



AMERICAN INTERNATIONAL UNIVERSITY BANGLADESH

PROJECT: HELPING HAND MANAGEMENT SYSTEM

COURSE NAME: ADVANCE DATABASE MANAGEMENT SYSTEM

SECTION: A

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Introduction

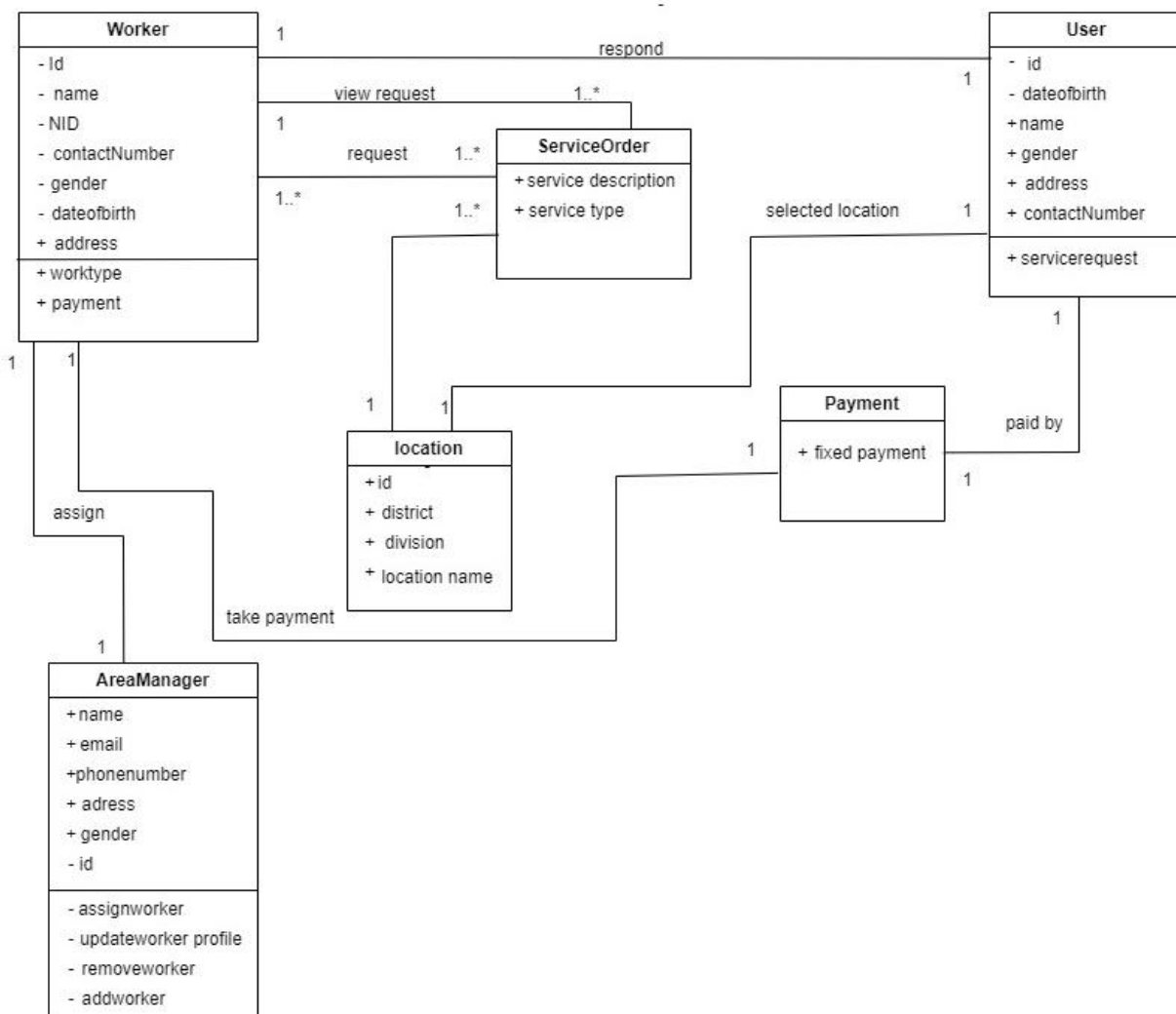
In today's dynamic and interconnected world, the demand for effective management systems to streamline assistance and support is more crucial than ever. Life can get pretty busy, and keeping track of everything at home can sometimes feel overwhelming. That's where our system comes in to lend a hand. It ensures that help reaches those who need it most, when they need it. With intuitive features and user-friendly interfaces, managing household tasks becomes a breeze, allowing you to spend more time enjoying moments together and less time worrying about the little details. By having such a system in place, we can optimize resource allocation, minimize waste, and maximize the impact of our assistance efforts, ultimately making a positive difference in the lives of individuals and communities in need.

Project Proposal

A Helping Hand Management System makes our daily lives easier by giving us quick access to essential services like healthcare and social support. It saves time and effort by organizing assistance efficiently. During tough times, it ensures help arrives fast, giving us peace of mind. Plus, it provides personalized support that targets our specific needs. By connecting us with local resources and support networks, it helps us feel more connected and supported in our daily routines. Our management system offers most of the features that needs a good management system. We aim to refine the system to meet the specific needs of our target users, empowering them to manage their daily responsibilities more effectively and fostering a harmonious and supportive household environment.

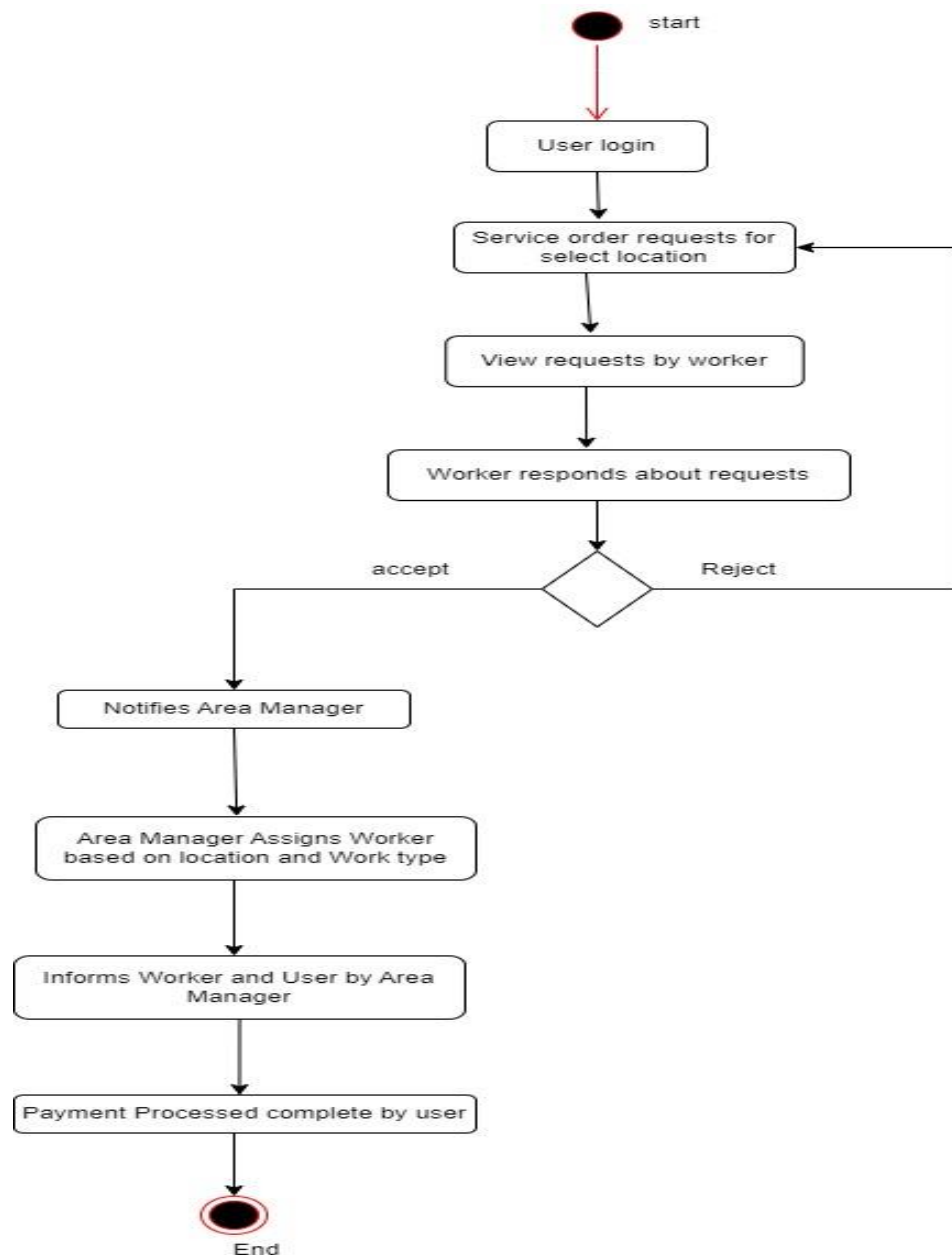
Class Diagram

An User can request for a service order. For creation a service order request the user need to create a user id first, by giving their User Name, Email, Date of Birth, Gender, Contact Number, Address. The user can send the service order request for their services. Under the service order that includes details about the requested service. A worker after seeing this he can confirm the service order. After confirmation an area manager can assigns workers to service orders based on location.. An area manager also can add worker, remove worker. If the user request for many service order the area manager assign workers same process but for different services. After completing services the user payment upon budget that fixed for different services. The payment will accept by worker.



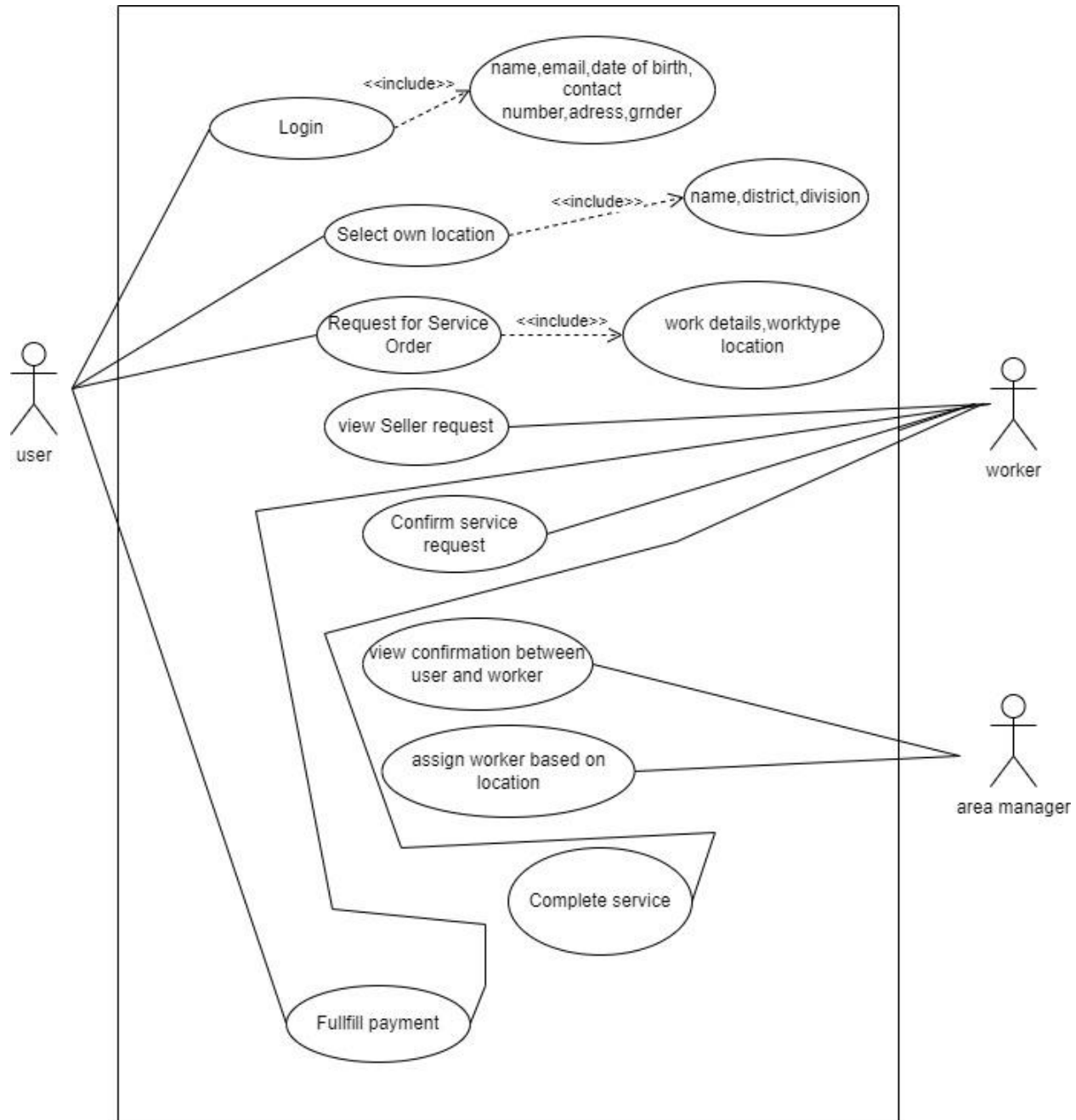
Activity Diagram

The user can submit a request for service order through the online system. This request includes details like service type, location, and others. The system automatically appear this notification to all available workers profile in the user's area. A worker with this qualification interested in the service order he can respond and showing their availability. Otherwise they can cancel reject the request. This process notifies by the Area Manager about the service request and worker response. Based on worker work type and location the Area Manager assigns a worker to the service request. Then area manger informs both the assigned worker and the user about the confirmation. The payment processing will happend between the user and the worker.

