A Project Report on

COMPUTER SERVICE CENTRE

SUBMITTED BY

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Under the guidance of

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LOVELY PROFESIONAL UNIVERSITY
PHAGWARA, PUNJAB

CERTIFICATE

This is to certify that **PRATHAM THAKUR** bearing Registration no. **12114778** have completed INT306 project titled, **COMPUTER SERVICE CENTER DATABASE PROJECT** undermy guidance and supervision. To the best of my knowledge, the present work is theresult of his original development, effort, and study.

BHANU TALWAR

Department of Computer Science and Engineering
School of Computer Science and Engineering
Lovely Professional University

Phagwara , Punjab

Date:20-11-2022

DECLARATION

I, **PRATHAM THAKUR** student of B.TECH CSE under CSE/IT Discipline at, Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

PRATHAM THAKUR

12114778

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Abstract

This **Computer Service System** has a public site where the shop's clients or possible clients can explore the services they offers. Site visitors can also list all the products with some details such as the price of the item that is available in the shop. On the Management Panel, the system requires the users to log in with their valid user credentials in order to gain access to the said side. The system consists of 3 types of user roles which are **Administrator**, **Staff**, and **Technician**. The **Administrator users** have the privilege to access and manage all the features and functionalities of the system. They are also the ones who can manage the list of users and update system information. The **Staff users** have only limited permissions while the **Technician** is only allowed to manage the transaction assigned to him/her. The system also generates a printable transaction detail.

Schema and Normalisation

2.1 DESIGN

2.1.1 E-R Diagram

2.1.2 Entities :

In total we have 4 entities and information of each entity is mentioned below

1.CUSTOMER DETAILS :

(Cust_ID numeric , Fname varchar, Town varchar, Telephone varchar, Email varchar)

This table will store the information of the customer/clients. In this Table Staff can see all required details of the client. It includes all the information of the client which includes telephone number and Email id also…

Cust_ID numeric(9),

Fname varchar(100) NOT NULL,

Town varchar(30) NOT NULL,

Telephone varchar(15) NOT NULL,

Email varchar(500) NOT NULL,

2. Staff Details:

(Staff_ID numeric, Forename varchar, Town varchar, Telephone char, Email varchar)

This table will store the information of the Staff who are working. In this Table Customer can see all required detailes of the Staff. It includes all the information of the Staff which includes Place and Email id also…

Staff_ID numeric(9),

Forename varchar(100) NOT NULL,

Town varchar(30) NOT NULL,

Telephone char(15) NOT NULL,

Email varchar(500) NOT NULL,

3. Repairing Details

(Rep_ID numeric, Cust_ID numeric, Staff_ID numeric, Description varchar, Brand varchar)

This table gives information about the types of repairing services to laptops and the brand name also mentioned.

It give complete information to the client..

Rep_ID numeric (9),

Cust_ID numeric(9) NOT NULL,

Staff_ID numeric(9) NOT NULL,

Description varchar(1000) NOT NULL,

Brand varchar(50) NOT NULL,

4. Totalprice Details :

(Rep_ID numeric, Staff_ID numeric, GST decimal, Discount decimal, Total decimal)

This table give the billing details to the customer. By this customer can check the Prices and Discounts on products which they are selected…

Rep_ID numeric(9) NOT NULL,

Staff_ID numeric(9) NOT NULL,

GST decimal(4,2),

Discount decimal(4,2),

Normalization

1. CUSTOMER

CUST_ID	FNAME	TOWN	TELEPHONE	EMAIL

- Relation Customer has no multi-valued attribute.
- All non-key attributes are fully functional dependent on the primary key.
- There is no transitive dependency for non-prime attributes.
- The relation is in 3NF.

2. STAFF

STAFF_ID	FORENAME	TOWN	TELEPHONE	EMAIL	SALARY

- Relation Customer has no multi-valued attribute.
- All non-key attributes are fully functional dependent on the primary key.
- There is no transitive dependency for non-prime attributes.
- The relation is in 3NF.

3.REPAIR

REP_ID	CUST_ID	STAFF_ID	DESCRIPTION	BRAND

- Relation Customer has no multi-valued attribute.
- All non-key attributes are fully functional dependent on the primary key.
- There is no transitive dependency for non-prime attributes.
- The relation is in 3NF.

