**DBMS LAB 2**

**PROGRAM 2: BANKING ENTERPRISE DATABASE**

Consider the following database for a banking enterprise.

BRANCH (branch-name#: string, branch-city: string, assets: real)

ACCOUNTS (accno: int, branch-name: string, balance: real)

DEPOSITOR (customer-name#: string, customer-street: string, customer-city: string)

LOAN (loan-number#: int, branch-name: string, amount: real)

BORROWER (customer-name: string, loan-number: int)

* 1. Create the above tables by properly specifying the primary keys and the foreign keys

**create table BRANCH**

**(**

**branch\_name varchar(60),**

**branch\_city varchar(60),**

**assets real,**

**primary key(branch\_name)**

**);**

**create table ACCOUNTS**

**(**

**accno int,**

**branch\_name varchar(60),**

**balance real,**

**primary key(accno,branch\_name),**

**foreign key(branch\_name) references BRANCH(branch\_name)on delete cascade on update cascade**

**);**

**create table DEPOSITOR**

**(**

**customer\_name varchar(60),**

**accno int,**

**primary key(customer\_name,accno),**

**foreign key(accno) references ACCOUNTS(accno)on delete cascade on update cascade**

**);**

**create table CUSTOMER**

**(**

**customer\_name varchar(60),**

**customer\_street varchar(60),**

**customer\_city varchar(60),**

**primary key(customer\_name),**

**foreign key(customer\_name) references DEPOSITOR(customer\_name)on delete cascade on update cascade**

**);**

**create table LOAN**

**(**

**loan\_number int,**

**branch\_name varchar(60),**

**amount real,**

**primary key(loan\_number,branch\_name),**

**foreign key(branch\_name) references BRANCH(branch\_name)**

**);**

**create table BORROWER**

**(**

**customer\_name varchar(60),**

**loan\_number int,**

**primary key(customer\_name,loan\_number),**

**foreign key(customer\_name) references DEPOSITOR(customer\_name) on delete cascade on update cascade,**

**foreign key(loan\_number) references LOAN(loan\_number) on delete cascade on update cascade**

**);**

* 1. Enter at least 5 tuples for each relation.