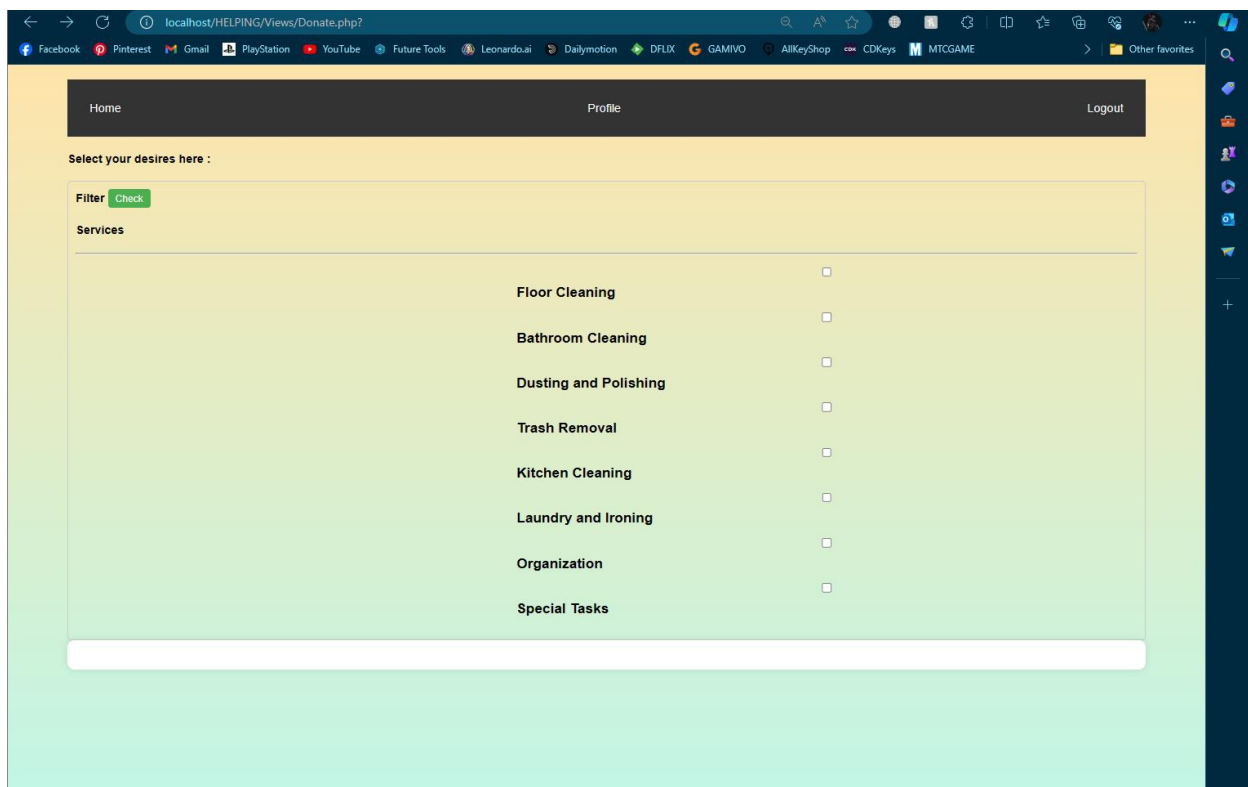
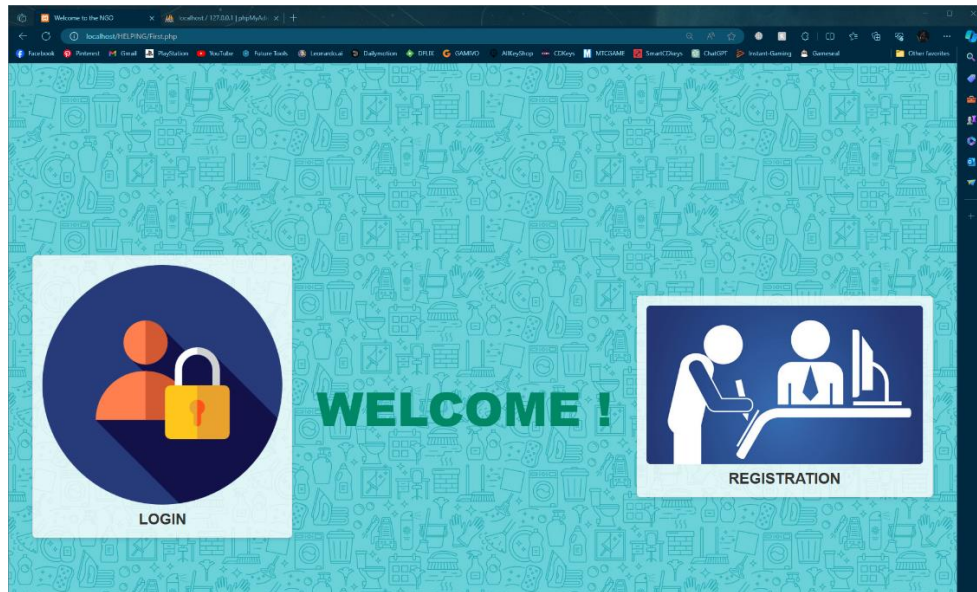


Use Case Diagram

The user can send request for service order for many services(house keeper, transfer goods others). The user includes their all service details in this request . And the requests will appear separate worker based on their work type by the system process. Then the workers of this location with the order type qualification will responds. The worker can accept the request. After notifies this the area manager of this location assign the workers by their work type and location . After completing the services user will payment the workers.



User Interface



localhost/HELPING/Views/DonorList.php

FacebookPinterestGmailPlayStationYouTubeFuture ToolsLeonardo.aiDailymotionDFLIXGAMIVOAllKeyShopCDKeysMTCGAMEOther favorites

HomeProfileLogout

Maid ListAdd Maid

Search for maids..

ID	Name	Mobile	Schedule	Address	Action
23	Sayduzzaman Rafsan	+8801916816993	8-10 Am	Use as default shipping & billing address	UpdateRemove

localhost/HELPING/Views/price.php

FacebookPinterestGmailPlayStationYouTubeFuture ToolsLeonardo.aiDailymotionDFLIXGAMIVOAllKeyShopCDKeysMTCGAMEOther favorites

Check Price

Hourly\$200/hour

Monthly\$1400/month

localhost/HELPING/Views/support.php#

FacebookPinterestGmailPlayStationYouTubeFuture ToolsLeonardo.aiDailymotionDFLIXGAMIVOAllKeyShopCDKeysMTCGAMEOther favorites

Support Options

FAQs

Find answers to common questions in our Frequently Asked Questions section.

View FAQs

Contact Us

Have a specific question or issue? Contact our support team for assistance.

Contact Support

Live Chat

Chat with our support representatives in real-time for immediate assistance.

Start Live Chat

Email Support

Send us an email with your questions or concerns, and we'll get back to you promptly.

Send Email

Knowledge Base

Explore our comprehensive Knowledge Base for in-depth guides and tutorials.

Browse Knowledge Base

Feedback

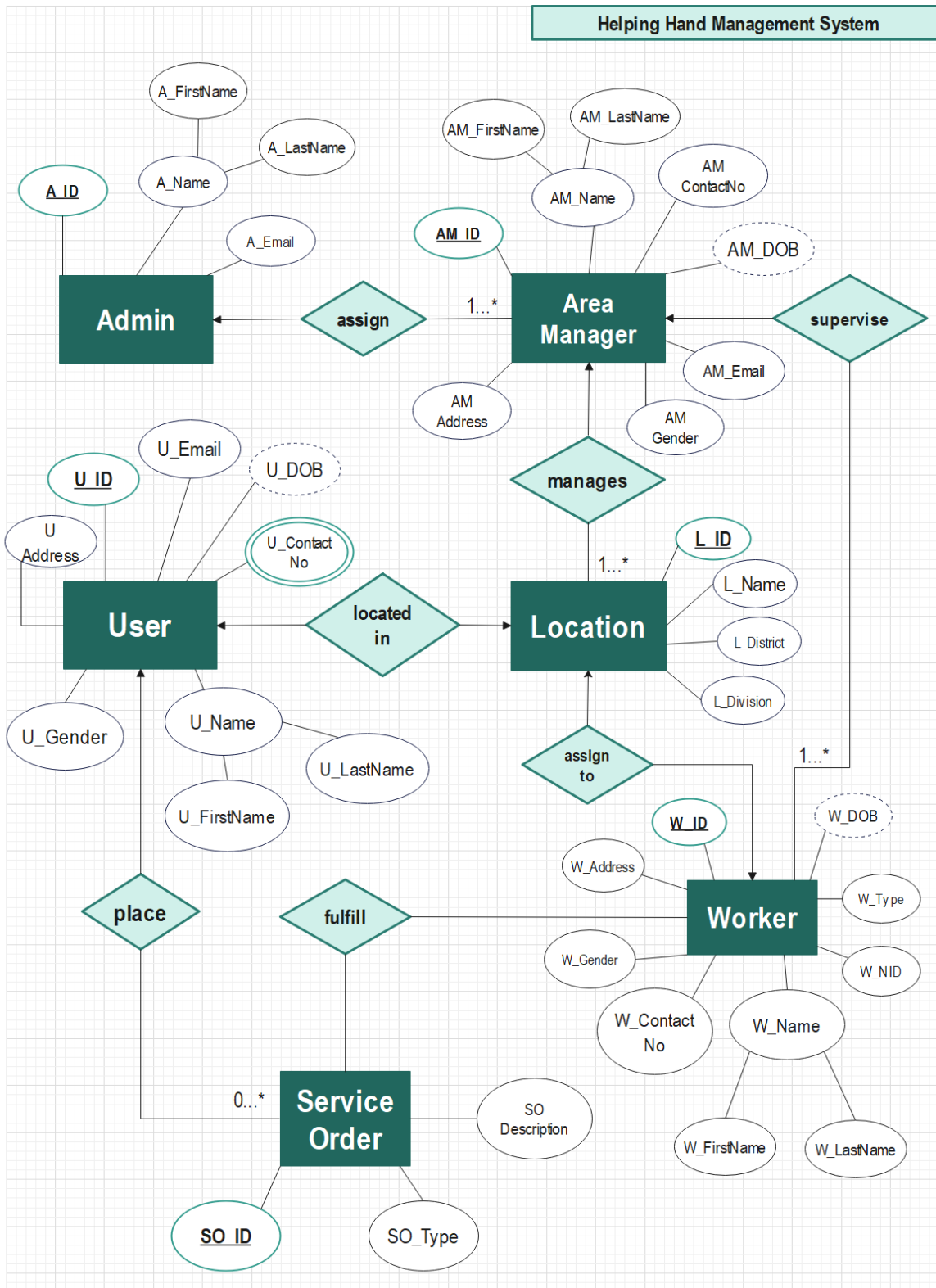
Share your feedback with us to help us improve our products and services.

Give Feedback

Scenario Description

In a Helping Hand Management System, An Admin can assign at least one Area Manager. The Area Manager information composed of Name, Email, Contact Number, Date of Birth, Address, Gender and identified by Area Manager ID which is assign by exactly one Admin. The database also stores the Admin Name, Email and Identify by Admin ID. The Area Manager manages at least one Location. The Location address is composed of Location Name, District, Division and identified by Location ID which is manages by exactly one Area Manager. Exactly one Worker assign to exactly one Location. The Worker information composed of Name, Gender, Contact Number, NID, Date of Birth, Worker type, Address and identify by Worker ID. Exactly one User Located in exactly one Location. The database stores the User information which is composed of User Name, Email, Date of Birth, Gender, Contact Number, Address and identify user by its User ID. Database can store multiple Contact Number of the User. The User can place many Service Order but many Service Order may place by exactly one User. Also, Many Service Order fulfil by many Workers. The information of Service Order (Service Type, Service Description) will be stored in the database. And Service order is identified by Service Order ID. The Area Manager supervise at least one Worker but the Worker is supervised by exactly one Area Manager in the database system. The database also records individuals' Names by storing the First Name in one field and the Last Name in another.

ER Diagram



Normalization:

Assign:

UNF: A_ID, A_FirstName, A_LastName, A_Email, AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB

1NF: 1st: A_ID, AM_ID, A_FirstName, A_LastName, A_Email, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB

2NF: 1st: A_ID, A_FirstName, A_LastName, A_Email

2nd: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB, A_ID

3NF: 1st: A_ID, A_FirstName, A_LastName, A_Email

2nd: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB, A_ID

Manages:

UNF: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB, L_ID, L_Name, L_District, L_Division

1NF: 1st: AM_ID, L_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB, L_Name, L_District, L_Division

2NF: 1st: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB

2nd: L_ID, L_Name, L_District, L_Division, AM_ID

3NF: 1st: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB

2nd: L_ID, L_Name, L_District, AM_ID

3rd: L_District, L_Division

Supervise

UNF: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB, W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB

1NF: 1st: AM_ID, W_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB

2NF: 1st: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB

2nd: W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB, AM_ID

3NF: 1st: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB

2nd: W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, AM_ID

3rd: W_NID, W_Gender, W_DOB

Assign to:

UNF: W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB, L_ID, L_Name, L_District, L_Division

1NF: 1st: W_ID, L_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB, L_Name, L_District, L_Division

2NF: 1st: W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB, L_ID

2nd: L_ID, L_Name, L_District, L_Division

3NF: 1st: W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, L_ID

2nd: W_NID, W_Gender, W_DOB

3rd: L_ID, L_Name, L_District

4th: L_District, L_Division

Located in:

UNF: U_ID, U_FirstName, U_LastName, U_Gender, U_Email, U_ContactNo, U_DOB, U_Address, L_ID, L_Name, L_District, L_Division

1NF: **1st:** U_ID, U_ContactNo, L_ID, U_FirstName, U_LastName, U_Gender, U_Email, U_DOB, U_Address, L_Name, L_District, L_Division

2NF: **1st:** U_ID, U_ContactNo, U_FirstName, U_LastName, U_Gender, U_Email, U_DOB, U_Address

2nd: L_ID, L_Name, L_District, L_Division

3rd: U_ID, L_ID

3NF: **1st:** U_ID, U_ContactNo, U_FirstName, U_LastName, U_Gender, U_Email, U_DOB, U_Address

2nd: L_ID, L_Name, L_District

3rd: L_District, L_Division

4th: U_ID, L_ID

Place:

UNF: U_ID, U_FirstName, U_LastName, U_Gender, U_Email, U_ContactNo, U_DOB, U_Address, SO_ID, SO_Type, SO_Description

1NF: **1st:** U_ID, U_ContactNo, SO_ID, U_FirstName, U_LastName, U_Gender, U_Email, U_DOB, U_Address, SO_Type, SO_Description

2NF: **1st:** U_ID, U_ContactNo, U_FirstName, U_LastName, U_Gender, U_Email, U_DOB, U_Address

2nd: SO_ID, SO_Type, SO_Description

3rd: U_ID, SO_ID

3NF: **1st:** U_ID, U_ContactNo, U_FirstName, U_LastName, U_Gender, U_Email, U_DOB, U_Address

2nd: SO_ID, SO_Type, SO_Description

3rd: U_ID, SO_ID

Fulfill:

UNF: SO_ID, SO_Type, SO_Description, W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB

1NF: 1st: W_ID, SO_ID, SO_Type, SO_Description, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB,

2NF: 1st: SO_ID, SO_Type, SO_Description,

2nd: W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, W_Gender, W_DOB

3rd: SO_ID, W_ID

3NF: 1st: SO_ID, SO_Type, SO_Description,

2nd: W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID

3rd: W_NID, W_Gender, W_DOB

4th: SO_ID, W_ID

Final Table

Admin: A_ID, A_FirstName, A_LastName, A_Email

Area_Manager: AM_ID, AM_FirstName, AM_LastName, AM_Address, AM_ContactNo, AM_Email, AM_Gender, AM_DOB, A_ID

Service_Location: L_ID, L_Name, L_District, AM_ID

District_info: L_District, L_Division

Workers_Info: W_ID, W_FirstName, W_LastName, W_ContactNo, W_Type, W_Address, W_NID, L_ID