4.ESTIMATION

REP_ID	STAFF_ID	GST	DISCOUNT	TOTAL

- Relation Customer has no multi-valued attribute.
- All non-key attributes are fully functional dependent on the primary key.
- There is no transitive dependency for non-prime attributes.
- The relation is in 3NF. `

RELATIONSHIP

1.Customer and Repair :

A Customer can give many Items for repair. And a customer can give many items on one Customer ID

Type=”many to many”

2.Customer and Estimation:

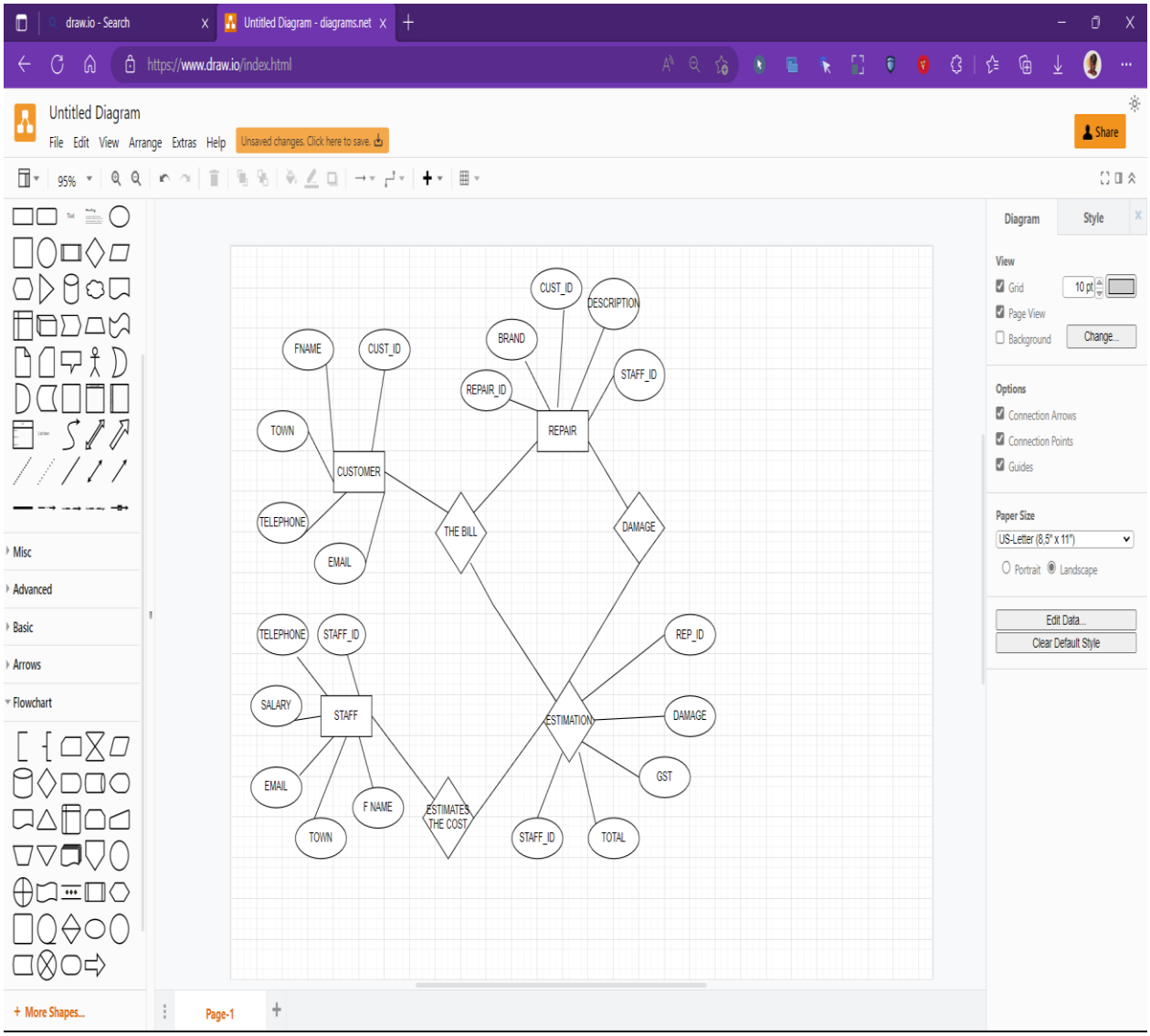
A customer can pay many bills through this Customer ID

Type=”many to many”

3.Staff and Estimation:

Staff Estimates the total cost of the customer. One staff member can estimate the total cost once only.

