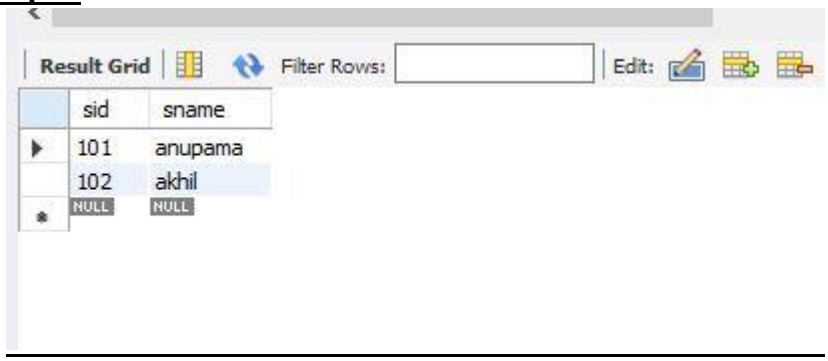
CO2 Lab Assignments
Procedures and Functions

1. **Aim:** Given an integer i, write a PL/SQL procedure to insert the tuple (i, 'xxx') into a given relation
   Hint: CREATE TABLE T2 (a INTEGER, b CHAR(10));

Script

```
use p1;
call insertto(101);
call insertto(102);
select * from student;

CREATE DEFINER=`root`@`localhost` PROCEDURE `insertto`(rollno int)

BEGIN
    declare
    name varchar(20);
    if(rollno=101)
        then set name='anupama';
        insert into student(sid,sname)values(rollno,name);
    end if;
    if(rollno=102)
        then set name='akhil';
        insert into student(sid,sname)values(rollno,name);
    end if;

END
```

Output

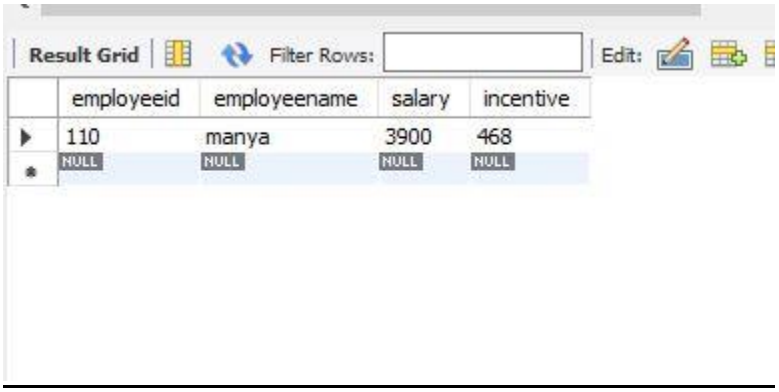


2. **Aim:** Write a PL/SQL block to calculate the incentive of an employee whose ID is 110

Script

```
USE employee;
select * from emp;
call ins (110,"manya",3900);

CREATE DEFINER=`root`@`localhost` PROCEDURE `inserts`(id int,name varchar(20),salary int)
BEGIN
    declare
    incent int;
    if(id=110)
    then set incent=salary*0.12;
    insert into emp(EMPLOYEEID,EMPLOYEENAME,SALARY,INCENTIVE)
    values(id,name,salary,incent);
    end if;

END
```

Output



3.**AIM:**Create the Book database and do the following: (Consider the attributes based on the question given)

book(book_name, author_name, price,quantity)

a. Write a query to update the quantity by double in the table book.
b. List all the book_name whose price is greater than those of book named "Database for Dummies"
c. Retrieve the list of author_name whose first letter is 'a' along with the book_name and price (Explore more about *Like* keyword)
d. Write a PL/SQL Procedure to find the total number of books of same author

