CREATE PRIMARY / FOREIGN KEYS ]

**Ans** CREATE TABLE Customer(

CustomerID NUMBER(8),

FullName VARCHAR(30) NOT NULL,

Address VARCHAR(40) NOT NULL,

City varchar(10) Not Null,

PANNumber varchar(10) Not Null)

CREATE TABLE Account(

AccountNo NUMBER(12),

AccType VARCHAR(30) NOT NULL,

Balance VARCHAR(15) NOT NULL,

CustomerID Number(8) Not Null);

Q2. Write SQL to insert following records in Customer & Account tables:

Ans - Insert into Customer (CustomerID, FullName, Address, City, PANNumber)

Values ('C1002', 'Rajiv Bhatia', 'Xyz Path, Chandni chowk', 'Delhi', 'AXNSS1234A');

Insert into Customer (CustomerID, FullName, Address, City, PANNumber)

Values ('C1003', 'Alia Bhatt', 'Khar', 'Mumbai', 'SZAXS5656B');

Insert into Customer (CustomerID, FullName, Address, City, PANNumber)

Values ('C1004', 'Vijay Deol', 'Bandra', 'Mumbai', 'APOI5675A');

Insert into Customer (CustomerID, FullName, Address, City, PANNumber)

Values ('C1005', 'Ajay Deol', 'Bandra', 'Mumbai', 'AUIO7676K');

Insert into Account (AccountNo, AccType, Balance, CustomerID)

values ('SB122666', 'Savings', '67000', 'C1002');

Insert into Account (AccountNo, AccType, Balance, CustomerID)

values ('CB565556', 'Current', '786928.98', 'C1002');

Insert into Account (AccountNo, AccType, Balance, CustomerID)

values ('SB876565', 'Savings', '547899.90', 'C1004');

Insert into Account (AccountNo, AccType, Balance, CustomerID)

values ('SB565722', 'Savings', '67600', 'C1003');

Insert into Account (AccountNo, AccType, Balance, CustomerID)

values ('SB757676', 'Savings', '66197.88', 'C1003');

Insert into Account (AccountNo, AccType, Balance, CustomerID)

values ('SB166778', 'Current', '16000', 'C1008');

Q3. Write a Left Join to get all customers and accounts. Join should display all customers [Even those who DO NOT have any account].

Ans-

select \* from customer left join account using (CUSTOMERID)

|  |
| --- |
| Account |
| AccountNo  AccType  Balance  CustomerID |
|  |

UML : For RDBMS Question #1, Create Class Diagram for Both tables.

|  |
| --- |
| Customer |
| Customer ID  Fullname  Address  City  PAN number |
|  |

Q2. Create an Activity Diagram to explain fund transfer

Transfer completed, balance updated

Updating amount

Fund transfer initiated

Insufficient balance

Sufficient balance for transfer

Yes

No

Successful login in both accounts

Check for acc bal in Account1

Yes

No

Login in Account 1 and Account 2

Account does not exist

Check login successful