Type=”one to one”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CUST_ID
DESCRIPTION
BRAND
FNAME
CUST_ID
STAFF_ID
REPAIR_ID
REPAIR
TOWN
CUSTOMER
TELEPHONE
THE BILL
DAMAGE
EMAIL
TELEPHONE
STAFF_ID
REP_ID
SALARY
STAFF
ESTIMATION
DAMAGE
GST
EMAIL
F NAME
ESTIMATES THE COST
TOWN
STAFF_ID
TOTAL

3. SQL&PLSQL

3.1 SQL Table Creation

The Implementation of SQL server :

```
CREATE TABLE Customers (
        Cust_ID numeric(9),
        Fname varchar(100) NOT NULL,
        Town varchar(30) NOT NULL,
        Telephone varchar(15) NOT NULL,
        Email varchar(500) NOT NULL,
  CONSTRAINT uq_Cust_email UNIQUE (Email),
  CONSTRAINT uq_Cust_tel UNIQUE (Telephone),
CONSTRAINT pk_Customers PRIMARY KEY (Cust_ID));
```

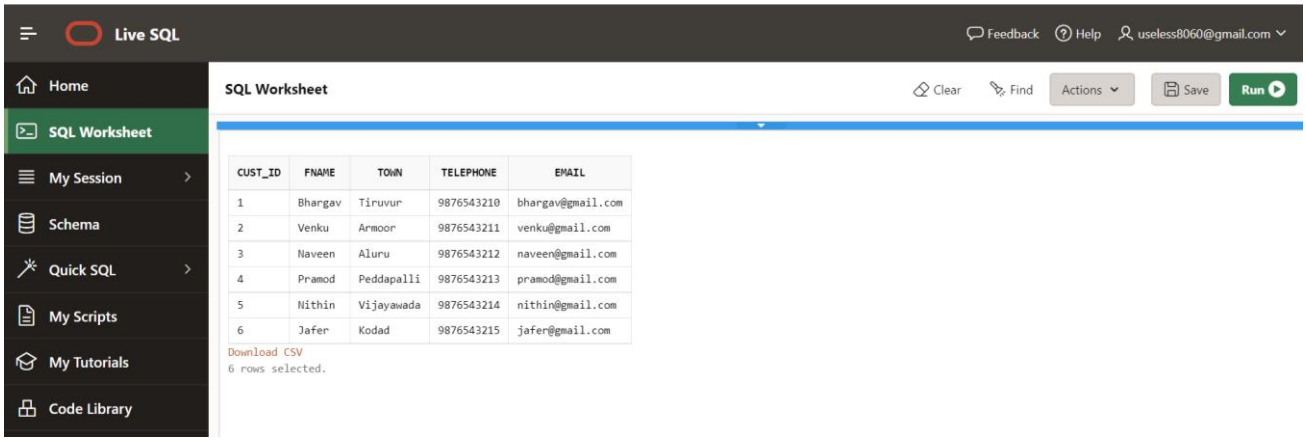
```
CREATE TABLE Staff (
        Staff_ID numeric(9),
        Forename varchar(100) NOT NULL,
        Town varchar(30) NOT NULL,
        Telephone char(15) NOT NULL,
        Email varchar(500) NOT NULL,
        Salary NUMBER NOT NULL,
  CONSTRAINT uq_Staff_email UNIQUE (Email),
  CONSTRAINT uq_Staff_tel UNIQUE (Telephone),
CONSTRAINT pk_Staff PRIMARY KEY (Staff_ID))

CREATE TABLE Repairs (
        Rep_ID numeric(9),
        Cust_ID numeric(9) NOT NULL,
        Staff_ID numeric(9) NOT NULL,
        Description varchar(1000) NOT NULL,
        Brand varchar(50) NOT NULL,
        CONSTRAINT pk_Repairs PRIMARY KEY (Rep_ID),
        CONSTRAINT fk_Repairs_Cust FOREIGN KEY (Cust_ID)
REFERENCES Customers,
CONSTRAINT fk_Repairs_Staff FOREIGN KEY (Staff_ID)
REFERENCES Staff);
```

```
CREATE TABLE Estimates (
        Rep_ID numeric(9) NOT NULL,
        Staff_ID numeric(9) NOT NULL,
        GST decimal(4,2),
        Discount decimal(4,2),
        Total decimal(9,2) NOT NULL,
        CONSTRAINT pk_EstiSHOmates PRIMARY KEY (Rep_ID),
  CONSTRAINT fk_Estimates_Staff FOREIGN KEY (Staff_ID)
REFERENCES Staff,
CONSTRAINTS fk_Estimates_Repairs FOREIGN KEY (Rep_ID)
REFERENCES Repairs);
```

