



AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)
FACULTY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF CS

Introduction to Database
Fall 2020-2021

Section: F.

Supervised By
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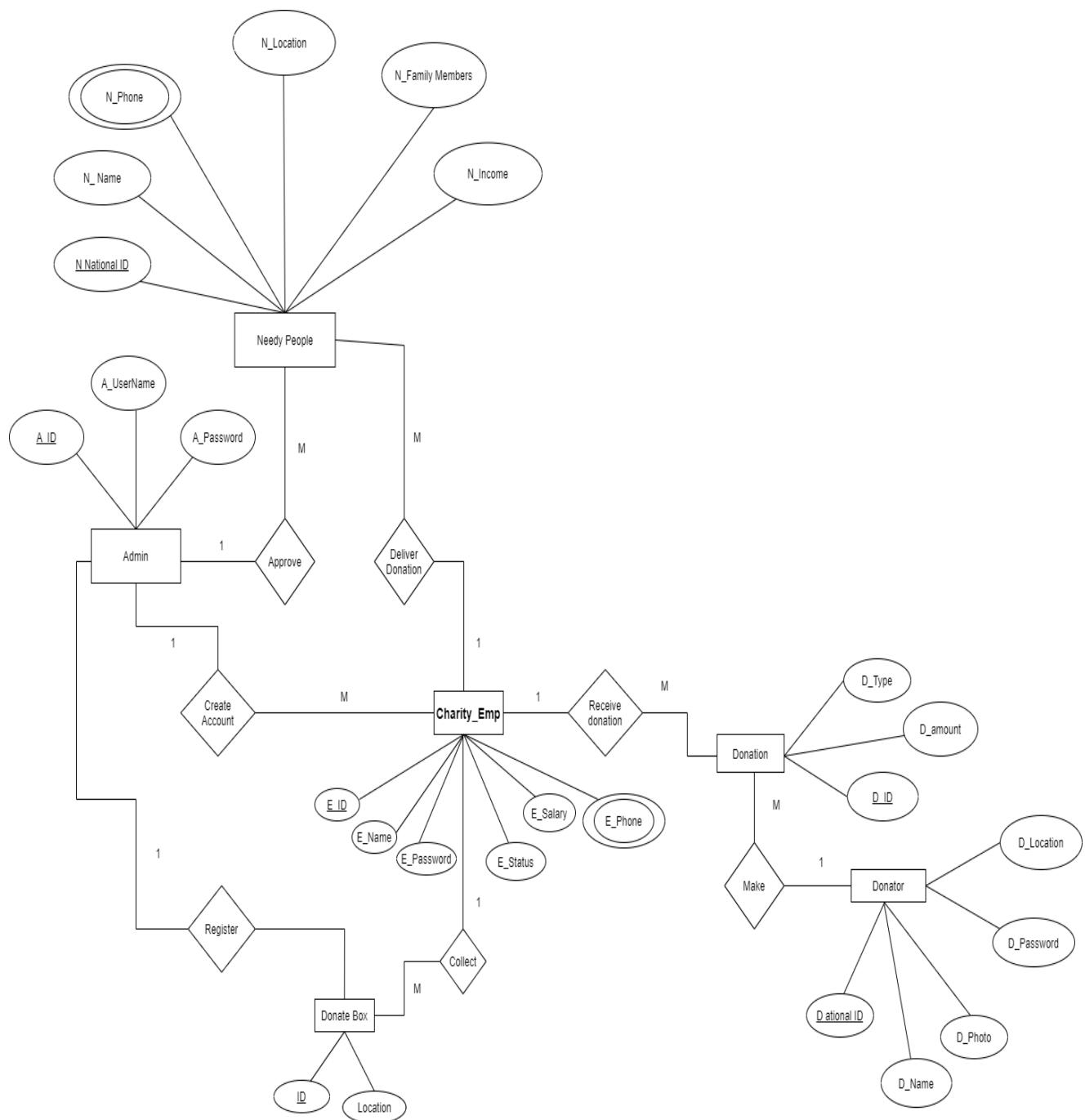
Project Topic
Donation System

