Social Amelioration Program (SAP) Management System

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In partial fulfillment for the course
COMP 20093 – Information Management

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BACKGROUND / OVERVIEW

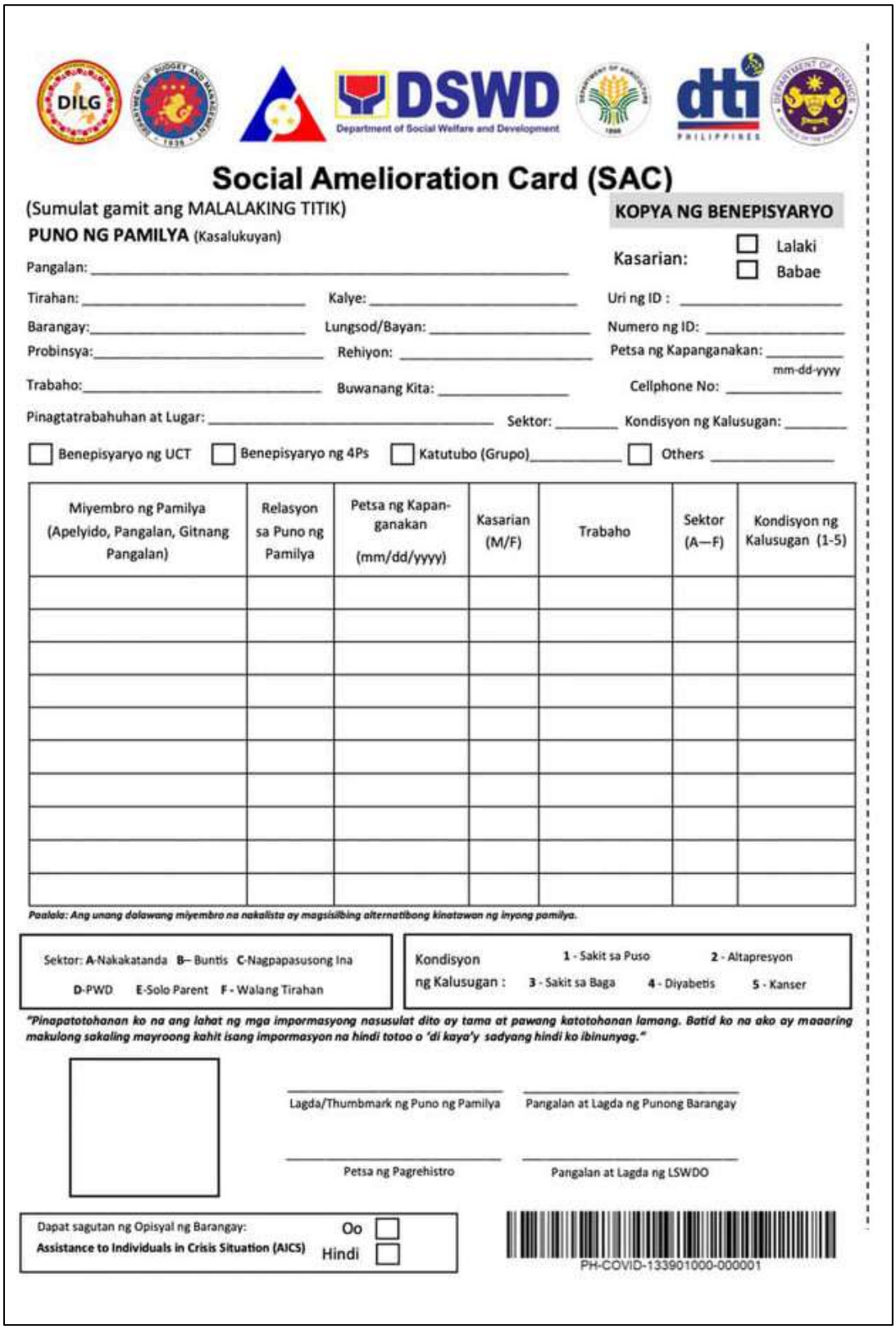
With the risks in health, safety, security, and life of the citizens brought by the pandemic in the Philippines – Coronavirus (COVID-19) and its variants – Enhanced Community Quarantine (ECQ) has been implemented as a measure to battle the situation. But the ECQ is also a threat to workers and other economic activities of the country. To address the needs of its people, the government agencies and other private sectors (inter-agency measures) join forces in a Social Amelioration Program (SAP). The SAP is the list of assistance provided by national agencies such as the Department of Social Welfare and Development (DSWD), Department of Labor and Employment (DOLE), Department of Trade and Industry (DTI), Department of Agriculture (DA), Department of Finance (DOF), Department of Budget and Management (DBM), and Department of Interior and Local Government (DILG). The assistance given by DWSD under SAP is cash assistance known as the Emergency Subsidy Program (ESP) that ranges from PHP 5,000 to PHP 8,000 depending on a region's minimum wage.