Script

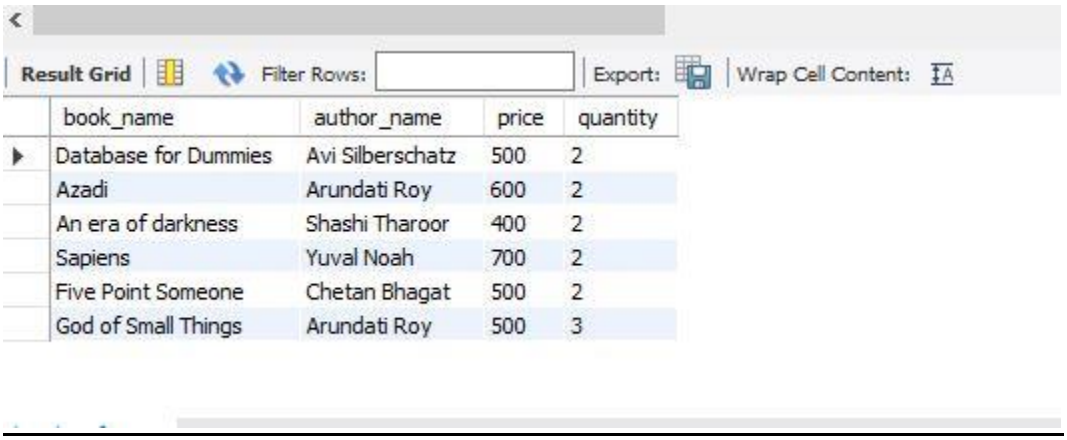
```
create database book;
use book;

create table book_info(book_name varchar(30),author_name varchar(30),price int,quantity int);

insert into book_info(book_name, author_name, price,quantity)
values('Database for Dummies','Avi Silberschatz',500,2);
insert into book_info(book_name, author_name, price,quantity)
values('Azadi','Arundati Roy',600,2);
insert into book_info(book_name, author_name, price,quantity)
values('An era of darkness','Shashi Tharoor',400,2);
insert into book_info(book_name, author_name, price,quantity)
values('Sapiens','Yuval Noah',700,2);
insert into book_info(book_name, author_name, price,quantity)
values('Five Point Someone','Chetan Bhagat',500,2);
insert into book_info(book_name, author_name, price,quantity)
values('God of Small Things','Arundati Roy',500,3);

select * from book_info;
```

a)
```
update book_info set quantity = 2* quantity where quantity>0;
```

b)
```
select book_name from book_info where price>(
select price from book_info where book_name="Database for Dummies");
```

c)
```
select author_name from book_info where author_name like "a%";
```

Output

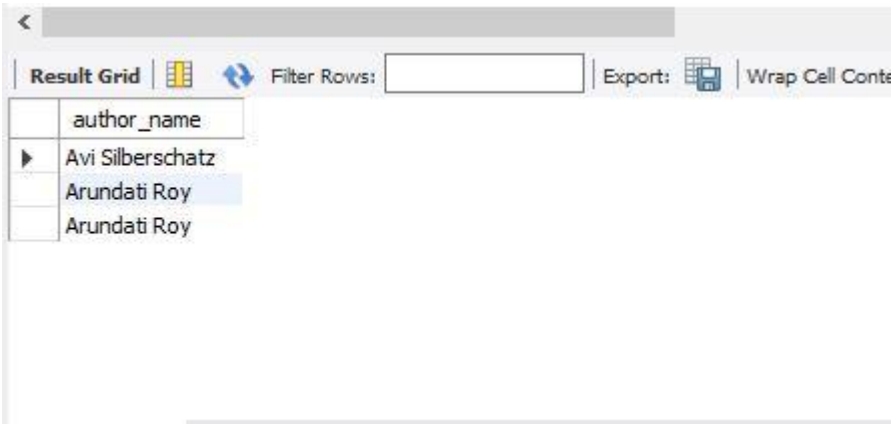


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

book_name	author_name	price	quantity
Database for Dummies	Avi Silberschatz	500	2
Azadi	Arundati Roy	600	2
An era of darkness	Shashi Tharoor	400	2
Sapiens	Yuval Noah	700	2
Five Point Someone	Chetan Bhagat	500	2
God of Small Things	Arundati Roy	500	3

