Sinhgad Institutes

DEPARTMENT OF INFORMATION TECHNOLOGY

RMD SINHGAD SCHOOL OF ENGINEERING

WARJE, PUNE-411058

CERTIFICATE

This is to certify that the Mini-Project Report entitled

BANK MANAGEMENT SYSTEM

Submitted by

Name	Roll No
1) DHRUTI KAMAT	31
2) ASHUTOSH MAHADIK	40
3) PRATHAMESH APSINGEKAR	59
4) DEVIKA SAWANT	70

is a bonafide work carried out by him/her under the supervision of Prof. Jaitee Bankar and it is submitted towards the partial fulfillment of the requirement for S.E (Information Technology) – 2019 course of Savitribai Phule Pune University, Pune in the academic year 2022-2023.

Ms. Kalyani Sonawane	**Prof. Saurabh Parhad**	**Dr. V.V. Dixit**
Guide,	Head,	Principal,
Department of IT	Department of IT	

Place : Pune
Date :

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Date :

ACKNOWLEDGEMENT

We are grateful to Prof. Jaitee Bankar whose guidance, inspiration and constructive suggestions throughout the mini project has resulted in a successful completion of this mini project. Without their willing disposition, cooperation this mini project could not have been completed in due time.

We are also thankful to all the faculty members of the Information Technology department for their cooperation and support in their own way.

Date:……..

Name:

Dhruti Kamat (31)

Ashutosh Mahadik (40)

Prathamesh Apsingekar (59)

Devika Sawant (70)

SE IT - 4th semester

CONTENTS

Chapter 1

ABSTRACT

Bank management system can be consider as a most important thing in economic world.in the present scenario the banking sector is the common need in everyday life. In day to day life we face the problems and then we realize something is not done in this sector like we want to change the location (branch) of our account then we need to fill the application and then some day waiting to complete bank process. In this process amount of time is more as well as here occur manual work which is increases man power. Also in current scenario aadhar card linking is must with bank account and it is possible through theATM but if in urgent we want to link aadhar it may be not possible there is no ATM are available in that case we provide this facility through the our project i.e. Bank management system.

Chapter 2

INTRODUCTION

2.1 INTRODUCTION:

The Banking Management System sector has seen some greatest expansion in the past year and with the number of customer interactions increasing the day it has totally all the records in the database.

When it comes to managing the money or valuable assets it automatically becomes a crucial matter for the service provider and the client as well for the trustworthiness. The banking management system is one of the most complex systems because the things it covered under the roof for transparency among the customers.

From managing the customer information, account information to the transaction happening everyminute or second. It does not only preserve the details of the transaction and other information but generatesthe report to further banking functions. In this banking management system, there are many operations thatare automated which ease the work for the working of the bank.

This reduces the requirement for manual labor and the automated tasks will be error-free as they will only work as they are programmed whereas doing work manually there is always a possibility of humanerror.

A bank is a financial institution which accepts deposits, pays interest on pre-defined rates, clears checks, makes loans, and often acts as an intermediary in financial transactions. It also provides other financial services to its customers.

Bank management governs various concerns associated with bank in order to maximize profits. The concerns broadly include liquidity management, asset management, liability management and capital management.

Problem Statement:

The bank management system is an application for maintaining a person's account in a bank to createan account, deposit/withdraw the cash from his account, also to view reports of all accounts present.

Motivation:

To develop a system that will overlook the activities going transaction the particular bank without manual processing. All transaction will be updated automatically by using the information stored in record.The main motive behind this project is to develop a system which will able to handle the overall tasks goinginside the institutions without much effort.

Objectives:

- To meet the challenges of the changing environment
- To improve customer service
- To introduce a new scheme
- To cope up with new technology for bank
- To modernize office equipment
- To train employees on a regular basis
- To improve work ethics
- To improve the overall health of the bank
- To improve organizational culture and value system
- To improve corporate social responsibility.
- To improve productivity through participative management
- To improve inspection and special audit
- To follow the instructions and stick to rules and guidelines

Scope of the Project:

The scope of the bank management project is to somewhere automate records on the system. It gives all sorts of functions which are required by the bank in order to run a stable system. In addition to that it also helps to manually check the records of the pre-existing system like transactions that are made in the past. The application also changes or manipulates the new data that is being added and is then re-recorded. One can also check their present transactions that are in process and keep a check ontheir accounts via this application. It's not only useful for the customers but also for the admin can easily change the passwords and pin numbers using the application.

Modules:

The entire project mainly consists of 7 modules, which are

- Branch (Bank)
- Customer
- Accounts
- Transactions
- Employees (Bank)

Branch (Bank):

- To manage those branches throughout the system we have this module it will keep themanageability of the branches and provide a unique identity to every branch.
- Every branch will have its unique identification number and a branch name.
- From this module, we can easily identify the branch location and the other information likeemployees working at that branch.
- For communication purposes, there will a permanent phone number and then there is a managerwho will manage the whole branch.
- All major decisions for the branch will be taken by the manager and the first point of contactperson for the head office will be a manager.

- The branch module will also help banks find out about their performance at a different location so they evaluate on this improve the customer service quality. There will always some kind of specialbenefit for the people of the home branch.

Customer:

- Individual Account holders
- Joint account holders
- Partnership firm holders
- Limited liability companies
- Clubs and Associations
- Trusts

Account:

- Savings Accounts
- Current Account
- Checking Accounts

Transactions:

Every time an account holder performs some activity on the account it will be updated through transactions this is like logs but only showing the required details. Any time a customer makes any changes in an account like pay or deposit it will be through transactions. This helps in keeping the track ofcash flow in the bank. Also, help in managing the correct information if there is some data loss to the bankside or if there is any query at the customer side.

Chapter 3

DATA TYPES

In MySQL data types include numeric, character string, bit string, Boolean and datetime. In numeric data type Integer and decimal values are include. means int and float.

- **Example of Int data types:**[1] Id in ACCOUNT table.
  - [2] balance in ACCOUNT table.
  - [3] Id in Branch table.
  - [4] Customer_id in CUSTOMERS table.
  - [5] mobile_no in CUSTOMERS table.
  - [6] ID in TRANSACTION table.
  - [7] Amount in TRANCASTION table.

- **Example of character string data type**: [1] Account_No in ACCOUNT table.
  - [2] Account_Type in ACCOUNT table.
  - [3] Name in ACCOUNT table.
  - [4] Gender in ACCOUNT table.
  - [5] Address in ACCOUNT table.
  - [6] Name in Branch table.
  - [7] Address in Branch table.
  - [8] Bcode in Branch table.
  - [9] fname in CUSTOMERS table.
  - [10] mname in CUSTOMERS table.

[11] lname in CUSTOMERS table.

[12] city in CUSTOMERS table.

[13] Account_Num in TRANSACTION table.

[14] Transaction_Type in TRANSACTION table.

- **Example of datetime datatype:** [1] DOB in ACCOUNT table.

[2] Date in TRANSACTION table.

Chapter 4

DATA REQUIREMENTS

Requirements Collection and Analysis:

The bank management system is an application for maintaining a person's account in a bank. The system provides the access to the customer to create an account, deposit/withdraw the cash from his account, also to view reports of all accounts present.

The following presentation provides the specification for the system:

Functional Requirements:

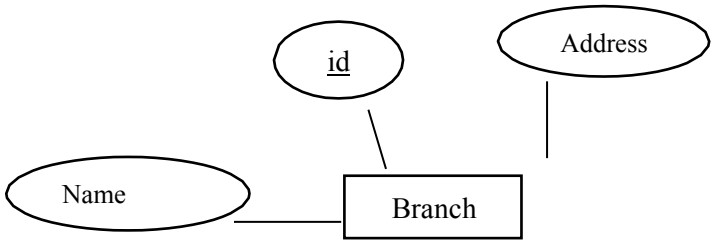
- User basic graphical tools such as shapes, objects, brushes, colour tools, eraser, etc.
- Should allow free hand drawing, object shapes such as circle, ellipse, rectangle, polygon.
- Should allow the usage of different colors in the form of brushes, shapes, curves.
- Manage the picture with tools such as pencil, airbrush clear all.

