DATABASE MANAGEMENT SYSTEMS

TEAM PROJECT REPORT SPRING-2021

TOPIC

HOSPITAL MANAGEMENT SYSTEM

TEAM MEMBERS

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Resources:

- Youtube Link
- PPT link presented on April 15th
- Zoom Recording Link

Application Description:

INTRODUCTION

The fundamental motivation behind "HOSPITAL MANAGEMENT SYSTEM" information base is to effortlessly keep up, access the information of physician, patient, room, bill payment. It incorporates intelligent knowledge management like income cycle management and health records. The principle reason for the undertaking is to store and recover the information of physician and patient when there is a need.

ENTITES

Database entity is a thing, person, place, unit, object or any item about which the data should be captured and stored in the form of properties, workflow and tables.

The different entities in hospital management system are

1. Physician
2. Patient
3. Nurses
4. medicines
5. Pharmacy
6. Medical _receipts
7. Medical Branches
8. Wards
9. Schedules
10. Admin

Physician

The physician entity consists of the physician id, department of the physician, contact information, working hours. Using this, the database we can get the information easily depending upon the medical–branches the physicians work in.

Patient

The patient's entity contains the information about the patient such as patient registration id, patient medical info, and patient personal information which gives easy access to the physicians.

Nurses

The Nurse entity has information about the nurses working in the hospital, like their id, nurse working hours, contact information, their department. Using the database will be able to get the desired information about the nurse and assigned tasks as well.

Medicines

Medicine's entity will include the different types of medicines prescribed by the physician. It will include the patient id (to whom the medicine has been prescribed), medicine name and medicine id.

Pharmacy

The pharmacy will have the details of the medicines such as medicine id, bill id , and medicine price to keep a record of the medicines given to the patients.

Medical receipts

The billing entity consists of the information about the patient's bill which includes bill id, information of the medicines. This will keep track of the patients and their prescriptions.

Medical branches

The department entity contains information about the different medical branches like accident and emergency, discharge lounge, anesthetics, diagnostic

imaging, critical care, etc. This will help in the precise categorization of the information for easy information access.

Wards

Different wards will be assigned to the patients depending upon the treatment. Wards will include types such as ICU, Diagnostic imaging, Discharge lounge etc.

Schedules

The Schedules entity includes the Schedule details scheduled between the patient and the physician. It will include details such as patient id, Schedule id, Schedule time, Schedule date.

Admin

Admin is the controller of the database system which has been designed. It has the authority to keep track of the tasks that are being processed in the database.

RELATIONSHIPS AND FACILITIES

● In the Database Management System, we can come across different types of relationships such as one-to-one, one-to-many, many-to-one.
● Accordingly, this database system for 'Hospital Management' will also include database relationships.

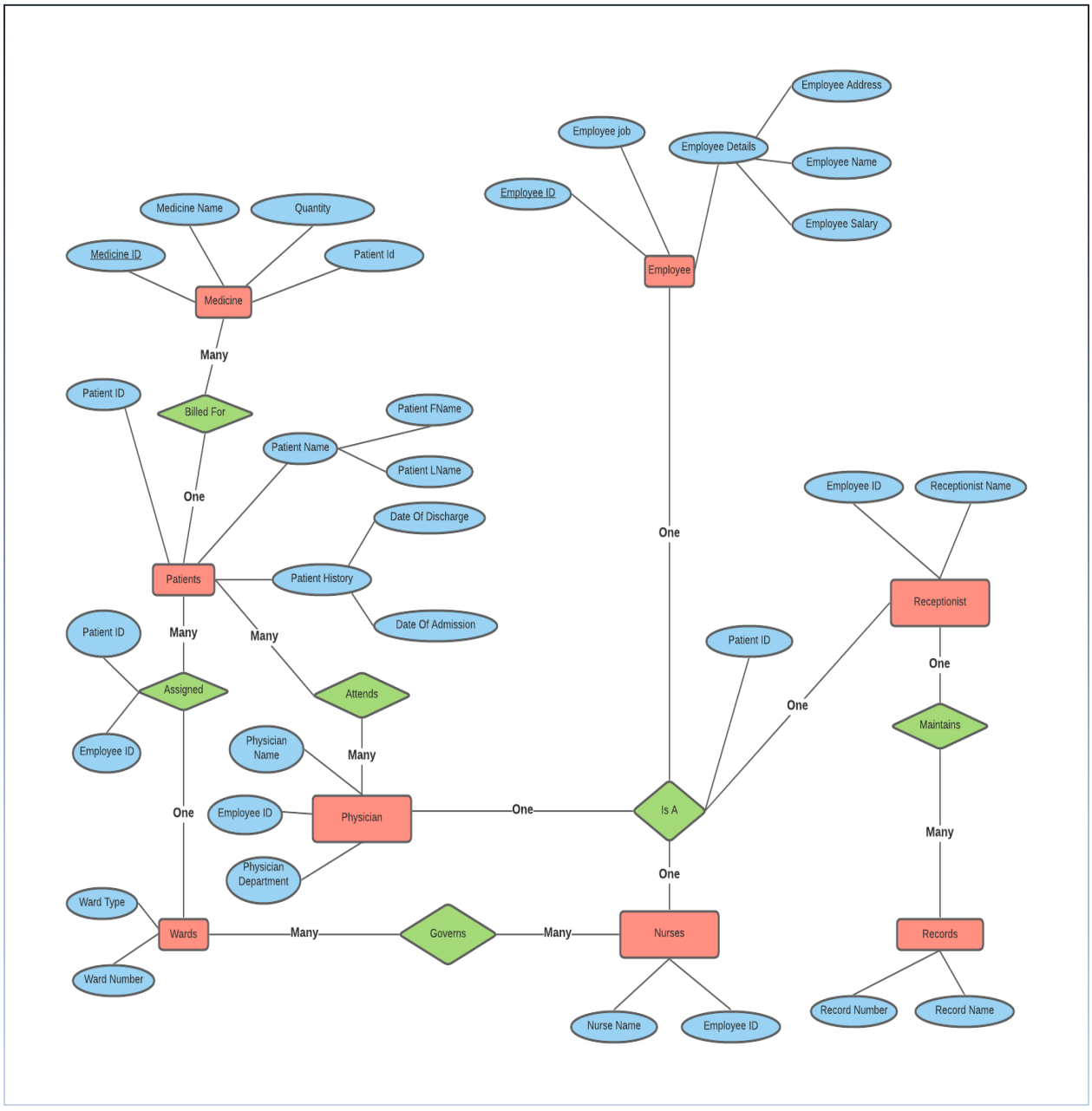
For example: one-to-one relationship between patient and physician, the one-to-many relationship between physician and department, etc.

● The facilities that will be included in the project are –

1. Keeping up the records of the elements remembered for the undertaking like patients, determination diagnosis, medicines, clinical branches, physicians, and so on.
2. It will likewise incorporate billing data to recover the patient's history
3. Users or administrators can easily check the patient details by the parameters like the patient id. The database system will take care that there is no redundancy in the proposed system which will assure consistency in the data stored.

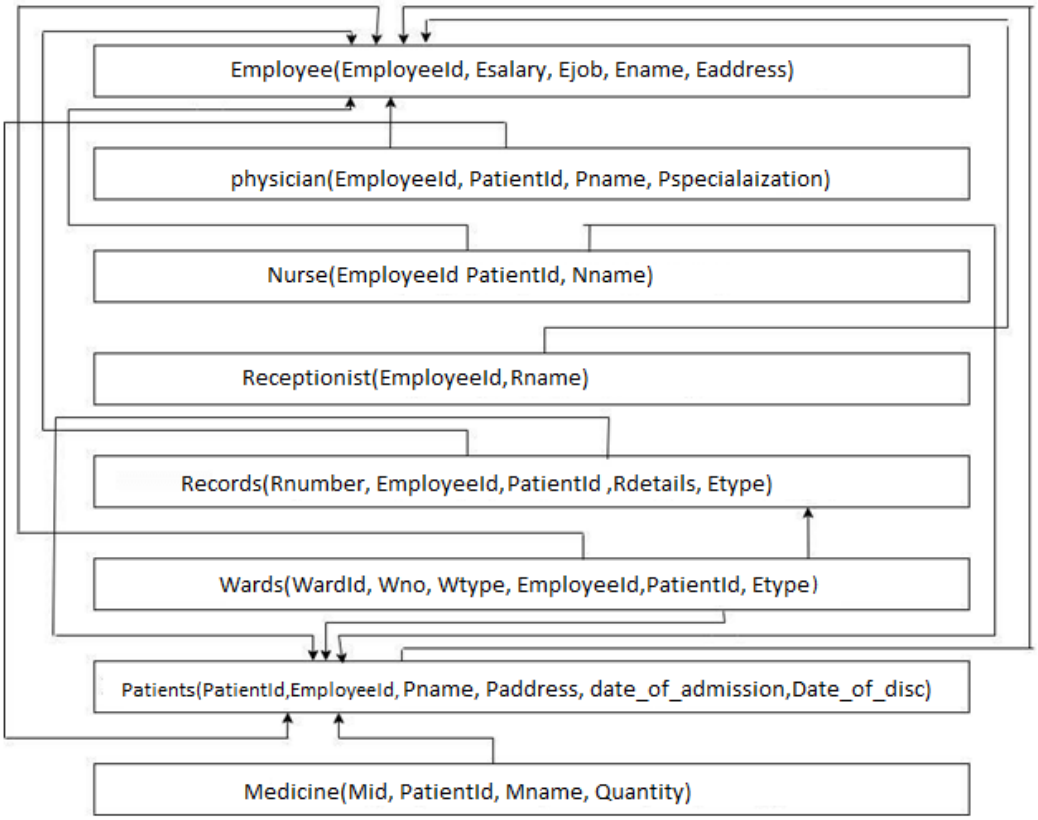
Conceptual Model:

Entity Relational Diagram:



LOGICAL MODEL:

Relational Schema



Employee (EmployeeId, Esalary, Ejob, Ename, Eaddress)
Physician (EmployeeId, Pname, PatientId, Pspecialization) Nurse (EmployeeId, Nname , PatientId)
Receptionist (EmployeeId,Rname)

Records (Rnumber, PatientId,EmployeeId,Etype,Rdetails)
Wards (Roomid , Rtype, EmployeeId, PatientId, Etype)
Patient (PatientId,EmployeeId, Pname , Paddress, Date_Of_Admission, Date_Of_Disc)
Medicine(Mid, Mname, Quantity, PatientId)

NORMALIZATION OF RELATIONAL SCHEMA

Database normalization is the process of structuring a **database**, usually a **relational database**, in accordance with a series of so-called normal forms in order to reduce data redundancy and improve data integrity. Normalization split a large table into smaller tables and define relationships between them to increases the clarity in organizing data.

For example, Employee relation will be represented by the following alphabet characters.

R(A|B|C|D|E)

where R represents the relationship and {ABCDE} are the set attributes in the same order they appear in the relation.

FIRST NORMAL FORM

All the relations in the above relational model are already in first normal form.

Each table cell should contain a single value.

Each record needs to be unique.

The Employee Relation

Employee (EmployeeId| Esalary| Ejob|Ename| Eaddress)
The Employee relations attributes equal the letters{A|B|C|D|E} in the following order - R(A|B|C|D|E)
The List of Functional Dependency:
A→BCDE
BCNF- Boyce and Codd Normal Form is a higher version of the Third Normal form. This form deals with certain type of anomaly that is not handled by 3NF. A 3NF table which does not have multiple overlapping candidate keys is said to be in BCNF. For a table to be in BCNF, following conditions must be satisfied:

- R must be in 3rd Normal Form
- and, for each functional dependency (X → Y), X should be a super Key.