The Social Amelioration Card (SAC) form is a form with a barcode and serial number distributed to barangays to get profiles of families. It also helps monitor the cash assistance provided under the SAP-ESP. The SAC forms are given to qualified families as identified by DSWD and the local government units (LGUs). These are families with low-income or with member/s in either informal economy workers or the vulnerable sector – senior citizen, pregnant, lactating women, persons with disability (PWD), solo parent, and homeless.

The City/Municipal Social Welfare and Development Office (C/MSWDO) representative will gather personal information and require all beneficiaries to bring one valid ID per family head. All information will only use by the authority as a basis for easy distribution of money in accordance with RA 10173 or Data Privacy Act. The assistance will be given directly to the beneficiaries. In case the Head of the family is not available, the first two members of the family (i.e. FM001 or FM002) can serve as the representative to receive.

The records gathered by the SAC forms help monitor the assistance given to the beneficiaries. The dates and even the amount were listed for easy tracking of funds and resources distributed. Since these records are valuable in SAP – where collaborating national agencies are involved, detailed and well-structured files are efficiently developed.

INPUT FORM



DSWD
Department of Social Welfare and Development

Social Amelioration Card (SAC)

(Sumulat gamit ang MALALAKING TITIK)

KOPYA NG BENEPISYARYO

PUNO NG PAMILYA (Kasalukuyan)

Pangalan: _____

Kasarian: ☐ Lalaki ☐ Babae

Tirahan: _____ Kalye: _____ Uri ng ID : _____

Barangay: _____ Lungsod/Bayan: _____ Numero ng ID: _____

Probinsya: _____ Rehiyon: _____ Petsa ng Kapanganakan: _____ mm-dd-yyyy

Trabaho: _____ Buwanang Kita: _____ Cellphone No: _____

Pinagtatrabahuhan at Lugar: _____ Sektor: _____ Kondisyon ng Kalusugan: _____

☐ Benepisyaryo ng UCT ☐ Benepisyaryo ng 4Ps ☐ Katutubo (Grupo)_____ ☐ Others _____

Miyembro ng Pamilya (Apelyido, Pangalan, Gitnang Pangalan)	Relasyon sa Puno ng Pamilya	Petsa ng Kapan-ganakan (mm/dd/yyyy)	Kasarian (M/F)	Trabaho	Sektor (A—F)	Kondisyon ng Kalusugan (1-5)

Paalala: Ang unang dalawang miyembro na nakalista ay magsisilbing alternatibong kinatawan ng inyong pamilya.

Sektor: **A**-Nakakatanda **B**– Buntis **C**-Nagpapasusong Ina **D**-PWD **E**-Solo Parent **F** - Walang Tirahan

Kondisyon ng Kalusugan : **1** - Sakit sa Puso **2** - Altapresyon **3** - Sakit sa Baga **4** - Diyabetis **5** - Kanser

"Pinapatotohanan ko na ang lahat ng mga impormasyong nasusulat dito ay tama at pawang katotohanan lamang. Batid ko na ako ay maaaring makulong sakaling mayroong kahit isang impormasyon na hindi totoo o 'di kaya'y sadyang hindi ko ibinunyag."

Lagda/Thumbmark ng Puno ng Pamilya

Pangalan at Lagda ng Punong Barangay

Petsa ng Pagrehistro

Pangalan at Lagda ng LSWDO

Dapat sagutan ng Opisyal ng Barangay: **Assistance to Individuals in Crisis Situation (AICS)** Oo ☐ Hindi ☐

PH-COVID-133901000-000001

Figure 1. Social Amelioration Card (SAC) Form – 1st Page

NORMALIZATION

Unnormalized Form (UNF)

SOCIAL AMELIORATION CARD FORM (FamNo, Name, Address, City, Province, Region, Work, Sector, HealthCond, Sex, Birthdate, Role, Relation, IDNo, IDType, Income, PhoneNo, UCTBeneficiary, 4PsBeneficiary, IndigenousGroup)