Non-Functional Requirements:

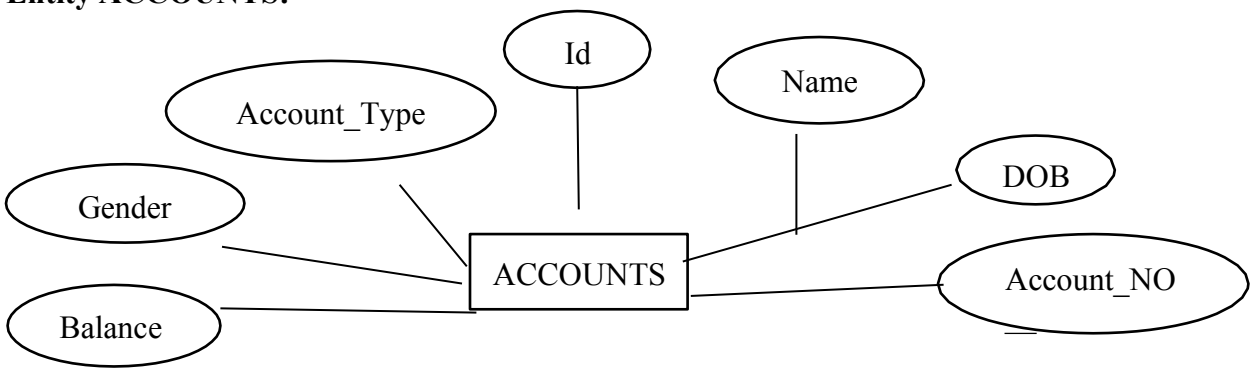
- Must provide the program in vivid colours and format.
- Should have adaptability to allow usage of single module at a time.
- Must enable faster processing of operations when a module is selected.

Entity Types, Entity Sets

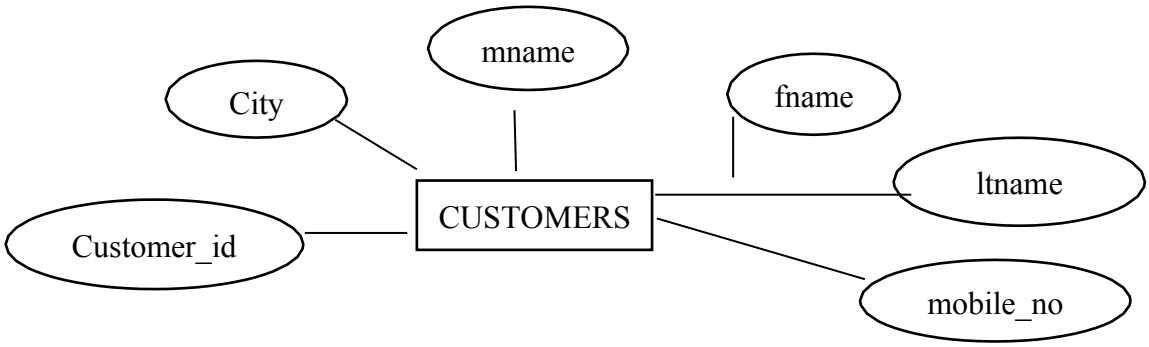
1] Entity Branch:



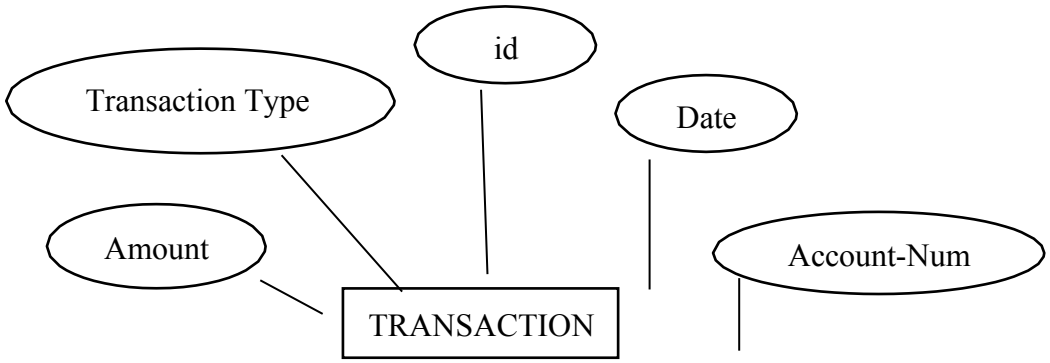
2] Entity ACCOUNTS:



3] Entity CUSTOMERS:



4] Entity TRANSACTION:



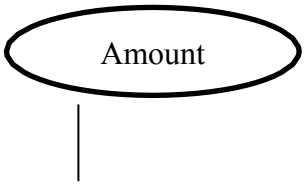
Attributes and Keys :

Mapping of Attributes

- **Simple Attributes**

Simple Attributes which can not be divided into subparts.

Example: Amount of Transaction



Transaction

- **Composite Attributes**

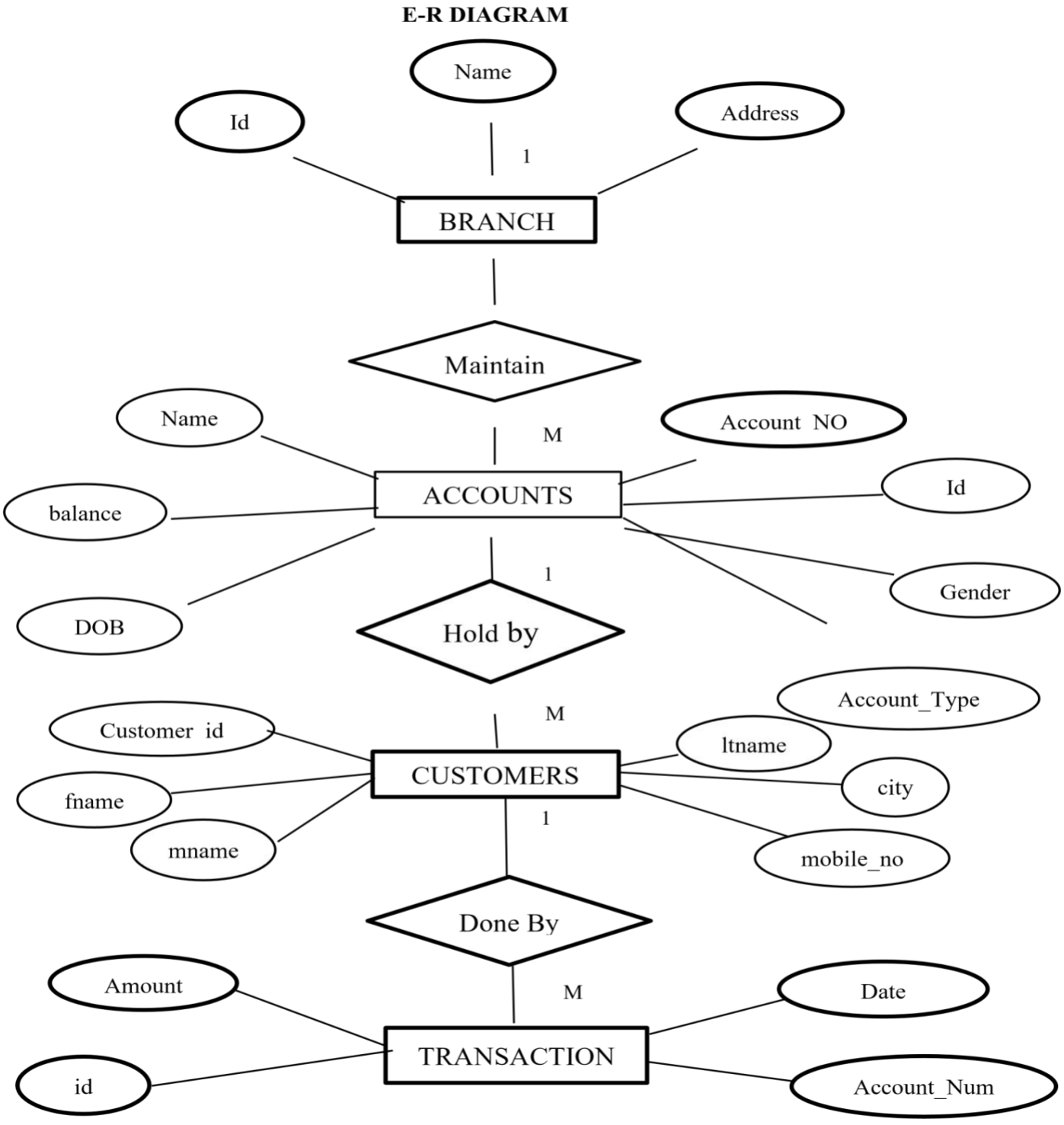
Composite Attributes which can be divided into subparts.