3NF- We are in 3NF because we are in BCNF and every non-prime attribute of the Employee relation is non-transitively dependent on every key in the Employee relation. A table is said to be in the Third Normal Form when,

1. It is in the Second Normal form.
2. And, it doesn't have Transitive Dependency

2NF - We are in 2NF because we are in 3NF and no non-prime attribute is dependent on the proper subset of any candidate key of the table.

The Physician relation

Physician (EmployeeId, Pname, PatientId, Pspecialization)
The Employee relations attributes equal the letters{A|B|C|D} in the following order - R(A|B|C|D)
2NF - We are not in 2NF because our non-prime attributes PatientId and Pspecialization are dependent on Employee Id only which is a proper subset of candidate key(EmployeeId, Pname).
AB→C|D
A→ B|C|D
So we separate it into two tables to make it into 2NF :
Physician(EmployeeId, PName) i.e. R(A|B)
PhysicianInfo (EmployeeId, PatientId, Pspecialization) i.e R(A|B|C)
3NF- We are in 3NF because we are in BCNF and every non-prime attribute of the Employee relation is non-transitively dependent on every key in the Employee relation.
BCNF- This relation is in BCNF because there are no trivial functional dependencies.

The Nurse Relation-(Weak Entity):

Nurse (EmployeeId, Nname)
BCNF- This relation is in BCNF because there are no trivial functional dependencies.
3NF- We are in 3NF because we are in BCNF and every non-prime attribute of the

Employee relation is non-transitively dependent on every key in the Employee relation.
2NF - We are in 2NF because we are in 3NF and no non-prime attribute is dependent on the proper subset of any candidate key of the table.

The Receptionist relation:

Receptionist (EmployeeId,Rname)
The Receptionist relations attributes equal the letters{A|B|} in the following order - R(A|B)
BCNF- This relation is in BCNF because there are no trivial functional dependencies.
3NF- We are in 3NF because we are in BCNF and every non-prime attribute of the Employee relation is non-transitively dependent on every key in the Employee relation.
2NF - We are in 2NF because we are in 3NF and no non-prime attribute is dependent on the proper subset of any candidate key of the table .

The Records relation:

Records (Rnumber, PatientId,EmployeeId,Rdetails)
The Record relations attributes equal the letters{A|B|C|D} in the following order - R(A|B|C|D)
A→BCD
BCNF- This relation is in BCNF because there are no trivial functional dependencies.
3NF- We are in 3NF because we are in BCNF and every non-prime attribute of the Employee relation is non-transitively dependent on every key in the Employee relation.
2NF - We are in 2NF because we are in 3NF and no non-prime attribute is dependent on the proper subset of any candidate key of the table .

The Wards relation:

Wards (Wardid , Rtype, EmployeeId, PatientId)
The Wards relations attributes equal the letters{A|B|C|D} in the following order - R(A|B|C|D)
A→BCD
BCNF- This relation is in BCNF because there are no trivial functional dependencies.

3NF- We are in 3NF because we are in BCNF and every non-prime attribute of the Employee relation is non-transitively dependent on every key in the Employee relation.
2NF - We are in 2NF because we are in 3NF and no non-prime attribute is dependent on the proper subset of any candidate key of the table.

The Patient Relation:

Patient (PatientId, EmployeeId, Pname, Paddress, Date_Of_Admission, Date_Of_Discharge).
The Patient relations attributes equal the letters{A|B|C|D|E|F} in the following order - R(A|B|C|D|E|F)
The List of Functional Dependency - A→BCDEF
BCNF- This relation is in BCNF because there are no trivial functional dependencies.
3NF- We are in 3NF because we are in BCNF and every non-prime attribute of the Employee relation is non-transitively dependent on every key in the Employee relation.
2NF - We are in 2NF because we are in 3NF and no non-prime attribute is dependent on the proper subset of any candidate key of the table.

Database Instance:

PHYSICAL MODEL:

```
CREATE TABLE  "EMPLOYEEE"
   (    "EMPNAME" VARCHAR2(15) NOT NULL ENABLE,
        "EMPSALARY" NUMBER(10,0),
        "EMPDESIGNATION" VARCHAR2(15),
        "EMPID" NUMBER(4,0)
   ) ;

CREATE TABLE  "PHYSICIAN"
   (    "PNAME" VARCHAR2(15) NOT NULL ENABLE,
        "PDEPARTMENT" VARCHAR2(15),
        "PID" NUMBER(4,0)
   ) ;

CREATE TABLE  "PATIENT"
   (    "PATIENTID" NUMBER(4,0),
        "PATIENTFNAME" VARCHAR2(15) NOT NULL ENABLE,
        "PATIENTLNAME" VARCHAR2(15) NOT NULL ENABLE,
        "PADDRESS" VARCHAR2(15),
        "SEX" CHAR(1),
        "PATIENTDATEOFADMISSION" VARCHAR2(50),
        "PATIENTDATEOFDISCHARGE" VARCHAR2(50)
   ) ;
```

```
CREATE TABLE  "NURSE"
   (    "EMPLOYEEID" NUMBER(4,0),
        "NURSE_NAME" VARCHAR2(15) NOT NULL ENABLE
   ) ;

CREATE TABLE  "RECEPTIONIST"
   (    "EMPLOYEEID" NUMBER(4,0),
        "RECEPTIONIST_NAME" VARCHAR2(15) NOT NULL ENABLE
   ) ;

CREATE TABLE  "WARDS"
   (    "ROOMID" NUMBER(20,0),
        "PATIENTID" NUMBER(20,0),
        "RTYPE" VARCHAR2(15)
   ) ;

INSERT INTO employeee VALUES ('bharath', 21000, 'Physician', 224);
INSERT INTO employeee VALUES ('varsha', 27000, 'Physician', 336);
INSERT INTO employeee VALUES ('jaswanth', 45000,  'Physician', 384);
INSERT INTO employeee VALUES ('ganesh', 42000, 'Physician', 396);
INSERT INTO employeee VALUES ('vijay', 65000, 'Physician', 448);
INSERT INTO employeee VALUES ('akhil', 47000, 'Physician', 467);
INSERT INTO employeee VALUES ('kalyan', 35000, 'Physician', 498);
INSERT INTO employeee VALUES ('guna', 51000, 'Physician', 504);
INSERT INTO employeee VALUES ('mano', 24000, 'Physician', 521);
INSERT INTO employeee VALUES ('prakash', 22000, 'Physician', 537);
INSERT INTO employeee VALUES ('nihal', 20000, 'Physician', 550);
INSERT INTO employeee VALUES ('laxmi', 25000, 'Physician', 561);
INSERT INTO employeee VALUES ('meghana', 22000, 'Physician', 615);
INSERT INTO employeee VALUES ('yogi', 35000, 'Physician', 625);
INSERT INTO employeee VALUES ('naveen', 50000, 'Physician', 704);
INSERT INTO employeee VALUES ('priya', 20000, 'Physician', 735);
INSERT INTO employeee VALUES ('sai', 27000, 'Physician', 770);
INSERT INTO employeee VALUES ('chinmayi', 24000, 'Physician', 812);
INSERT INTO employeee VALUES ('prashanth', 32000, 'Physician', 860);


INSERT INTO physician VALUES ('bharath', 'Physician', 224);
INSERT INTO physician VALUES ('varsha', 'Physician', 336);
INSERT INTO physician VALUES ('jaswanth', 'Physician', 384);
INSERT INTO physician VALUES ('ganesh', 'Physician', 396);
INSERT INTO physician VALUES ('vijay', 'Physician', 448);
INSERT INTO physician VALUES ('akhil', 'Physician', 467);
INSERT INTO physician VALUES ('kalyan', 'Physician', 498);
INSERT INTO physician VALUES ('guna', 'Physician', 504);
INSERT INTO physician VALUES ('mano', 'Physician', 521);
INSERT INTO physician VALUES ('prakash', 'Physician', 537);
INSERT INTO physician VALUES ('nihal', 'Physician', 550);
INSERT INTO physician VALUES ('laxmi', 'Physician', 561);
INSERT INTO physician VALUES ('meghana', 'Physician', 615);
INSERT INTO physician VALUES ('yogi', 'Physician', 625);
INSERT INTO physician VALUES ('naveen', 'Physician', 704);
INSERT INTO physician VALUES ('priya', 'Physician', 735);
INSERT INTO physician VALUES ('sai', 'Physician', 770);
INSERT INTO physician VALUES ('chinmayi', 'Physician', 812);
INSERT INTO physician VALUES ('prashanth', 'Physician', 860);

INSERT INTO patient VALUES (1200,'sashank','valluri', 'india','m', '12-JAN-2021', '24-
FEB-2021');
INSERT INTO patient VALUES (1000,'sai','kumar', 'texas','m', '22-MAY-2020', '22-JUNE-
2020');
```

```
INSERT INTO patient VALUES (1300,'abhishek','kesoju', 'india','m', '15-JAN-2021', '28-
FEB-2021');
INSERT INTO patient VALUES (1100,'sreedhar','boina', 'columbus','m', '10-MAY-2020',
'21-JUNE-2020');
INSERT INTO patient VALUES (1500,'shravan','bangaroju', 'canada','m', '12-FEB-2021',
'24-FEB-2021');
INSERT INTO patient VALUES (2000,'bhanu','teja', 'texas','m', '01-MAY-2020', '31-MAY-
2020');
INSERT INTO patient VALUES (2100,'sathwik','mainam', 'africa','m', '06-AUG-2021', '24-
DEC-2021');
INSERT INTO patient VALUES (1600,'guna','kandukuri', 'canada','m', '17-SEP-2020', '22-
OCTOBER-2020');
INSERT INTO patient VALUES (1800,'mohan','vangala', 'new zealand','m', '16-MAR-2021',
'31-APR-2021');
INSERT INTO patient VALUES (1900,'shekar','kamala', 'australia','m', '25-JUNE-2020',
'10-JULY-2020');
INSERT INTO patient VALUES (2500,'bobby','patel', 'india','m', '11-JAN-2021', '22-FEB-
2021');
INSERT INTO patient VALUES (2400,'sonali','patel', 'texas','f', '23-MAY-2020', '05-
JUNE-2020');
INSERT INTO patient VALUES (3600,'tanuja','reddy', 'australia','f', '11-NOV-2021',
'24-DEC-2021');
INSERT INTO patient VALUES (3000,'charitha','yadav', 'new zealand','f', '15-MAY-2020',
'19-JULU-2020');
INSERT INTO patient VALUES (2800,'varshini','chowdary', 'india','f', '11-JULY-2021',
'24-AUG-2021');
INSERT INTO patient VALUES (2900,'latha','swarna', 'texas','f', '16-MAY-2020', '05-
JUNE-2020');
INSERT INTO patient VALUES (4100,'sam','jam', 'australia','f', '12-JULY-2021', '24-
AUG-2021');
INSERT INTO patient VALUES (3500,'sue','allen', 'new zealand','f', '10-APR-2020', '22-
JUNE-2020');
INSERT INTO patient VALUES (3100,'john','wick', 'india','m', '17-JAN-2021', '29-FEB-
2021');
INSERT INTO patient VALUES (3200,'patrik','joseph', 'london','m', '14-MAY-2020', '25-
SEP-2020');

INSERT INTO  NURSE VALUES (888,'SEETHA');
INSERT INTO  NURSE VALUES (999,'SAMANTHA');
INSERT INTO  NURSE VALUES (111,'NAYANATHARA');
INSERT INTO  NURSE VALUES (222,'ANUSHKA');
INSERT INTO  NURSE VALUES (333,'ANUPAMA');
INSERT INTO  NURSE VALUES (444,'BHAVANI');
INSERT INTO  NURSE VALUES (555,'BHANU');
INSERT INTO  NURSE VALUES (666,'PAVANI');
INSERT INTO  NURSE VALUES (777,'KALYANI');
INSERT INTO  NURSE VALUES (100,'NAMRATHA');
INSERT INTO  NURSE VALUES (200,'DEEPIKA');
INSERT INTO  NURSE VALUES (300,'LORETTA');
INSERT INTO  NURSE VALUES (400,'EMILY');
INSERT INTO  NURSE VALUES (500,'HARITHA');
INSERT INTO  NURSE VALUES (600,'SONAL');
INSERT INTO  NURSE VALUES (700,'UMA');
INSERT INTO  NURSE VALUES (800,'PRANATHI');
INSERT INTO  NURSE VALUES (900,'PREETHI');
INSERT INTO  NURSE VALUES (150,'PRIYANKA');
INSERT INTO  NURSE VALUES (250,'KAJAL');


INSERT INTO RECEPTIONIST VALUES (987,'akshay');
INSERT INTO RECEPTIONIST VALUES (654,'mahaveer');
INSERT INTO RECEPTIONIST VALUES (599,'ram');
INSERT INTO RECEPTIONIST VALUES (423,'rakesh');
```