3.2 Data Entry

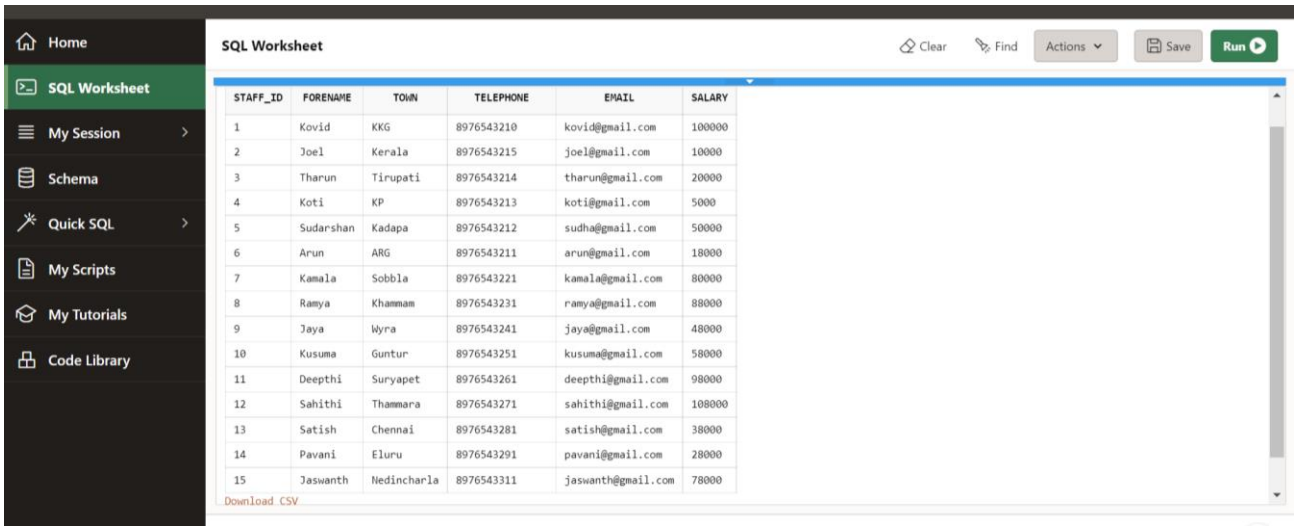
```
INSERT INTO Customers VALUES
(1,'Bhargav','Tiruvur','9876543210','bhargav@gmail.com');

INSERT INTO Customers VALUES
(2,'Venku','Armoor','9876543211','venku@gmail.com');

INSERT INTO Customers VALUES
(3,'Naveen','Aluru','9876543212','naveen@gmail.com');

INSERT INTO Customers VALUES
(4,'Pramod','Peddapalli','9876543213','pramod@gmail.com');

INSERT INTO Customers VALUES
(5,'Nithin','Vijayawada','9876543214','nithin@gmail.com');

INSERT INTO Customers VALUES
(6,'Jafer','Kodad','9876543215','jafer@gmail.com');
```