Example: Branch , Customer

Branch
Name
Id
Address

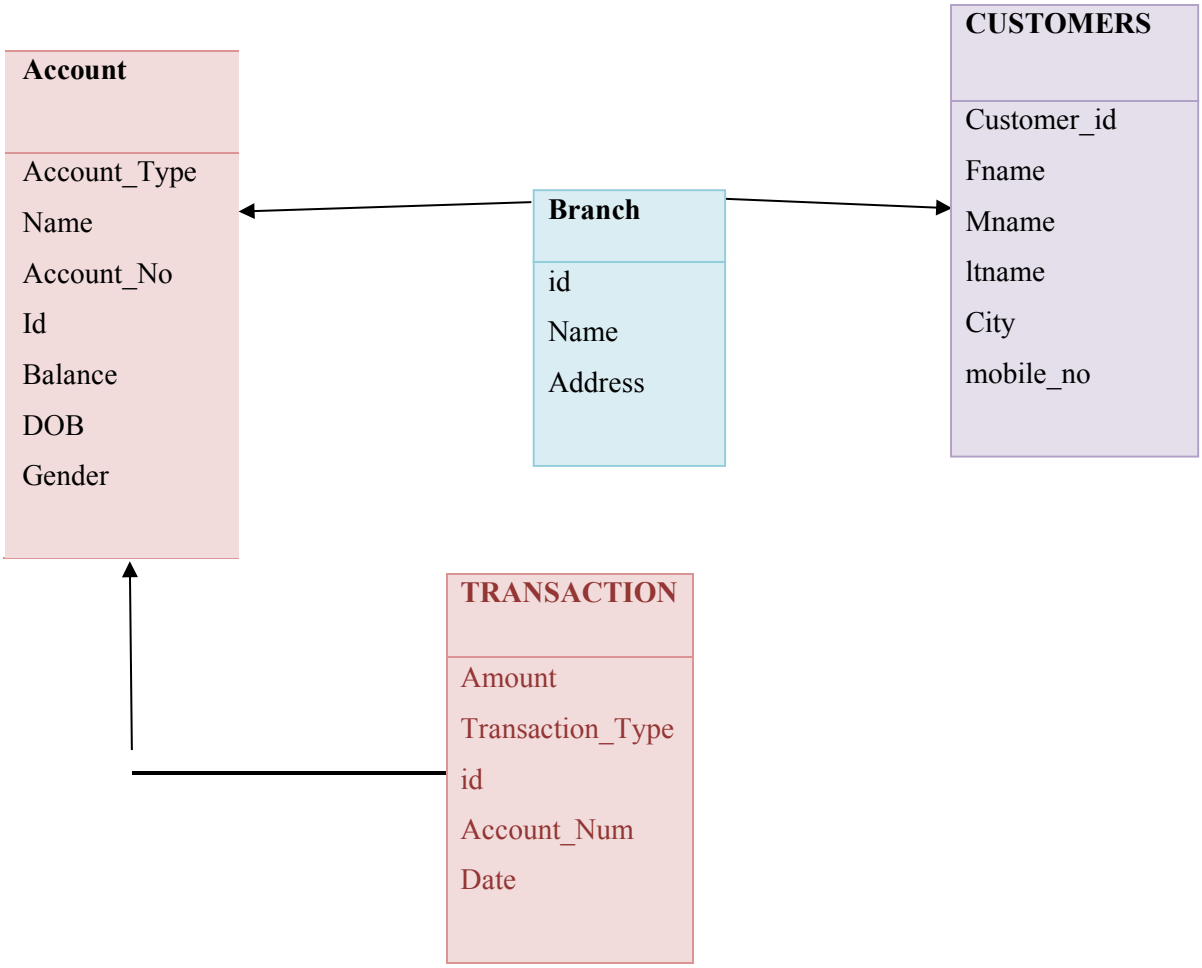
Customers
fname
Mname
ltname

Chapter 5
E-R DIAGRAM



Chapter 6

SCHEMA DIAGRAM



Chapter 7

RELATIONAL DATABASE DESIGN

Branch

Name	Id	Address

Account

Name	Gender	DOB	Account_Type	Account_NO	Balance	Id

CUSTOMERS

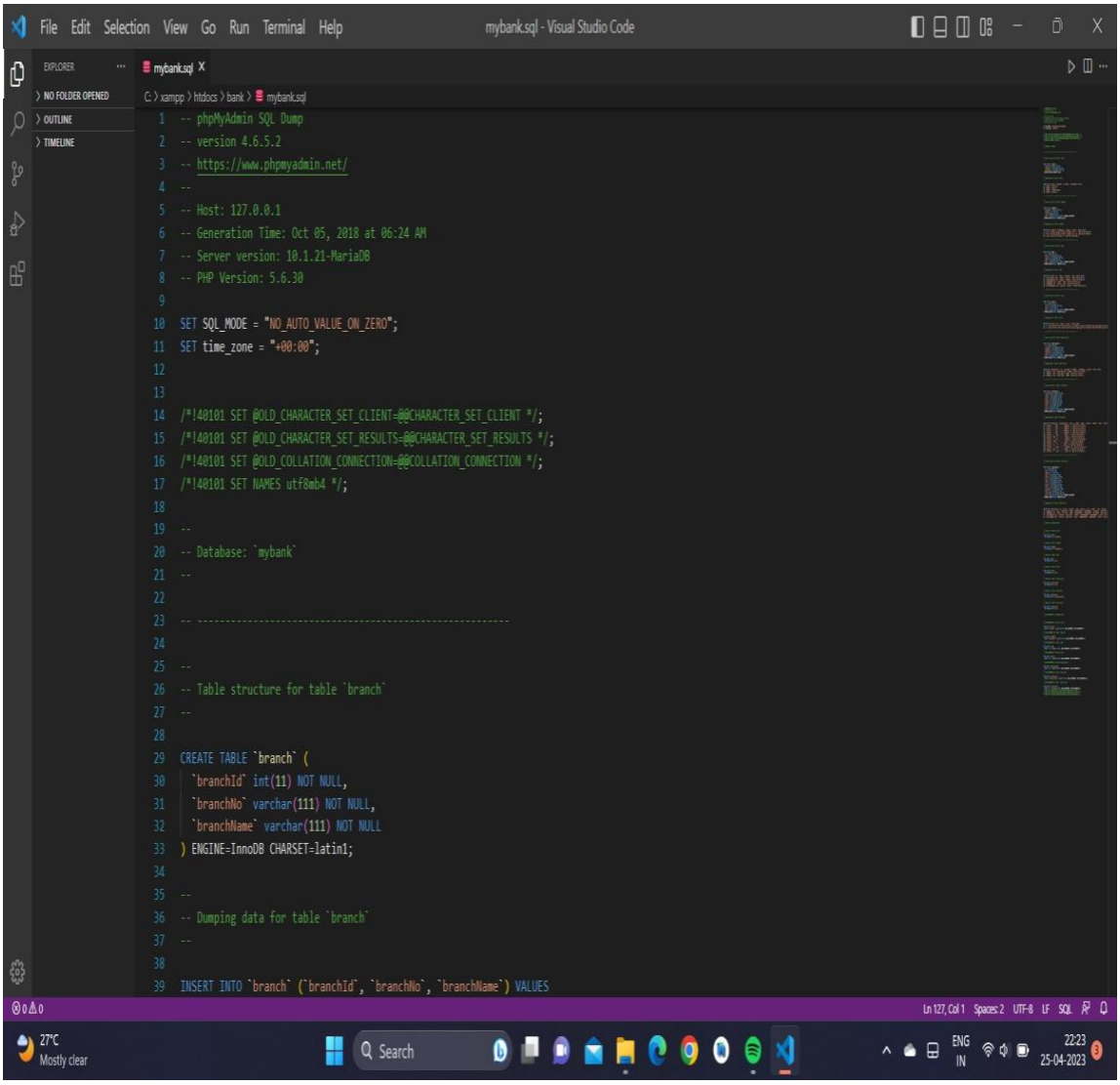
Fname	mname	ltname	city	mobile_no	Customer_id