Workers_Identity: W_NID, W_Gender, W_DOB

Users_Info: U_ID, U_ContactNo, U_FirstName, U_LastName, U_Gender, U_Email, U_DOB, U_Address

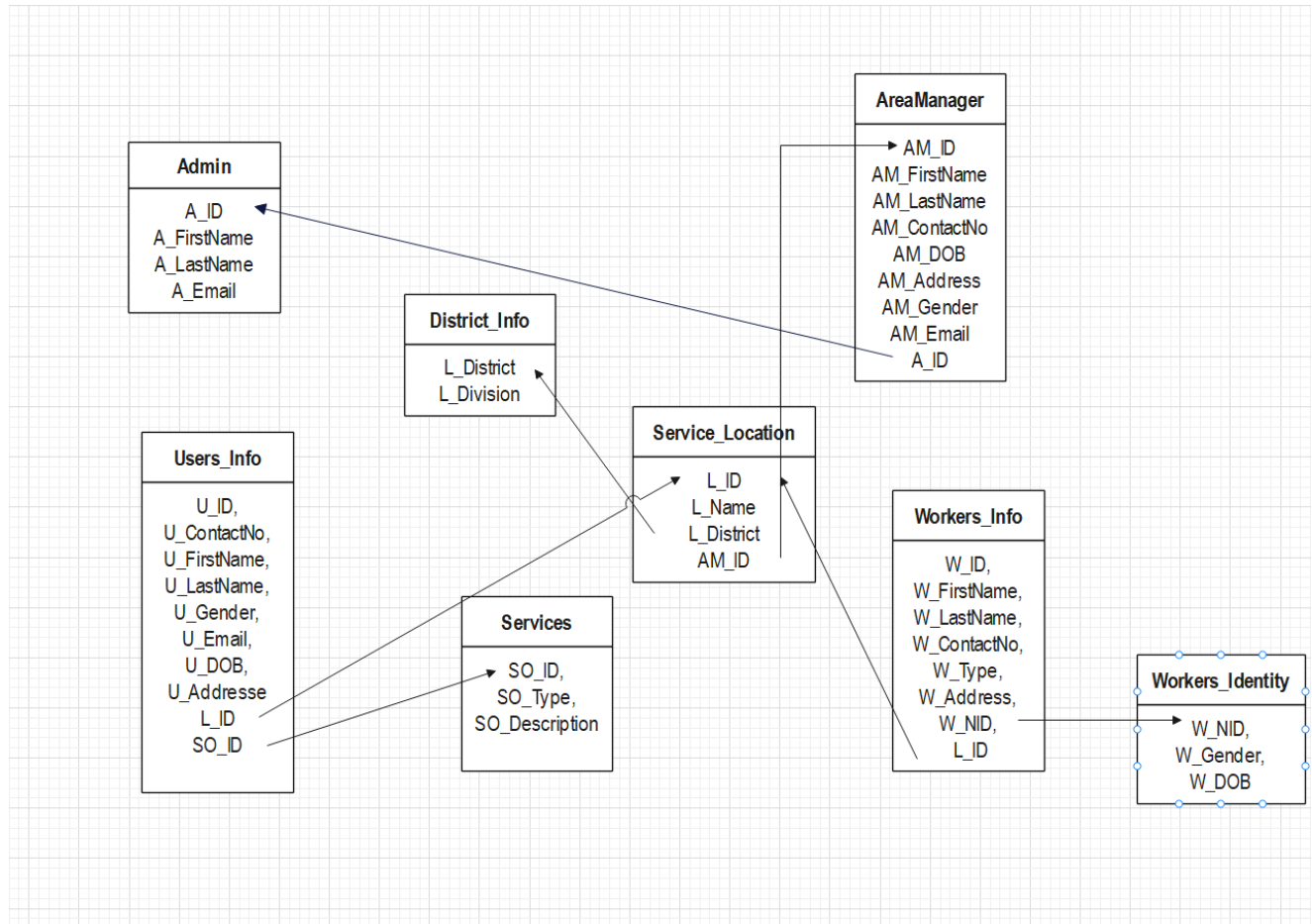
Users_Location: U_ID, L_ID

Services: SO_ID, SO_Type, SO_Description

User_Service_Info: U_ID, SO_ID

Worker_Service_Info: SO_ID, W_ID

Schema Diagram



Create User

create user hhms identified by password;

grant connect, resource, create view, unlimited tablespace to hhms;

GRANT CREATE SYNONYM TO hhms;

ALTER USER hhms DEFAULT TABLESPACE USERS;

ALTER USER hhms TEMPORARY TABLESPACE TEMP;

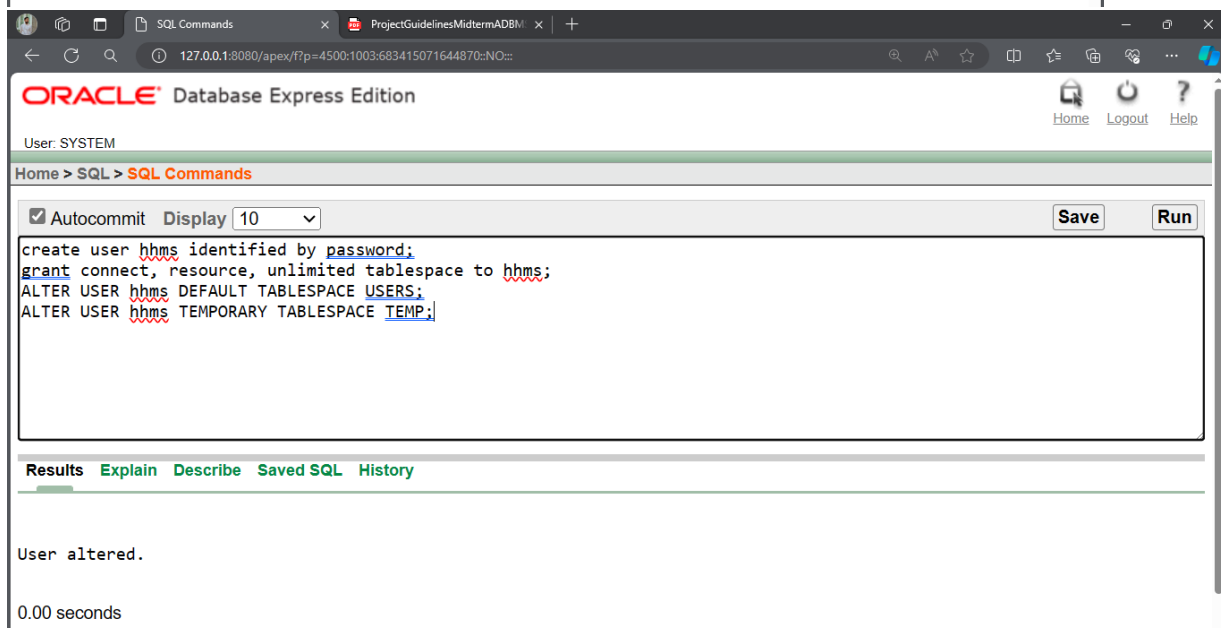
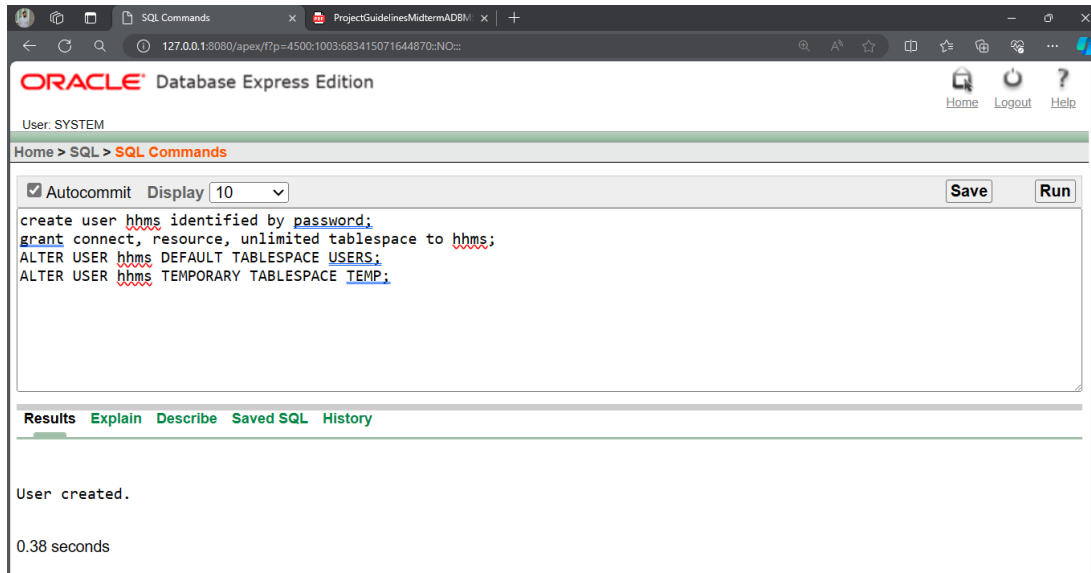


Table Creation:

Admin:

CREATE TABLE admin (

A_ID NUMBER PRIMARY KEY,

A_FirstName VARCHAR2(50),

A_LastName VARCHAR2(50),

A_Email VARCHAR2(100));

CREATE INDEX idx_A_Email ON admin(A_Email);

CREATE SEQUENCE admin_seq

START WITH 24101

INCREMENT BY 1

NOCACHE

NOCYCLE;

The screenshot shows the Oracle SQL Developer interface. The top pane displays the SQL commands for creating the 'admin' table and its index, along with a sequence definition. The bottom pane shows the 'Describe' results for the 'ADMIN' table.

SQL Commands:

```
CREATE TABLE admin (  
  A_ID NUMBER PRIMARY KEY,  
  A_FirstName VARCHAR2(50),  
  A_LastName VARCHAR2(50),  
  A_Email VARCHAR2(100)  
);  
  
desc Admin
```

Describe Results:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ADMIN	A_ID	Number	-	-	-	1	-	-	-
	A_FIRSTNAME	Varchar2	50	-	-	-	✓	-	-
	A_LASTNAME	Varchar2	50	-	-	-	✓	-	-
	A_EMAIL	Varchar2	100	-	-	-	✓	-	-

1 - 4

Area Manager:

```
CREATE TABLE Area_Manager(AM_ID NUMBER PRIMARY KEY, AM_FirstName
VARCHAR2(50),AM_LastName VARCHAR2(50), AM_Address VARCHAR2(100), AM_ContactNo
VARCHAR2(20), AM_Email VARCHAR2(100), AM_Gender VARCHAR2(10), AM_DOB DATE, A_ID NUMBER,

CONSTRAINT fk_admin_id FOREIGN KEY (A_ID) REFERENCES admin(A_ID));

CREATE INDEX idx_AM_Email ON Area_Manager(AM_Email);
```

```
CREATE SEQUENCE areaManager_seq
```

```
START WITH 242001
```

```
INCREMENT BY 1
```

```
NOCACHE
```

```
NOCYCLE;
```

The screenshot shows the Oracle SQL Developer interface. The top pane displays the SQL command to create the `Area_Manager` table, including a foreign key constraint `fk_admin_id` and an index `idx_AM_Email`. The bottom pane shows the table's structure after execution.

SQL Command:

```
CREATE TABLE Area_Manager(AM_ID NUMBER PRIMARY KEY, AM_FirstName VARCHAR2(50),AM_LastName VARCHAR2(50), AM_Address VARCHAR2(100), AM_ContactNo VARCHAR2(20), AM_Email VARCHAR2(100), AM_Gender VARCHAR2(10), AM_DOB DATE, A_ID NUMBER,
CONSTRAINT fk_admin_id FOREIGN KEY (A_ID) REFERENCES admin(A_ID));
desc Area_Manager
```

Table Structure:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
AREA_MANAGER	AM_ID	Number	-	-	-	1	-	-	-
	AM_FIRSTNAME	Varchar2	50	-	-	-	✓	-	-
	AM_LASTNAME	Varchar2	50	-	-	-	✓	-	-
	AM_ADDRESS	Varchar2	100	-	-	-	✓	-	-
	AM_CONTACTNO	Varchar2	20	-	-	-	✓	-	-
	AM_EMAIL	Varchar2	100	-	-	-	✓	-	-
	AM_GENDER	Varchar2	10	-	-	-	✓	-	-
	AM_DOB	Date	7	-	-	-	✓	-	-
	A_ID	Number	-	-	-	-	✓	-	-

District Info:

```
CREATE TABLE District_info (
```

```
    L_District VARCHAR2(100) PRIMARY KEY,
```

```
    L_Division VARCHAR2(100));
```

```
desc District_info
```

The screenshot shows the Oracle SQL Developer interface. The top toolbar includes buttons for Autocommit, Display (set to 10), Save, and Run. The SQL Command window contains the following code:

```
CREATE TABLE District_info (  
    L_District VARCHAR2(100) PRIMARY KEY,  
    L_Division VARCHAR2(100)  
);  
  
desc District_info
```

Below the command window, the 'Describe' tab is selected, showing the table structure for 'DISTRICT_INFO'.