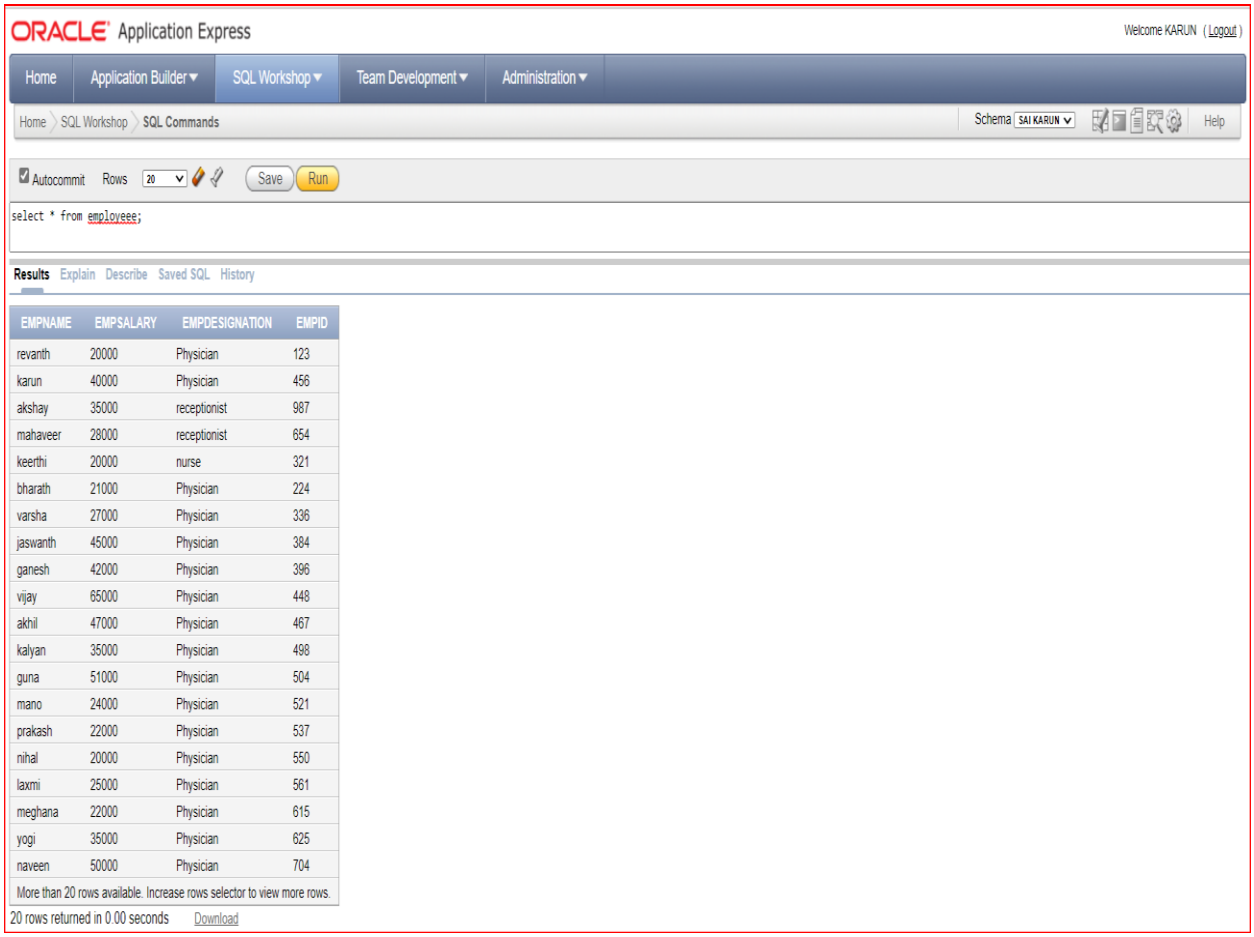
```
INSERT INTO RECEPTIONIST VALUES (951,'prasad');
INSERT INTO RECEPTIONIST VALUES (159,'srimanth');
INSERT INTO RECEPTIONIST VALUES (753,'douglas');
INSERT INTO RECEPTIONIST VALUES (357,'aravind');
INSERT INTO RECEPTIONIST VALUES (963,'calvin');
INSERT INTO RECEPTIONIST VALUES (369,'sadiya');
INSERT INTO RECEPTIONIST VALUES (258,'amulya');
INSERT INTO RECEPTIONIST VALUES (208,'geethika');
INSERT INTO RECEPTIONIST VALUES (705,'shravya');
INSERT INTO RECEPTIONIST VALUES (644,'pratyusha');
INSERT INTO RECEPTIONIST VALUES (588,'chandana');
INSERT INTO RECEPTIONIST VALUES (775,'niharika');
INSERT INTO RECEPTIONIST VALUES (636,'ravi');
INSERT INTO RECEPTIONIST VALUES (759,'tanmay');
INSERT INTO RECEPTIONIST VALUES (954,'bindu');
INSERT INTO RECEPTIONIST VALUES (632,'mahima');


INSERT INTO  WARDS VALUES (1,1200,'ICU');
INSERT INTO  WARDS VALUES (2,1000,'ICU');
INSERT INTO  WARDS VALUES (3,1300,'ICU');
INSERT INTO  WARDS VALUES (4,1100,'ICU');
INSERT INTO  WARDS VALUES (5,1500,'ICU');
INSERT INTO  WARDS VALUES (6,2000,'ICU');
INSERT INTO  WARDS VALUES (7,2100,'ICU');
INSERT INTO  WARDS VALUES (8,1600,'ICU');
INSERT INTO  WARDS VALUES (9,1800,'ICU');
INSERT INTO  WARDS VALUES (10,1900,'ICU');
INSERT INTO  WARDS VALUES (11,2500,'GEN WARD');
INSERT INTO  WARDS VALUES (12,2400,'GEN WARD');
INSERT INTO  WARDS VALUES (13,2400,'GEN WARD');
INSERT INTO  WARDS VALUES (14,3600,'GEN WARD');
INSERT INTO  WARDS VALUES (15,3000,'GEN WARD');
INSERT INTO  WARDS VALUES (16,2800,'EME WARD');
INSERT INTO  WARDS VALUES (17,2900,'EME WARD');
INSERT INTO  WARDS VALUES (18,4100,'EME WARD');
INSERT INTO  WARDS VALUES (19,3500,'EME WARD');
INSERT INTO  WARDS VALUES (20,3100,'EME WARD');
```

SQL Queries:

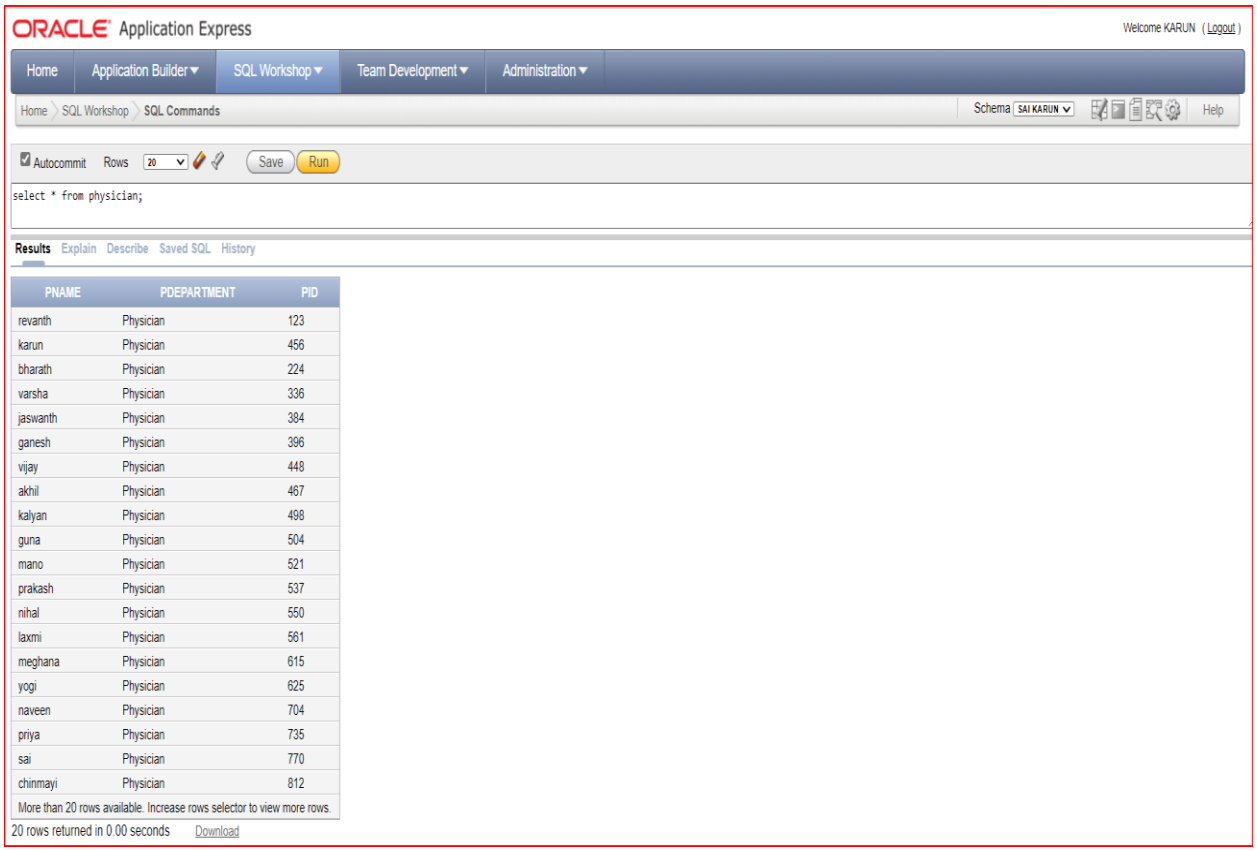
Data:

EMPLOYEE TABLE:

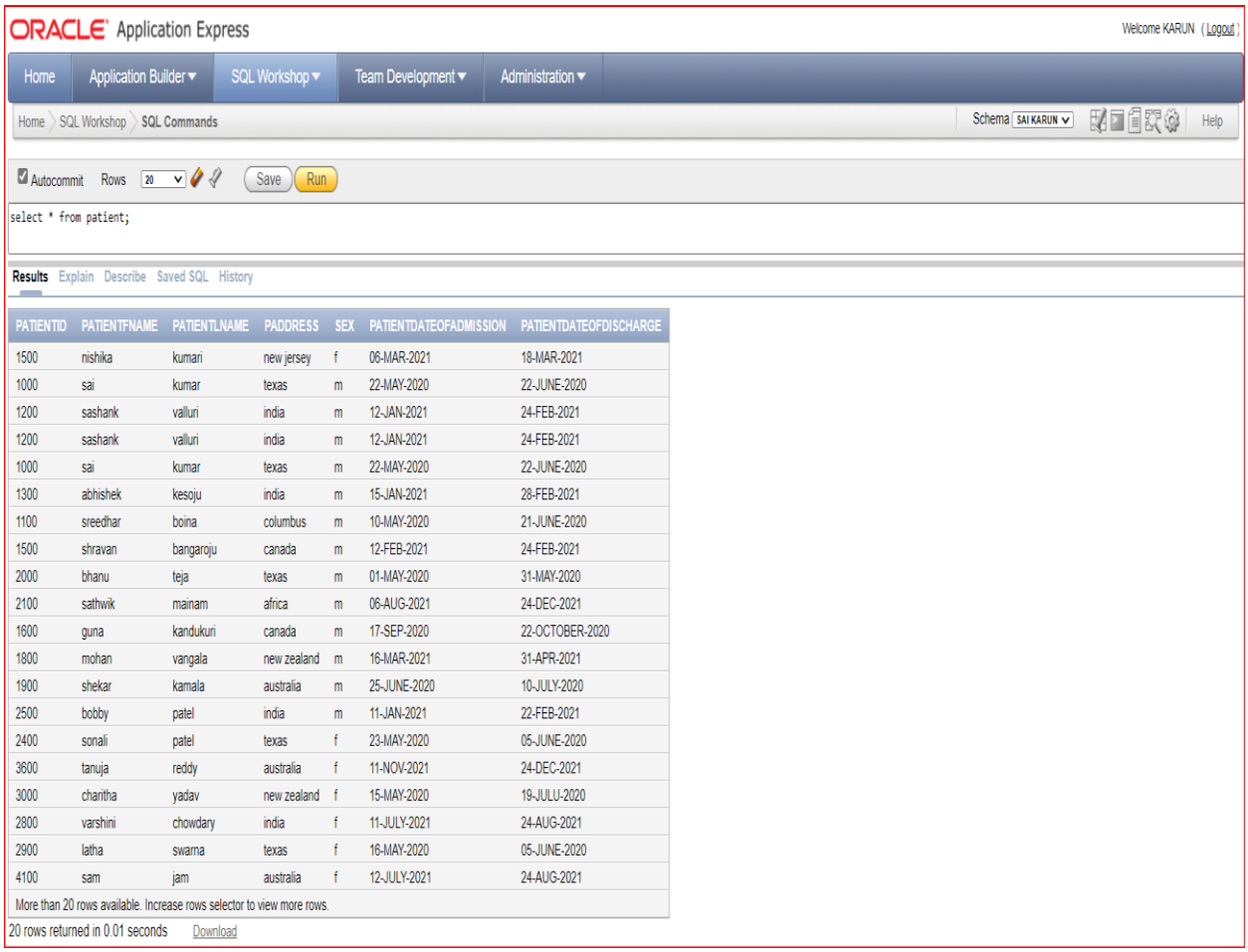


EMPNAME	EMPSALARY	EMPDESIGNATION	EMPID
revanth	20000	Physician	123
karun	40000	Physician	456
akshay	35000	receptionist	987
mahaveer	28000	receptionist	654
keerthi	20000	nurse	321
bharath	21000	Physician	224
varsha	27000	Physician	336
jaswanth	45000	Physician	384
ganesh	42000	Physician	396
vijay	65000	Physician	448
akhil	47000	Physician	467
kalyan	35000	Physician	498
guna	51000	Physician	504
mano	24000	Physician	521
prakash	22000	Physician	537
nihal	20000	Physician	550
laxmi	25000	Physician	561
meghana	22000	Physician	615
yogi	35000	Physician	625
naveen	50000	Physician	704

PHYSICIAN TABLE:

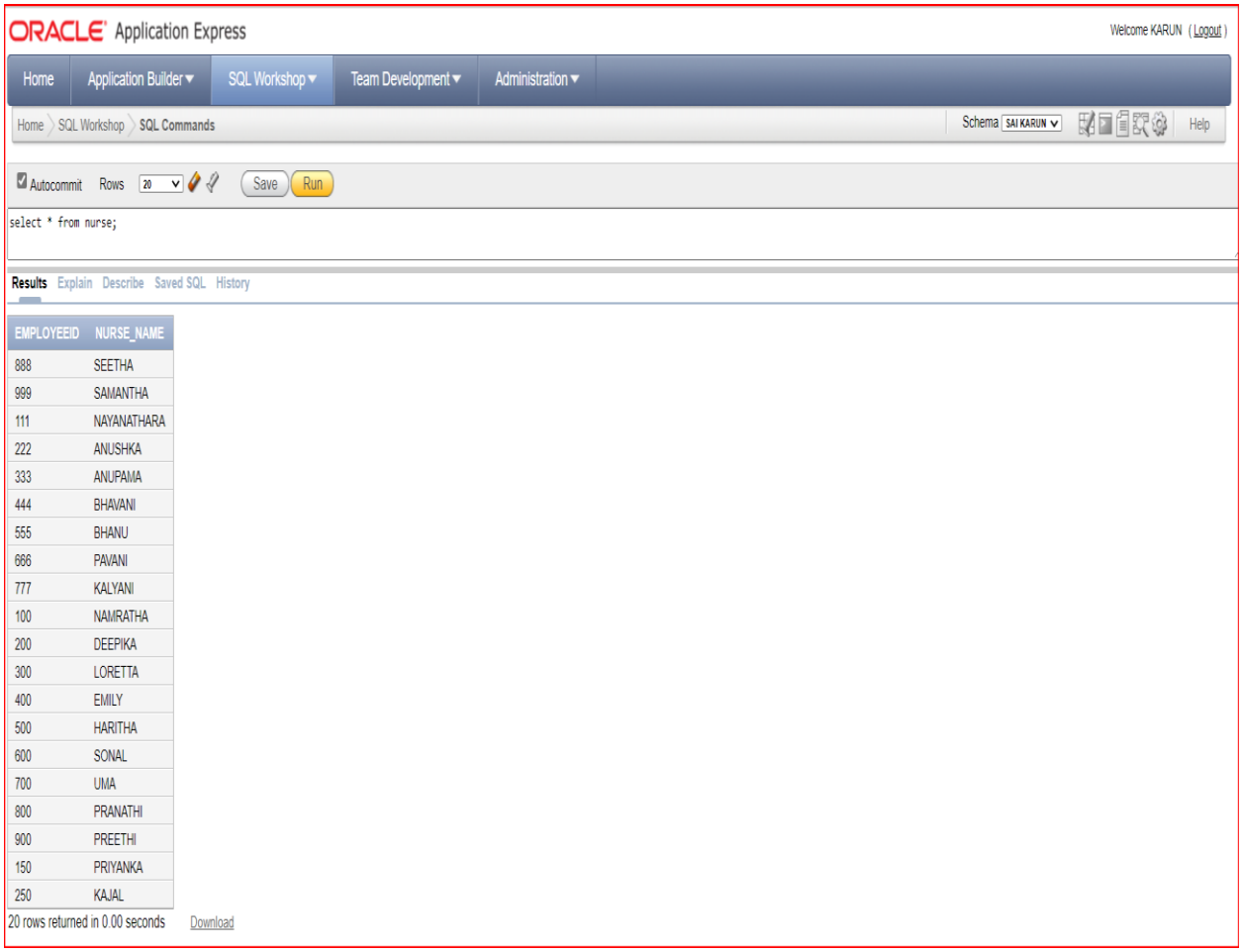


PATIENT TABLE:

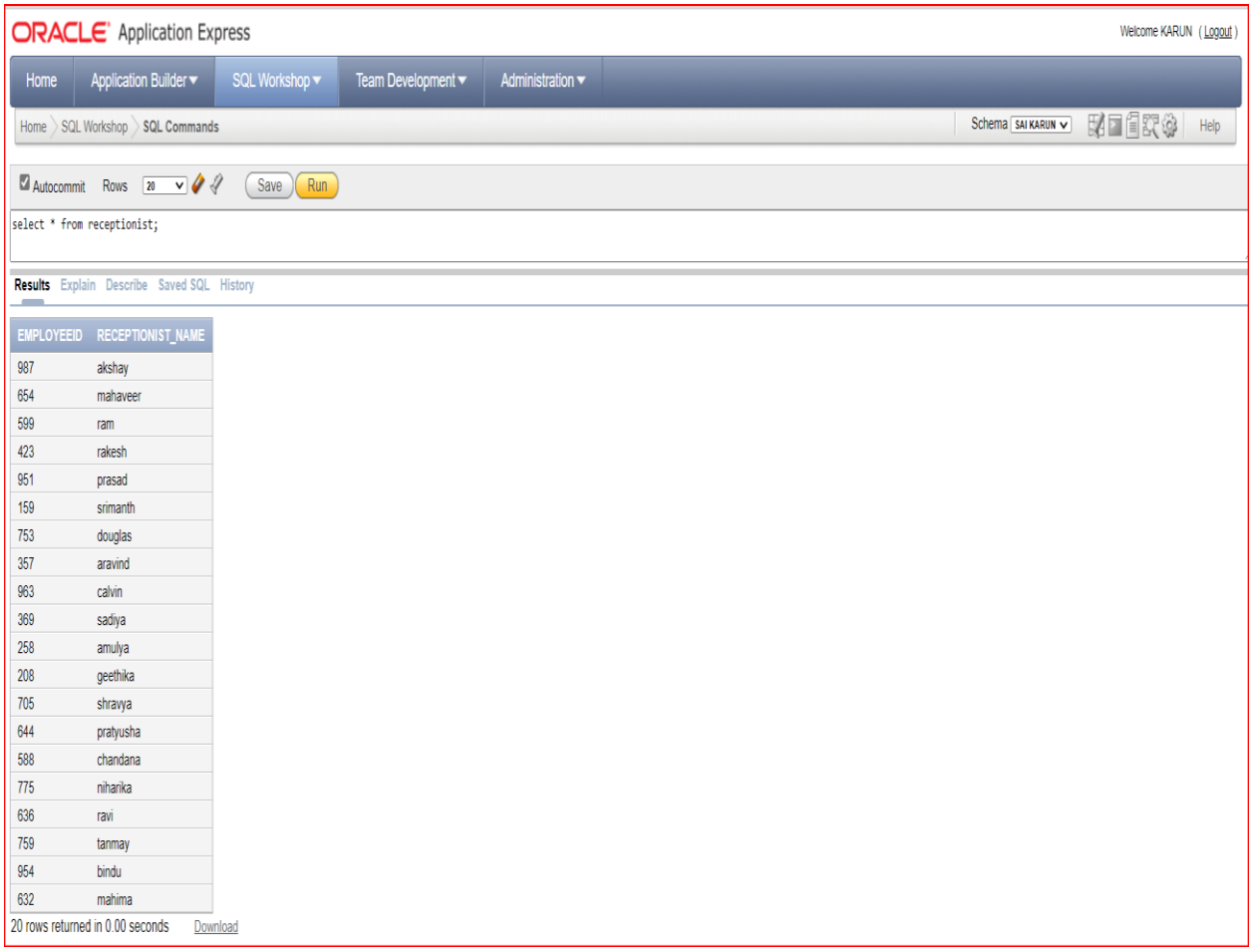


PATIENTID	PATIENTFNAME	PATIENTLNAME	PADDRESS	SEX	PATIENTDATEOFADMISSION	PATIENTDATEOFDISCHARGE
1500	nishika	kumari	new jersey	f	06-MAR-2021	18-MAR-2021
1000	sai	kumar	texas	m	22-MAY-2020	22-JUNE-2020
1200	sashank	valluri	india	m	12-JAN-2021	24-FEB-2021
1200	sashank	valluri	india	m	12-JAN-2021	24-FEB-2021
1000	sai	kumar	texas	m	22-MAY-2020	22-JUNE-2020
1300	abhishek	kesoju	india	m	15-JAN-2021	28-FEB-2021
1100	sreedhar	boina	columbus	m	10-MAY-2020	21-JUNE-2020
1500	shravan	bangaroju	canada	m	12-FEB-2021	24-FEB-2021
2000	bhanu	teja	texas	m	01-MAY-2020	31-MAY-2020
2100	sathwik	mainam	africa	m	06-AUG-2021	24-DEC-2021
1600	guna	kandukuri	canada	m	17-SEP-2020	22-OCTOBER-2020
1800	mohan	vangala	new zealand	m	16-MAR-2021	31-APR-2021
1900	shekar	kamala	australia	m	25-JUNE-2020	10-JULY-2020
2500	bobby	patel	india	m	11-JAN-2021	22-FEB-2021
2400	sonali	patel	texas	f	23-MAY-2020	05-JUNE-2020
3600	tanuja	reddy	australia	f	11-NOV-2021	24-DEC-2021
3000	charitha	yadav	new zealand	f	15-MAY-2020	19-JULU-2020
2800	varshini	chowdary	india	f	11-JULY-2021	24-AUG-2021
2900	latha	swarna	texas	f	16-MAY-2020	05-JUNE-2020
4100	sam	jam	australia	f	12-JULY-2021	24-AUG-2021