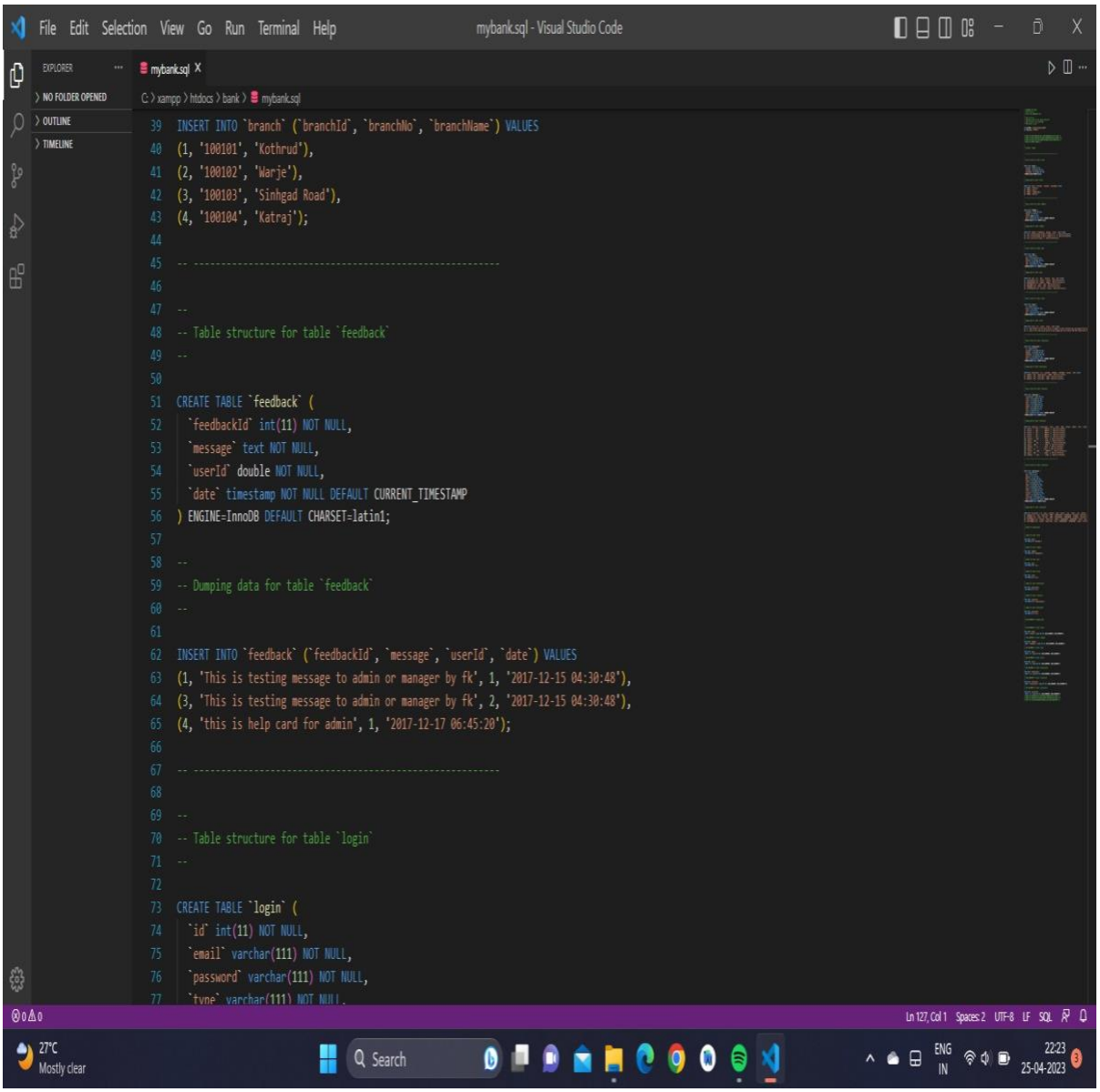
TRANSACTION

Id	Amount	Transaction_Type	Account_Num	Date

Chapter 8 & 9

CREATING DATABASE CODE USING MYSQL AND TEST QUERIES

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mybank.sql - Visual Studio Code
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INSERT INTO `branch` (`branchId`, `branchNo`, `branchName`) VALUES
(1, '100101', 'Kothrud'),
(2, '100102', 'Warje'),
(3, '100103', 'Sinhgad Road'),
(4, '100104', 'Katraj');
-- Table structure for table `feedback`
CREATE TABLE `feedback` (
`feedbackId` int(11) NOT NULL,
`message` text NOT NULL,
`userId` double NOT NULL,
`date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `feedback`
INSERT INTO `feedback` (`feedbackId`, `message`, `userId`, `date`) VALUES
(1, 'This is testing message to admin or manager by fk', 1, '2017-12-15 04:30:48'),
(3, 'This is testing message to admin or manager by fk', 2, '2017-12-15 04:30:48'),
(4, 'this is help card for admin', 1, '2017-12-17 06:45:20');
-- Table structure for table `login`
CREATE TABLE `login` (
`id` int(11) NOT NULL,
`email` varchar(111) NOT NULL,
`password` varchar(111) NOT NULL,
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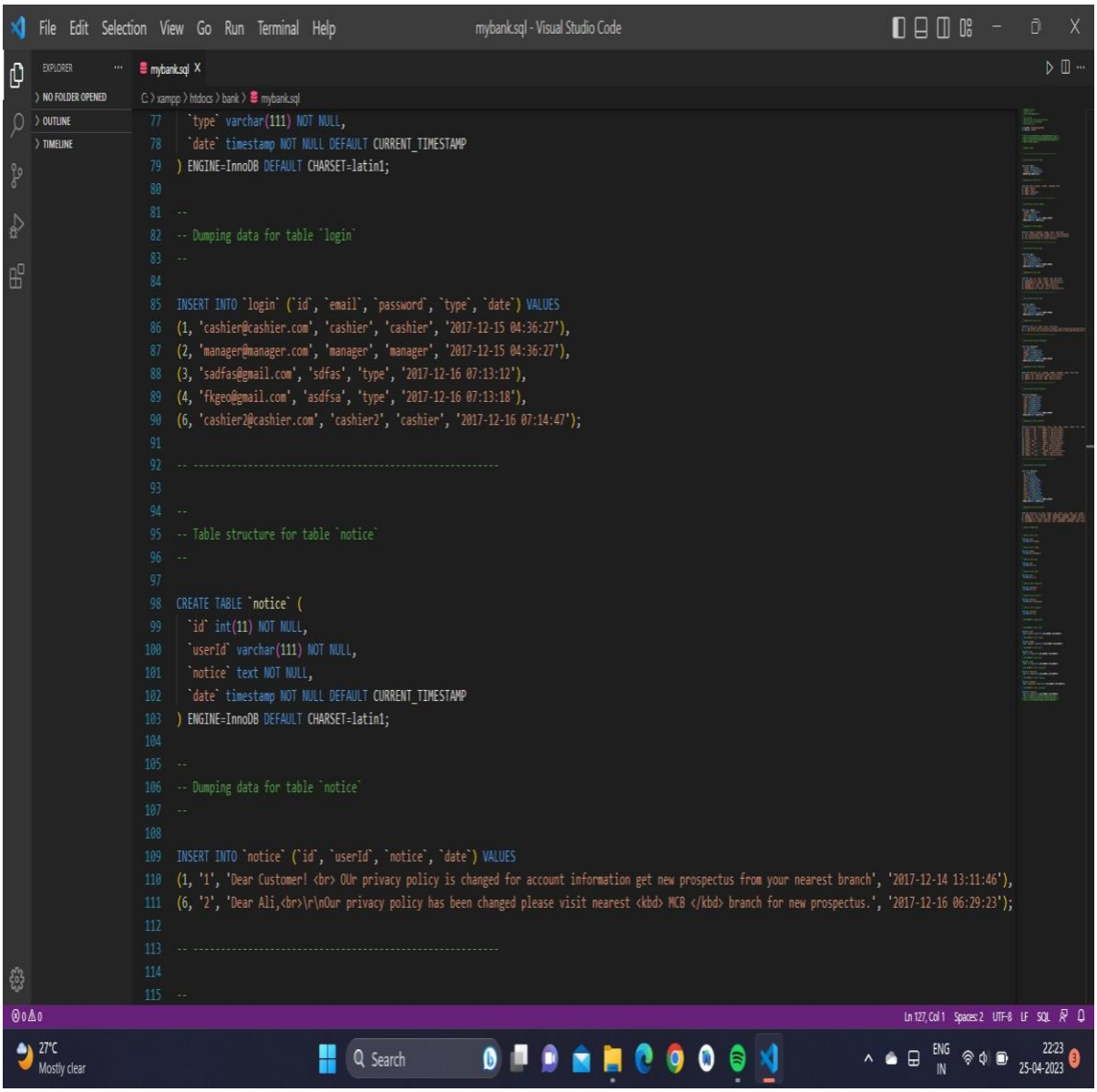
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`type` varchar(111) NOT NULL,
`date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
--
-- Dumping data for table `login`
--
INSERT INTO `login` (`id`, `email`, `password`, `type`, `date`) VALUES
(1, 'cashier@cashier.com', 'cashier', 'cashier', '2017-12-15 04:36:27'),
(2, 'manager@manager.com', 'manager', 'manager', '2017-12-15 04:36:27'),
(3, 'sadfas@gmail.com', 'sdfas', 'type', '2017-12-16 07:13:12'),
(4, 'fkgeo@gmail.com', 'asdfsa', 'type', '2017-12-16 07:13:18'),
(6, 'cashier2@cashier.com', 'cashier2', 'cashier', '2017-12-16 07:14:47');
-- --
--
-- Table structure for table `notice`
--
CREATE TABLE `notice` (