FamNo	Name	Address	City	Province	Region	Work	Sector	HealthCond	Sex	Birthdate	Role
1	Maria Rosa S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Sewer	E	null	F	05/05/1962	H
2	Ronaldo S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Civil Engineer	null	null	M	01/05/1995	M
3	Rolando S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	null	M	10/20/2000	M
4	Reynaldo S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	4	M	01/06/2007	M
5	Arnaldo S. Relox Jr.	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	null	M	11/11/2011	M
6	Steven T. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Bus Driver	null	1	M	06/01/1982	H
7	Arlene P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Housewife	null	null	F	09/07/1981	M
8	Marites P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Call Center Agent	C,E	null	F	06/26/1999	M
9	Dave P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Student	null	null	M	07/09/2005	M
10	Dominador H. Vargas	Blk 2 Lot 9 San Isidro Village	Cabuyao	Laguna	IV-A	null	A	2	M	07/22/1947	H
11	Tessa G.Vargas	Blk 2 Lot 9 San Isidro Village	Cabuyao	Laguna	IV-A	null	A	2	F	11/19/1949	M

Relation	IDNo	IDType	Income	WorkAdd	PhoneNo	UCTBeneficiary	4PsBeneficiary	IndigenousGroup
null	2302-0504A-Z6523CC1999	Voter's ID	1,500	House	09162398000	N	N	null
Son								
Son								
Son								
Son								
null	D01-42-98765	Driver Licence	10,000	Kabankalan, Negros Occidental	09498722033	N	N	null
Wife								
Daughter								
Son								
null	9512	Senior Citizen ID	null	null	09663987123	N	Y	null
Wife								

Figure 2.1 Unnormalized Form (UNF) of Social Amelioration Card Form Table

1st Normalized Form (1NF)

SOCIAL AMELIORATION CARD FORM (**FamNo**, Name, Address, City, Province, Region, Work, Sector, HealthCond, Sex, Birthdate, Role, Relation, IDNo, IDType, Income, PhoneNo, UCTBeneficiary, 4PsBeneficiary, IndigenousGroup)

PK											
FamNo	Name	Address	City	Province	Region	Work	Sector	HealthCond	Sex	Birthdate	Role
1	Maria Rosa S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Sewer	E	null	F	05/05/1962	H
2	Ronaldo S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Civil Engineer	null	null	M	01/05/1995	M
3	Rolando S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	null	M	10/20/2000	M
4	Reynaldo S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	4	M	01/06/2007	M
5	Arnaldo S. Relox Jr.	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	null	M	11/11/2011	M
6	Steven T. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Bus Driver	null	1	M	06/01/1982	H
7	Arlene P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Housewife	null	null	F	09/07/1981	M
8	Marites P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Call Center Agent	C,E	null	F	06/26/1999	M
9	Dave P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Student	null	null	M	07/09/2005	M
10	Dominador H. Vargas	Blk 2 Lot 9 San Isidro Village	Cabuyao	Laguna	IV-A	null	A	2	M	07/22/1947	H
11	Tessa G.Vargas	Blk 2 Lot 9 San Isidro Village	Cabuyao	Laguna	IV-A	null	A	2	F	11/19/1949	M

FD								
Relation	IDNo	IDType	Income	WorkAdd	PhoneNo	UCTBeneficiary	4PsBeneficiary	IndigenousGroup
null	2302-0504A-Z6523CC1999	Voter's ID	1,500	House	09162398000	N	N	null
Son								
Son								
Son								
Son								
null	D01-42-98765	Driver Licence	10,000	Kabankalan, Negros Occidental	09498722033	N	N	null
Wife								
Daughter								
Son								
null	9512	Senior Citizen ID		null	09663987123	N	Y	null
Wife								

Figure 2.2 1st Normalized Form of Social Amelioration Card Form Table

2nd Normalized Form (2NF)

supertype

FAMILY MEMBER (**FamNo**, Name, Address, City, Province, Region, Work, Sector, HealthCond, Sex, Birthdate, Role, Relation)