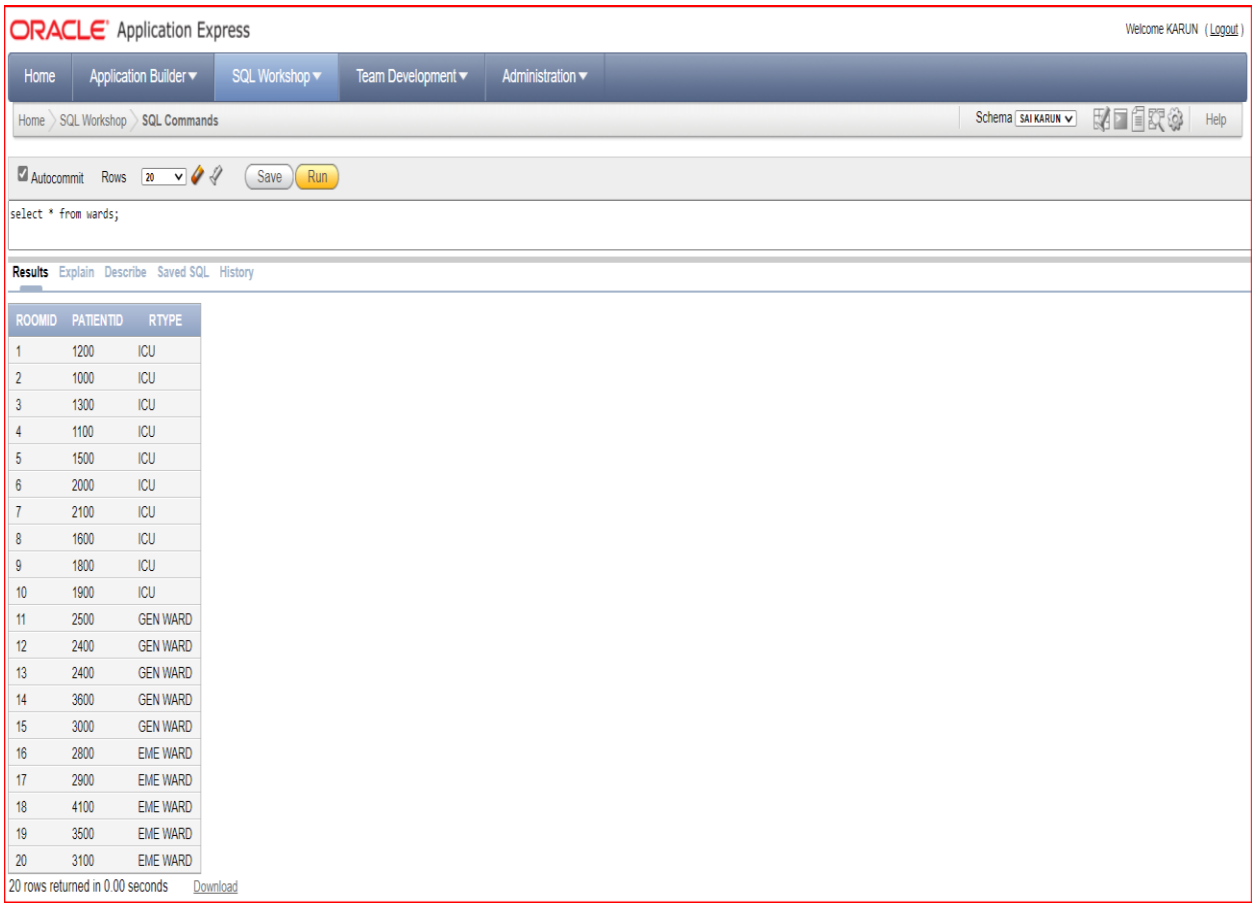
NURSE TABLE:


ORACLE Application Express
Welcome KARUN (Logout)
Home
Application Builder
SQL Workshop
Team Development
Administration
Home SQL Workshop SQL Commands
Schema SAI KARUN
Help
Autocommit
Rows 20
Save
Run
select * from nurse;
Results Explain Describe Saved SQL History
EMPLOYEEID NURSE_NAME
888 SEETHA
999 SAMANTHA
111 NAYANATHARA
222 ANUSHKA
333 ANUPAMA
444 BHAVANI
555 BHANU
666 PAVANI
777 KALYANI
100 NAMRATHA
200 DEEPIKA
300 LORETTA
400 EMILY
500 HARITHA
600 SONAL
700 UMA
800 PRANATHI
900 PREETHI
150 PRIYANKA
250 KAJAL
20 rows returned in 0.00 seconds
Download

RECEPTIONIST TABLE:



WARDS TABLE:

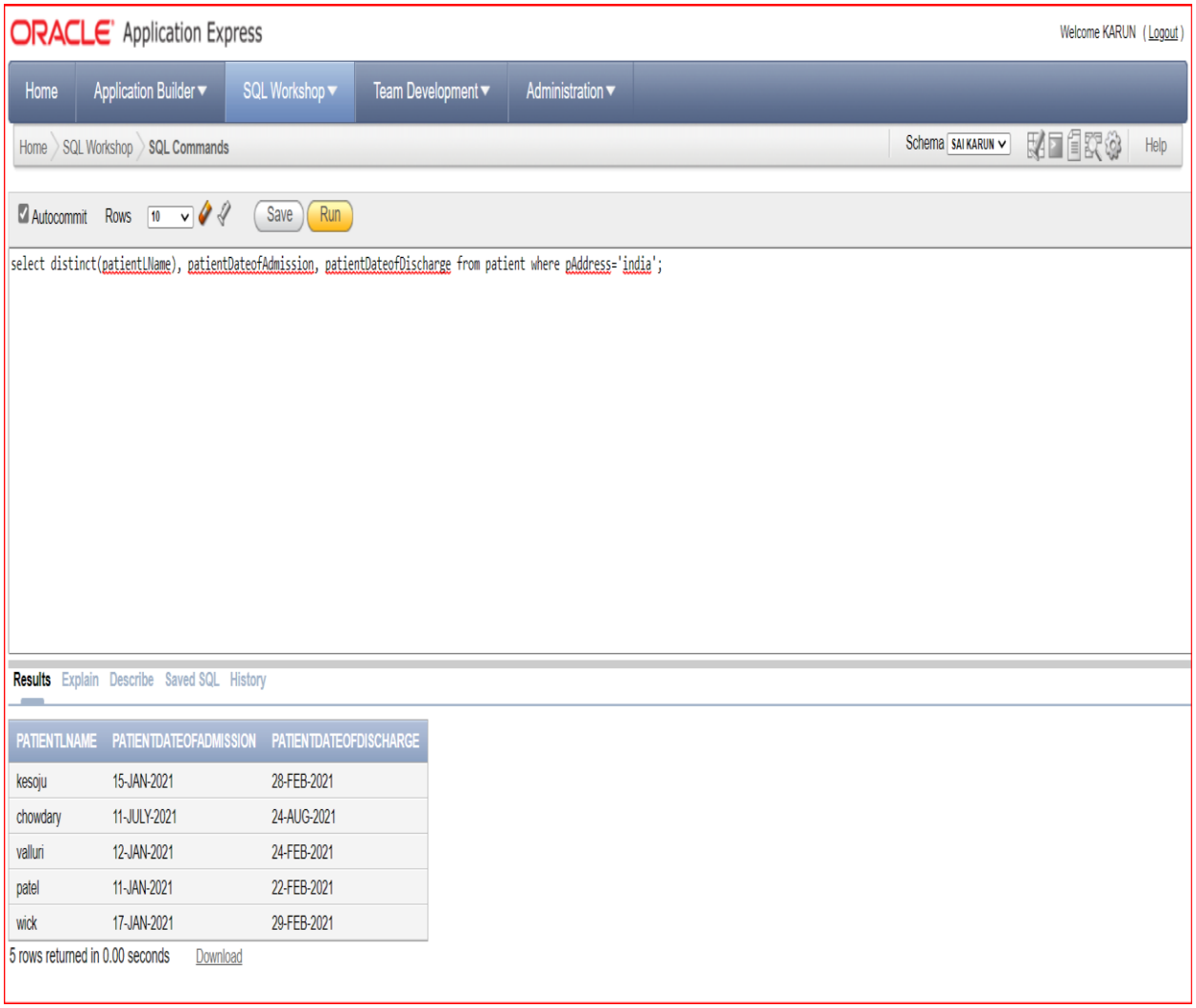


ROOMID	PATIENTID	RTYPE
1	1200	ICU
2	1000	ICU
3	1300	ICU
4	1100	ICU
5	1500	ICU
6	2000	ICU
7	2100	ICU
8	1600	ICU
9	1800	ICU
10	1900	ICU
11	2500	GEN WARD
12	2400	GEN WARD
13	2400	GEN WARD
14	3600	GEN WARD
15	3000	GEN WARD
16	2800	EME WARD
17	2900	EME WARD
18	4100	EME WARD
19	3500	EME WARD
20	3100	EME WARD