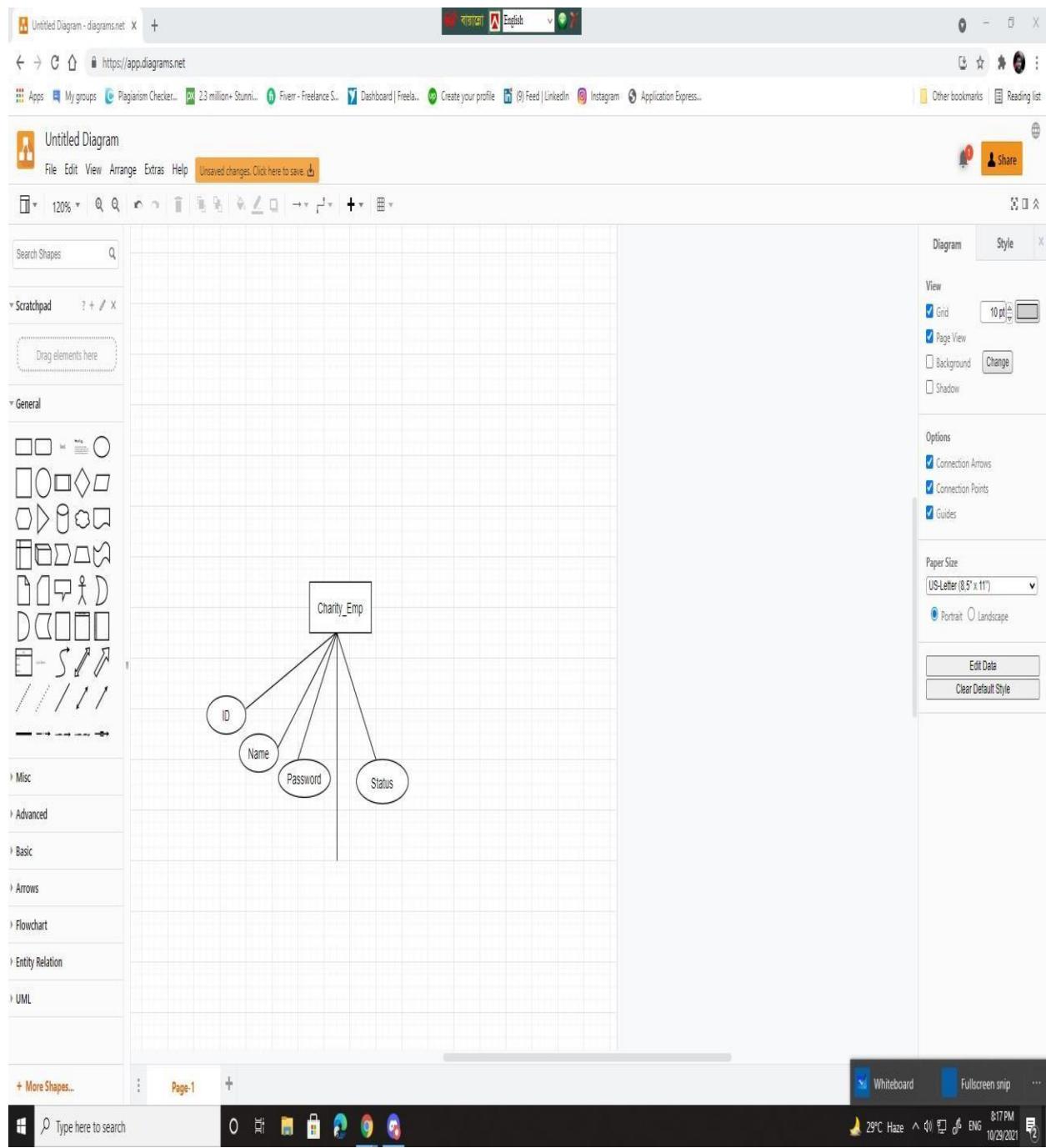
Group member

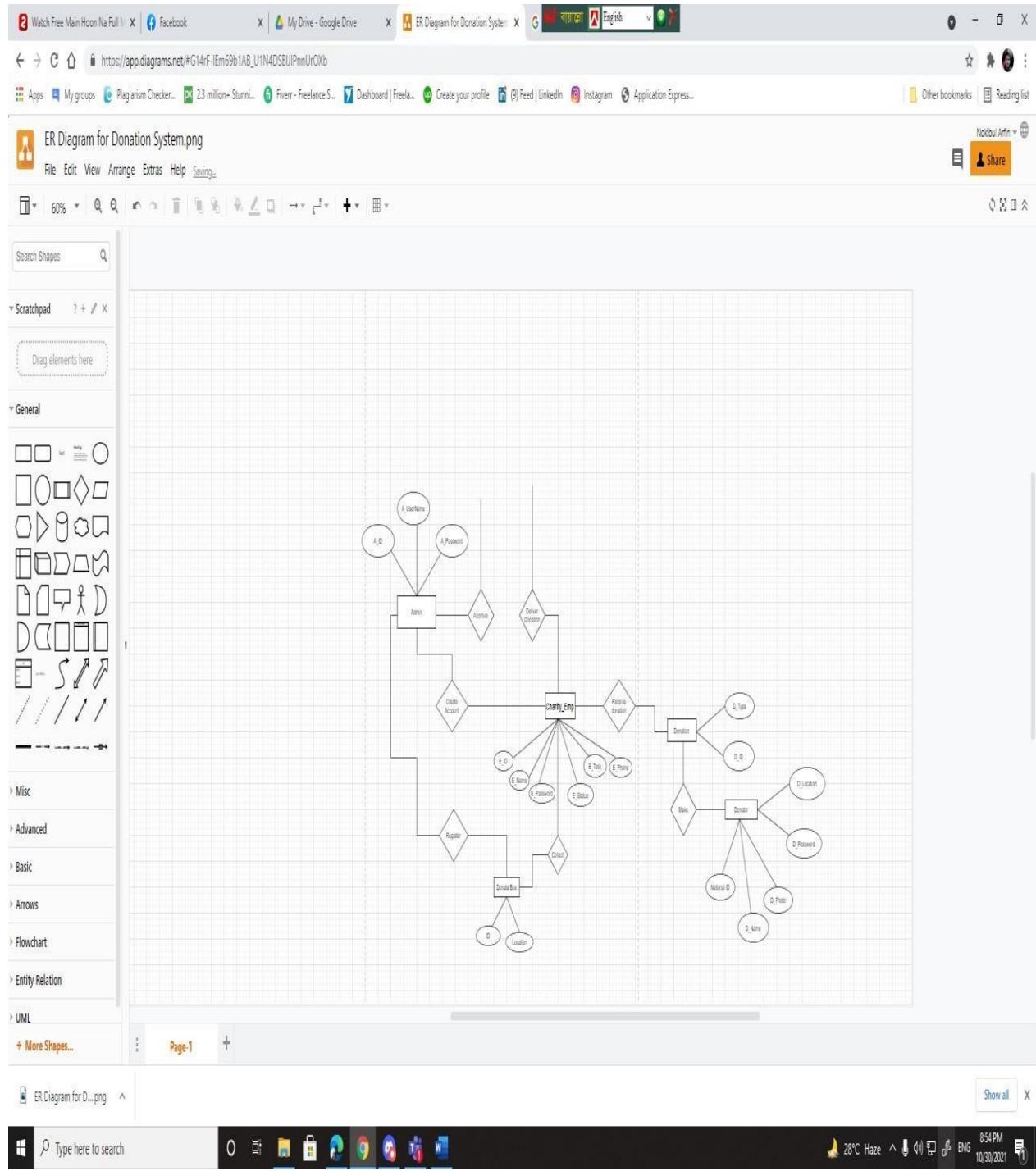
Name	ID
NOKIBUL ARFIN SIAM	21-44793-1
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Case Study: In a donation management system, a donator donates on charity. Donation is received by charity employees. A donator has National_ID, Name, Photo, Password, Location. Donation has D_type, D_amount and D_ID. Charity emp receives the donation and is identified by E_ID, E_Name, E_Password, E_Status, E_Salary, E_Phone. Charity_employees are managed by an admin who has attributes of A_UserName, A_ID, A_Password. Admin creates accounts of the employees. Charity employees also collect donation from donate box which has attribute of ID and Location. Admin is also registered to the donate box. Admin approves needy people for donation. Needy people's attributes are composed of National_ID, N_name, N_phone, Location, Family_members and Income.

ER DIAGRAM







NORMALIZATION

Receive Donation:

UNF

Receive Donation (D_Type, D_ID, D_amount, E_ID, E_Name, E_Password, E_Status, E_Salary, E_Phone)

1NF: E_phone is multivalued attribute.

2NF: E_ID, E_Name, E_Password, E_Status, E_Salary, E_Phone

D_ID, D_Type, D_amount, E_ID

3NF: D_ID, E_ID

D_ID, D_amount

D_ID, D_Type

Make:

UNF

Make (D_Location, D_Password, D_National_ID, D_Name, D_photo, D_ID, D_Type, D_amount)

1NF: There is no multivalued attribute.

2NF: D_ID, D_Type D_amount

D_National_ID, D_Password, D_Location, D_Name, D_photo, D_ID

3NF: D_National_ID, D_Type, D_ID

D_National_ID, D_name, D_Location,

D_national_ID, D_photo

Create Account:

UNF

Create Account (E_ID, E_Name, E_Password, E_Status, E_Salary, E_phone, A_ID, A_UserName, A_Password)

1NF: E_phone is multivalued attribute.