**insert into BRANCH values**

**('ICICI','DHARWAD',50000),**

**('SBI','BANGALORE',45000),**

**('SBI-BASVANGUDI','BANGALORE',37000),**

**('ALLAHABADH','HUBLI',15000),**

**('KARNATAKA-BANK','BELGAUM',90000);**

**insert into ACCOUNTS values**

**(12345,'ALLAHABADH',4000),**

**(67890,'SBI-BASVANGUDI',7500),**

**(34567,'KARNATAKA-BANK',9000),**

**(12389,'ICICI',5600),**

**(49389,'ICICI',1780),**

**(34567,'ICICI',5000);**

**insert into DEPOSITOR values**

**('KRISHNA',12345),**

**('RADHA',12389),**

**('BALRAM',34567),**

**('AKSHAY',49389),**

**('PALLAVI',67890),**

**('AKSHAY',34567);**

**insert into CUSTOMER values**

**('KRISHNA','NR COLONY','BANGALORE'),**

**('RADHA','BANSANKARI','BANGALORE'),**

**('BALRAM','VIDYANAGAR','DHARWAD'),**

**('AKSHAY','RAMNAGAR','HUBLI'),**

**('PALLAVI','RAMNAGAR','HUBLI');**

**insert into LOAN values**

**(1,'ALLAHABADH',56000),**

**(2,'ICICI',47890),**

**(3,'KARNATAKA-BANK',45000),**

**(4,'SBI',45000),**

**(5,'SBI',20000);**

**insert into BORROWER values**

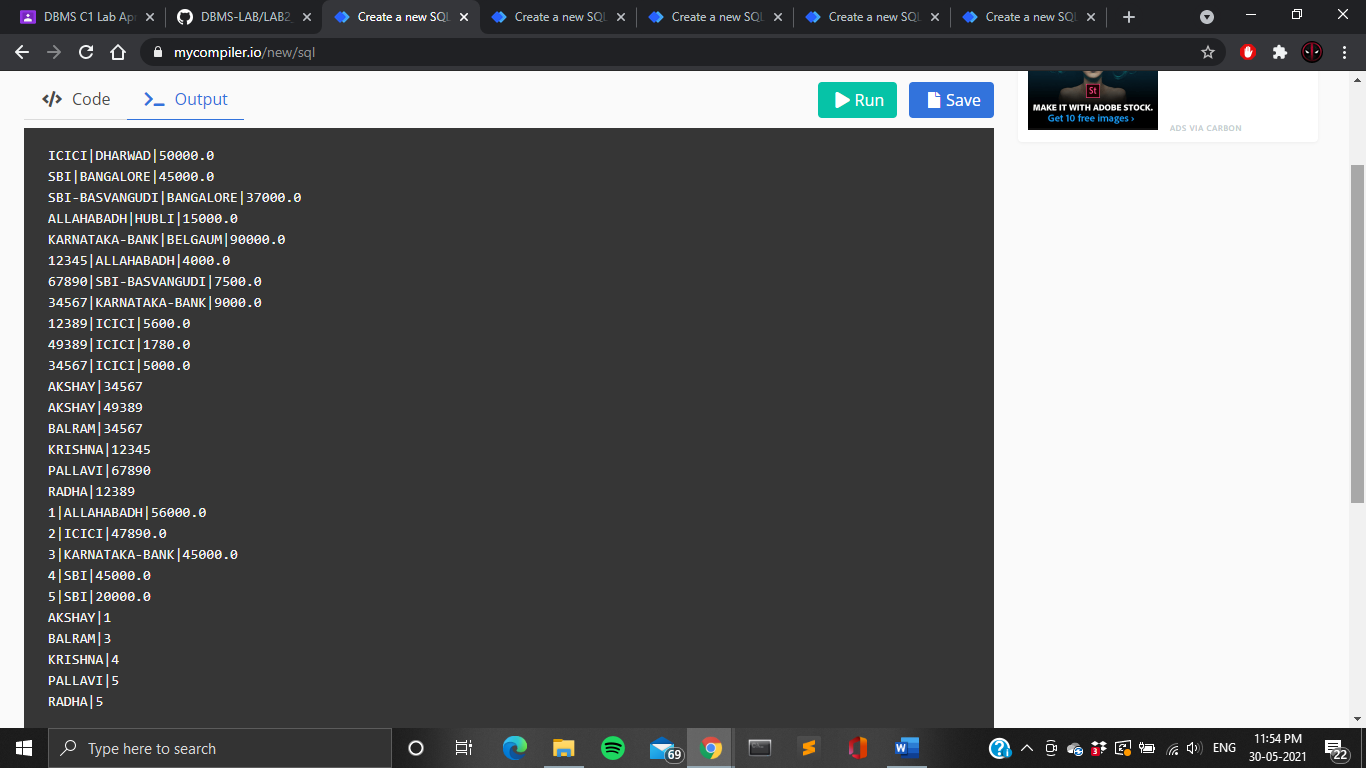
**('KRISHNA',4),**

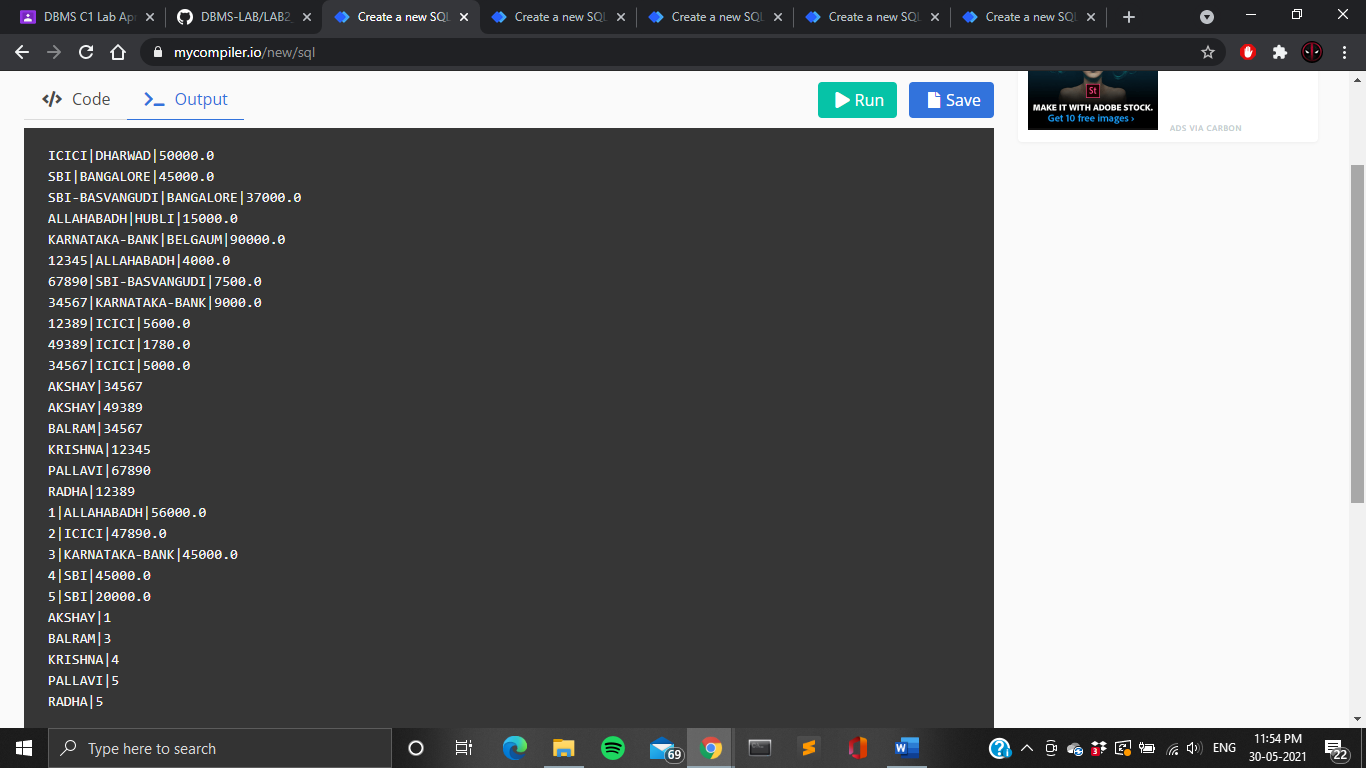
**('RADHA',5),**

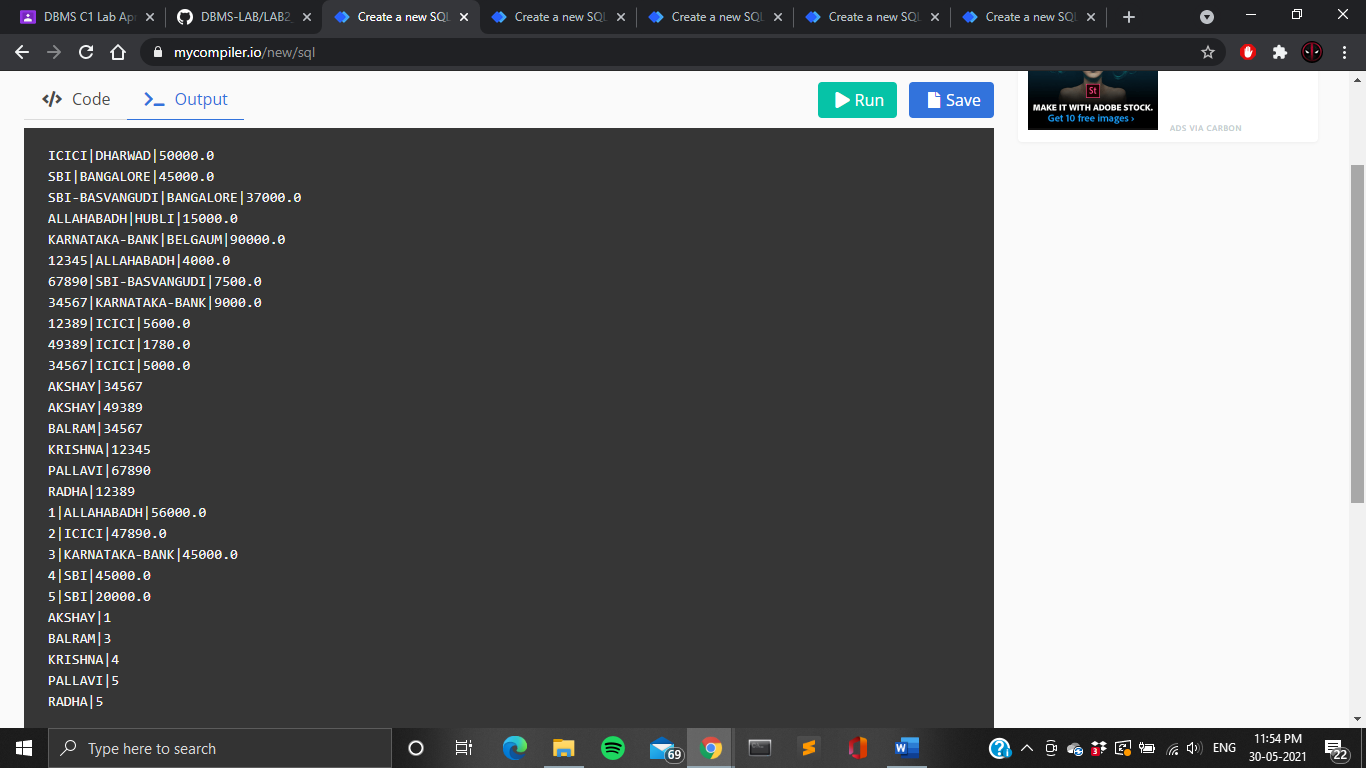