`id` int(11) NOT NULL,
`userId` varchar(111) NOT NULL,
`notice` text NOT NULL,
`date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
--
-- Dumping data for table `notice`
--
INSERT INTO `notice` (`id`, `userId`, `notice`, `date`) VALUES
(1, '1', 'Dear Customer!
 OUr privacy policy is changed for account information get new prospectus from your nearest branch', '2017-12-14 13:11:46'),
(6, '2', 'Dear Ali,
\r\nOur privacy policy has been changed please visit nearest <kbd> MCB </kbd> branch for new prospectus.', '2017-12-16 06:29:23');
-- --
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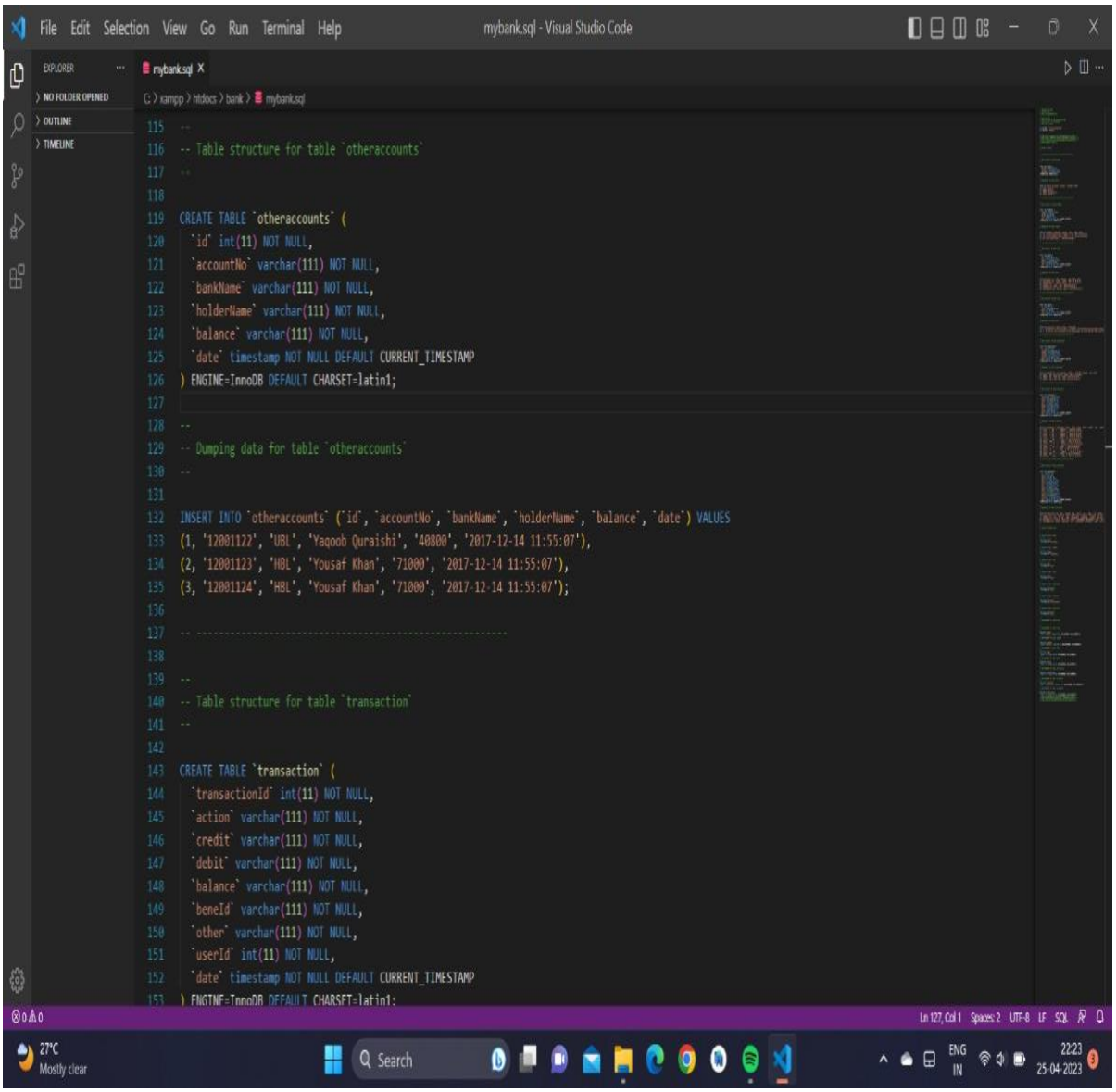
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-- Table structure for table `otheraccounts`
CREATE TABLE `otheraccounts` (
`id` int(11) NOT NULL,
`accountNo` varchar(111) NOT NULL,
`bankName` varchar(111) NOT NULL,
`holderName` varchar(111) NOT NULL,
`balance` varchar(111) NOT NULL,
`date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `otheraccounts`
INSERT INTO `otheraccounts` (`id`, `accountNo`, `bankName`, `holderName`, `balance`, `date`) VALUES
(1, '12001122', 'UBL', 'Yaqoob Quraishi', '40800', '2017-12-14 11:55:07'),
(2, '12001123', 'HBL', 'Yousaf Khan', '71000', '2017-12-14 11:55:07'),
(3, '12001124', 'HBL', 'Yousaf Khan', '71000', '2017-12-14 11:55:07');
-- Table structure for table `transaction`
CREATE TABLE `transaction` (
`transactionId` int(11) NOT NULL,
`action` varchar(111) NOT NULL,
`credit` varchar(111) NOT NULL,
`debit` varchar(111) NOT NULL,
`balance` varchar(111) NOT NULL,
`beneId` varchar(111) NOT NULL,
`other` varchar(111) NOT NULL,
`userId` int(11) NOT NULL,
`date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
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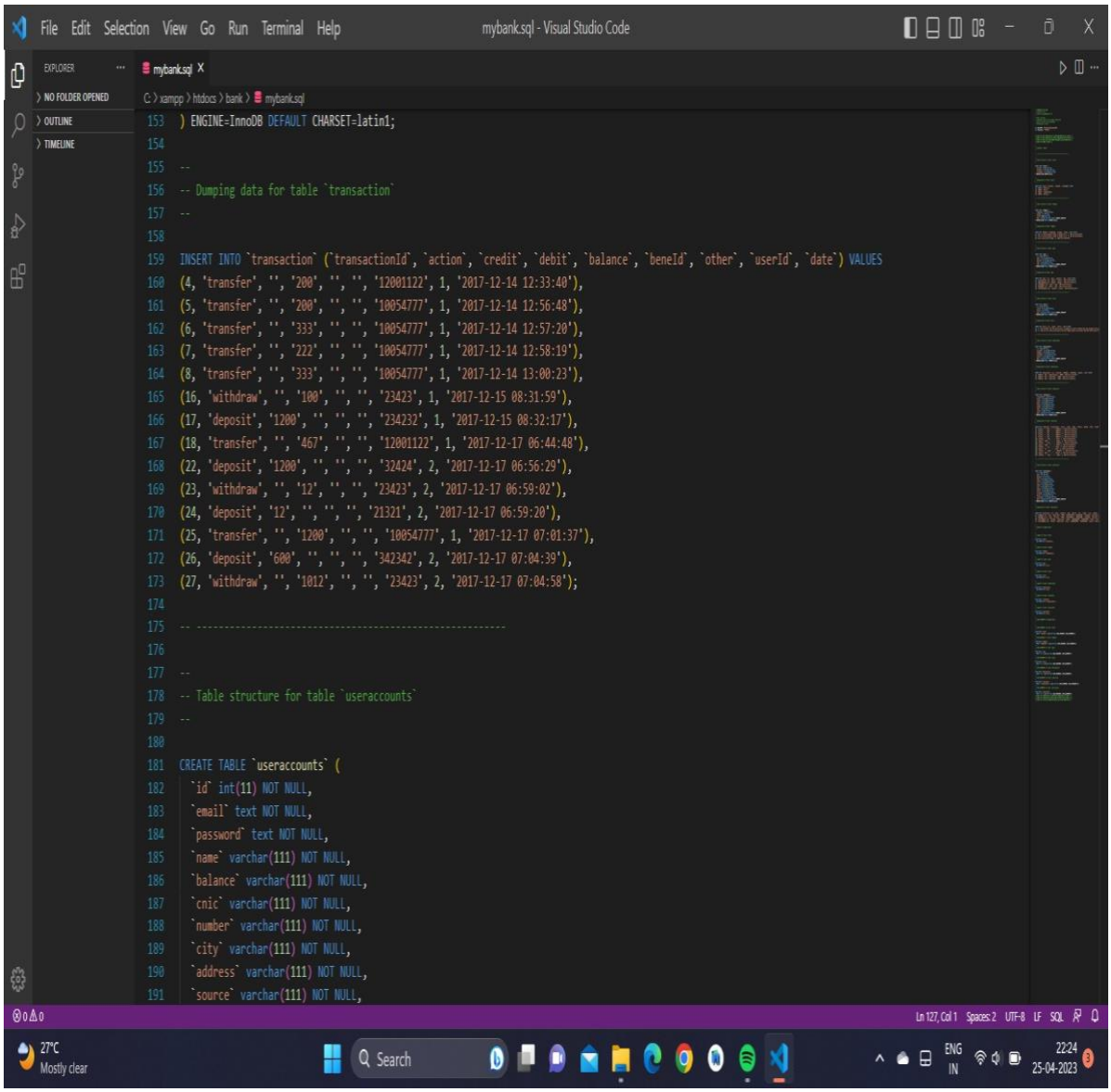
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) ENGINE=InnoDB DEFAULT CHARSET=latin1;
--
-- Dumping data for table `transaction`
--