select *from Customer



```
INSERT INTO Staff VALUES (1,'Kovid','KKG','8976543210','kovid@gmail.com',100000);
INSERT INTO Staff VALUES (2,'Joel','Kerala','8976543215','joel@gmail.com',10000);
INSERT INTO Staff VALUES (3,'Tharun','Tirupati','8976543214','tharun@gmail.com',20000);
INSERT INTO Staff VALUES (4,'Koti','KP','8976543213','koti@gmail.com',5000);
INSERT INTO Staff VALUES (5,'Sudarshan','Kadapa','8976543212','sudha@gmail.com',50000);
INSERT INTO Staff VALUES (6,'Arun','ARG','8976543211','arun@gmail.com',18000);
INSERT INTO Staff VALUES (7,'Kamala','Sobbla','8976543221','kamala@gmail.com',80000);
INSERT INTO Staff VALUES (8,'Ramya','Khammam','8976543231','ramya@gmail.com',88000);
INSERT INTO Staff VALUES (9,'Jaya','Wyra','8976543241','jaya@gmail.com',48000);
INSERT INTO Staff VALUES (10,'Kusuma','Guntur','8976543251','kusuma@gmail.com',58000);
INSERT INTO Staff VALUES (11,'Deepthi','Suryapet','8976543261','deepthi@gmail.com',98000);
INSERT INTO Staff VALUES (12,'Sahithi','Thammara','8976543271','sahithi@gmail.com',108000);
INSERT INTO Staff VALUES (13,'Satish','Chennai','8976543281','satish@gmail.com',38000);
INSERT INTO Staff VALUES (14,'Pavani','Eluru','8976543291','pavani@gmail.com',28000);
INSERT INTO Staff VALUES (15,'Jaswanth','Nedincharla','8976543311','jaswanth@gmail.com',78000);
```

select *from Staff



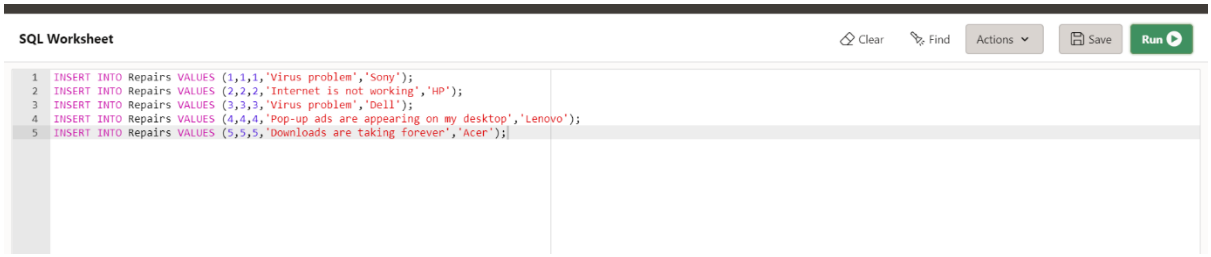
INSERT INTO Repairs VALUES (1,1,1,'Virus problem','Sony');

INSERT INTO Repairs VALUES (2,2,2,'Internet is not working','HP');

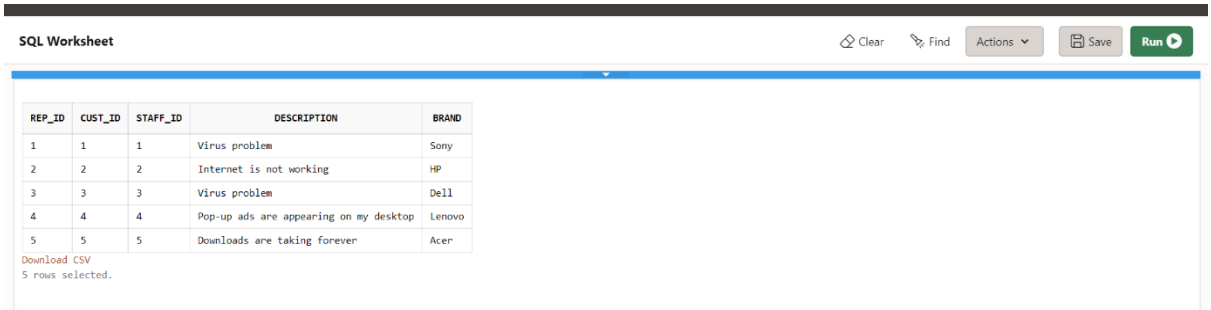
INSERT INTO Repairs VALUES (3,3,3,'Virus problem','Dell');