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DISTRICT_INFO	L_DISTRICT	Varchar2	100	-	-	1	-	-	-
	L_DIVISION	Varchar2	100	-	-	-	✓	-	-

1 - 2

Service Location:

CREATE TABLE Service_Location (

L_ID INT PRIMARY KEY,

L_Name VARCHAR(255),

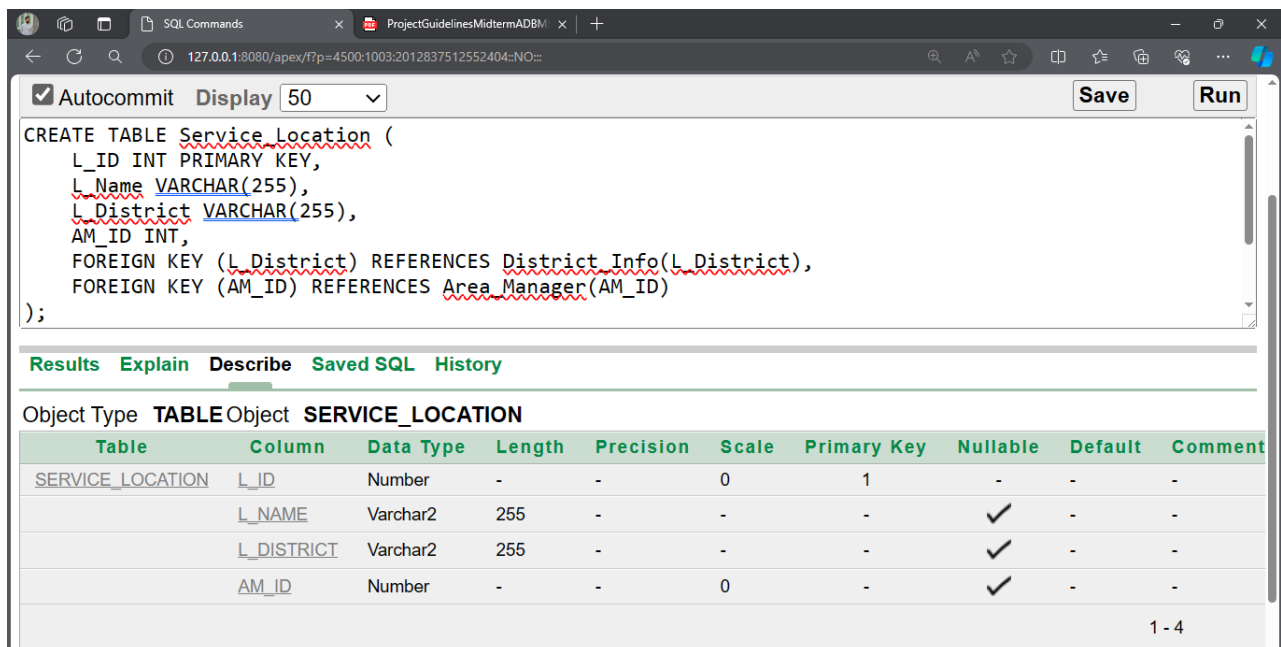
L_District VARCHAR(255),

AM_ID INT,

FOREIGN KEY (L_District) REFERENCES District_Info(L_District),

FOREIGN KEY (AM_ID) REFERENCES Area_Manager(AM_ID));

CREATE INDEX idx_L_Name ON Service_Location(L_Name);



The screenshot shows an SQL IDE window with the following components:

- SQL Editor:** Contains the SQL code for creating the `Service_Location` table and its index.
- Toolbar:** Includes buttons for `Autocommit` (checked), `Display` (set to 50), `Save`, and `Run`.
- Results Tab:** Displays the table structure for `SERVICE_LOCATION`.

Table Structure:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SERVICE_LOCATION	L_ID	Number	-	-	0	1	-	-	-
	L_NAME	Varchar2	255	-	-	-	✓	-	-
	L_DISTRICT	Varchar2	255	-	-	-	✓	-	-
	AM_ID	Number	-	-	0	-	✓	-	-

1 - 4

Workers Identity

CREATE TABLE Workers_Identity (

W_NID INT PRIMARY KEY,

W_Gender VARCHAR(10),

W_DOB DATE);

desc Workers_Identity

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following text:

```
CREATE TABLE Workers_Identity (  
  W_NID INT PRIMARY KEY,  
  W_Gender VARCHAR(10),  
  W_DOB DATE  
);  
desc Workers_Identity
```

Below the SQL Commands window, the Results tab is selected, displaying the table structure for WORKERS_IDENTITY:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
WORKERS_IDENTITY	W_NID	Number	-	-	0	1	-	-	-
	W_GENDER	Varchar2	10	-	-	-	✓	-	-
	W_DOB	Date	7	-	-	-	✓	-	-

1 - 3

Workers Info:

CREATE TABLE Workers_Info (

W_ID INT PRIMARY KEY,

W_FirstName VARCHAR(255),

W_LastName VARCHAR(255),

W_ContactNo VARCHAR(20),

W_Type VARCHAR(50),

W_Address VARCHAR(255),

W_NID INT,

L_ID INT,

FOREIGN KEY (W_NID) REFERENCES Workers_Identity(W_NID),

FOREIGN KEY (L_ID) REFERENCES Service_Location(L_ID));

desc workers_Info

The screenshot shows an SQL IDE window with the following content:

SQL Commands

```
CREATE TABLE Workers_Info (  
  W_ID INT PRIMARY KEY,  
  W_FirstName VARCHAR(255),  
  W_LastName VARCHAR(255),  
  W_ContactNo VARCHAR(20),  
  W_Type VARCHAR(50),  
  W_Address VARCHAR(255),  
  W_NID INT,  
  L_ID INT,  
  FOREIGN KEY (W_NID) REFERENCES Workers_Identity(W_NID),  
  FOREIGN KEY (L_ID) REFERENCES Service_Location(L_ID)  
);
```

Results **Explain** **Describe** **Saved SQL** **History**

Object Type **TABLE** Object **WORKERS_INFO**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
WORKERS_INFO	W_ID	Number	-	-	0	1	-	-	-
	W_FIRSTNAME	Varchar2	255	-	-	-	✓	-	-
	W_LASTNAME	Varchar2	255	-	-	-	✓	-	-
	W_CONTACTNO	Varchar2	20	-	-	-	✓	-	-
	W_TYPE	Varchar2	50	-	-	-	✓	-	-
	W_ADDRESS	Varchar2	255	-	-	-	✓	-	-
	W_NID	Number	-	-	0	-	✓	-	-
	L_ID	Number	-	-	0	-	✓	-	-

Users Info

CREATE TABLE Users_Info (

U_ID INT,

U_ContactNo VARCHAR(20),

U_FirstName VARCHAR(255),

U_LastName VARCHAR(255),

U_Gender VARCHAR(10),

U_Email VARCHAR(255),

U_DOB DATE,

U_Address VARCHAR(255),

PRIMARY KEY (U_ID, U_ContactNo));

desc Users_info

SQL CommandsProjectGuidelinesMidtermADBM

127.0.0.1:8080/apex/f?p=4500:1003:2012837512552404::NO::

☒ Autocommit Display 50

SaveRun

CREATE TABLE Users_Info (
U_ID INT,
U_ContactNo VARCHAR(20),
U_FirstName VARCHAR(255),
U_LastName VARCHAR(255),
U_Gender VARCHAR(10),
U_Email VARCHAR(255),
U_DOB DATE,
U_Address VARCHAR(255),
PRIMARY KEY (U_ID, U_ContactNo)

Results Explain Describe Saved SQL History

Object Type TABLE Object USERS_INFO

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
USERS_INFO	U_ID	Number	-	-	0	1	-	-	-
	U_CONTACTNO	Varchar2	20	-	-	2	-	-	-
	U_FIRSTNAME	Varchar2	255	-	-	-	✓	-	-
	U_LASTNAME	Varchar2	255	-	-	-	✓	-	-
	U_GENDER	Varchar2	10	-	-	-	✓	-	-
	U_EMAIL	Varchar2	255	-	-	-	✓	-	-
	U_DOB	Date	7	-	-	-	✓	-	-
	U_ADDRESS	Varchar2	255	-	-	-	✓	-	-

1 - 8

Users Location:

CREATE TABLE Users_Location (

U_ID INT,

L_ID INT,

PRIMARY KEY (U_ID, L_ID)

);

desc Users_Location

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following text:

```
CREATE TABLE Users_Location (  
  U_ID INT,  
  L_ID INT,  
  PRIMARY KEY (U_ID, L_ID)  
);  
desc Users_Location
```

Below the command window, the 'Describe' tab is selected, showing the table structure for 'USERS_LOCATION'.

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
USERS_LOCATION	U_ID	Number	-	-	0	1	-	-	-
	L_ID	Number	-	-	0	2	-	-	-

1 - 2

Services

CREATE TABLE Services (

SO_ID INT PRIMARY KEY,

SO_Type VARCHAR2(255),

SO_Description VARCHAR2(4000)

);

CREATE SEQUENCE seq_services_id

START WITH 50001

INCREMENT BY 1

NOCYCLE;

desc Services

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following text:

```
CREATE TABLE Services (  
  SO_ID INT PRIMARY KEY,  
  SO_Type VARCHAR2(255),  
  SO_Description VARCHAR2(4000)  
);  
CREATE SEQUENCE seq_services_id  
  START WITH 50001  
  INCREMENT BY 1  
  NOCYCLE;  
desc Services
```

Below the SQL Commands window, the Results tab is selected, showing the object type TABLE and object SERVICES. The table structure is displayed as follows:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SERVICES	SO_ID	Number	-	-	0	1	-	-	-
	SO_TYPE	Varchar2	255	-	-	-	✓	-	-
	SO_DESCRIPTION	Varchar2	4000	-	-	-	✓	-	-

1 - 3

User Service info

```
CREATE TABLE User_Service_Info ( U_ID INT, SO_ID INT, PRIMARY KEY (U_ID, SO_ID));
```

```
desc User_Service_Info
```

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following code:

```
CREATE TABLE User_Service_Info (  
  U_ID INT,  
  SO_ID INT,  
  PRIMARY KEY (U_ID, SO_ID)  
);  
desc User_Service_Info
```

The Results tab is selected, displaying the table structure for **USER_SERVICE_INFO**:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
USER_SERVICE_INFO	U_ID	Number	-	-	0	1	-	-	-
	SO_ID	Number	-	-	0	2	-	-	-

Page 1 of 2

Worker Service Info

```
CREATE TABLE Worker_Service_Info (SO_ID INT, W_ID INT, PRIMARY KEY (SO_ID, W_ID))
```

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following code:

```
CREATE TABLE Worker_Service_Info (  
  SO_ID INT,  
  W_ID INT,  
  PRIMARY KEY (SO_ID, W_ID)  
);  
desc Worker_Service_Info
```

The Results tab is selected, displaying the table structure for **WORKER_SERVICE_INFO**:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
WORKER_SERVICE_INFO	SO_ID	Number	-	-	0	1	-	-	-
	W_ID	Number	-	-	0	2	-	-	-

Page 1 of 2

Data Insertion

Admin:

INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Fahim', 'Bari', 'fahimb@gmail.com.com');

INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Rafsan', 'Gazi', 'rafsang@gmail.com');

INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Tazuddin', 'Ahmed', 'tazahmed@gmail.com');

INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Aishi', 'Mandal', 'aishim@gmail.com');

INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Zerin', 'Farjana', 'zerinf@gmail.com');

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following text:

```
Autocommit Display 10 Save Run
INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Fahim', 'Bari', 'fahimb@gmail.com.com');
INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Rafsan', 'Gazi', 'rafsang@gmail.com');
INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Tazuddin', 'Ahmed', 'tazahmed@gmail.com');
INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Aishi', 'Mandal', 'aishim@gmail.com');
INSERT INTO admin VALUES (admin_seq.NEXTVAL, 'Zerin', 'Farjana', 'zerinf@gmail.com');

select * from admin
```

Below the SQL Commands window, the Results tab is selected, displaying a table with the following data:

A_ID	A_FIRSTNAME	A_LASTNAME	A_EMAIL
24101	Fahim	Bari	fahimb@gmail.com.com
24102	Rafsan	Gazi	rafsang@gmail.com
24103	Tazuddin	Ahmed	tazahmed@gmail.com
24104	Aishi	Mandal	aishim@gmail.com
24105	Zerin	Farjana	zerinf@gmail.com

Area Manager

```
INSERT INTO Area_Manager (AM_ID, AM_FirstName, AM_LastName, AM_Gender, AM_DOB, AM_Email, AM_ContactNo, AM_Address, A_ID) VALUES (areaManager_seq.NEXTVAL, 'Karim', 'Khan', 'Male', TO_DATE('14-Feb-96', 'DD-Mon-YY'), 'karimkhan@gmail.com', '1721050698', 'H41, Kotwali, Chattogram', 24101);
```

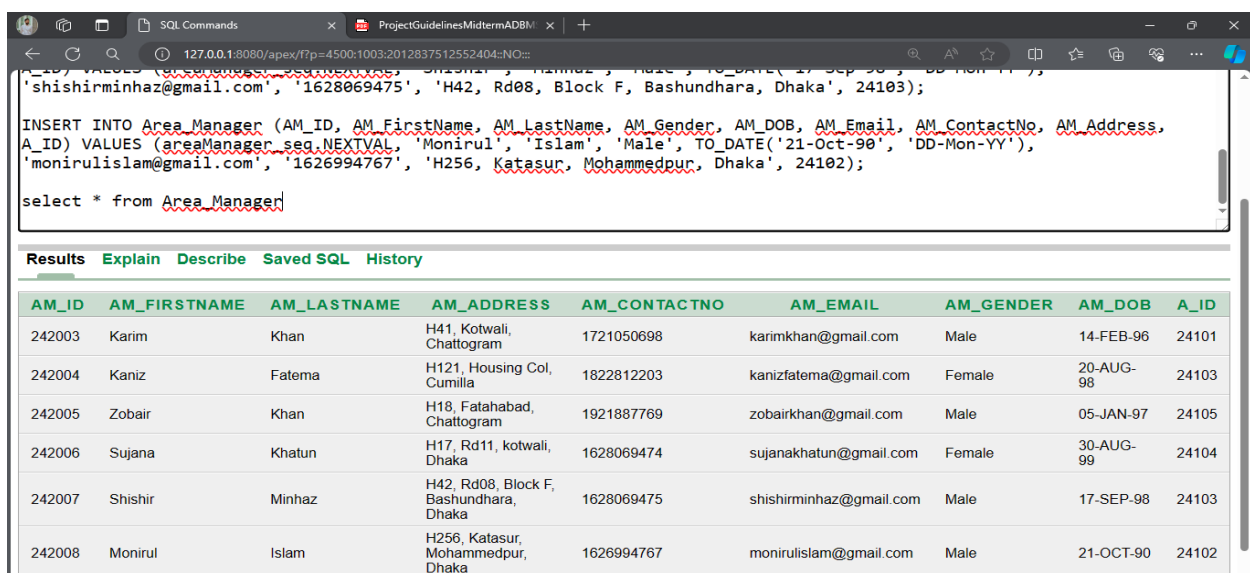
```
INSERT INTO Area_Manager (AM_ID, AM_FirstName, AM_LastName, AM_Gender, AM_DOB, AM_Email, AM_ContactNo, AM_Address, A_ID) VALUES (areaManager_seq.NEXTVAL, 'Kaniz', 'Fatema', 'Female', TO_DATE('20-Aug-98', 'DD-Mon-YY'), 'kanizfatema@gmail.com', '1822812203', 'H121, Housing Col, Cumilla', 24103);
```

```
INSERT INTO Area_Manager (AM_ID, AM_FirstName, AM_LastName, AM_Gender, AM_DOB, AM_Email, AM_ContactNo, AM_Address, A_ID) VALUES (areaManager_seq.NEXTVAL, 'Zobair', 'Khan', 'Male', TO_DATE('05-Jan-97', 'DD-Mon-YY'), 'zobairkhan@gmail.com', '1921887769', 'H18, Fatahabad, Chattogram', 24105);
```

```
INSERT INTO Area_Manager (AM_ID, AM_FirstName, AM_LastName, AM_Gender, AM_DOB, AM_Email, AM_ContactNo, AM_Address, A_ID) VALUES (areaManager_seq.NEXTVAL, 'Sujana', 'Khatun', 'Female', TO_DATE('30-Aug-99', 'DD-Mon-YY'), 'sujanakhatun@gmail.com', '1628069474', 'H17, Rd11, kotwali, Dhaka', 24104);
```

```
INSERT INTO Area_Manager (AM_ID, AM_FirstName, AM_LastName, AM_Gender, AM_DOB, AM_Email, AM_ContactNo, AM_Address, A_ID) VALUES (areaManager_seq.NEXTVAL, 'Shishir', 'Minhaz', 'Male', TO_DATE('17-Sep-98', 'DD-Mon-YY'), 'shishirminhaz@gmail.com', '1628069475', 'H42, Rd08, Block F, Bashundhara, Dhaka', 24103);
```

```
INSERT INTO Area_Manager (AM_ID, AM_FirstName, AM_LastName, AM_Gender, AM_DOB, AM_Email, AM_ContactNo, AM_Address, A_ID) VALUES (areaManager_seq.NEXTVAL, 'Monirul', 'Islam', 'Male', TO_DATE('21-Oct-90', 'DD-Mon-YY'), 'monirulislam@gmail.com', '1626994767', 'H256, Katasur, Mohammedpur, Dhaka', 24102);
```



The screenshot shows a web browser window with a SQL editor. The editor contains several SQL commands, including INSERT statements for the 'Area_Manager' table and a SELECT statement. Below the editor, there is a 'Results' tab that displays the data inserted into the table as a table with 9 columns: AM_ID, AM_FIRSTNAME, AM_LASTNAME, AM_ADDRESS, AM_CONTACTNO, AM_EMAIL, AM_GENDER, AM_DOB, and A_ID. The results table contains 8 rows of data.