INSERT INTO `transaction` (`transactionId`, `action`, `credit`, `debit`, `balance`, `beneId`, `other`, `userId`, `date`) VALUES
(4, 'transfer', '', '200', '', '', '12001122', 1, '2017-12-14 12:33:40'),
(5, 'transfer', '', '200', '', '', '10054777', 1, '2017-12-14 12:56:48'),
(6, 'transfer', '', '333', '', '', '10054777', 1, '2017-12-14 12:57:20'),
(7, 'transfer', '', '222', '', '', '10054777', 1, '2017-12-14 12:58:19'),
(8, 'transfer', '', '333', '', '', '10054777', 1, '2017-12-14 13:00:23'),
(16, 'withdraw', '', '100', '', '', '23423', 1, '2017-12-15 08:31:59'),
(17, 'deposit', '1200', '', '', '', '234232', 1, '2017-12-15 08:32:17'),
(18, 'transfer', '', '467', '', '', '12001122', 1, '2017-12-17 06:44:48'),
(22, 'deposit', '1200', '', '', '', '32424', 2, '2017-12-17 06:56:29'),
(23, 'withdraw', '', '12', '', '', '23423', 2, '2017-12-17 06:59:02'),
(24, 'deposit', '12', '', '', '', '21321', 2, '2017-12-17 06:59:20'),
(25, 'transfer', '', '1200', '', '', '10054777', 1, '2017-12-17 07:01:37'),
(26, 'deposit', '600', '', '', '', '342342', 2, '2017-12-17 07:04:39'),
(27, 'withdraw', '', '1012', '', '', '23423', 2, '2017-12-17 07:04:58');
--
-- Table structure for table `useraccounts`
--
CREATE TABLE `useraccounts` (
`id` int(11) NOT NULL,
`email` text NOT NULL,
`password` text NOT NULL,
`name` varchar(111) NOT NULL,
`balance` varchar(111) NOT NULL,
`cnic` varchar(111) NOT NULL,
`number` varchar(111) NOT NULL,
`city` varchar(111) NOT NULL,
`address` varchar(111) NOT NULL,
`source` varchar(111) NOT NULL,
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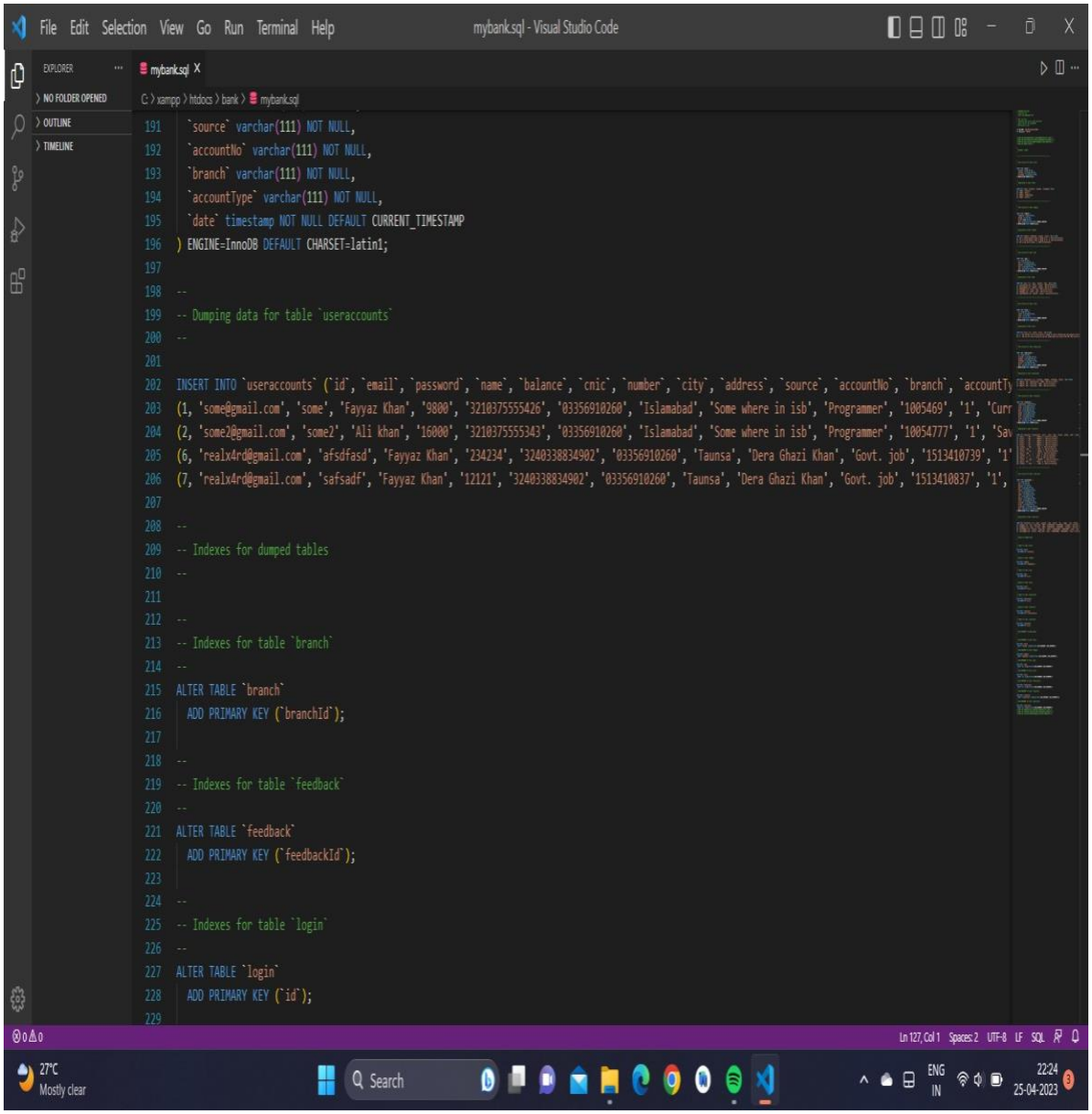
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mybank.sql - Visual Studio Code
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`source` varchar(111) NOT NULL,
`accountNo` varchar(111) NOT NULL,
`branch` varchar(111) NOT NULL,
`accountType` varchar(111) NOT NULL,
`date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `useraccounts`