INSERT INTO Repairs VALUES (4,4,4,'Pop-up ads are appearing on my desktop','Lenovo');

INSERT INTO Repairs VALUES (5,5,5,'Downloads are taking forever','Acer');



select *from Repairs



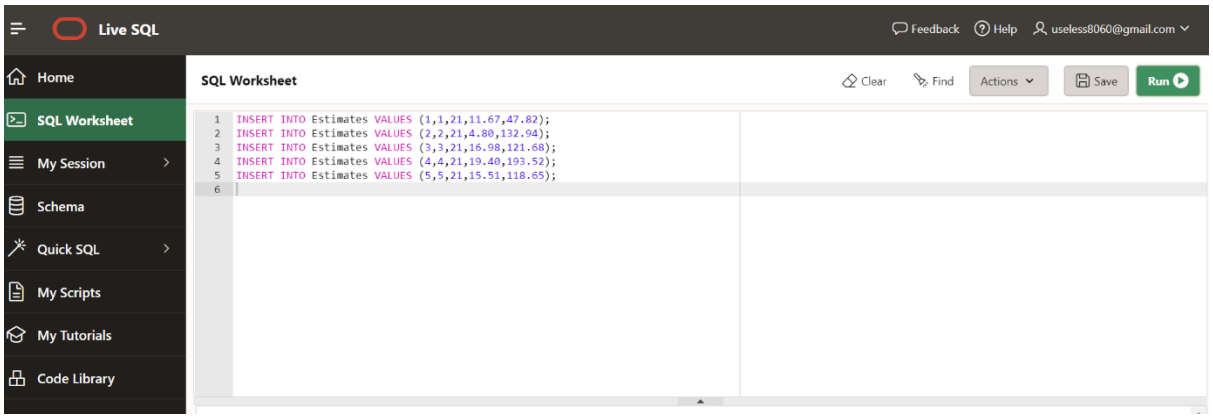
INSERT INTO Estimates VALUES (1,1,21,11.67,47.82);

INSERT INTO Estimates VALUES (2,2,21,4.80,132.94);

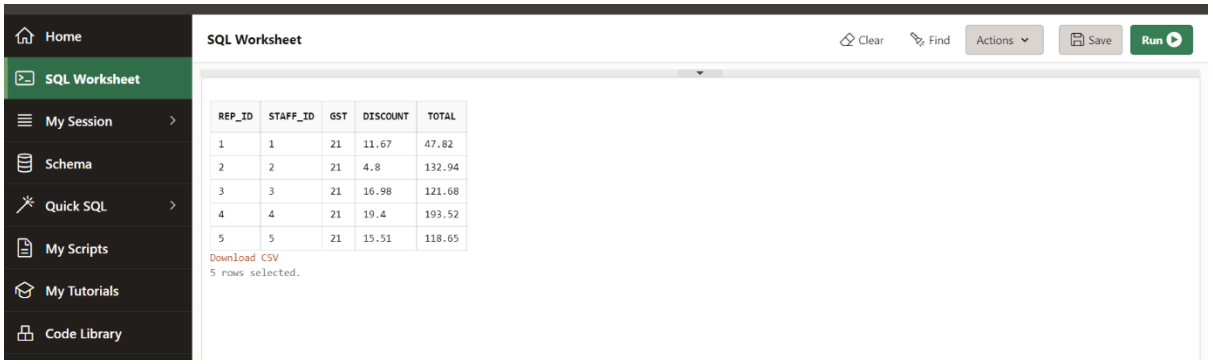
INSERT INTO Estimates VALUES (3,3,21,16.98,121.68);

INSERT INTO Estimates VALUES (4,4,21,19.40,193.52);