AM_ID	AM_FIRSTNAME	AM_LASTNAME	AM_ADDRESS	AM_CONTACTNO	AM_EMAIL	AM_GENDER	AM_DOB	A_ID
242003	Karim	Khan	H41, Kotwali, Chattogram	1721050698	karimkhan@gmail.com	Male	14-FEB-96	24101
242004	Kaniz	Fatema	H121, Housing Col, Cumilla	1822812203	kanizfatema@gmail.com	Female	20-AUG-98	24103
242005	Zobair	Khan	H18, Fatahabad, Chattogram	1921887769	zobairkhan@gmail.com	Male	05-JAN-97	24105
242006	Sujana	Khatun	H17, Rd11, kotwali, Dhaka	1628069474	sujanakhatun@gmail.com	Female	30-AUG-99	24104
242007	Shishir	Minhaz	H42, Rd08, Block F, Bashundhara, Dhaka	1628069475	shishirminhaz@gmail.com	Male	17-SEP-98	24103
242008	Monirul	Islam	H256, Katasur, Mohammedpur, Dhaka	1626994767	monirulislam@gmail.com	Male	21-OCT-90	24102

District Info:

```
INSERT INTO District_info VALUES ('Dhaka', 'Dhaka');
INSERT INTO District_info VALUES ('Faridpur', 'Dhaka');
INSERT INTO District_info VALUES ('Gazipur', 'Dhaka');
INSERT INTO District_info VALUES ('Gopalganj', 'Dhaka');
INSERT INTO District_info VALUES ('Kishoreganj', 'Dhaka');
INSERT INTO District_info VALUES ('Madaripur', 'Dhaka');
INSERT INTO District_info VALUES ('Manikganj', 'Dhaka');
INSERT INTO District_info VALUES ('Rajbari', 'Dhaka');
INSERT INTO District_info VALUES ('Narsingdi', 'Dhaka');
INSERT INTO District_info VALUES ('Shariatpur', 'Dhaka');
INSERT INTO District_info VALUES ('Tangail', 'Dhaka');
INSERT INTO District_info VALUES ('Munshiganj', 'Dhaka');
INSERT INTO District_info VALUES ('Narayanganj', 'Dhaka');
INSERT INTO District_info VALUES ('Brahmanbaria', 'Chattogram');
INSERT INTO District_info VALUES ('Cumilla', 'Chattogram');
INSERT INTO District_info VALUES ('Chandpur', 'Chattogram');
INSERT INTO District_info VALUES ('Lakshmipur', 'Chattogram');
INSERT INTO District_info VALUES ('Noakhali', 'Chattogram');
INSERT INTO District_info VALUES ('Feni', 'Chattogram');
INSERT INTO District_info VALUES ('Khagrachhari', 'Chattogram');
INSERT INTO District_info VALUES ('Rangamati', 'Chattogram');
INSERT INTO District_info VALUES ('Bandarban', 'Chattogram');
INSERT INTO District_info VALUES ('Chattogram', 'Chattogram');
INSERT INTO District_info VALUES ('Coxs Bazar', 'Chattogram');
```

User: HHMS

Home > SQL > SQL Commands

☒ Autocommit Display 50

Save

Run

```
INSERT INTO District_info VALUES ('Feni', 'Chattogram');  
INSERT INTO District_info VALUES ('Khagrachhari', 'Chattogram');  
INSERT INTO District_info VALUES ('Rangamati', 'Chattogram');  
INSERT INTO District_info VALUES ('Bandarban', 'Chattogram');  
INSERT INTO District_info VALUES ('Chattogram', 'Chattogram');  
INSERT INTO District_info VALUES ('Coxs Bazar', 'Chattogram');
```

```
select * from District_Info
```

Results Explain Describe Saved SQL History

L_DISTRICT	L_DIVISION
Dhaka	Dhaka
Faridpur	Dhaka
Gazipur	Dhaka
Gopalganj	Dhaka
Kishoreganj	Dhaka
Madaripur	Dhaka
Manikganj	Dhaka
Rajbari	Dhaka
Narsingdi	Dhaka
Shariatpur	Dhaka
Tangail	Dhaka
Munshiganj	Dhaka
Narayanganj	Dhaka
Brahmanbaria	Chattogram
Cumilla	Chattogram
Chandpur	Chattogram
Lakshmipur	Chattogram
Noakhali	Chattogram
Feni	Chattogram
Khagrachhari	Chattogram
Rangamati	Chattogram
Bandarban	Chattogram
Chattogram	Chattogram
Coxs Bazar	Chattogram

24 rows returned in 0.00 seconds

SQL Exec

Service Location:

INSERT INTO Service_Location VALUES (1229, 'Bashundhara RA', 'Dhaka', 242007);

INSERT INTO Service_Location VALUES (1207, 'Mohammedpur', 'Dhaka', 242008);

INSERT INTO Service_Location VALUES (1230, 'Uttara', 'Dhaka', 242007);

INSERT INTO Service_Location VALUES (1000, 'Kotwali', 'Chattogram', 242003);

INSERT INTO Service_Location VALUES (1213, 'Banani', 'Dhaka', 242007);

INSERT INTO Service_Location VALUES (4335, 'Fatahabad', 'Chattogram', 242005);

INSERT INTO Service_Location VALUES (4000, 'Kotwali', 'Dhaka', 242006);

INSERT INTO Service_Location VALUES (3510, 'Chandina', 'Cumilla', 242004);

INSERT INTO Service_Location VALUES (3520, 'Burichang', 'Cumilla', 242004);

INSERT INTO Service_Location VALUES (1209, 'Dhanmondi', 'Dhaka', 242008);

The screenshot shows the Oracle SQL Developer interface. The top toolbar includes icons for file operations and a 'SQL Commands' tab. The breadcrumb navigation shows 'Home > SQL > SQL Commands'. The 'User: HHMS' is displayed in the top right. Below the breadcrumb, there are tabs for 'Autocommit', 'Display', and a dropdown menu set to '50'. There are 'Save' and 'Run' buttons. The main text area contains the following SQL commands:

```
INSERT INTO Service_Location VALUES (1229, 'Bashundhara RA', 'Dhaka', 242007);
INSERT INTO Service_Location VALUES (1207, 'Mohammedpur', 'Dhaka', 242008);
INSERT INTO Service_Location VALUES (1230, 'Uttara', 'Dhaka', 242007);
INSERT INTO Service_Location VALUES (1000, 'Kotwali', 'Chattogram', 242003);
INSERT INTO Service_Location VALUES (1213, 'Banani', 'Dhaka', 242007);
```

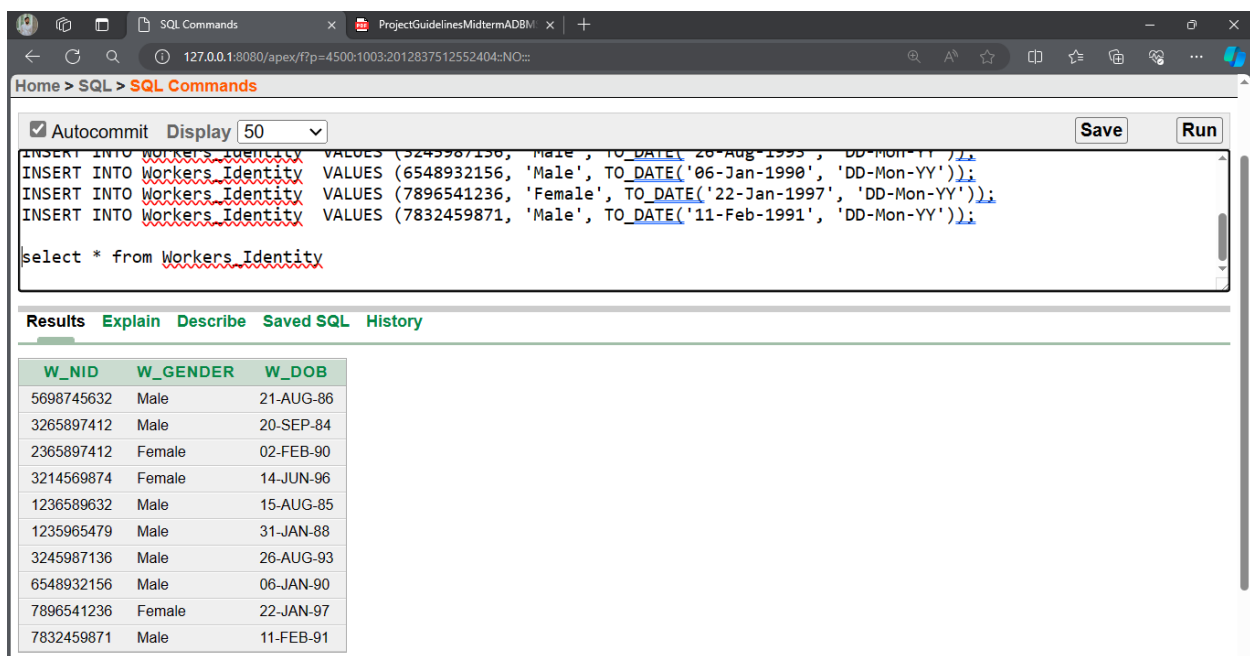
Below the SQL commands, there are tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is active, displaying a table with the following data:

L_ID	L_NAME	L_DISTRICT	AM_ID
1230	Uttara	Dhaka	242007
1000	Kotwali	Chattogram	242003
1213	Banani	Dhaka	242007
4335	Fatahabad	Chattogram	242005
4000	Kotwali	Dhaka	242006
1229	Bashundhara RA	Dhaka	242007
1207	Mohammedpur	Dhaka	242008
3510	Chandina	Cumilla	242004
3520	Burichang	Cumilla	242004
1209	Dhanmondi	Dhaka	242008

Workers Identity

```
INSERT INTO Workers_Identity VALUES (5698745632, 'Male', TO_DATE('21-Aug-1986', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (3265897412, 'Male', TO_DATE('20-Sep-1984', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (2365897412, 'Female', TO_DATE('02-Feb-1990', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (3214569874, 'Female', TO_DATE('14-Jun-1996', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (1236589632, 'Male', TO_DATE('15-Aug-1985', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (1235965479, 'Male', TO_DATE('31-Jan-1988', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (3245987136, 'Male', TO_DATE('26-Aug-1993', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (6548932156, 'Male', TO_DATE('06-Jan-1990', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (7896541236, 'Female', TO_DATE('22-Jan-1997', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (7832459871, 'Male', TO_DATE('11-Feb-1991', 'DD-Mon-YY'));
```

select * from Workers_Identity



The screenshot shows the Oracle SQL Developer interface. The top pane displays a series of SQL INSERT statements for the 'Workers_Identity' table, followed by a SELECT statement. The bottom pane shows the results of the SELECT statement as a table with three columns: W_NID, W_GENDER, and W_DOB.

SQL Commands:

```
INSERT INTO Workers_Identity VALUES (3245987136, 'Male', TO_DATE('26-Aug-1993', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (6548932156, 'Male', TO_DATE('06-Jan-1990', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (7896541236, 'Female', TO_DATE('22-Jan-1997', 'DD-Mon-YY'));  
INSERT INTO Workers_Identity VALUES (7832459871, 'Male', TO_DATE('11-Feb-1991', 'DD-Mon-YY'));  
  
select * from Workers_Identity
```

Results:

W_NID	W_GENDER	W_DOB
5698745632	Male	21-AUG-86
3265897412	Male	20-SEP-84
2365897412	Female	02-FEB-90
3214569874	Female	14-JUN-96
1236589632	Male	15-AUG-85
1235965479	Male	31-JAN-88
3245987136	Male	26-AUG-93
6548932156	Male	06-JAN-90
7896541236	Female	22-JAN-97
7832459871	Male	11-FEB-91

Workers Info

INSERT INTO Workers_Info VALUES (243001, 'Karim', 'Khan', 'Electrician', '1721994455', 'H45, Kuratoli, Dhaka', 5698745632, 1229);

INSERT INTO Workers_Info VALUES (243002, 'Abul', 'Hossain', 'Laundry Man', '1725669988', 'H21, Jagannathpur, Dhaka', 3265897412, 1229);

INSERT INTO Workers_Info VALUES (243003, 'Zorina', 'Khatun', 'Maid', '1721001100', 'H88, Sector 11, Uttara, Dhaka', 2365897412, 1230);

INSERT INTO Workers_Info VALUES (243004, 'Amena', 'Begum', 'Maid', '1721006694', 'H103, Rd11, Nikunja, Dhaka', 3214569874, 1229);

INSERT INTO Workers_Info VALUES (243005, 'Russel', 'Mia', 'Cleaner', '1698745632', 'H81, Katasur, Mohammedpur', 1236589632, 1207);

INSERT INTO Workers_Info VALUES (243006, 'Sumon', 'Molla', 'Plumber', '1369874569', 'H30, Rd18, Dhanmondi21, Dhaka', 1235965479, 1209);

INSERT INTO Workers_Info VALUES (243007, 'Rohim', 'Uddin', 'Home Shifting', '1389657412', 'H21, Rd19, Banani, Dhaka', 3245987136, 1213);

INSERT INTO Workers_Info VALUES (243008, 'Abul', 'Hossain', 'Driver', '1378965412', 'H66, Chandina, Cumilla, Chattogram', 6548932156, 3510);