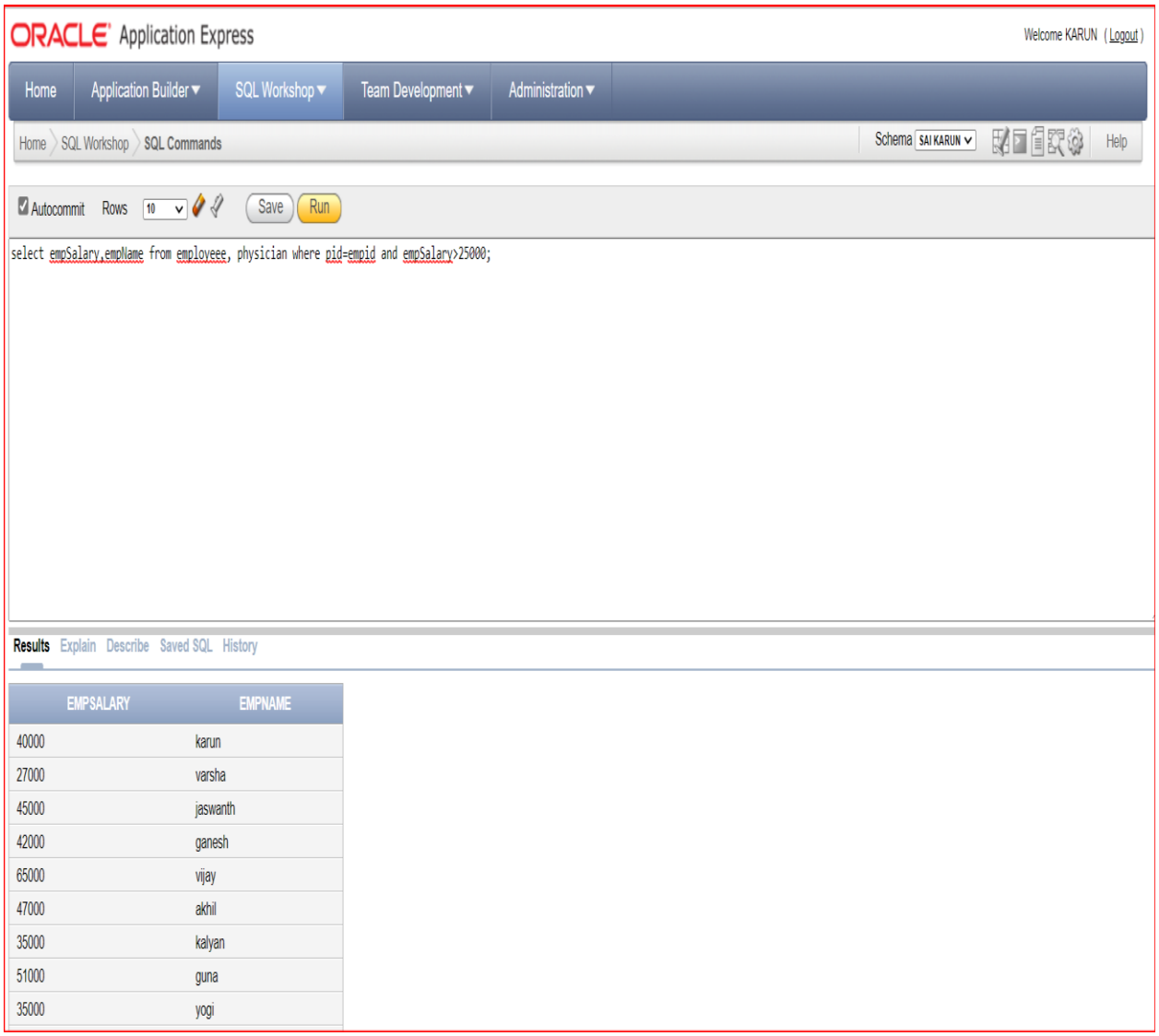
Data Manipulation:

Sample Queries for Retrieving the Data:

1. SELECT DISTINCT(PATIENTLNAME), PATIENTDATEOFADMISSION, PATIENTDATEOFDISCHARGE FROM PATIENT WHERE PADDRESS='INDIA';

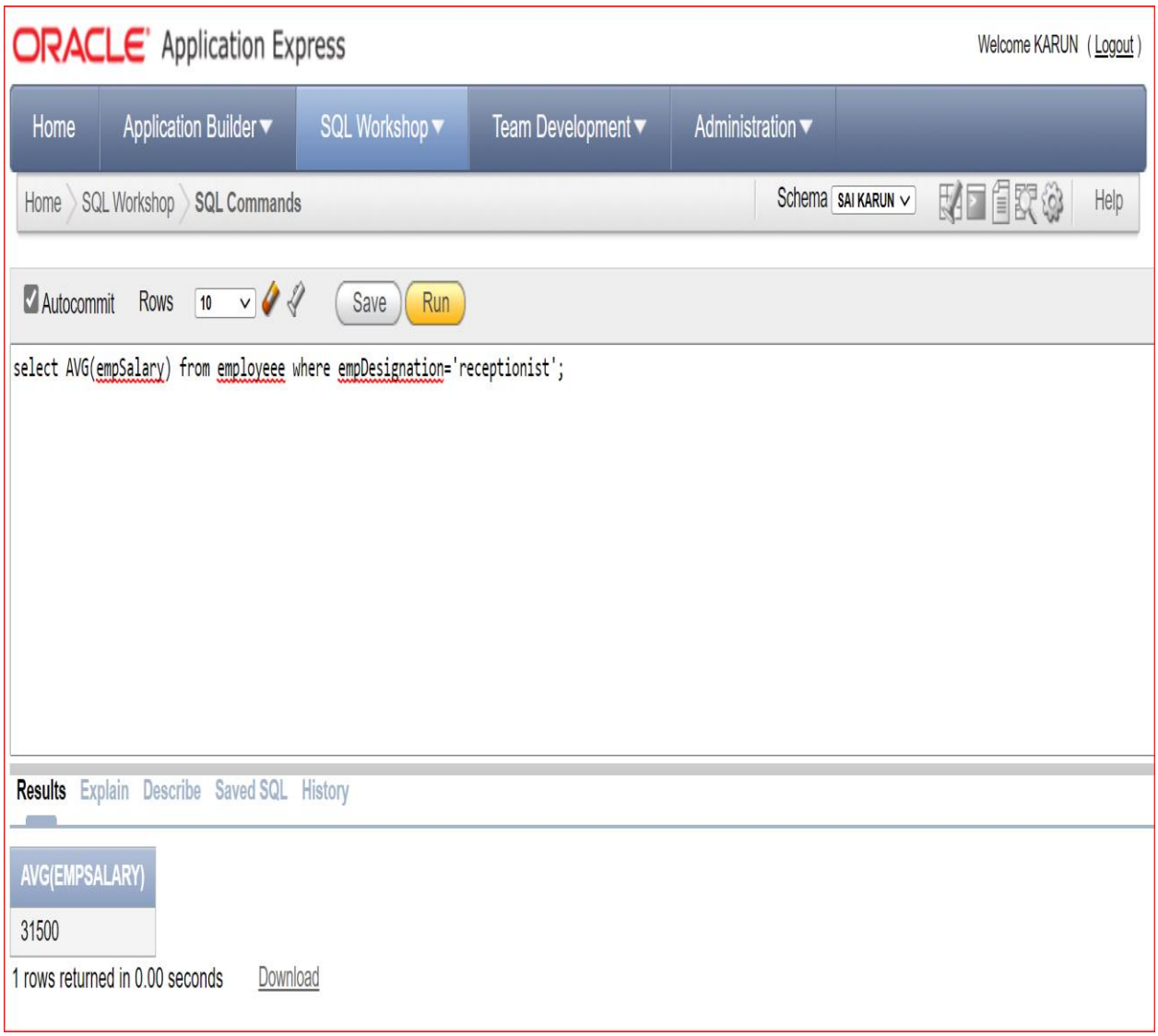


2. SELECT EMPSALARY,EMPNAME FROM EMPLOYEEE, PHYSICIAN WHERE PID=EMPID AND EMPSALARY>25000;

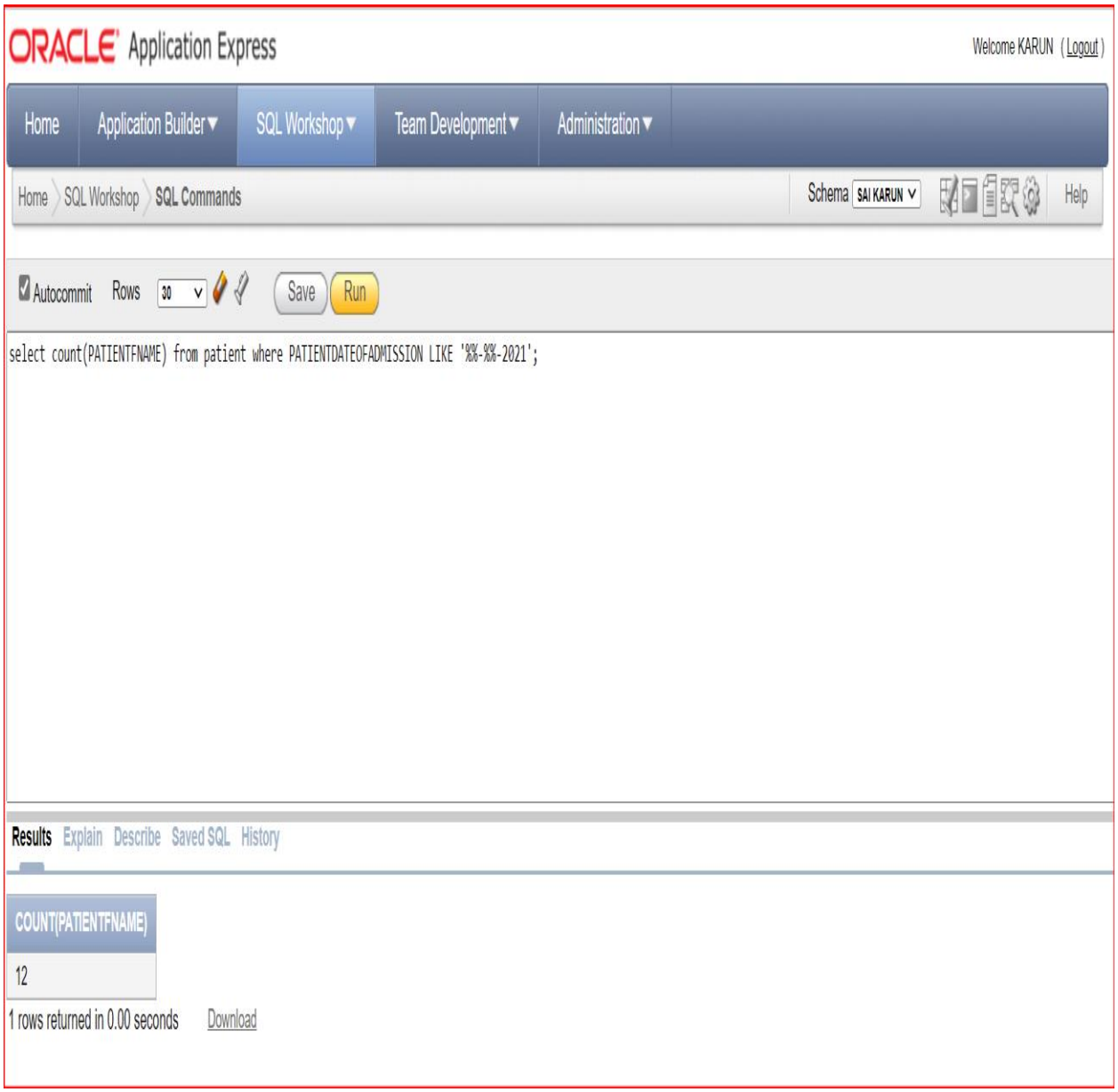


EMPSALARY	EMPNAME
40000	karun
27000	varsha
45000	jaswanth
42000	ganesh
65000	vijay
47000	akhil
35000	kalyan
51000	guna
35000	yogi