2NF: A_ID, A_UserName, A_Password

E_ID, E_Name, E_Password, E_Status, E_Salary, E_phone, A_ID

3NF: E_ID, E_Name, E_Password, E_Status, E_Salary, E_phone

A_UserName, A_Password

E_ID, A_ID

Register:

UNF

Register (A_ID, A_UserName, A_password, ID, Location)

1NF: There is no multivalued attribute.

2NF: ID, Location

A_ID, A_UserName, A_password, ID

3NF: A_ID, ID

Collect:

UNF

Register (E_ID, E_Name, E_Password, E_Status, E_Salary, E_phone, ID, Location)

1NF: E_phone is multivalued attribute.

2NF: ID, Location

E_ID, E_Name, E_Password, E_Status, E_Salary, E_phone, ID

3NF: E_ID, E_Name, E_Password, E_Status, E_Salary, E_phone

E_ID, ID

Deliver Donation:

UNF

Deliver Donation (N_National_ID, N_Name, N_phone, N_Location, N_Family Members, N_Income, E_ID, E_Name, E_Password, E_Status, E_Salary, E_phone)

1NF: There is 2 multivalued attribute N_Phone, E_Phone.

2NF: E_ID, E_Name, E_Password, E_Status, E_Salary, E_phone

N_National_ID, N_Name, N_phone, N_Location, N_Family Members, N_Income, E_ID

3NF: N_National_ID, E_ID

N_National_ID, N_Name, N_Family Members, N_Income

N_phone, N_Location,

Approve:

UNF

Approve (A_ID, A_UserName, A_password, N_National ID, N_Name, N_phone, N_Location, N_Family Members, N_Income)

1NF: N_phone is multivalued attribute.

2NF: A_ID, A_UserName, A_password

N_National ID, N_Name, N_phone, N_Location, N_Family Members, N_Income, A_ID

3NF: N_National ID, A_ID

N_National ID, N_Name, N_Family Members

N_phone, N_Location, N_Income

TABLE CREATION

Final Table:

Donator: D_Location, D_Password, D ational ID, D_Name, D_photo.

Contact Donator: D National ID, D_name, D_Location,

Donation: D_Type, D_ID, D_amount

Charity Employee: E ID, E_Name, E_Password, E_Status, E_Task, E_phone

Admin: A ID, A_UserName, A_password

Needy People: N National ID, N_Name, N_phone, N_Location, N_Family Members, N_Income.

Contact Needy people: N National ID, N_Phone, A ID

Create Table:

1. Donator:

```
create table donator(D_Nid number(6,0), D_name  
varchar2(15),D_password number(13,0),D_Location varchar2(20));
```

The screenshot shows the Oracle SQL Developer interface. In the main editor area, the following SQL code is entered:

```
create table donator(D_Nid number(6,0), D_name varchar2(15),D_password number(13,0),D_Location varchar2(20));  
  
desc donator
```

Below the code, the 'Describe' tab is selected, showing the table structure:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DONATOR	D_NID	Number	-	6	0	-	✓	-	-
	D_NAME	Varchar2	15	-	-	-	✓	-	-
	D_PASSWORD	Number	-	13	0	-	✓	-	-
	D_LOCATION	Varchar2	20	-	-	-	✓	-	-
									1-4

At the bottom of the interface, the Application Express version is shown as 2.1.0.0.39, and the copyright notice reads "Copyright © 1999, 2006, Oracle. All rights reserved."

2. Contact Donator:

create table Contact_Donator(Nid number(7,0)primary key not null, D_name varchar2(12),D_location number(7,0));

The screenshot shows the Oracle Database Express Edition interface. The user is SCOTT. The SQL Commands page displays the following SQL code:

```
create table Contact_Donator(Nid number(6,0)primary key not null, D_name varchar2(15),D_location varchar2(20));
desc Contact_Donor
```

The 'Run' button is highlighted. Below the code, the 'Results' tab is selected, showing the table structure:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CONTACT_DONATOR	NID	Number	-	6	0	1	-	-	-
	D_NAME	Varchar2	15	-	-	-	✓	-	-
	D_LOCATION	Varchar2	20	-	-	-	✓	-	-

At the bottom, it says 'Application Express 2.1.0.00.3' and 'Copyright © 1999, 2006, Oracle. All rights reserved.'

3. Donation:

```
create table donation(D_id number(6,0)primary key not null,D_type  
varchar2(15),D_amount int);
```

SQL Commands x ER Diagram for Donation System +

বাংলা English

http://127.0.0.1:8080/apex/f?p=4500:1003:2153913149354114:NO=

Apps My groups Plagiarism Checker... 2.3 million+ Stunni... Fiverr - Freelance S... Dashboard | Freelanc... Create your profile (9) Feed | LinkedIn Instagram Application Express... (21) Pinterest Other bookmarks Reading list

ORACLE Database Express Edition

User: SCOTT

Home > SQL > SQL Commands

Autocommit Display 10

```
create table donation(D_id number(6,0)primary key not null,D_type varchar2(15),D_amount int);
desc donation
```

Object Type TABLE Object DONATION

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DONATION	D_ID	Number	-	6	0	1	-	-	
	D_TYPE	Varchar2	15	-	-	-	✓	-	
	D_AMOUNT	Number	-	-	0	-	✓	-	
								1-3	

Type here to search

Windows Ink Workspace

22°C Mostly sunny 12/11/2021 9:50 AM

4. Charity Employee:

create table Charity_Employee(E_id number(6,0)primary key not null, E_name varchar2(15),E_password number(13,0), E_status varchar2(20), E_Salary int, E_phone number(20));

The screenshot shows the Oracle SQL Developer interface. In the top navigation bar, there are tabs for 'SQL Commands' and 'ER Diagram for Donation System'. The URL in the address bar is <http://127.0.0.1:8080/apex/f?p=4500:1003:215391314935414::NO::>. Below the address bar, there's a toolbar with various icons. The user is logged in as SCOTT.

In the main workspace, the path 'Home > SQL > SQL Commands' is visible. The SQL editor contains the following code:

```
create table Charity_Employee(E_id number(6,0)primary key not null, E_name varchar2(15),E_password number(13,0), E_status varchar2(20), E_Salary int, E_phone number(20));
desc Charity_Employee
```

At the bottom of the SQL editor, there are buttons for 'Save' and 'Run'. Below the editor, there are tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is selected.