Result Grid | Filter Rows: | Export: | Wrap Cell

book_name
Azadi
Sapiens



Result Grid | Filter Rows: | Export: | Wrap Cell Conte

author_name
Avi Silberschatz
Arundati Roy
Arundati Roy

4.**AIM:** Create the Company database with the following tables and do the following:

Administration (employee_salary, development _cost, fund_ amount, turn_over,bonus)

Emp_details (emp_no, emp_name, DOB, address, doj, mobile_no, dept_no, salary).

a. Calculate the total and average salary amount of the employees of each department.

b. Display total salary spent for employees.

c. Develop a PL/SQL function to display total fund_amount spent by the administration department

Script

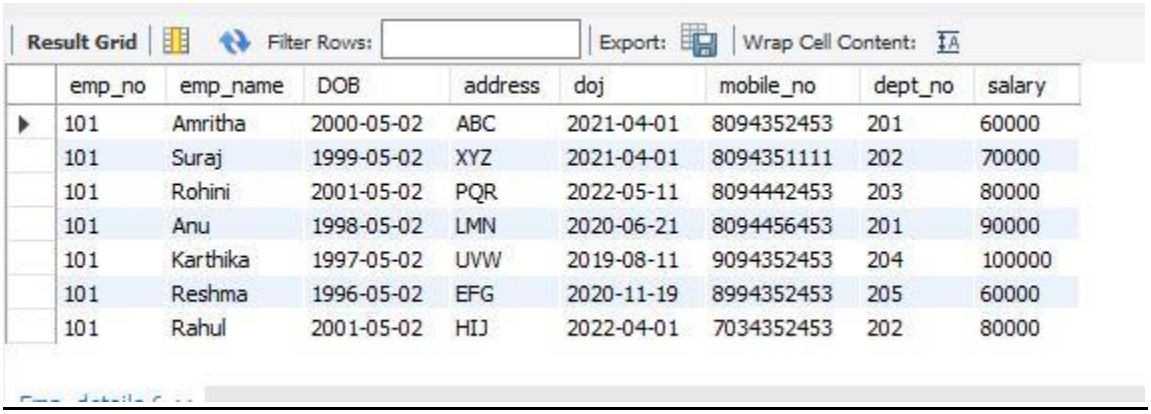
```
create database Company;

use company;

create table Administration(employee_salary int,development_cost int,fund_amount int,
turn_over int,bonus int);

create table Emp_details(emp_no int,emp_name varchar(20),DOB date,address varchar(200),

doj date,mobile_no varchar(11),dept_no int,salary int);


show tables;

INSERT INTO Administration(employee_salary,development_cost,fund_amount, turn_over,
bonus)VALUES(60000,4000,45000,50000,3000);


INSERT INTO Administration(employee_salary,development_cost,fund_amount,turn_over,

bonus) VALUES(70000,5500,55000,100000,4000);


INSERT INTO Administration(employee_salary,development_cost,fund_amount,turn_over,

bonus) VALUES(80000,5900,56000,100000,5000);
```

```
INSERT INTO Administration(employee_salary,development_cost,fund_amount,turn_over,

bonus) VALUES(90000,6500,67000,250000,6000);


INSERT INTO Administration(employee_salary,development_cost,fund_amount,turn_over,

bonus) VALUES(100000,7500,77000,270000,7000);


INSERT INTO Emp_details(emp_no, emp_name, DOB, address, doj, mobile_no, dept_no,salary)
VALUES(101,'Amritha','2000-05-02','ABC','2021-04-01','8094352453',201,60000);

INSERT INTO Emp_details(emp_no, emp_name, DOB, address, doj, mobile_no, dept_no, salary)
VALUES(101,'Suraj','1999-05-02','XYZ','2021-04-01','8094351111',202,70000);

INSERT INTO Emp_details(emp_no, emp_name, DOB, address, doj, mobile_no, dept_no, salary)
VALUES(101,'Rohini','2001-05-02','PQR','2022-05-11','8094442453',203,80000);

INSERT INTO Emp_details(emp_no, emp_name, DOB, address, doj, mobile_no, dept_no, salary)
VALUES(101,'Anu','1998-05-02','LMN','2020-06-21','8094456453',201,90000);

INSERT INTO Emp_details(emp_no, emp_name, DOB, address, doj, mobile_no, dept_no, salary)
VALUES(101,'Karthika','1997-05-02','UVW','2019-08-11','9094352453',204,100000);

INSERT INTO Emp_details(emp_no, emp_name, DOB, address, doj, mobile_no, dept_no, salary)
VALUES(101,'Reshma','1996-05-02','EFG','2020-11-19','8994352453',205,60000);

INSERT INTO Emp_details(emp_no, emp_name, DOB, address, doj, mobile_no, dept_no, salary)
VALUES(101,'Rahul','2001-05-02','HIJ','2022-04-01','7034352453',202,80000);

select * from Emp_details;
```