INSERT INTO `useraccounts` (`id`, `email`, `password`, `name`, `balance`, `cnic`, `number`, `city`, `address`, `source`, `accountNo`, `branch`, `accountTy
(1, 'some@gmail.com', 'some', 'Fayyaz Khan', '9800', '3210375555426', '03356910260', 'Islamabad', 'Some where in isb', 'Programmer', '1005469', '1', 'Curr
(2, 'some2@gmail.com', 'some2', 'Ali khan', '16000', '3210375555343', '03356910260', 'Islamabad', 'Some where in isb', 'Programmer', '10054777', '1', 'Sav
(6, 'realx4rd@gmail.com', 'afsdfasd', 'Fayyaz Khan', '234234', '3240338834902', '03356910260', 'Taunsa', 'Dera Ghazi Khan', 'Govt. job', '1513410739', '1'
(7, 'realx4rd@gmail.com', 'safsadf', 'Fayyaz Khan', '12121', '3240338834902', '03356910260', 'Taunsa', 'Dera Ghazi Khan', 'Govt. job', '1513410837', '1',
-- Indexes for dumped tables
-- Indexes for table `branch`
ALTER TABLE `branch`
ADD PRIMARY KEY (`branchId`);
-- Indexes for table `feedback`
ALTER TABLE `feedback`
ADD PRIMARY KEY (`feedbackId`);
-- Indexes for table `login`
ALTER TABLE `login`
ADD PRIMARY KEY (`id`);
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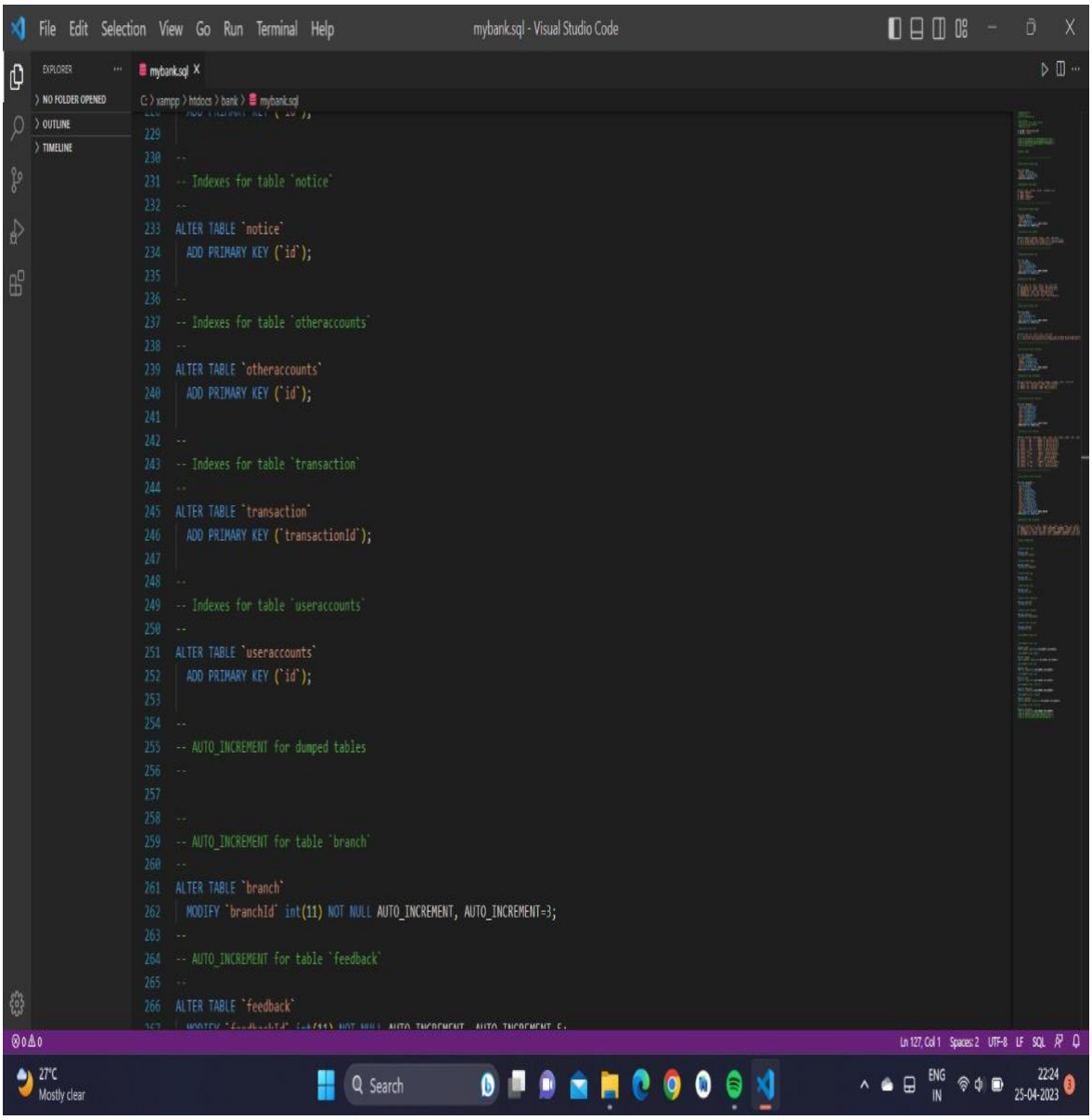
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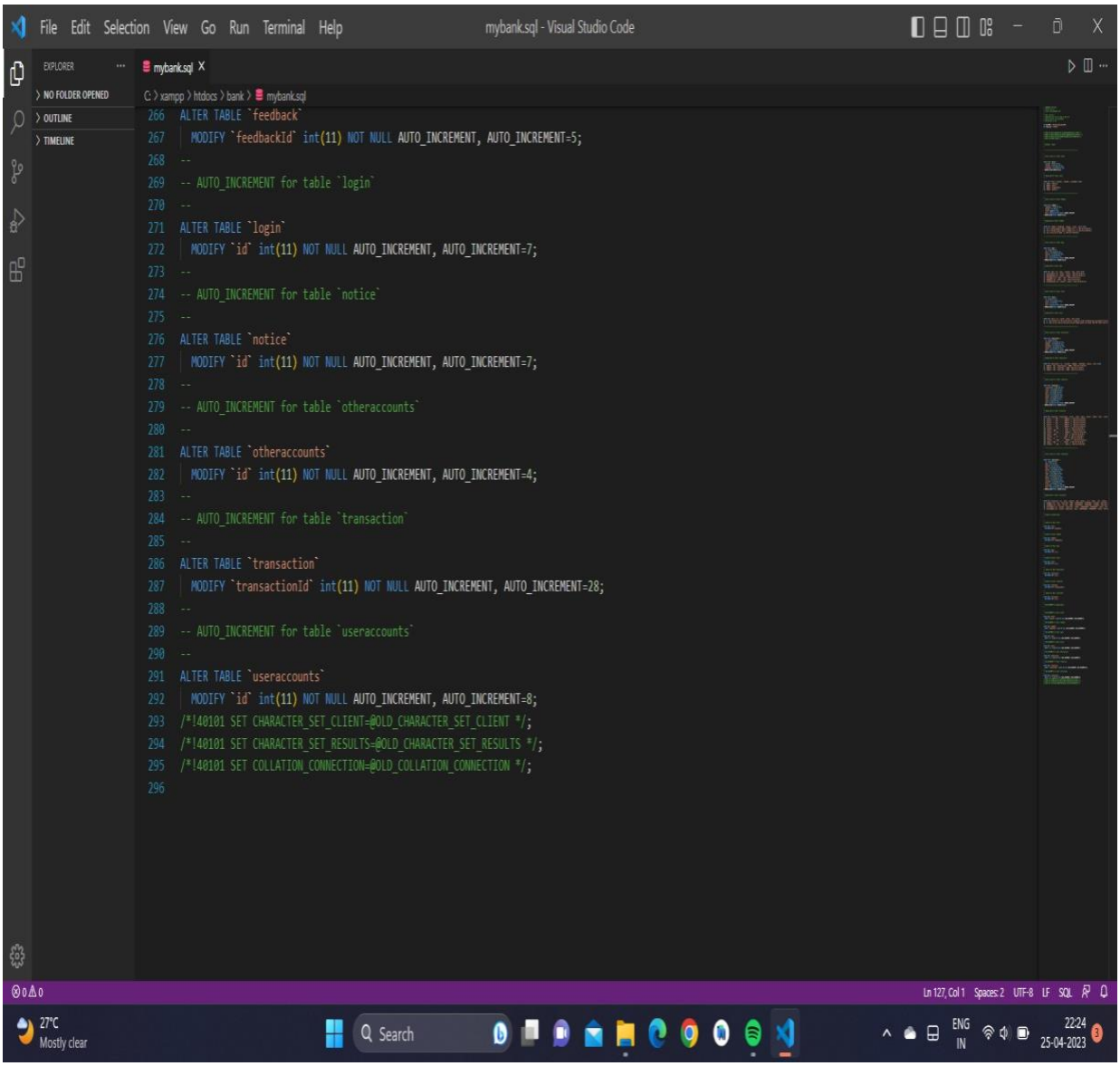
-- Indexes for table `notice`
ALTER TABLE `notice`
ADD PRIMARY KEY (`id`);
-- Indexes for table `otheraccounts`
ALTER TABLE `otheraccounts`
ADD PRIMARY KEY (`id`);
-- Indexes for table `transaction`
ALTER TABLE `transaction`
ADD PRIMARY KEY (`transactionId`);
-- Indexes for table `useraccounts`
ALTER TABLE `useraccounts`
ADD PRIMARY KEY (`id`);
-- AUTO_INCREMENT for dumped tables
-- AUTO_INCREMENT for table `branch`
ALTER TABLE `branch`
MODIFY `branchId` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=3;
-- AUTO_INCREMENT for table `feedback`
ALTER TABLE `feedback`
Ln 127, Col 1 Spaces: 2 UTF-8 LF SQL
27°C
Mostly clear
Search
ENG
IN
22:24
25-04-2023