Under the 'Object Type TABLE Object CHARITY_EMPLOYEE' heading, there is a detailed table showing the structure of the newly created table:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CHARITY_EMPLOYEE	E_ID	Number	-	6	0	1	-	-	-
	E_NAME	Varchar2	15	-	-	-	✓	-	-
	E_PASSWORD	Number	-	13	0	-	✓	-	-
	E_STATUS	Varchar2	20	-	-	-	✓	-	-
	E_SALARY	Number	-	-	0	-	✓	-	-
	E_PHONE	Number	-	20	0	-	✓	-	-

A note at the bottom right of the table says '1-6'.

The taskbar at the bottom of the screen includes the Windows Start button, a search bar, and several pinned application icons. The system tray shows the date and time as 12/11/2021, 9:59 AM, with a battery level of 95%.

5. Admin:

create table admin(A_id number(7,0) primary key not null,A_password number(15),A_username varchar2(4)not null);

The screenshot shows the Oracle Database Express Edition interface. The user is logged in as SCOTT. In the SQL Commands tab, the following SQL code is entered:

```
create table admin(A_id number(7,0) primary key not null,A_password number(15),A_username varchar2(4)not null);
desc admin
```

The 'Run' button is highlighted. Below the SQL window, the 'Object Type TABLE Object ADMIN' section displays the table structure:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ADMIN	A_ID	Number	-	7	0	1	-	-	-
	A_PASSWORD	Number	-	15	0	-	✓	-	-
	A_USERNAME	Varchar2	4	-	-	-	-	-	-

At the bottom, it says '1 - 3'. The status bar at the bottom right indicates 'Application Express 2.1.0.0.39', 'Language: en-us', and 'Copyright © 1999, 2006, Oracle. All rights reserved.'

6. Needy People:

```
create table needy_people(N_Nid number(6,0)primary key not null,N_name varchar2(15),N_phone number(20),N_location varchar2(20),N_familymembers number(20),N_income int);
```

The screenshot shows a web-based SQL editor interface. At the top, there's a header bar with tabs for 'SQL Commands' and 'ER Diagram for Donation System'. Below the header, there's a toolbar with various icons and a URL bar showing the connection details. The main area is a code editor with the following SQL statements:

```
create table needy_people(N_Nid number(6,0)primary key not null,N_name varchar2(15),N_phone number(20),N_location varchar2(20),N_familymembers number(20),N_income int);
desc needy_people
```

Below the code editor, there are tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Describe' tab is currently selected, showing the table structure:

Object Type	TABLE Object	NEEDY_PERSON							
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
NEEDY_PERSON	N_NID	Number	-	6	0	1	-	-	-
	N_NAME	Varchar2	15	-	-	-	✓	-	-
	N_PHONE	Number	-	20	0	-	✓	-	-
	N_LOCATION	Varchar2	20	-	-	-	✓	-	-
	N_FAMILYMEMBERS	Number	-	20	0	-	✓	-	-
	N_INCOME	Number	-	-	0	-	✓	-	-

At the bottom of the screen, there's a Windows taskbar with the Start button, a search bar, pinned application icons, and system status indicators like battery level, signal strength, and date/time.

7. Contact Needy People:

```
create table Contact_Needy_people(N_nid number(6,0)not null  
,N_phone number(20),A_id number(7,0),primary  
key(N_nid),foreign key(A_id) references admin(A_id));
```

The screenshot shows the Oracle Application Express interface. The top navigation bar includes tabs for SQL Commands, ER Diagram for Donation System, Facebook, and ER Diagram Symbols and Notes. Below the navigation bar, the URL is http://127.0.0.1:8080/apex/r?p=4500:1003:2153913149354114:NC:1. The browser toolbar shows various links like Apps, My groups, Plagiarism Checker, etc. The main content area is titled "User: SCOTT" and shows the path Home > SQL > SQL Commands. The SQL editor contains the following code:

```
create table Contact_Needy_people(N_nid number(6,0)not null ,N_phone number(20),A_id number(7,0),primary key(N_nid),foreign  
key(A_id) references admin(A_id));  
desc Contact_Needy_people
```

Below the SQL editor, there are buttons for Save and Run. At the bottom, there are tabs for Results, Explain, Describe, Saved SQL, and History. The Results tab is selected, showing the object type as TABLE Object CONTACT_NEEDY_PEOPLE. A detailed table below lists the columns and their properties:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CONTACT NEEDY PEOPLE	N_NID	Number	-	6	0	1	-	-	
	N_PHONE	Number	-	20	0	-	✓	-	
	A_ID	Number	-	7	0	-	✓	-	
1 - 3									

At the bottom of the screen, the Windows taskbar shows the language as en-us, a search bar, and system icons. The status bar indicates the application version as Application Express 2.1.0.0, the copyright year as 1999-2006, and the date/time as 12/11/2020 12:42 PM.

DATA INSERTION

1. Donator:

```
insert into donator values(10523 , 'farhan amin' , 4134340 , 'sylhet');  
insert into donator values(114012 , 'nokibul arfin' , 1215403 , 'sohid faruk road');  
insert into donator values(121013 , 'shariar sahill' , 34123203 , 'jonson road');  
select * from donator;
```

The screenshot shows the Oracle Application Express (APEX) interface. At the top, there's a toolbar with various icons and a status bar showing the URL and session information. Below the toolbar is a search bar and a navigation menu.

In the main area, there's a SQL editor window. It contains the SQL code provided above. There are checkboxes for 'Autocommit' and 'Display' (set to 10), and buttons for 'Save' and 'Run'. The 'Run' button is highlighted in red.

Below the editor is a results section with tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is selected, showing a table with the inserted data:

D_NID	D_NAME	D_PASSWORD	D_LOCATION
10523	farhan amin	4134340	sylhet
114012	nokibul arfin	1215403	sohid faruk road
121013	shariar sahill	34123203	jonson road

Below the table, it says '3 rows returned in 0.00 seconds' and has a link to 'CSV Export'.

At the bottom, there's a footer with the APEX version, copyright information, and a Windows taskbar at the very bottom.