a) select dept_no,sum(salary) as total_salary ,avg(salary) as Avg_salary from Emp_details group by dept_no;

b) select sum(salary) as total from Emp_details;

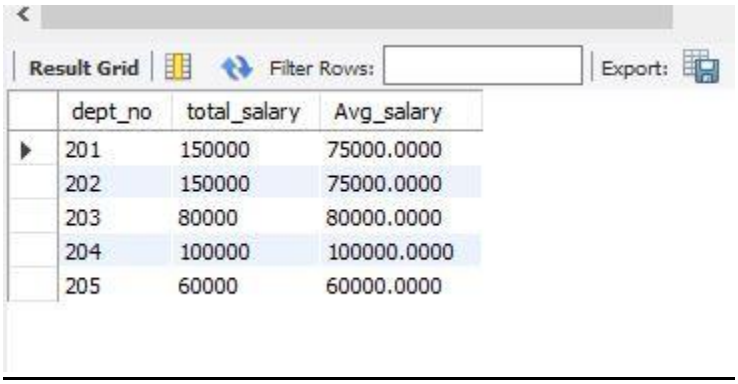
Output



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

emp_no	emp_name	DOB	address	doj	mobile_no	dept_no	salary
101	Amritha	2000-05-02	ABC	2021-04-01	8094352453	201	60000
101	Suraj	1999-05-02	XYZ	2021-04-01	8094351111	202	70000
101	Rohini	2001-05-02	PQR	2022-05-11	8094442453	203	80000
101	Anu	1998-05-02	LMN	2020-06-21	8094456453	201	90000
101	Karthika	1997-05-02	UVW	2019-08-11	9094352453	204	100000
101	Reshma	1996-05-02	EFG	2020-11-19	8994352453	205	60000
101	Rahul	2001-05-02	HIJ	2022-04-01	7034352453	202	80000

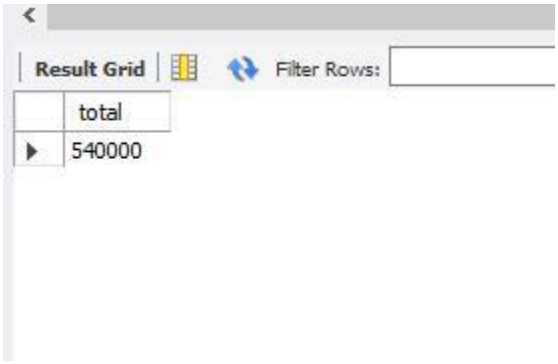
a)



Result Grid | Filter Rows: | Export:

dept_no	total_salary	Avg_salary
201	150000	75000.0000
202	150000	75000.0000
203	80000	80000.0000
204	100000	100000.0000
205	60000	60000.0000

b)



Result Grid | Filter Rows:

total
540000