INSERT INTO Workers_Info VALUES (243009, 'Fatema', 'Khatun', 'Maid', '1869541236', 'H32, Rd23, Kotwali, Dhaka', 7896541236, 4000);

INSERT INTO Workers_Info VALUES (243010, 'Akram', 'Hossain', 'Home Shifting', '1869578965', 'H113, Fatahabad, Hathajari, Chattogram', 7832459871, 4335);

SQL Commands

ProjectGuidelinesMidtermADB

127.0.0.1:8080/apex/?p=4500:1003:2012837512552404:NO::

☒ Autocommit

Display 50

Save

Run

```
INSERT INTO Workers_Info VALUES (243001, 'Karim', 'Khan', 'Electrician', '1721994455', 'H45, Kuratoli, Dhaka', 5698745632, 1229);
INSERT INTO Workers_Info VALUES (243002, 'Abul', 'Hossain', 'Laundry Man', '1725669988', 'H21, Jagannathpur, Dhaka', 3265897412, 1229);
INSERT INTO Workers_Info VALUES (243003, 'Zorina', 'Khatun', 'Maid', '1721001100', 'H88, Sector 11, Uttara, Dhaka', 2365897412, 1230);
INSERT INTO Workers_Info VALUES (243004, 'Amena', 'Begum', 'Maid', '1721006694', 'H103, Rd11, Nikunja, Dhaka', 3214569874, 1229);
INSERT INTO Workers_Info VALUES (243005, 'Russel', 'Mia', 'Cleaner', '1698745632', 'H81, Katasur, Mohammedpur', 1236589632, 1207);
INSERT INTO Workers_Info VALUES (243006, 'Sumon', 'Molla', 'Plumber', '1369874569', 'H30, Rd18, Dhanmondi21, Dhaka', 1235965479, 1209);
```

Results

Explain

Describe

Saved SQL

History

W_ID	W_FIRSTNAME	W_LASTNAME	W_CONTACTNO	W_TYPE	W_ADDRESS	W_NID	L_ID
243001	Karim	Khan	Electrician	1721994455	H45, Kuratoli, Dhaka	5698745632	1229
243002	Abul	Hossain	Laundry Man	1725669988	H21, Jagannathpur, Dhaka	3265897412	1229
243003	Zorina	Khatun	Maid	1721001100	H88, Sector 11, Uttara, Dhaka	2365897412	1230
243004	Amena	Begum	Maid	1721006694	H103, Rd11, Nikunja, Dhaka	3214569874	1229
243005	Russel	Mia	Cleaner	1698745632	H81, Katasur, Mohammedpur	1236589632	1207
243006	Sumon	Molla	Plumber	1369874569	H30, Rd18, Dhanmondi21, Dhaka	1235965479	1209
243007	Rohim	Uddin	Home Shifting	1389657412	H21, Rd19, Banani, Dhaka	3245987136	1213
243008	Abul	Hossain	Driver	1378965412	H66, Chandina, Cumilla, Chattogram	6548932156	3510
243009	Fatema	Khatun	Maid	1869541236	H32, Rd23, Kotwali, Dhaka	7896541236	4000
243010	Akram	Hossain	Home Shifting	1869578965	H113, Fatahabad, Hathajari, Chattogram	7832459871	4335

10 rows returned in 0.00 seconds

CSV Export

Users Info

```
INSERT INTO Users_Info VALUES (244001, '01721786523', 'Anik', 'Sen', 'Male', 'aniks@gmail.com',  
TO_DATE('30-Aug-99', 'DD-Mon-YY'), 'H21, Rd02, Bashundhara, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244002, '01721741524', 'Fazle', 'Rabbi', 'Male', 'fazles@gmail.com',  
TO_DATE('17-Sep-98', 'DD-Mon-YY'), 'H56,Rd10, Nikunja, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244002, '01721741500', 'Fazle', 'Rabbi', 'Male', 'fazles@gmail.com',  
TO_DATE('17-Sep-98', 'DD-Mon-YY'), 'H56,Rd10, Nikunja, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244003, '01721366525', 'Prajukta', 'Majumder', 'Female',  
'prajuktam@gmail.com', TO_DATE('21-Aug-02', 'DD-Mon-YY'), 'H23, Rd23, Sector11, Uttara, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244004, '01721712326', 'Pranto', 'Islam', 'Male', 'prantoi@gmail.com',  
TO_DATE('26-Feb-01', 'DD-Mon-YY'), 'H99, Banani, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244005, '01721786458', 'Tomal', 'Paul', 'Male', 'tomalp@gmail.com',  
TO_DATE('31-Jan-00', 'DD-Mon-YY'), 'H88, Bashundharai, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244006, '01712986528', 'Zakaria', 'Hossain', 'Male',  
'zakariah@gmail.com', TO_DATE('17-Jan-99', 'DD-Mon-YY'), 'H22, Rd21, Uttara, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244007, '01721756529', 'Mim', 'Akter', 'Female', 'mima@gmail.com',  
TO_DATE('09-Feb-99', 'DD-Mon-YY'), 'H11, Dhanmondi21, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244008, '01769871230', 'Mahjabin', 'Chowdhury', 'Female',  
'mahjabinc@gmail.com', TO_DATE('29-Mar-99', 'DD-Mon-YY'), 'H23,Mohammedpur, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244008, '01769871220', 'Mahjabin', 'Chowdhury', 'Female',  
'mahjabinc@gmail.com', TO_DATE('29-Mar-99', 'DD-Mon-YY'), 'H23,Mohammedpur, Dhaka');
```

```
INSERT INTO Users_Info VALUES (244009, '01721896541', 'Faria', 'Tabassum', 'Female',  
'fariat@gmail.com', TO_DATE('11-Apr-99', 'DD-Mon-YY'), 'H78, Banani, Dhaka');
```

The screenshot shows the SQL Developer interface with the following SQL commands in the command window:

```

INSERT INTO Users_Info VALUES (244001, '01721786523', 'Anik', 'Sen', 'Male', 'aniks@gmail.com', TO_DATE('30-Aug-99', 'DD-Mon-YY'), 'H21, Rd02, Bashundhara, Dhaka');
INSERT INTO Users_Info VALUES (244002, '01721741524', 'Fazle', 'Rabbi', 'Male', 'fazles@gmail.com', TO_DATE('17-Sep-98', 'DD-Mon-YY'), 'H56, Rd10, Nikunja, Dhaka');
INSERT INTO Users_Info VALUES (244003, '01721741500', 'Fazle', 'Rabbi', 'Male', 'fazles@gmail.com', TO_DATE('17-Sep-98', 'DD-Mon-YY'), 'H56, Rd10, Nikunja, Dhaka');
INSERT INTO Users_Info VALUES (244003, '01721366525', 'Prajukta', 'Majumder', 'Female', 'prajuktam@gmail.com', TO_DATE('21-Aug-02', 'DD-Mon-YY'), 'H23, Rd23, Sector11, Uttara, Dhaka');

```

The Results tab displays the following table:

U_ID	U_CONTACTNO	U_FIRSTNAME	U_LASTNAME	U_GENDER	U_EMAIL	U_DOB	U_ADDRESS
244001	01721786523	Anik	Sen	Male	aniks@gmail.com	30-AUG-99	H21, Rd02, Bashundhara, Dhaka
244002	01721741524	Fazle	Rabbi	Male	fazles@gmail.com	17-SEP-98	H56, Rd10, Nikunja, Dhaka
244003	01721366525	Prajukta	Majumder	Female	prajuktam@gmail.com	21-AUG-02	H23, Rd23, Sector11, Uttara, Dhaka
244004	01721712326	Pranto	Islam	Male	prantoi@gmail.com	26-FEB-01	H99, Banani, Dhaka
244005	01721786458	Tomal	Paul	Male	tomalp@gmail.com	31-JAN-00	H88, Bashundharai, Dhaka
244006	01712986528	Zakaria	Hossain	Male	zakariah@gmail.com	17-JAN-99	H22, Rd21, Uttara, Dhaka
244007	01721756529	Mim	Akter	Female	mima@gmail.com	09-FEB-99	H11, Dhanmond21, Dhaka
244008	01769871230	Mahjabin	Chowdhury	Female	mahjabinc@gmail.com	29-MAR-99	H23, Mohammedpur, Dhaka
244008	01769871220	Mahjabin	Chowdhury	Female	mahjabinc@gmail.com	29-MAR-99	H23, Mohammedpur, Dhaka
244009	01721896541	Faria	Tabassum	Female	fariat@gmail.com	11-APR-99	H78, Banani, Dhaka
244010	01721732172	Qamrol	Islam	Male	qamroli@gmail.com	01-MAY-99	H35, Chandina, Cumilla, Dhaka
244002	01721741500	Fazle	Rabbi	Male	fazles@gmail.com	17-SEP-98	H56, Rd10, Nikunja, Dhaka

Users Location

INSERT INTO Users_Location (U_ID, L_ID) VALUES (244001, 1229);

INSERT INTO Users_Location (U_ID, L_ID) VALUES (244002, 1229);

INSERT INTO Users_Location (U_ID, L_ID) VALUES (244003, 1230);

INSERT INTO Users_Location (U_ID, L_ID) VALUES (244004, 1213);

INSERT INTO Users_Location (U_ID, L_ID) VALUES (244005, 1229);

INSERT INTO Users_Location (U_ID, L_ID) VALUES (244006, 1230);

The screenshot shows the Oracle Database Express Edition SQL Developer interface with the following SQL commands in the command window:

```

INSERT INTO Users_Location (U_ID, L_ID) VALUES (244001, 1229);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244002, 1229);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244003, 1230);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244004, 1213);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244005, 1229);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244006, 1230);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244007, 1209);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244008, 1207);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244009, 1213);
INSERT INTO Users_Location (U_ID, L_ID) VALUES (244010, 3510);
select * from users_location

```

The Results tab displays the following table:

U_ID	L_ID
244001	1229
244002	1229
244003	1230
244004	1213
244005	1229
244006	1230
244007	1209
244008	1207

Services

INSERT INTO Services (SO_ID, SO_Type, SO_Description) VALUES (seq_services_id.NEXTVAL, 'Cleaning', 'AC, Sofa, Fan, Car, Home etc');

INSERT INTO Services (SO_ID, SO_Type, SO_Description) VALUES (seq_services_id.NEXTVAL, 'Laundry', 'Washing Sofa, car, dress etc');

INSERT INTO Services (SO_ID, SO_Type, SO_Description) VALUES (seq_services_id.NEXTVAL, 'Home Shifting', 'Shifting home with care');

INSERT INTO Services (SO_ID, SO_Type, SO_Description) VALUES (seq_services_id.NEXTVAL, 'Maid', 'Cleaning kitchen, washing clothes, cooking etc');

INSERT INTO Services (SO_ID, SO_Type, SO_Description) VALUES (seq_services_id.NEXTVAL, 'Electrician', 'Electricity problem');

INSERT INTO Services (SO_ID, SO_Type, SO_Description) VALUES (seq_services_id.NEXTVAL, 'Plumber', 'Repair gas, water pipes');

INSERT INTO Services (SO_ID, SO_Type, SO_Description) VALUES (seq_services_id.NEXTVAL, 'Driver', 'Transportation Service');

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following statements:

```
INSERT INTO Services (SO_ID, SO_Type, SO_Description)
VALUES (seq_services_id.NEXTVAL, 'Cleaning', 'AC, Sofa, Fan, Car, Home etc');

INSERT INTO Services (SO_ID, SO_Type, SO_Description)
VALUES (seq_services_id.NEXTVAL, 'Laundry', 'Washing Sofa, car, dress etc');

INSERT INTO Services (SO_ID, SO_Type, SO_Description)
VALUES (seq_services_id.NEXTVAL, 'Home Shifting', 'Shifting home with care');
```

The Results tab shows the following data:

SO_ID	SO_TYPE	SO_DESCRIPTION
50001	Cleaning	AC, Sofa, Fan, Car, Home etc
50002	Laundry	Washing Sofa, car, dress etc
50003	Home Shifting	Shifting home with care
50004	Maid	Cleaning kitchen, washing clothes, cooking etc
50005	Electrician	Electricity problem
50006	Plumber	Repair gas, water pipes
50007	Driver	Transportation Service

7 rows returned in 0.00 seconds [CSV Export](#)

User Service Info

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244001, 50005);

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244002, 50002);

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244003, 50004);

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244004, 50003);

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244005, 50005);

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244006, 50004);

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244007, 50006);

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244008, 50001);

INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244009, 50003);

select * from User_Service_Info

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following statements:

```
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244001, 50005);
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244002, 50002);
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244003, 50004);
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244004, 50003);
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244005, 50005);
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244006, 50004);
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244007, 50006);
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244008, 50001);
INSERT INTO User_Service_Info (U_ID, SO_ID) VALUES (244009, 50003);
```

The Results tab shows the following data:

U_ID	SO_ID
244001	50005
244002	50002
244003	50004
244004	50003
244005	50005
244006	50004
244007	50006
244008	50001
244009	50003

9 rows returned in 0.00 seconds [CSV Export](#)

Worker Service Info

INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50001, 243005);

INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50002, 243002);

INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50003, 243007);

INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50004, 243003);

INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50005, 243001);

INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50006, 243006);

INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50004, 243004);

select * from Worker_Service_Info

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following text:

```
INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50001, 243005);
INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50002, 243002);
INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50003, 243007);
INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50004, 243003);
INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50005, 243001);
INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50006, 243006);
INSERT INTO Worker_Service_Info (SO_ID, W_ID) VALUES (50004, 243004);

select * from Worker_Service_Info
```

Below the SQL Commands window, the Results tab is selected, displaying a table with 7 rows:

SO_ID	W_ID
50001	243005
50002	243002
50003	243007
50004	243003
50004	243004
50005	243001
50006	243006

7 rows returned in 0.00 seconds [CSV Export](#)

Query Writing

Group Function

QS1: What is the average age of all workers?

ANS: SELECT ROUND(AVG(MONTHS_BETWEEN(SYSDATE, W_DOB) / 12), 2) AS average_age

FROM Workers_Identity;

The screenshot shows the Oracle Database Express Edition interface. The user is HHMS. The SQL Commands tab is active, and the query is: `SELECT ROUND(AVG(MONTHS_BETWEEN(SYSDATE, W_DOB) / 12), 2) AS average_age FROM Workers_Identity;`. The query has been executed successfully, and the results are displayed in a table with one row: `AVERAGE_AGE` with the value `33.89`. The interface also shows a 'Save' button and a 'Run' button.

AVERAGE_AGE
33.89

1 rows returned in 0.00 seconds [CSV Export](#)

QS2: What is the total number of workers in each gender category?