2. Contact Donator:

```
insert into Contact_Donator values(10523 , 'farhan amin' , 'sylhet');  
insert into Contact_Donator values(114012 , 'nokibul arfin' , 'sohid faruk road');  
insert into Contact_Donator values(121013 , 'shariar sahil' , 'jonson road');  
select * from Contact_donor;
```

The screenshot shows the Oracle Database Express Edition interface. The top navigation bar includes tabs for 'SQL Commands' and 'ER Diagram for Donation System'. The main workspace displays the SQL code entered by the user. The results section shows a table with three rows of data, and the status bar at the bottom indicates '3 rows returned in 0.10 seconds'.

```
insert into Contact_Donator values(10523 , 'farhan amin' , 'sylhet');  
insert into Contact_Donator values(114012 , 'nokibul arfin' , 'sohid faruk road');  
insert into Contact_Donator values(121013 , 'shariar sahil' , 'jonson road');  
select * from Contact_donor;
```

NID	D_NAME	D_LOCATION
10523	farhan amin	sylhet
114012	nokibul arfin	sohid faruk road
121013	shariar sahil	jonson road

3 rows returned in 0.10 seconds [CSV Export](#)

3. Donation:

```
insert into Donation values(10523 , 'Cash' , 30000);
insert into Donation values(11401 , 'Check' ,20000);
insert into Donation values(12101 , 'Cash' ,10000);
select * from donation;
```

The screenshot shows the Oracle Database Express Edition interface. The title bar says "ER Diagram for Donation System". The main area is titled "SQL Commands". The user is logged in as SCOTT. The SQL code entered is:

```
insert into Donation values(10523 , 'Cash' , 30000);
insert into Donation values(11401 , 'Check' ,20000);
insert into Donation values(12101 , 'Cash' ,10000);
select * from donation;
```

Below the code, the results are displayed in a table:

D_ID	D_TYPE	D_AMOUNT
10523	Cash	30000
11401	Check	20000
12101	Cash	10000

At the bottom, it says "3 rows returned in 0.00 seconds" and there is a "CSV Export" link. The status bar at the bottom shows "Language: en-us" and "Copyright © 1999, 2006, Oracle. All rights reserved. Application Express 2.1.0.0.39".

4. Charity Employee:

```
insert into Charity_Employee values(10523 , 'Siam' , 23415 , 'manger' , '30000',01575267980);
insert into Charity_Employee values(10524 , 'farhan' , 21415 , 'j manager' , '20000',01575267981);
insert into Charity_Employee values(10525 , 'sahil' , 22415 , 'clark' , '10000',01575267982);
select * from Charity_Employee
```

The screenshot shows the Oracle Application Express interface. The top navigation bar includes links for Home, Logout, and Help. Below the navigation is a toolbar with various icons. The main content area is titled "SQL Commands". A dropdown menu shows "Autocommit" is checked and "Display" is set to 10. The SQL code entered is:

```
insert into Charity_Employee values(10523 , 'Siam' , 23415 , 'manger' , '30000',01575267980);
insert into Charity_Employee values(10524 , 'farhan' , 21415 , 'j manager' , '20000',01575267981);
insert into Charity_Employee values(10525 , 'sahil' , 22415 , 'clark' , '10000',01575267982);
select * from Charity_Employee
```

Below the code, there are tabs for Results, Explain, Describe, Saved SQL, and History. The Results tab is selected, showing a table with the following data:

E_ID	E_NAME	E_PASSWORD	E_STATUS	E_SALARY	E_PHONE
10523	Siam	23415	manger	30000	1575267980
10524	farhan	21415	j manager	20000	1575267981
10525	sahil	22415	clark	10000	1575267982

Below the table, it says "3 rows returned in 0.00 seconds" and has a "CSV Export" link. At the bottom, it shows the application version "Application Express 2.1.0.0.39", the language "Language: en-us", and copyright information "Copyright © 1999, 2006, Oracle. All rights reserved.". The bottom of the screen shows the Windows taskbar with the Start button, search bar, pinned icons for File Explorer, Task View, and other applications, and system status icons.

5. Admin:

```
insert into admin values(10523 , 23415 , 'aaaa');  
insert into admin values(10524 , 21415 , 'bbbb');  
insert into admin values(10525 , 22415 , 'cccc');  
select * from admin
```

The screenshot shows a web browser window with the following details:

- Header:** SQL Commands, Facebook, http://127.0.0.1:8080/apex/f?p=4500:1003:1816254363087557:NO:, বাংলা, English.
- User:** SCOTT
- Breadcrumbs:** Home > SQL > SQL Commands
- Toolbar:** Autocommit (checked), Display (dropdown set to 10), Save, Run.
- SQL Query:**

```
insert into admin values(10523 , 23415 , 'aaaa');  
insert into admin values(10524 , 21415 , 'bbbb');  
insert into admin values(10525 , 22415 , 'cccc');  
select * from admin
```
- Results:** A table showing the data inserted into the admin table.

A_ID	A_PASSWORD	A_USERNAME
10523	23415	aaaa
10524	21415	bbbb
10525	22415	cccc

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

System tray icons include: Windows, Type here to search, Start button, Task View, File Explorer, Edge, Firefox, File Manager, Taskbar, and a battery icon.

6. Needy People:

```
insert into needy_people values(10522 , 'Siam' ,01575267980 , 'aaaaa' ,5 , '5000');  
insert into needy_people values(10523 , 'farhan' ,01575267981 , 'bbbbbb' , 5,'4000');  
insert into needy_people values(10524 , 'Sahil' ,01575267982 , 'cccccc' ,5 , '3000');  
select * from needy_people
```

The screenshot shows the Oracle Application Express (APEX) interface. At the top, there's a toolbar with various icons and a language switch from Bengali to English. Below the toolbar, the URL is http://127.0.0.1:8080/apex/f?p=4500:1003:2153913149354114:NO=.

The main content area shows the SQL command entered in the SQL Commands tab:

```
insert into needy_people values(10522 , 'Siam' ,01575267980 , 'aaaaa' ,5 , '5000');  
insert into needy_people values(10523 , 'farhan' ,01575267981 , 'bbbbbb' , 5,'4000');  
insert into needy_people values(10524 , 'Sahil' ,01575267982 , 'cccccc' ,5 , '3000');  
select * from needy_people
```

Below the SQL input, there are "Save" and "Run" buttons. The results are displayed in a table:

N_NID	N_NAME	N_PHONE	N_LOCATION	N_FAMILYMEMBERS	N_INCOME
10522	Siam	1575267980	aaaaa	5	5000
10523	farhan	1575267981	bbbbbb	5	4000
10524	Sahil	1575267982	cccccc	5	3000

At the bottom, it says "3 rows returned in 0.00 seconds" and has a "CSV Export" link. The status bar at the bottom right shows system information: 23°C Mostly sunny, ENG, 10:11 AM, 12/11/2021.

7. Contact Needy People:

```
insert into Contact_Needy_People values(10522 , 01575267980 , 10523);
insert into Contact_Needy_People values(10523 , 01575267981 , 10524);
insert into Contact_Needy_People values(10524 , 01575267982 , 10525);
select * from Contact_Needy_People
```

The screenshot shows the Oracle Database Express Edition interface. The top navigation bar includes tabs for 'SQL Commands', 'ER Diagram for Donation System', 'Facebook', 'ER Diagram Symbols and Notation', and a search bar. Below the bar, there are links to various social media and web platforms like My groups, Plagiarism Checker, Fiverr, Dashboard, Create your profile, Feed, LinkedIn, Instagram, Application Express, and Pinterest.