**('PALLAVI',5),**

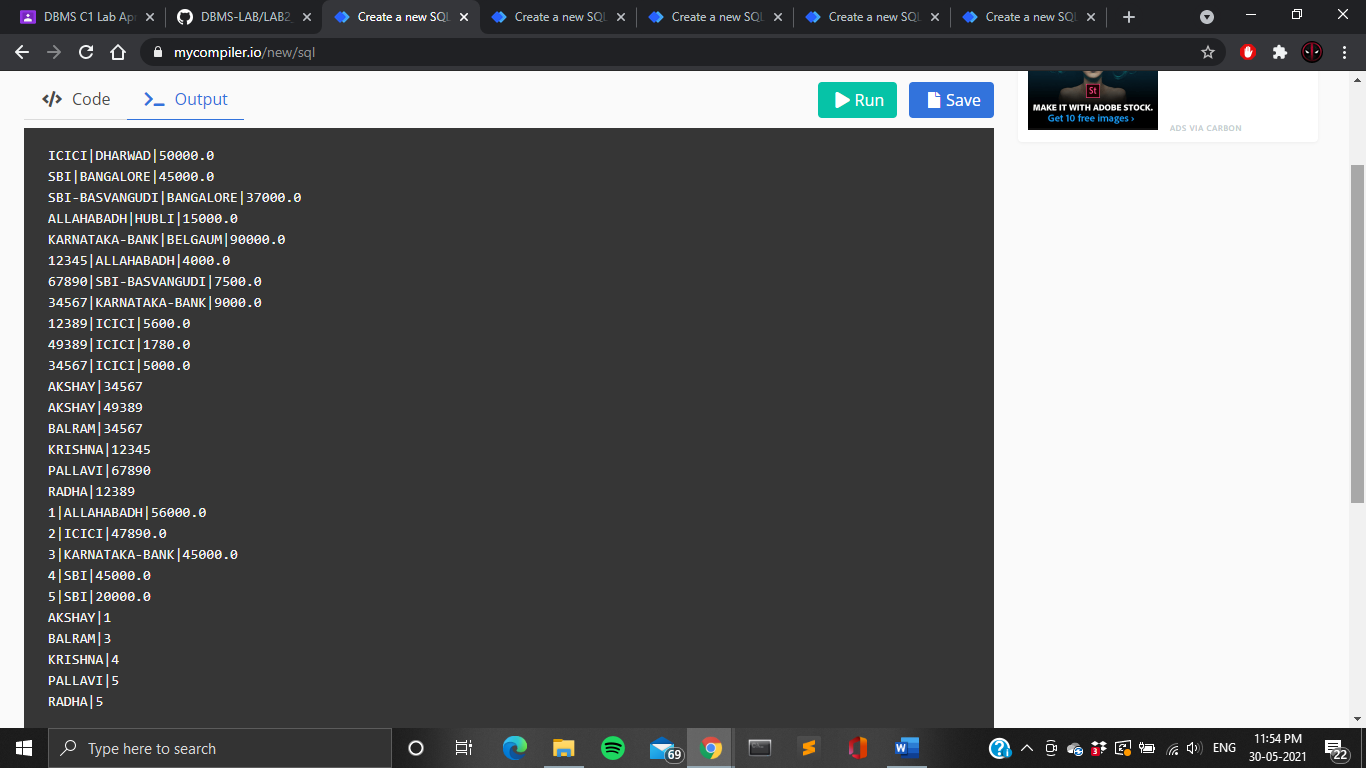
**('AKSHAY',1),**

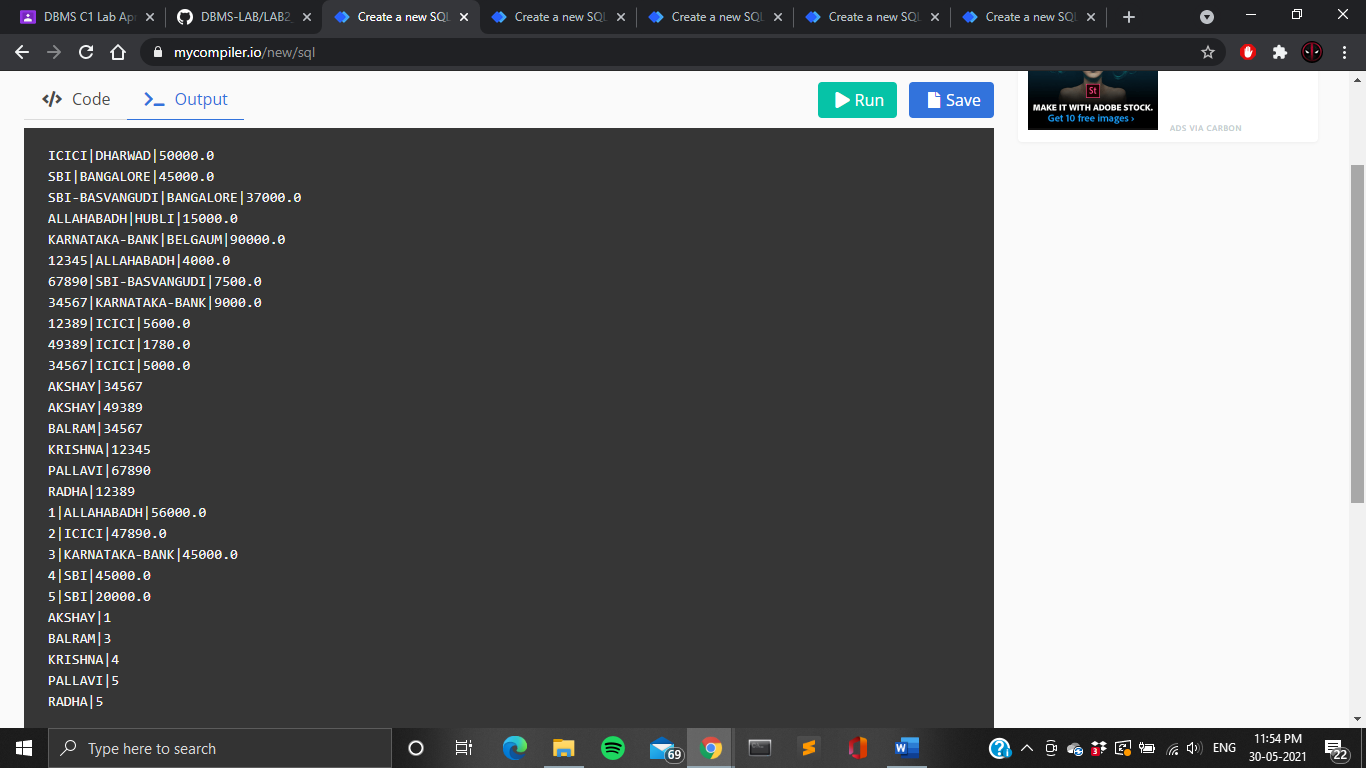
**('BALRAM',3);**





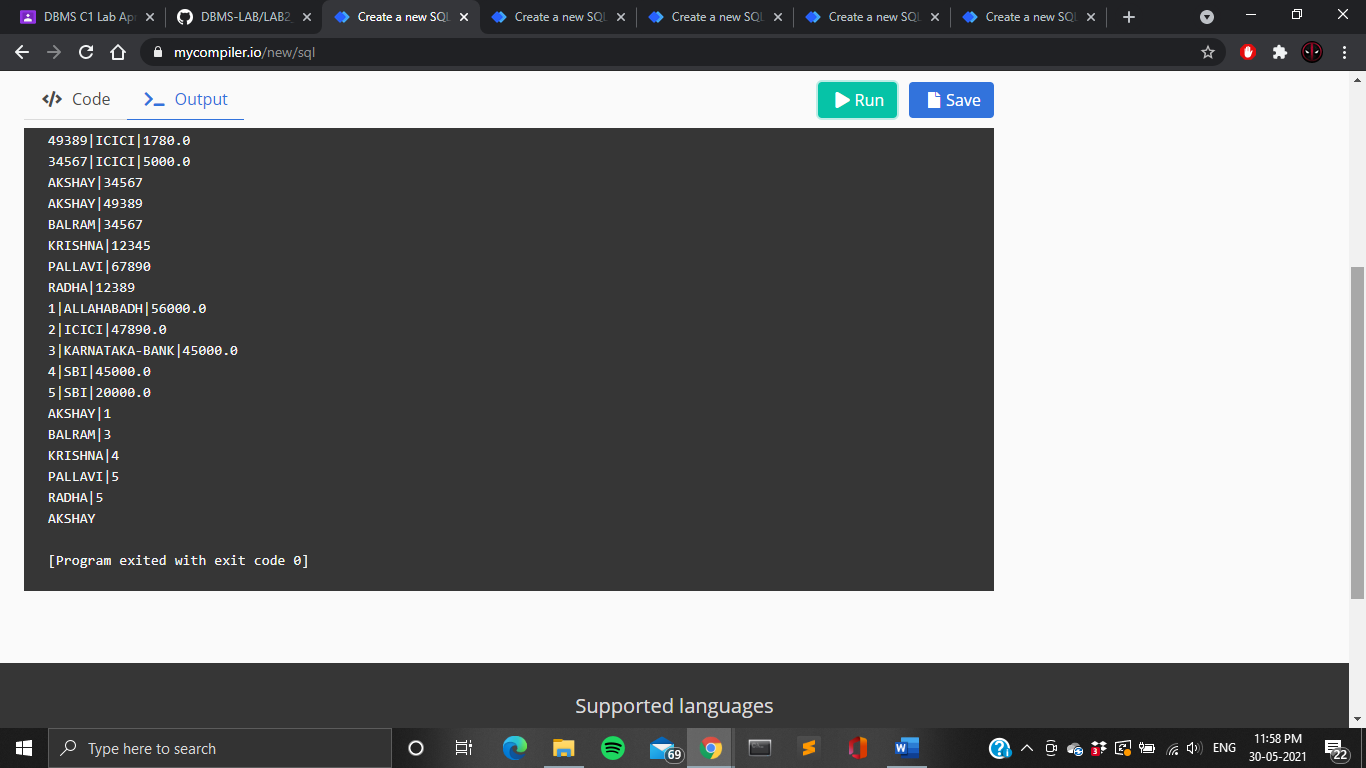






* 1. Find all the customers who have at least two accounts at the main branch.