ANS: SELECT W_Gender, COUNT(*) AS num_workers

FROM Workers_Identity

GROUP BY W_Gender;

The screenshot shows the Oracle Database Express Edition interface. The user is HHMS. The SQL Commands tab is active, and the query is: `SELECT W_Gender, COUNT(*) AS num_workers FROM Workers_Identity GROUP BY W_Gender;`. The query has been executed successfully, and the results are displayed in a table with two rows: `W_GENDER` and `NUM_WORKERS`. The first row is `Male` with `7` workers, and the second row is `Female` with `3` workers. The interface also shows a 'Save' button and a 'Run' button.

W_GENDER	NUM_WORKERS
Male	7
Female	3

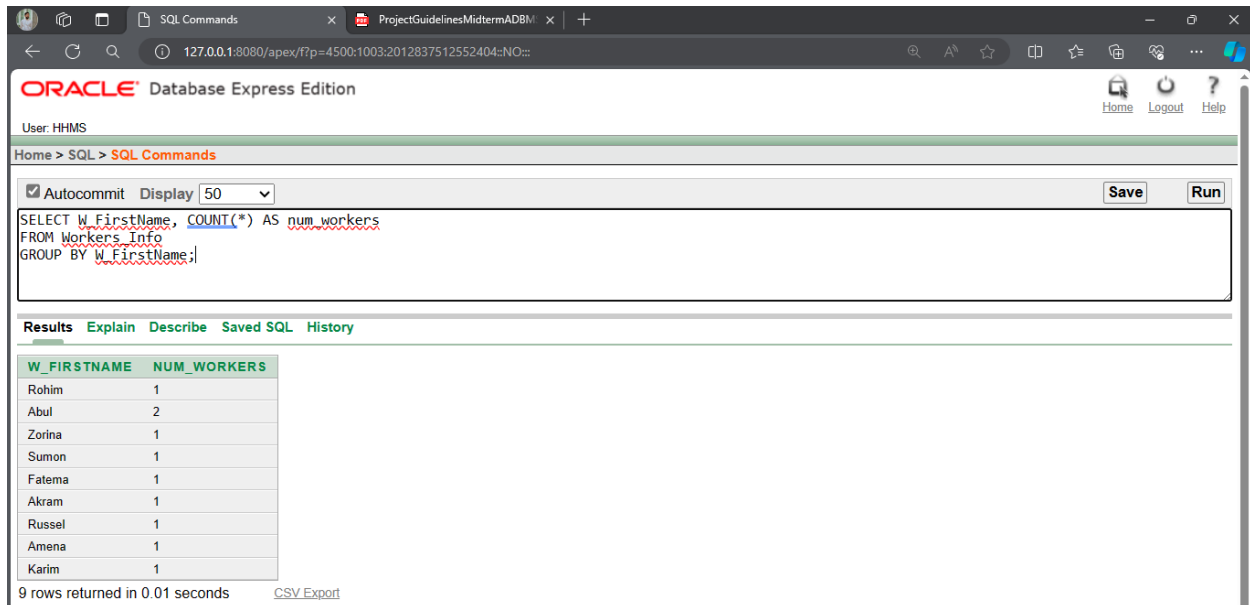
2 rows returned in 0.00 seconds [CSV Export](#)

Q3: How many workers share the same first name?

ANS: SELECT W_FirstName, COUNT(*) AS num_workers

FROM Workers_Info

GROUP BY W_FirstName;



The screenshot shows the Oracle Database Express Edition interface. The SQL Commands tab is active, displaying the following query:

```
SELECT W_FirstName, COUNT(*) AS num_workers
FROM Workers_Info
GROUP BY W_FirstName;
```

The query has been executed, and the results are displayed in a table with two columns: W_FIRSTNAME and NUM_WORKERS. The results show 9 rows of data.

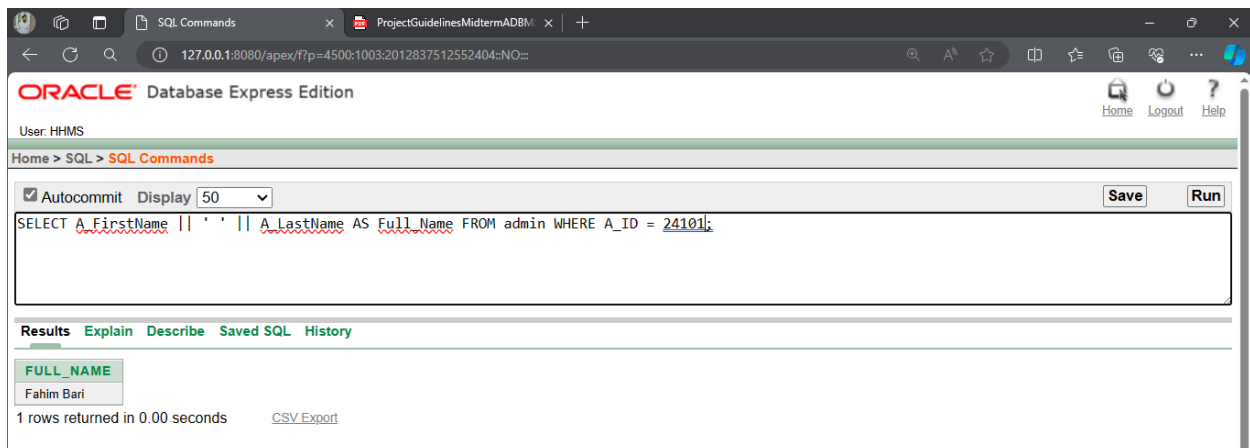
W_FIRSTNAME	NUM_WORKERS
Rohim	1
Abul	2
Zorina	1
Sumon	1
Fatema	1
Akram	1
Russel	1
Amena	1
Karim	1

9 rows returned in 0.01 seconds [CSV Export](#)

Single Row Function

Q1: What is the full name of the administrator with ID 24101?

ANS: SELECT A_FirstName || ' ' || A_LastName AS Full_Name FROM admin WHERE A_ID = 24101;



The screenshot shows the Oracle Database Express Edition interface. The SQL Commands tab is active, displaying the following query:

```
SELECT A_FirstName || ' ' || A_LastName AS Full_Name FROM admin WHERE A_ID = 24101;
```

The query has been executed, and the results are displayed in a table with one column: FULL_NAME. The results show 1 row of data.

FULL_NAME
Fahim Bari

1 rows returned in 0.00 seconds [CSV Export](#)

QS2: When was the area manager named "Shishir Minhaz" born?

ANS: SELECT TO_CHAR(AM_DOB, 'DD-Mon-YY') AS Date_of_Birth FROM Area_Manager

WHERE AM_FirstName = 'Shishir' AND AM_LastName = 'Minhaz';

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following query:

```
SELECT TO_CHAR(AM_DOB, 'DD-Mon-YY') AS Date_of_Birth FROM Area_Manager
WHERE AM_FirstName = 'Shishir' AND AM_LastName = 'Minhaz';
```

The query is executed, and the results are displayed in a table with the column header **DATE_OF_BIRTH** and one row containing the value **17-Sep-98**. The status bar indicates "1 rows returned in 0.00 seconds".

QS3: What is the length of the email address for the administrator with the last name "Ahmed"?

ANS: SELECT LENGTH(A_Email) AS Email_Length FROM admin WHERE A_LastName = 'Ahmed';

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following query:

```
SELECT LENGTH(A_Email) AS Email_Length FROM admin WHERE A_LastName = 'Ahmed';
```

The query is executed, and the results are displayed in a table with the column header **EMAIL_LENGTH** and one row containing the value **18**. The status bar indicates "1 rows returned in 0.01 seconds".

Subquery

Q51: Which service location has the highest number of workers?

ANS: SELECT L_ID

FROM (SELECT L_ID, COUNT(*) AS num_workers FROM Workers_Info

GROUP BY L_ID ORDER BY COUNT(*) DESC)WHERE ROWNUM = 1;

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following query:

```
SELECT L_ID
FROM (
  SELECT L_ID, COUNT(*) AS num_workers
  FROM Workers_Info
  GROUP BY L_ID
  ORDER BY COUNT(*) DESC
)
WHERE ROWNUM = 1;
```

The Results tab shows the output:

L_ID
1229

1 rows returned in 0.00 seconds

Q52: Who are the users located in location ID 1229?

ANS: SELECT U_ID, U_FirstName, U_LastName FROM Users_Info

WHERE U_ID IN (SELECT U_ID

FROM Users_Location WHERE L_ID = 1229);

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following query:

```
SELECT U_ID, U_FirstName, U_LastName
FROM Users_Info
WHERE U_ID IN (
  SELECT U_ID
  FROM Users_Location
  WHERE L_ID = 1229
);
```

The Results tab shows the output:

U_ID	U_FIRSTNAME	U_LASTNAME
244001	Anik	Sen
244002	Fazle	Rabbi
244005	Tomal	Paul
244002	Fazle	Rabbi

4 rows returned in 0.00 seconds

Q3: Which users were born before January 1, 2002 according to the Users_Info table?

ANS: SELECT * FROM Users_Info

WHERE U_DOB < (SELECT TO_DATE('2002-01-01', 'YYYY-MM-DD') FROM dual);

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following query:

```
SELECT *
FROM Users_Info
WHERE U_DOB < (
  SELECT TO_DATE('2002-01-01', 'YYYY-MM-DD')
  FROM dual
);
```

The query is executed, and the results are displayed in a table with 8 columns: U_ID, U_CONTACTNO, U_FIRSTNAME, U_LASTNAME, U_GENDER, U_EMAIL, U_DOB, and U_ADDRESS. Two rows are returned.

U_ID	U_CONTACTNO	U_FIRSTNAME	U_LASTNAME	U_GENDER	U_EMAIL	U_DOB	U_ADDRESS
244004	01721712326	Pranto	Islam	Male	prantoi@gmail.com	26-FEB-01	H99, Banani, Dhaka
244005	01721786458	Tomal	Paul	Male	tomalp@gmail.com	31-JAN-00	H88, Bashundharai, Dhaka

2 rows returned in 0.00 seconds

Joining

Q31: Show all the information of a user who's postal code is 1229?

ANS: SELECT UI.* FROM Users_Info UI JOIN Users_Location UL ON UI.U_ID = UL.U_ID

WHERE UL.L_ID = 1229

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following query:

```
SELECT UI.*
FROM Users_Info UI
JOIN Users_Location UL ON UI.U_ID = UL.U_ID
WHERE UL.L_ID = 1229;
```

The query is executed, and the results are displayed in a table with 8 columns: U_ID, U_CONTACTNO, U_FIRSTNAME, U_LASTNAME, U_GENDER, U_EMAIL, U_DOB, and U_ADDRESS. Four rows are returned.

U_ID	U_CONTACTNO	U_FIRSTNAME	U_LASTNAME	U_GENDER	U_EMAIL	U_DOB	U_ADDRESS
244001	01721786523	Anik	Sen	Male	aniks@gmail.com	30-AUG-99	H21, Rd02, Bashundhara, Dhaka
244002	01721741524	Fazle	Rabbi	Male	fazles@gmail.com	17-SEP-98	H56, Rd10, Nikunja, Dhaka
244005	01721786458	Tomal	Paul	Male	tomalp@gmail.com	31-JAN-00	H88, Bashundharai, Dhaka
244002	01721741500	Fazle	Rabbi	Male	fazles@gmail.com	17-SEP-98	H56, Rd10, Nikunja, Dhaka

4 rows returned in 0.00 seconds

Q52: Show the postal code of the user who's First Name start with "P"?

ANS: SELECT UI.U_FirstName as First_Name, UL.L_ID Postal_Code FROM Users_Info UI
JOIN Users_Location UL ON UI.U_ID = UL.U_ID WHERE UI.U_FirstName LIKE 'P%';

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following query:

```
SELECT UI.U_FirstName as First_Name, UL.L_ID Postal_Code
FROM Users_Info UI
JOIN Users_Location UL ON UI.U_ID = UL.U_ID
WHERE UI.U_FirstName LIKE 'P%';
```

The query is executed, and the results are displayed in a table:

FIRST_NAME	POSTAL_CODE
Prajukta	1230
Pranto	1213

Q53: Which users, along with their associated location IDs, were born before January 1, 2002, according to the data stored in the database?

ANS: SELECT UI.*, UL.L_ID FROM Users_Info UI
JOIN Users_Location UL ON UI.U_ID = UL.U_ID
WHERE UI.U_DOB < TO_DATE('2002-01-01', 'YYYY-MM-DD');

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following query:

```
SELECT UI.*, UL.L_ID
FROM Users_Info UI
JOIN Users_Location UL ON UI.U_ID = UL.U_ID
WHERE UI.U_DOB < TO_DATE('2002-01-01', 'YYYY-MM-DD');
```

The query is executed, and the results are displayed in a table:

U_ID	U_CONTACTNO	U_FIRSTNAME	U_LASTNAME	U_GENDER	U_EMAIL	U_DOB	U_ADDRESS	L_ID
244004	01721712326	Pranto	Islam	Male	prantoi@gmail.com	26-FEB-01	H99, Banani, Dhaka	1213
244005	01721786458	Tomal	Paul	Male	tomalp@gmail.com	31-JAN-00	H88, Bashundharai, Dhaka	1229

2 rows returned in 0.00 seconds [CSV Export](#)

View

QS1: What is the detailed identity information for all workers in the database?