The main area displays the SQL command window. The title bar says 'ORACLE Database Express Edition'. It shows the user is logged in as 'SCOTT'. The SQL command entered is:

```
insert into Contact_Needy_People values(10522 , 01575267980 , 10523);
insert into Contact_Needy_People values(10523 , 01575267981 , 10524);
insert into Contact_Needy_People values(10524 , 01575267982 , 10525);
select * from Contact_Needy_People
```

Below the command window, there are tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is selected, showing a table with three rows of data:

N_NID	N_PHONE	A_ID
10523	1575267981	10524
10522	1575267980	10523
10524	1575267982	10525

At the bottom left, it says '3 rows returned in 0.00 seconds'. At the bottom right, there is a link to 'CSV Export'.

The status bar at the bottom indicates the application version is 'Application Express 2.1.0.0.39'. The system tray shows the date and time as '12/11/2021 12:45 PM'.

SUBQUERY

1:

Show all details of the maximum donator.

```
SELECT * FROM donator , donation WHERE d_amount=(SELECT max (d_amount) from donation) and donator.D_Nid=donation.D_id;
```

The screenshot shows the Oracle Database Express Edition interface. The user is logged in as SCOTT. The SQL Commands window contains the following SQL query:

```
SELECT * FROM donator , donation WHERE d_amount=(SELECT max (d_amount) from donation) and donator.D_Nid=donation.D_id;
```

The results pane displays a single row of data:

D_NID	D_NAME	D_PASSWORD	D_LOCATION	D_ID	D_TYPE	D_AMOUNT
10523	farhan amin	4134340	sylhet	10523	Cash	30000

Below the results, it says "1 rows returned in 0.00 seconds" and there is a "CSV Export" link.



2:

Show all details of the lowest income people in needy people table.

```
SELECT * FROM needy_people WHERE n_income=(SELECT min(n_income) from needy_people);
```

The screenshot shows the Oracle Database Express Edition interface. The user is logged in as SCOTT. The SQL Commands page displays the following SQL statement:

```
SELECT * FROM needy_people WHERE n_income=(SELECT min(n_income) from needy_people);
```

The results section shows a single row of data:

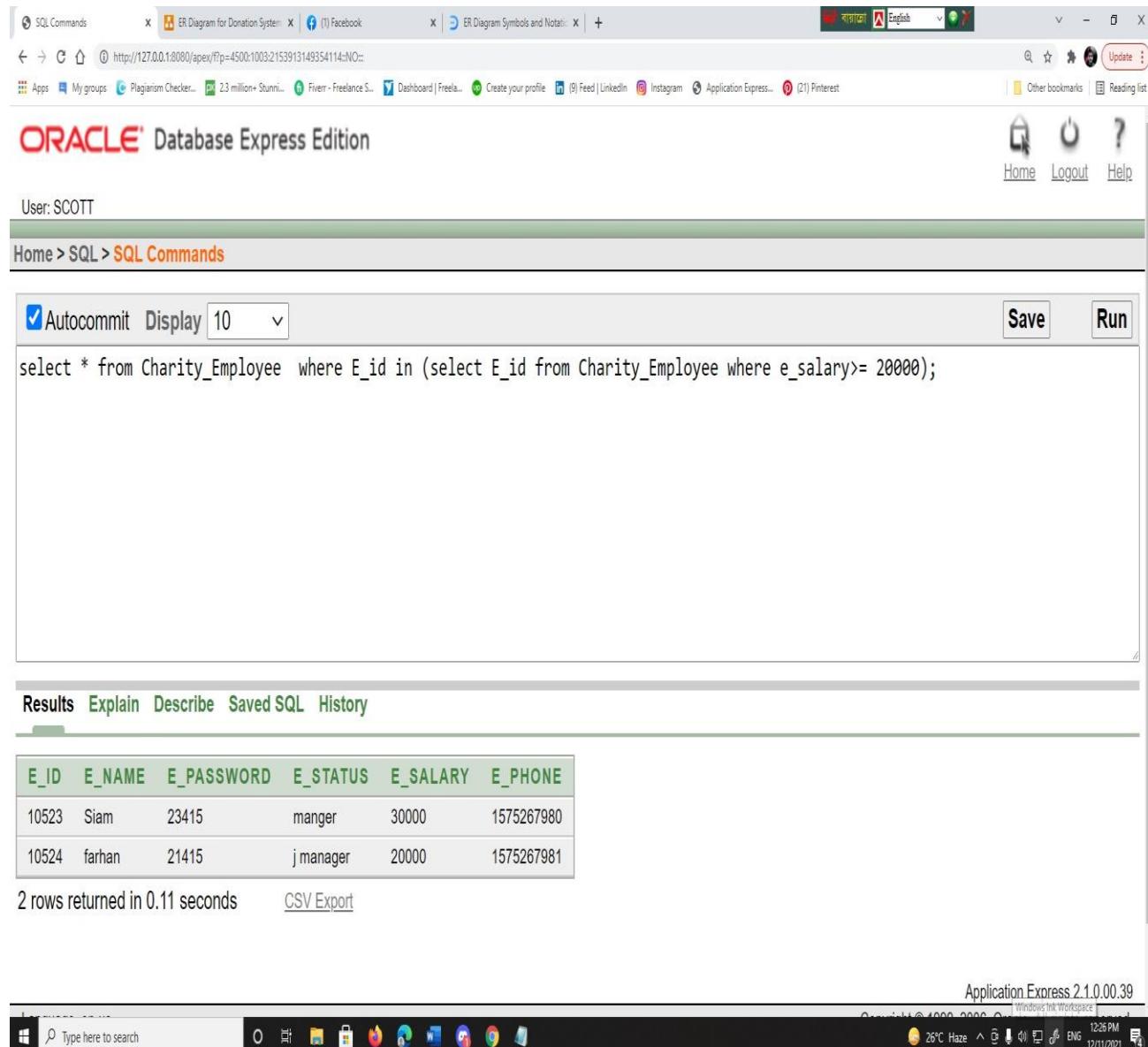
N_NID	N_NAME	N_PHONE	N_LOCATION	N_FAMILYMEMBERS	N_INCOME
10524	Sahil	1575267982	ccccc	5	3000

Below the table, it says "1 rows returned in 0.02 seconds". There is also a "CSV Export" link. The bottom status bar indicates "Application Express 2.1.0.0.39" and "Copyright © 1996-2006 Oracle. All rights reserved."