**select customer\_name from DEPOSITOR join ACCOUNTS on DEPOSITOR.accno=ACCOUNTS.accno where ACCOUNTS.branch\_name='ICICI' group by DEPOSITOR.customer\_name having count(DEPOSITOR.customer\_name)>=2;**

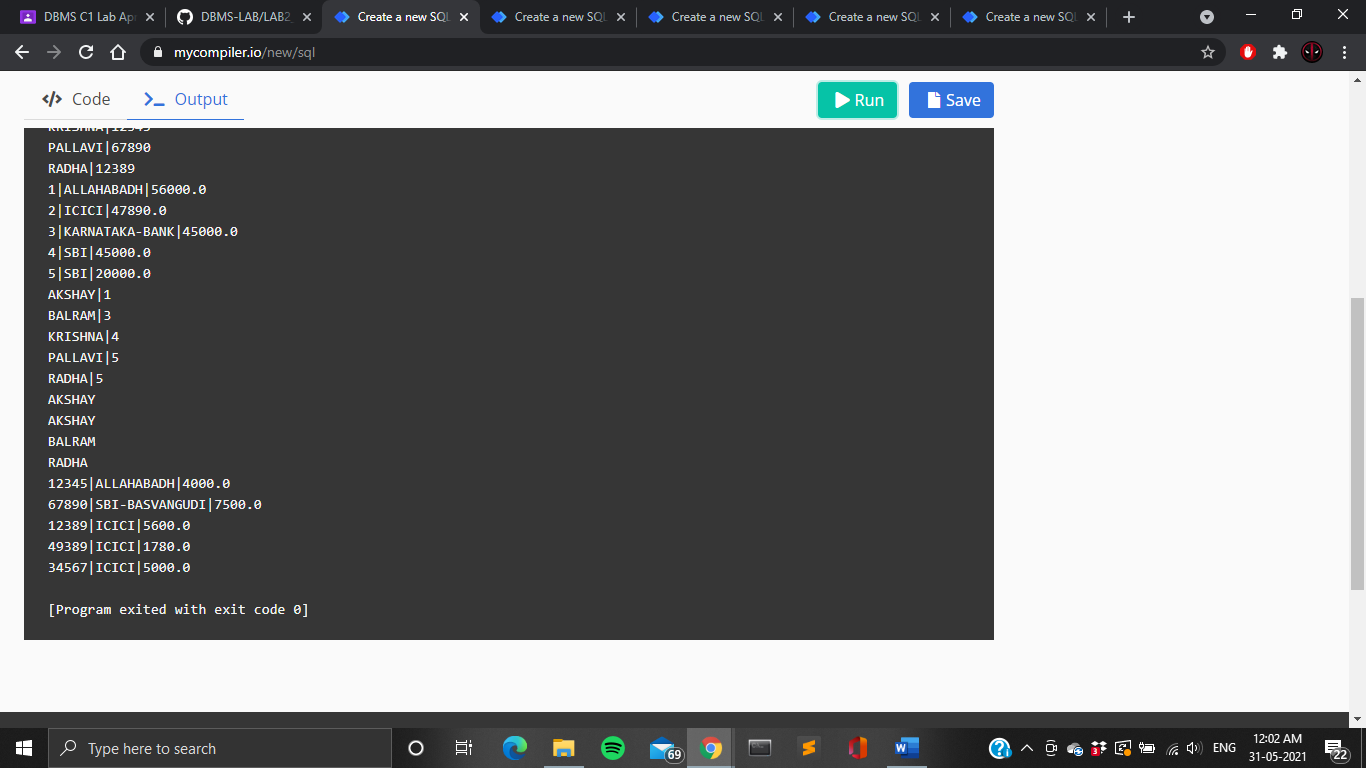


* 1. Find all the customers who have an account at all the branches located in a specific city.

**select customer\_name from DEPOSITOR join ACCOUNTS on ACCOUNTS.accno=DEPOSITOR.accno join BRANCH on**

**BRANCH.branch\_name=ACCOUNTS.branch\_name where BRANCH.branch\_city='DHARWAD' GROUP BY DEPOSITOR.customer\_name**

**having count(DISTINCT BRANCH.branch\_name)=(SELECT COUNT(branch\_name) FROM BRANCH where branch\_city='DHARWAD');**



* 1. Demonstrate how you delete all account tuples at every branch located in a specific city.

**DELETE FROM ACCOUNTS WHERE branch\_name in (select branch\_name from BRANCH where branch\_city='BELGAUM');**