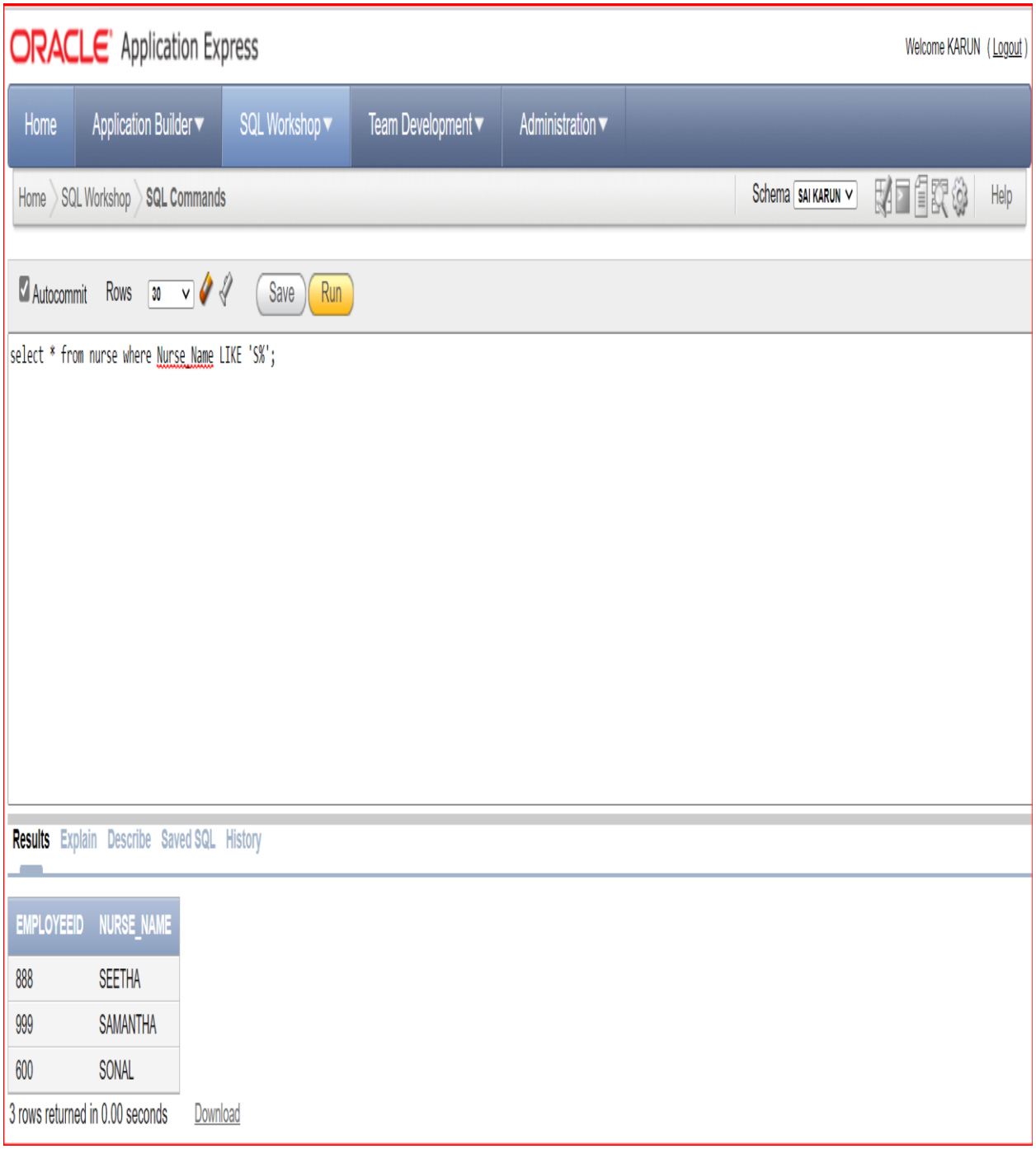
3. SELCET AVG(EMPSALARY) FROM EMPLOYEEE WHERE EMPDESIGNATION = ‘RECEPTIONIST’;



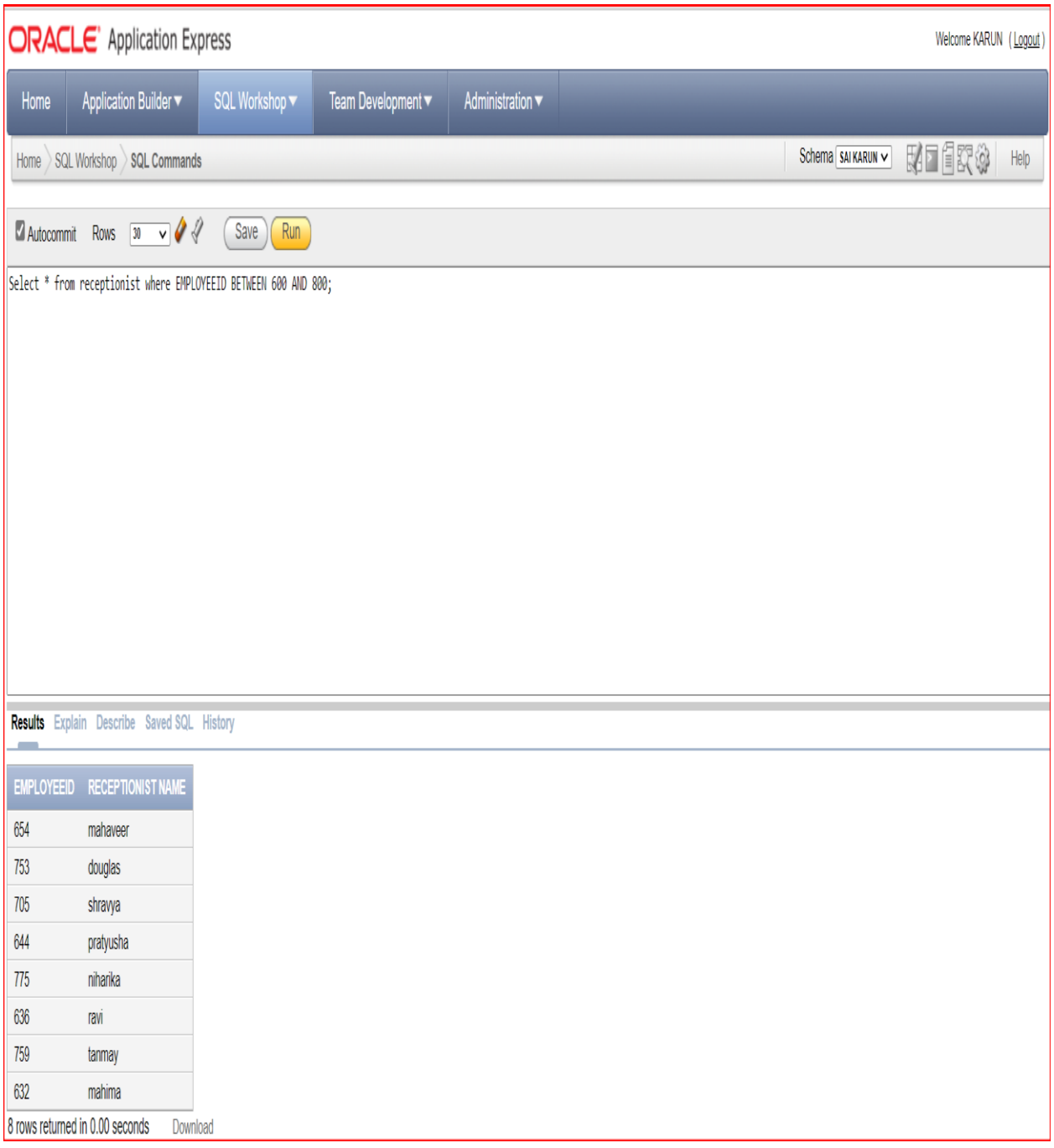
4. SELECT COUNT(PATIENTFNAME) FROM PATIENT WHERE PATIENTDATEOFADMISSION LIKE '%%-%%-2021';



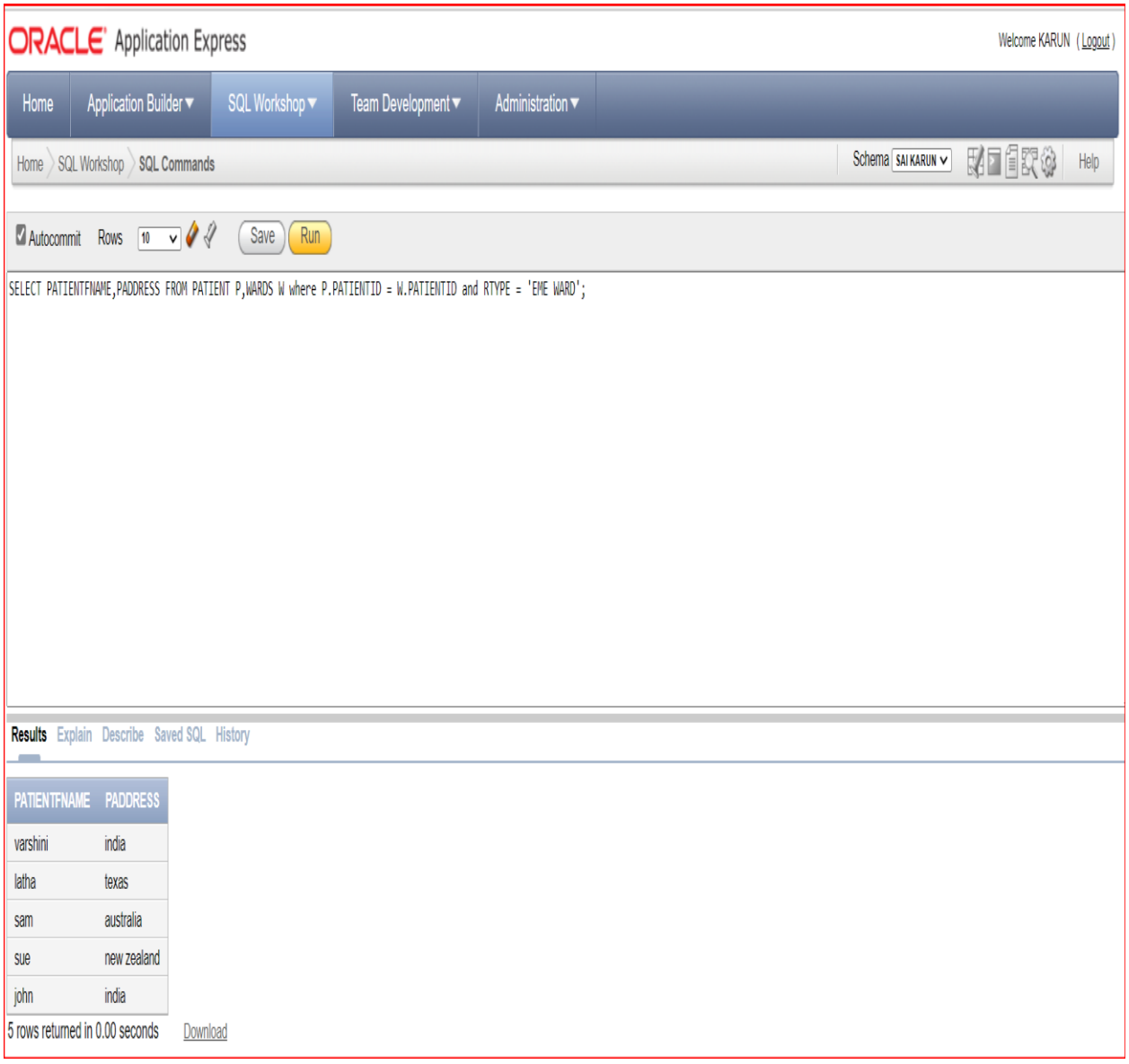
5. SELECT * FROM NURSE WHERE NURSE_NAME LIKE 'S%';