3:

Display all employee names whose has more or equal than 20000 salary.

select * from Charity_Employee where E_id in (select E_id from Charity_Employee where e_salary >= 20000);



The screenshot shows the Oracle Database Express Edition interface. At the top, there's a browser-like header with tabs for 'SQL Commands', 'ER Diagram for Donation System', 'Facebook', 'ER Diagram Symbols and Notation', and a '+' button. Below the header, the URL is http://127.0.0.1:8080/apex/f?p=4500:10032:2153913149354114::NO:. The page title is 'ORACLE' Database Express Edition'. On the left, a sidebar shows 'User: SCOTT' and navigation links like 'Home', 'SQL', and 'SQL Commands'. The main area contains a SQL editor with the following content:

```
Autocommit Display 10
select * from Charity_Employee where E_id in (select E_id from Charity_Employee where e_salary >= 20000);
```

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

E_ID	E_NAME	E_PASSWORD	E_STATUS	E_SALARY	E_PHONE
10523	Siam	23415	manger	30000	1575267980
10524	farhan	21415	j manager	20000	1575267981

Text at the bottom of the results area says '2 rows returned in 0.11 seconds' and 'CSV Export'.

At the very bottom of the screenshot, a Windows taskbar is visible with icons for Start, Task View, File Explorer, Edge, File Explorer, Task View, and a battery icon. The system tray shows the date and time as '12/11/2021 12:26 PM'.

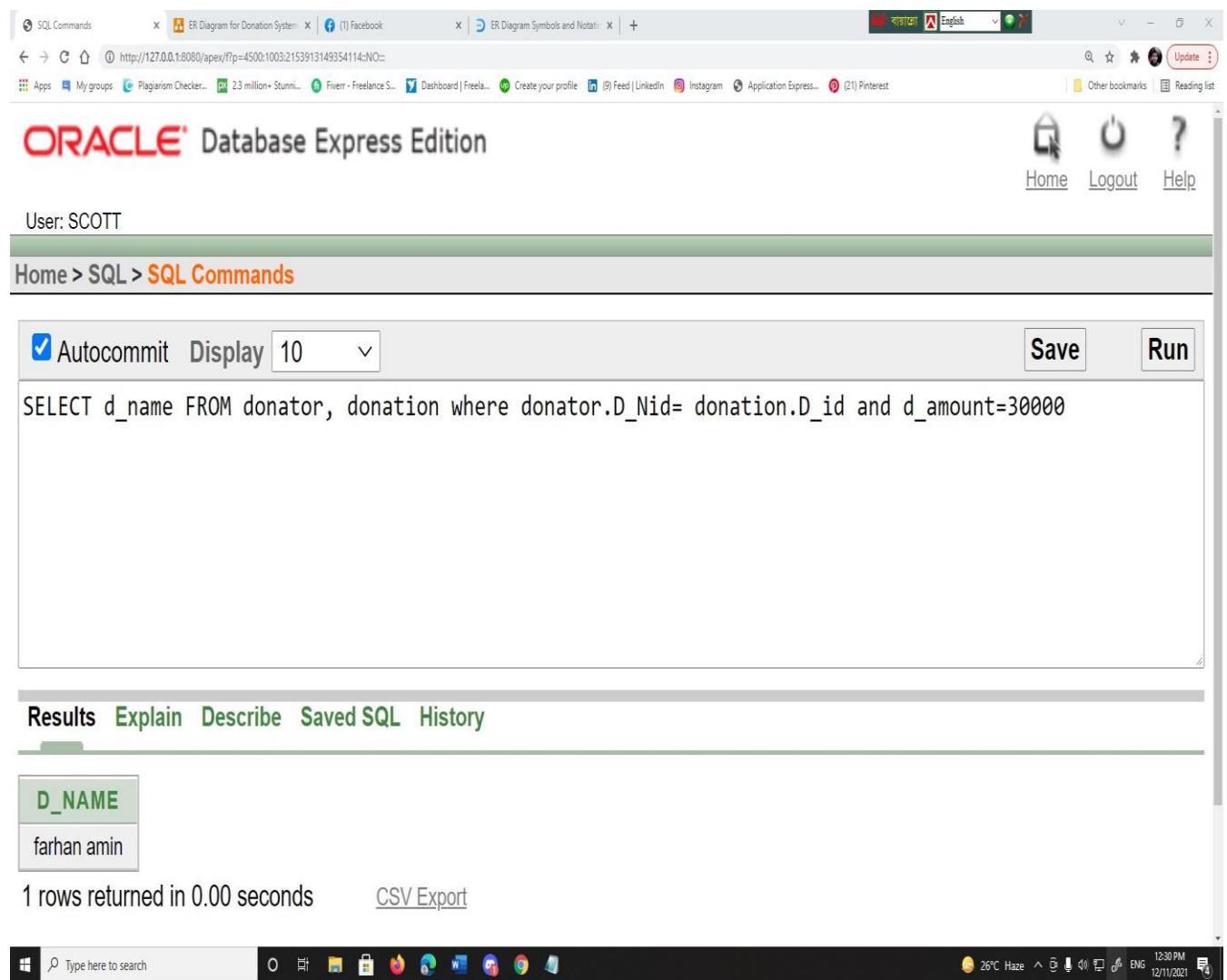
JOINING

Equi-join:

4:

Find out donator name who has donated 30000.

SELECT d_name FROM donator, donation where donator.D_Nid=donation.D_id and d_amount=30000



The screenshot shows the Oracle Database Express Edition interface. The top navigation bar includes tabs for 'SQL Commands', 'ER Diagram for Donation System', 'Facebook', and 'ER Diagram Symbols and Notations'. The main title 'ORACLE Database Express Edition' is displayed prominently. The user is logged in as 'SCOTT'. The current page is 'Home > SQL > SQL Commands'. In the SQL editor, the following query is entered:

```
SELECT d_name FROM donator, donation where donator.D_Nid= donation.D_id and d_amount=30000
```

The results section shows a single row of data:

D_NAME
farhan amin

Below the table, it says '1 rows returned in 0.00 seconds' and there is a 'CSV Export' link. The bottom status bar shows the Windows taskbar with various icons and system information like '26°C Haze', '12:30 PM', and the date '12/11/2021'.