ANS: CREATE VIEW Worker_Identity_Info AS

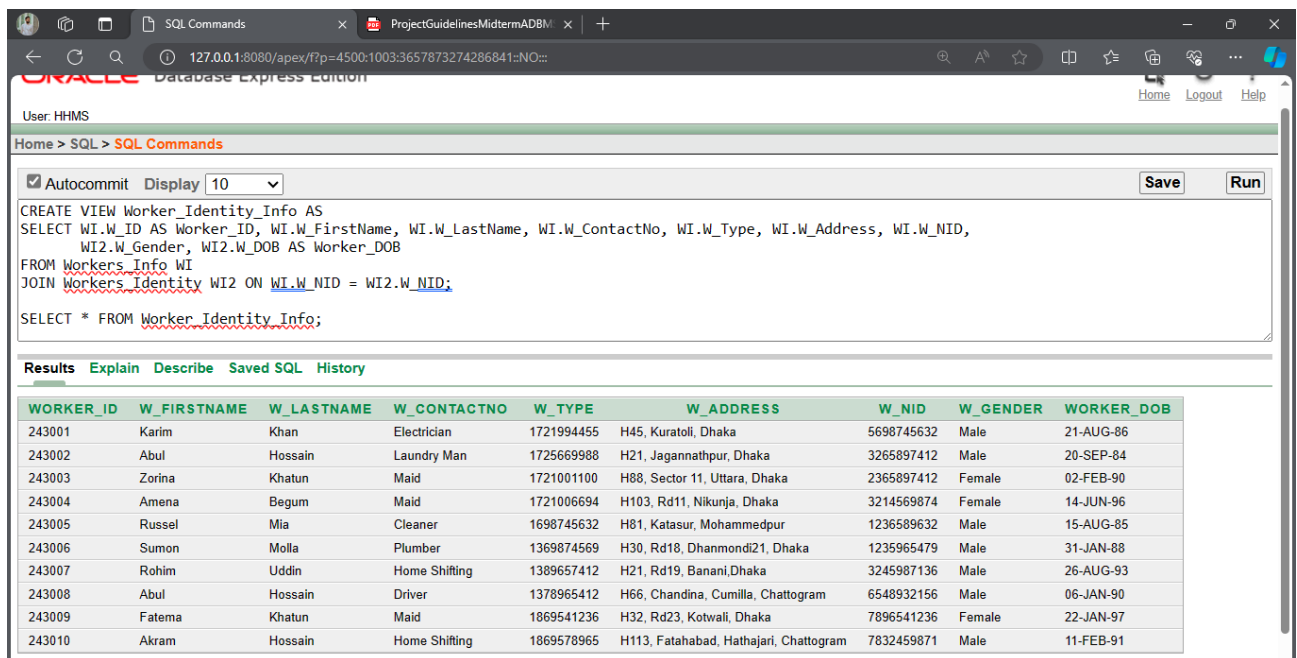
```
SELECT WI.W_ID AS Worker_ID, WI.W_FirstName, WI.W_LastName, WI.W_ContactNo, WI.W_Type,  
WI.W_Address, WI.W_NID,
```

```
WI2.W_Gender, WI2.W_DOB AS Worker_DOB
```

```
FROM Workers_Info WI
```

```
JOIN Workers_Identity WI2 ON WI.W_NID = WI2.W_NID;
```

```
SELECT * FROM Worker_Identity_Info;
```



The screenshot shows the Oracle SQL Developer interface. The SQL Commands window contains the following code:

```
CREATE VIEW Worker_Identity_Info AS  
SELECT WI.W_ID AS Worker_ID, WI.W_FirstName, WI.W_LastName, WI.W_ContactNo, WI.W_Type, WI.W_Address, WI.W_NID,  
       WI2.W_Gender, WI2.W_DOB AS Worker_DOB  
FROM Workers_Info WI  
JOIN Workers_Identity WI2 ON WI.W_NID = WI2.W_NID;  
  
SELECT * FROM Worker_Identity_Info;
```

The Results window displays the output of the query, showing 10 rows of worker data:

WORKER_ID	W_FIRSTNAME	W_LASTNAME	W_CONTACTNO	W_TYPE	W_ADDRESS	W_NID	W_GENDER	WORKER_DOB
243001	Karim	Khan	Electrician	1721994455	H45, Kuratoli, Dhaka	5698745632	Male	21-AUG-86
243002	Abul	Hossain	Laundry Man	1725669988	H21, Jagannathpur, Dhaka	3265897412	Male	20-SEP-84
243003	Zorina	Khatun	Maid	1721001100	H88, Sector 11, Uttara, Dhaka	2365897412	Female	02-FEB-90
243004	Amena	Begum	Maid	1721006694	H103, Rd11, Nikunja, Dhaka	3214569874	Female	14-JUN-96
243005	Russel	Mia	Cleaner	1698745632	H81, Katasur, Mohammedpur	1236589632	Male	15-AUG-85
243006	Sumon	Molla	Plumber	1369874569	H30, Rd18, Dhanmondi21, Dhaka	1235965479	Male	31-JAN-88
243007	Rohim	Uddin	Home Shifting	1389657412	H21, Rd19, Banani, Dhaka	3245987136	Male	26-AUG-93
243008	Abul	Hossain	Driver	1378965412	H66, Chandina, Cumilla, Chattogram	6548932156	Male	06-JAN-90
243009	Fatema	Khatun	Maid	1869541236	H32, Rd23, Kotwali, Dhaka	7896541236	Female	22-JAN-97
243010	Akram	Hossain	Home Shifting	1869578965	H113, Fatahabad, Hathajari, Chattogram	7832459871	Male	11-FEB-91

Q2: Which area managers are associated with their respective administrative details?

ANS: CREATE VIEW Area_Manager_Admin_Info AS

SELECT AM.AM_ID AS Area_Manager_ID, AM.AM_FirstName, AM.AM_LastName, AM.AM_Address,
AM.AM_ContactNo, AM.AM_Email,

AM.AM_Gender, AM.AM_DOB, AM.A_ID AS Admin_ID,

A.A_FirstName AS Admin_FirstName, A.A_LastName AS Admin_LastName, A.A_Email

FROM Area_Manager AM JOIN admin A ON AM.A_ID = A.A_ID;

SELECT * FROM Area_Manager_Admin_Info;

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following code:

```
CREATE VIEW Area_Manager_Admin_Info AS
SELECT AM.AM_ID AS Area_Manager_ID, AM.AM_FirstName, AM.AM_LastName, AM.AM_Address, AM.AM_ContactNo, AM.AM_Email,
AM.AM_Gender, AM.AM_DOB, AM.A_ID AS Admin_ID,
A.A_FirstName AS Admin_FirstName, A.A_LastName AS Admin_LastName, A.A_Email
FROM Area_Manager AM JOIN admin A ON AM.A_ID = A.A_ID;
SELECT * FROM Area_Manager_Admin_Info;
```

The Results window displays the following data:

AREA_MANAGER_ID	AM_FIRSTNAME	AM_LASTNAME	AM_ADDRESS	AM_CONTACTNO	AM_EMAIL	AM_GENDER	AM_DOB	ADMIN_ID	ADMIN_FIRSTNAME	ADMIN_LASTNAME
242003	Karim	Khan	H41, Kohwali, Chattogram	1721050698	karimkhan@gmail.com	Male	14-FEB-96	24101	Fahim	Bari
242004	Kaniz	Fatema	H121, Housing Col, Cumilla	1822812203	kanizfatema@gmail.com	Female	20-AUG-98	24103	Tazuddin	Ahmed
242005	Zobair	Khan	H18, Fatahabad, Chattogram	1921887769	zobairkhan@gmail.com	Male	05-JAN-97	24105	Zerin	Farjana
242006	Sujana	Khatun	H17, Rd11, kotwali, Dhaka	1628069474	sujanakhatun@gmail.com	Female	30-AUG-99	24104	Aishi	Mandal
242007	Shishir	Minhaz	H42, Rd08, Block F, Bashundhara, Dhaka	1628069475	shishirminhaz@gmail.com	Male	17-SEP-98	24103	Tazuddin	Ahmed
242008	Monirul	Islam	H256, Katasur, Mohammedpur, Dhaka	1626994767	monirulislam@gmail.com	Male	21-OCT-90	24102	Rafsan	Gazi

Q3:What are the services assigned to each worker?

ANS: CREATE VIEW view_Worker_Service_Info AS

SELECT WI.*, S.*

FROM Workers_Info WI

JOIN Worker_Service_Info WSI ON WI.W_ID = WSI.W_ID

JOIN Services S ON WSI.SO_ID = S.SO_ID;

SELECT * FROM view_Worker_Service_Info;

The screenshot shows the Oracle Database Express Edition interface. The SQL Command window contains the following code:

```
CREATE VIEW view_Worker_Service_Info AS
SELECT WI.*, S.*
FROM Workers_Info WI
JOIN Worker_Service_Info WSI ON WI.W_ID = WSI.W_ID
JOIN Services S ON WSI.SO_ID = S.SO_ID;

SELECT * FROM view_Worker_Service_Info;
```

The Results tab displays the following data:

W_ID	W_FIRSTNAME	W_LASTNAME	W_CONTACTNO	W_TYPE	W_ADDRESS	W_NID	L_ID	SO_ID	SO_TYPE	SO_DESCRIPTION
243005	Russel	Mia	Cleaner	1698745632	H81, Katasur, Mohammedpur	1236589632	1207	50001	Cleaning	AC, Sofa, Fan, Car, Home etc
243002	Abul	Hossain	Laundry Man	1725669988	H21, Jagannathpur, Dhaka	3265897412	1229	50002	Laundry	Washing Sofa, car, dress etc
243007	Rohim	Uddin	Home Shifting	1389657412	H21, Rd19, Banani, Dhaka	3245987136	1213	50003	Home Shifting	Shifting home with care
243003	Zorina	Khatun	Maid	1721001100	H88, Sector 11, Uttara, Dhaka	2365897412	1230	50004	Maid	Cleaning kitchen, washing clothes, cooking etc
243004	Amena	Begum	Maid	1721006694	H103, Rd11, Nikunja, Dhaka	3214569874	1229	50004	Maid	Cleaning kitchen, washing clothes, cooking etc
243001	Karim	Khan	Electrician	1721994455	H45, Kuratoli, Dhaka	5698745632	1229	50005	Electrician	Electricity problem
243006	Sumon	Molla	Plumber	1369874569	H30, Rd18, Dhanmondi21, Dhaka	1235965479	1209	50006	Plumber	Repair gas, water pipes

Synonym

Q51: What are the details of female users stored in the system?

ANS: CREATE SYNONYM UserInfo_Synonym FOR Users_Info;

SELECT * FROM UserInfo_Synonym WHERE U_Gender = 'Female';

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the query: `SELECT * FROM UserInfo_Synonym WHERE U_Gender = 'Female';`. The query has been executed, and the results are displayed in a table with 8 columns: U_ID, U_CONTACTNO, U_FIRSTNAME, U_LASTNAME, U_GENDER, U_EMAIL, U_DOB, and U_ADDRESS. The results show 6 rows of data for female users.

U_ID	U_CONTACTNO	U_FIRSTNAME	U_LASTNAME	U_GENDER	U_EMAIL	U_DOB	U_ADDRESS
244003	01721366525	Prajukta	Majumder	Female	prajuktam@gmail.com	21-AUG-02	H23, Rd23, Sector11, Uttara, Dhaka
244007	01721756529	Mim	Akter	Female	mima@gmail.com	09-FEB-99	H11, Dhanmondi21, Dhaka
244008	01769871230	Mahjabin	Chowdhury	Female	mahjabinc@gmail.com	29-MAR-99	H23, Mohammedpur, Dhaka
244008	01769871220	Mahjabin	Chowdhury	Female	mahjabinc@gmail.com	29-MAR-99	H23, Mohammedpur, Dhaka
244009	01721896541	Faria	Tabassum	Female	fariat@gmail.com	11-APR-99	H78, Banani, Dhaka

Q52: What are the unique addresses of users stored in the system?

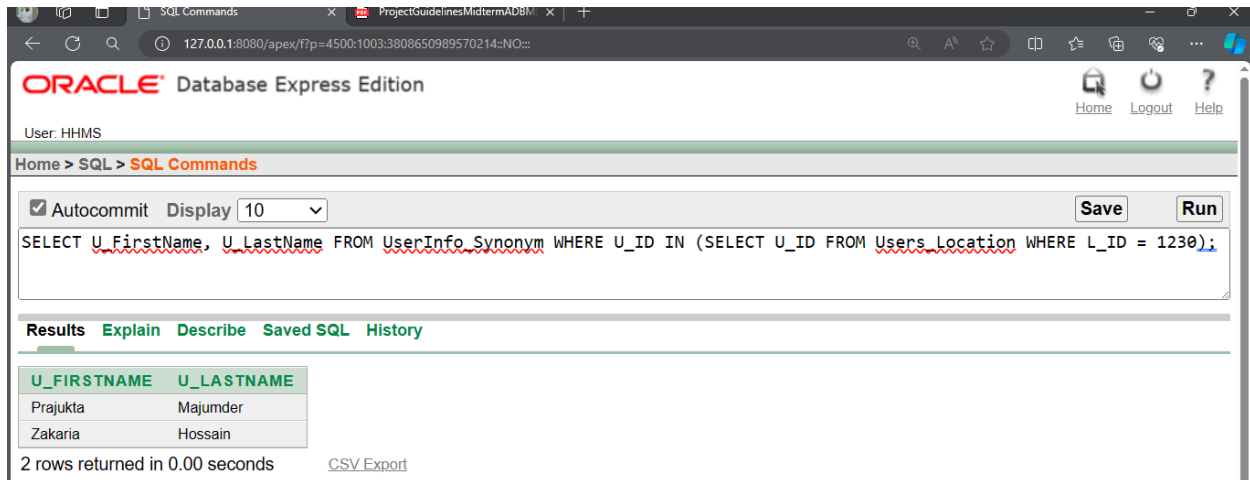
ANS: SELECT DISTINCT U_Address FROM UserInfo_Synonym;

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the query: `SELECT DISTINCT U_Address FROM UserInfo_Synonym;`. The query has been executed, and the results are displayed in a table with 1 column: U_ADDRESS. The results show 10 unique addresses.

U_ADDRESS
H56,Rd10, Nikunja, Dhaka
H23, Rd23, Sector11, Uttara, Dhaka
H35, Chandina, Cumilla, Dhaka
H99, Banani, Dhaka
H88, Bashundharai, Dhaka
H11, Dhanmondi21, Dhaka
H22, Rd21, Uttara, Dhaka
H23, Mohammedpur, Dhaka
H21, Rd02, Bashundhara, Dhaka
H78, Banani, Dhaka

QS3: Who are the users located in the area with ID 1230?

ANS: SELECT U_FirstName, U_LastName FROM UserInfo_Synonym WHERE U_ID IN (SELECT U_ID FROM Users_Location WHERE L_ID = 1230);



Relational Algebra

QS1: What are the distinct addresses of users in the system?

ANS: π U_Address (Users_Info)

QS2: How many distinct service types are available in the system?

ANS: COUNT(π SO_Type (Services))

QS3: List the area managers along with their corresponding emails.

ANS: π AM_FirstName, AM_LastName, AM_Email (Area_Manager)

QS4: What are the names and contact numbers of users who live in Dhaka?

ANS: π U_FirstName, U_LastName, U_ContactNo (σ L_District = 'Dhaka' (Users_Info \bowtie Users_Location))

QS5: How many users were born after January 1, 1995?

ANS: COUNT(σ U_DOB > TO_DATE('1995-01-01', 'YYYY-MM-DD') (Users_Info))

Conclusion

Our project findings demonstrate the effectiveness of the Helping Hand Management System in streamlining service management, workforce allocation, and user engagement. Through a well-structured database schema, we have successfully facilitated core functionalities such as admin and area manager management, worker assignment, user handling, and service order processing. However, to further enhance the project for the Final Term, we propose several key improvements. Firstly, we plan to refine the user experience by optimizing the frontend design and ensuring seamless navigation. Additionally, integrating advanced reporting and analytics capabilities will empower stakeholders with valuable insights for data-driven decision-making. We aim to introduce an online payment system to facilitate secure transactions and improve user convenience. Furthermore, the implementation of a robust complaint management system will enable users to submit and track complaints efficiently, enhancing overall satisfaction. Lastly, developing a mobile application will enhance accessibility and flexibility for users, allowing them to access services and communicate with stakeholders conveniently. These enhancements will elevate the Helping Hand Management System into a more comprehensive and user-centric platform, delivering enhanced functionality, efficiency, and user satisfaction.