INSERT INTO Estimates VALUES (5,5,21,15.51,118.65);



select *from Estimates



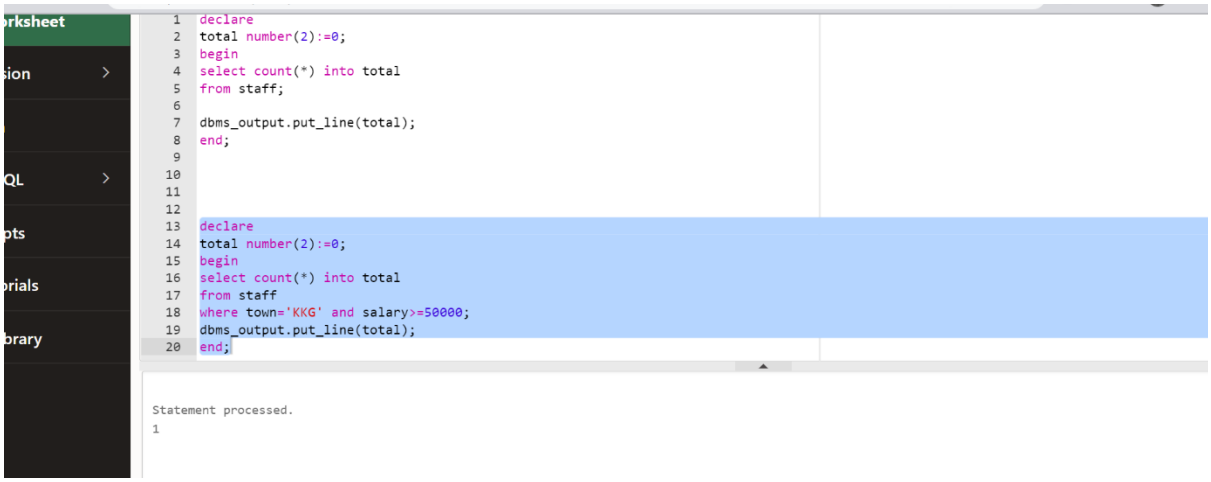
3.3 PL/ SQL Examples

Example -1

```
declare
total number(2):=0;
begin
select count(*) into total
from staff;
dbms_output.put_line(total);
end;
```

Example-2

```
declare
total number(2):=0;
begin
select count(*) into total
from staff
where town='KKG' and salary>=50000;
dbms_output.put_line(total);
end;
```



Example -3

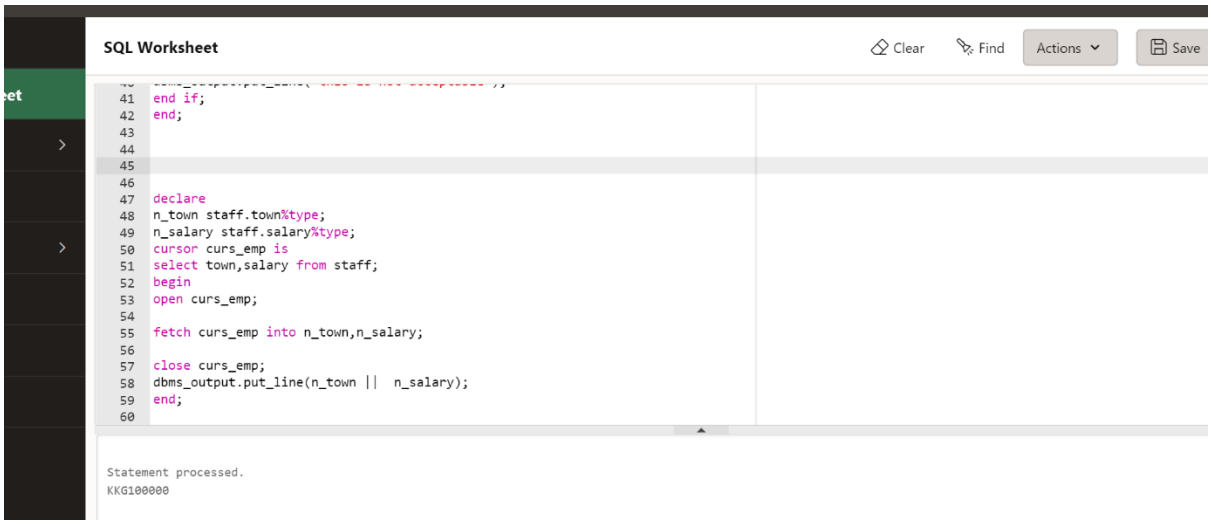
```
declare

total number(2):=0;

procedure counting(z out number) is

begin

select count(*) into z

from staff

where town='KKG' and salary>=50000;

end;
```

```
begin
counting(total);
if total >= 3
then
dbms_output.put_line('this is acceptable');
else
dbms_output.put_line('this is not acceptable');
end if;
end;
```