Non-Equi-join:

5:

Display all details of needy people when income between 3500 and 10000 live but out of sylhet

```
SELECT * FROM needy_people WHERE n_income BETWEEN 3500  
and 10000 and needy_people.N_location<>'sylhet'
```

The screenshot shows the Oracle Database Express Edition interface. At the top, there are tabs for 'SQL Commands', 'ER Diagram for Donation System', 'Facebook', and 'ER Diagram Symbols and Notation'. The browser address bar shows the URL: <http://127.0.0.1:8080/apex/f?p=4500:10032:153913149354114:N>. Below the address bar, there's a toolbar with various icons. The main content area displays the Oracle Database Express Edition logo and a user message 'User: SCOTT'. A navigation bar below shows 'Home > SQL > SQL Commands'. The SQL command input field contains the query:

```
SELECT * FROM needy_people WHERE n_income BETWEEN 3500 and 10000 and  
needy_people.N_location<>'sylhet'
```

. To the right of the input field are 'Save' and 'Run' buttons. The results section shows a table with the following data:

N_NID	N_NAME	N_PHONE	N_LOCATION	N_FAMILYMEMBERS	N_INCOME
10522	Siam	1575267980	aaaaa	5	5000
10523	farhan	1575267981	bbbbb	5	4000

Below the table, it says '2 rows returned in 0.03 seconds' and has a 'CSV Export' button. The bottom of the screen shows the Windows taskbar with various icons and system status.

self Join

6:

Find out the employees whose salary is greater than Farhan's salary.

```
select c.* from charity_employee C,charity_employee e where e.E_name = 'farhan'  
and e.E_salary < c.E_salary;
```

The screenshot shows the Oracle Application Express SQL Commands interface. The query entered is:

```
select c.* from charity_employee C,charity_employee e where e.E_name = 'farhan' and  
e.E_salary < c.E_salary;
```

The results section displays a single row of data:

E_ID	E_NAME	E_PASSWORD	E_STATUS	E_SALARY	E_PHONE
10523	Siam	23415	manger	30000	1575267980

Below the results, it says "1 rows returned in 0.01 seconds" and provides a "CSV Export" link. At the bottom, it shows the Application Express version and copyright information.

Inner Join

7:

Display all info for thouse who have donarted.

```
SELECT * FROM donator d INNER JOIN Contact_Donator cd on  
d.D_Nid = cd.Nid ;
```

The screenshot shows a web-based SQL editor interface. At the top, there are tabs for 'SQL Commands', 'ER Diagram for Donation System', 'Facebook', and 'ER Diagram Symbols and Notation'. The URL in the address bar is <http://127.0.0.1:8080/apex/r?p=4500:1003:2153913149354114:NQ>. The page header includes 'বাংলা' and 'English' language options, and navigation links for 'Home', 'Logout', and 'Help'. A user session 'User: SCOTT' is displayed. The main content area shows the SQL command:

```
SELECT * FROM donator d INNER JOIN Contact_Donator cd on d.D_Nid = cd.Nid ;
```

. Below the command, there are 'Save' and 'Run' buttons. The results section is currently empty, indicated by a message '3 rows returned in 0.05 seconds'. The results table has columns: D_NID, D_NAME, D_PASSWORD, D_LOCATION, NID, D_NAME, D_LOCATION. The data is as follows:

D_NID	D_NAME	D_PASSWORD	D_LOCATION	NID	D_NAME	D_LOCATION
10523	farhan amin	4134340	sylhet	10523	farhan amin	sylhet
114012	nokibul arfin	1215403	sohid faruk road	114012	nokibul arfin	sohid faruk road
121013	shariar sahill	34123203	jonson road	121013	shariar sahil	jonson road

At the bottom, there is a search bar with placeholder 'Type here to search', a taskbar with various icons, and a system tray showing '26°C Haze', battery level, and network status.

VIEW

Complex View

CREATE VIEW contact_Npeople as

SELECT np.n_name, np.n_phone, cnp.n_nid, np.n_location
FROM needy_people np INNER JOIN Contact_Needy_people cnp on
np.N_nid=cnp.N_nid

SELECT* from contact_Npeople

The screenshot shows a browser window with the URL <https://sqldionline.com>. The page title is "SQL Online IDE". The interface includes a top navigation bar with links like Facebook, SQL Commands, New Tab, and language options (Bengali, English). Below the navigation is a toolbar with File, Owner DB, Run, Export, Import, and Sign in buttons. The main area is titled "SQLite" and contains the following SQL code:

```
1 CREATE VIEW contact_Npeople AS
2 SELECT np.n_name, np.n_phone, cnp.n_nid, np.n_location
3 FROM needy_people np INNER JOIN Contact_Needy_people cnp ON np.N_nid=cnp.N_nid
4 SELECT* FROM contact_Npeople
```

Below the code, the results are displayed in a table:

N_name	N_phone	N_nid	N_location
Siam	1575267980	10522	aaaaaa
farhan	1575267981	10523	bbbbbb
Sahil	1575267982	10524	ccccc

Simple View

CREATE VIEW Np AS

```
SELECT n_nid, N_name, n_location FROM needy_people WHERE  
needy_people.n_income=5000 ;  
Select * from Np
```

The screenshot shows a web-based SQLite database interface. At the top, there are tabs for Facebook, DATABASE viva 2021 12.12.15.1, Application Express Login, and SQL OnLine IDE. The main menu includes File, Owner DB, Run, Export, and Import. The title bar says "SQL.BanD for Business". On the right, there are sign-in options and a gear icon. The left sidebar has a "SQLite" tab selected. The code area contains the following SQL statements:

```
1 CREATE VIEW Np AS
2 SELECT n_nid, N_name, n_location FROM needy_people WHERE needy_people.n_income=5000 ;
3 SELECT * FROM Np
```

Below the code, a table is displayed with three columns: N_Nid, N_name, and N_location. One row is shown:

N_Nid	N_name	N_location
10522	Siam	aaaaaa

The bottom status bar shows system icons and the date/time: 23°C Haze 8:02 PM 12/12/2021.

Constraint

alter table donator add primary key(D_nid)
desc donator

The screenshot shows the Oracle SQL Developer interface. At the top, there's a toolbar with various icons and a status bar indicating the URL <http://127.0.0.1:8080/apex/F?p=4500:1003:55919998356576:N>. Below the toolbar, the user is logged in as SCOTT. The main area shows the SQL Commands tab selected, with the query `alter table donator add primary key(D_nid)` entered. There are 'Save' and 'Run' buttons at the top right of the editor. Below the editor, a 'Results' tab is active, showing a table named 'DONATOR' with four columns: D_NID, D_NAME, D_PASSWORD, and D_LOCATION. The D_NID column is defined as a Number type with a precision of 6 and a scale of 0, and it is marked as the Primary Key. The D_NAME, D_PASSWORD, and D_LOCATION columns are defined as Varchar2 types with lengths of 15, 13, and 20 respectively, and they are all marked as Nullable. The table has 1 row. At the bottom of the screen, there's a taskbar with the Windows Start button, a search bar, and several pinned application icons. The system tray shows the date and time as 12/12/2021 8:13 PM.

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DONATOR	D_NID	Number	-	6	0	1	-	-	-
	D_NAME	Varchar2	15	-	-	-	✓	-	-
	D_PASSWORD	Number	-	13	0	-	✓	-	-
	D_LOCATION	Varchar2	20	-	-	-	✓	-	-

THE END