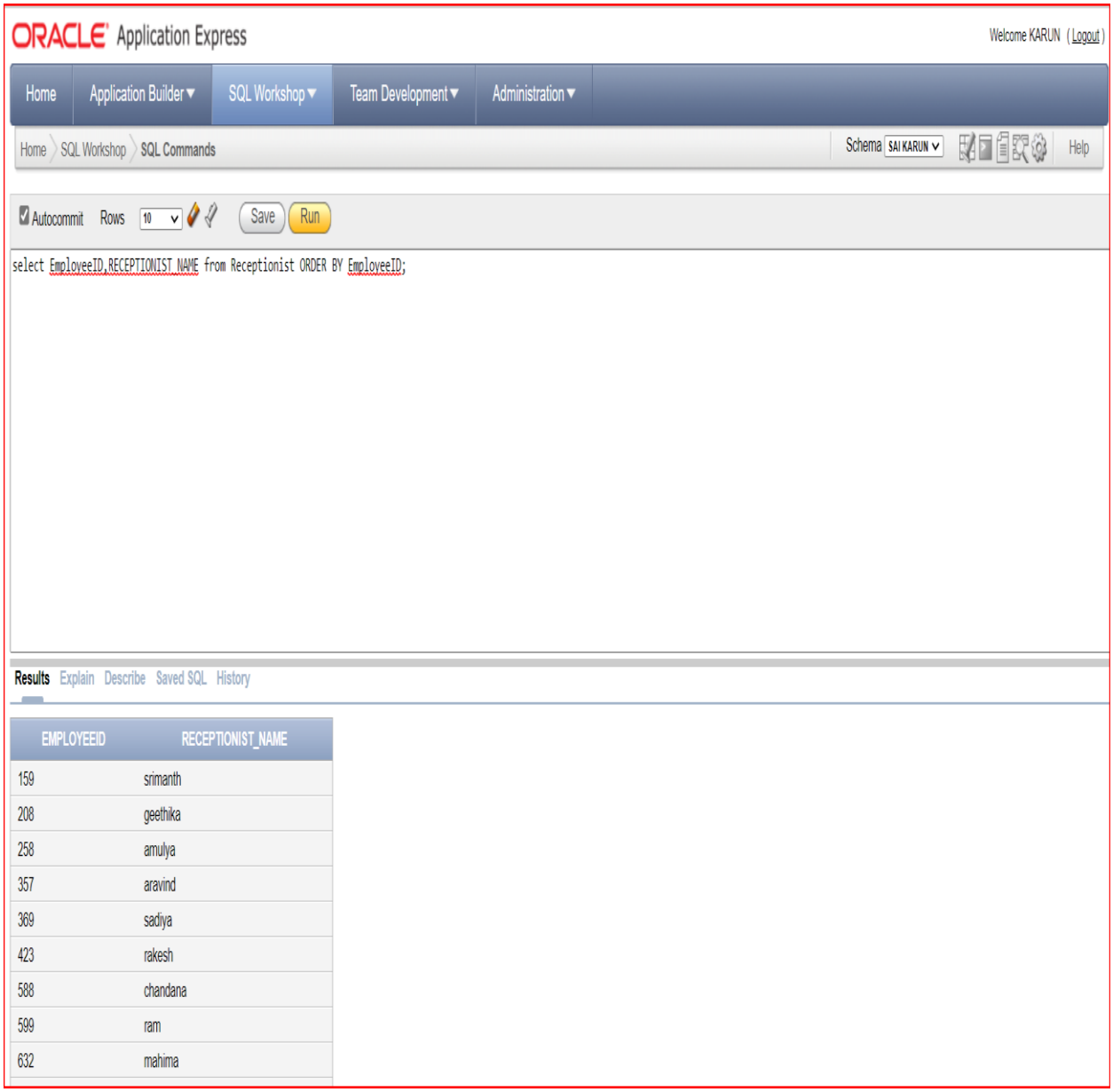
6. SELECT * FROM RECEPTIONIST WHERE EMPLOYEEID BETWEEN 600 AND 800;



7. SELECT PATIENTFNAME,PADDRESS FROM PATIENT P,WARDS W where P.PATIENTID = W.PATIENTID and RTYPE = 'EME WARD';

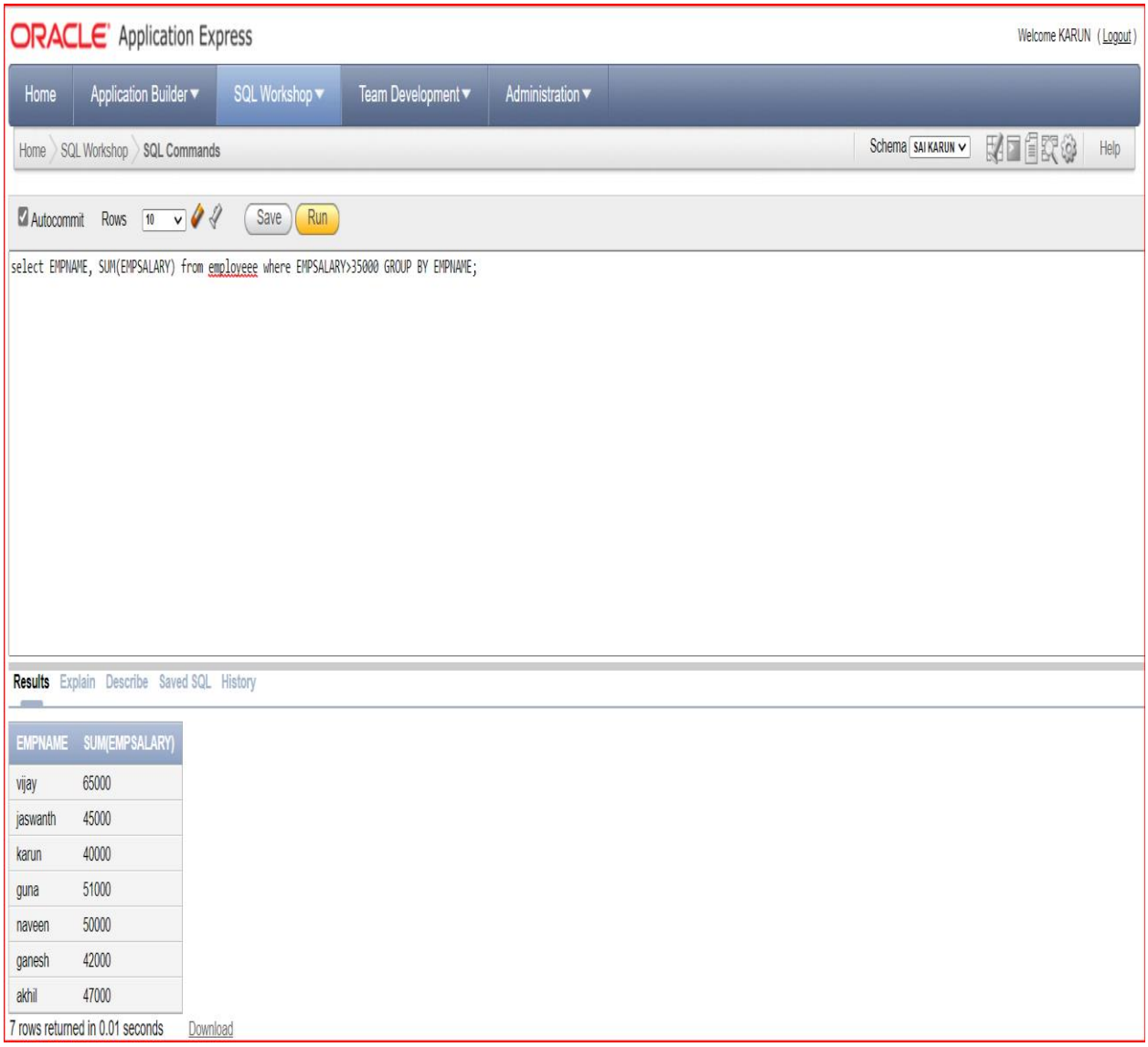


8. SELECT EMPLOYEEID,RECEPTIONIST_NAME FROM RECEPTIONIST ORDER BY EMPLOYEEID;

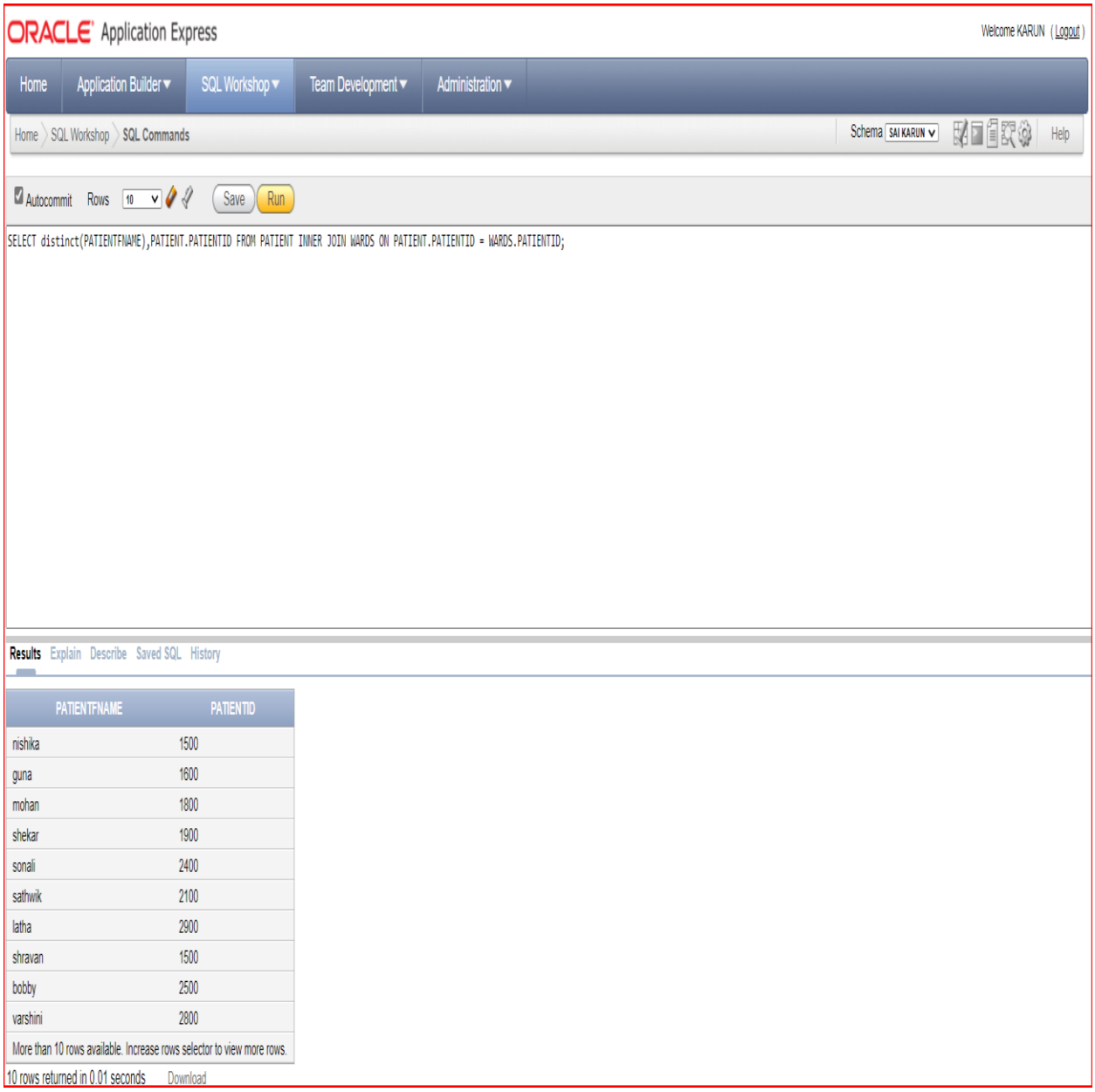


EMPLOYEEID	RECEPTIONIST_NAME
159	srimanth
208	geethika
258	amulya
357	aravind
369	sadiya
423	rakesh
588	chandana
599	ram
632	mahima

9. SELECT EMPNAME, SUM(EMPSALARY) FROM EMPLOYEEE WHERE EMPSALARY>35000 GROUP BY EMPNAME;



10. SELECT distinct(PATIENTFNAME),PATIENT.PATIENTID FROM PATIENT INNER JOIN WARDS ON PATIENT.PATIENTID = WARDS.PATIENTID;



11. SELECT * FROM PATIENT WHERE PATIENTID BETWEEN 1500 AND 1800 AND SEX='F';

Observations:

After going through a lot of project topics, we finally found that a database management system for a Hospital is an interesting and useful topic. We started by developing an ER diagram and then went on to building the database using Oracle. We have used Oracle 2 years before and hence it took some time for us to learn it's working. As we had enough time to finish the project, we created a good and massive database and implemented a lot of queries. But we put only few of them here. We have tried to include as much information as possible in this project report. We believe we have created the project as per the expectations and yielded good outputs.