Example -4

```
declare
n_town staff.town%type;
n_salary staff.salary%type;
cursor curs_emp is
select town,salary from staff;
```

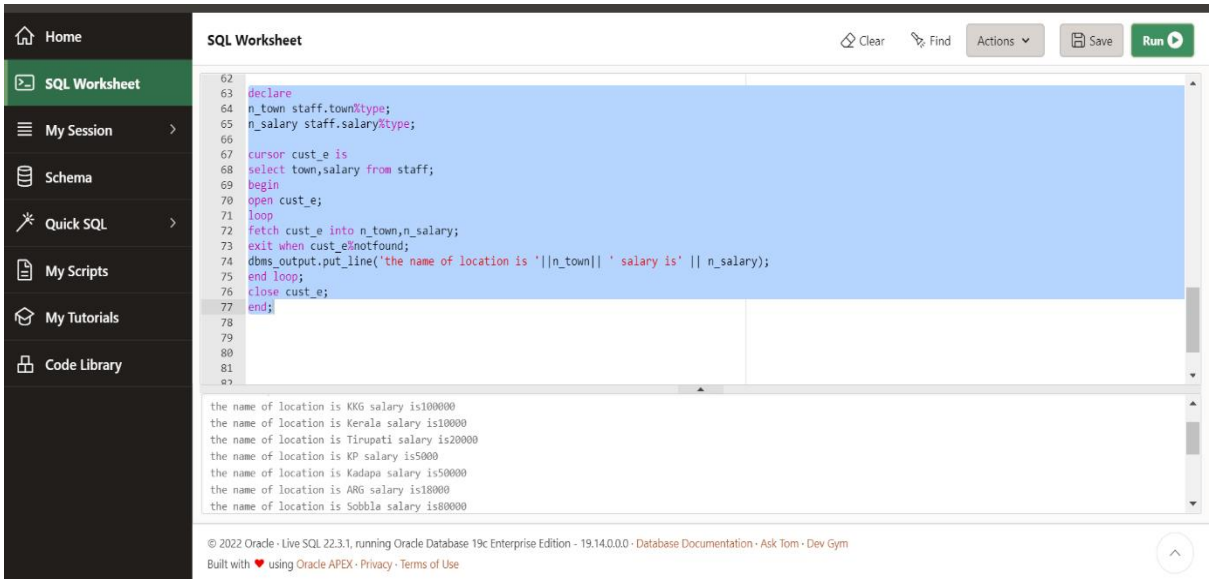
```
begin
open curs_emp;
fetch curs_emp into n_town,n_salary;
close curs_emp;
dbms_output.put_line(n_town ||  n_salary);
end;
```



Example -5

```
declare
n_town staff.town%type;
n_salary staff.salary%type;
cursor cust_e is
select town,salary from staff;
begin
```

```
open cust_e;
loop
fetch cust_e into n_town,n_salary;
exit when cust_e%notfound;
dbms_output.put_line('the name of location is '||n_town|| ' salary is' || n_salary);
end loop;
close cust_e;
end;
```



CONCLUSION

The project as a whole describes the scope and viability of the Trading industry and mainly of the financial, technical and its market potential. The project guarantee sufficient fund to repay the loan and also give a good return on capital investment. When analyzing the social- economic impact, this project is able to generate an employment of 5 and above. It will cater the demand of Trading and thus helps the other business entities to increase the production and service which provide service and support to this industry. Thus more cyclic employment and livelihood generation. So in all ways, we can conclude the project is technically and socially viable and commercially sound too…

--- THANK YOU---