File Edit Selection View Go Run Terminal Help
mybank.sql - Visual Studio Code
EXPLORER
mybank.sql X
NO FOLDER OPENED
OUTLINE
TIMELINE
C: > xampp > htdocs > bank > mybank.sql
ALTER TABLE `feedback`
MODIFY `feedbackId` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=5;
--
-- AUTO_INCREMENT for table `login`
--
ALTER TABLE `login`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=7;
--
-- AUTO_INCREMENT for table `notice`
--
ALTER TABLE `notice`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=7;
--
-- AUTO_INCREMENT for table `otheraccounts`
--
ALTER TABLE `otheraccounts`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=4;
--
-- AUTO_INCREMENT for table `transaction`
--
ALTER TABLE `transaction`
MODIFY `transactionId` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=28;
--
-- AUTO_INCREMENT for table `useraccounts`
--
ALTER TABLE `useraccounts`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=8;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
Ln 127, Col 1 Spaces: 2 UTF-8 LF SQL
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25-04-2023

Chapter 10

Conclusion

Bank management system is a virtualization of transactions in banking system. The banking system are used manual working but when we used online banking system it is totally virtualization process whichavoid manual process and converts it in automatic process . If user can make a transaction in bank management system it is available in any were also user can link aadhar with account, change branch location easily. Bank management system is saving the time with accuracy than bank manual system.

References:

[1] www.researchgate.net

[2] GeeksforGeeks.com

[3] Vertabelo Database Modeler

[4] itsourcecode.com

[5] iedunote.com

[6] 123projectlab.com

[7] Rab P., Coronel C. "Database Systems Design, Implementation and Management", 5th edition, Thomson Course Technology, 2002

[8] Elmasri R., Navathe S. " Fundamentals of Database Systems", 4th edition, Pearson Education, 2003

[9] Date C. " An Introduction to Database Systems", 7th edition, Pearson Education, 2002

[10] Ramkrishna R., Gehrke J. " Database Management Systems", 3rd edition, McGraw Hill