FamNo	Name	Address	City	Province	Region	Work	Sector	HealthCond	Sex	Birthdate	Role	Relation
1	Maria Rosa S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Sewer	E	null	F	05/05/1962	H	null
2	Ronaldo S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Civil Engineer	null	null	M	01/05/1995	M	Son
3	Rolando S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	null	M	10/20/2000	M	Son
4	Reynaldo S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	4	M	01/06/2007	M	Son
5	Arnaldo S. Relox Jr.	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student	null	null	M	11/11/2011	M	Son
6	Steven T. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Bus Driver	null	1	M	06/01/1982	H	null
7	Arlene P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Housewife	null	null	F	09/07/1981	M	Wife
8	Marites P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Call Center Agent	C,E	null	F	06/26/1999	M	Daughter
9	Dave P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Student	null	null	M	07/09/2005	M	Son
10	Dominador H. Vargas	Blk 2 Lot 9 San Isidro Village	Cabuyao	Laguna	IV-A	null	A	2	M	07/22/1947	H	null
11	Tessa G.Vargas	Blk 2 Lot 9 San Isidro Village	Cabuyao	Laguna	IV-A	null	A	2	F	11/19/1949	M	Wife

Figure 2.3 Family Member Table (*Supertype*)

subtype

FAMILY HEAD (**FamNo**, IDNo, IDType, Income, PhoneNo, UCTBeneficiary, 4PsBeneficiary, IndigenousGroup)

FamNo	IDNo	IDType	Income	WorkAdd	PhoneNo	UCTBeneficiary	4PsBeneficiary	IndigenousGroup
1	2302-0504A-Z6523CC1999	Voter's ID	1,500	House	09162398000	N	N	null
6	D01-42-98765	Driver Licence	10,000	Kabankalan, Negros Occidental	09498722033	N	N	null
10	9512	Senior Citizen ID		null	09663987123	N	Y	null

Figure 2.4 Family Head Table (*Subtype*)

3rd Normalized Form (3NF) – No Transitive Dependency

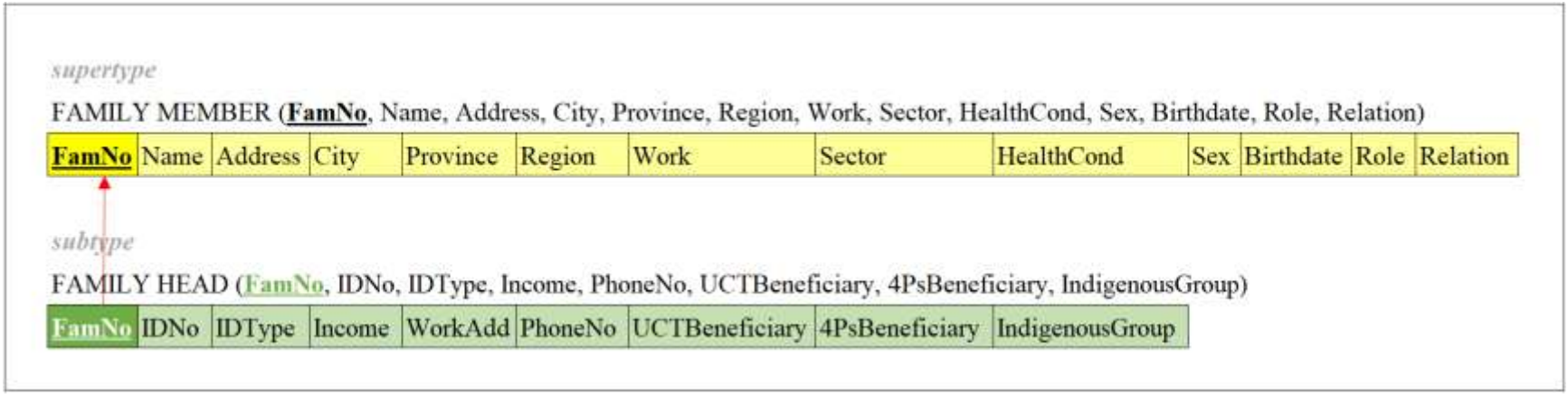


Figure 2.5 Connection of Family Member Table and Family Head Table

DATA DICTIONARY / METADATA

Table 1. Family Member Metadata

Field Name	Data Type	Size	Allowable Values	Required?	Description
FamNo	Integer	5		y	Unique family member number
Name	Varchar	45		y	Name of family member
Address	Varchar	60		y	Address of family member (House no./Street/Barangay)
City	Varchar	25		y	City of family member
Province	Varchar	25		y	Province of family member
Region	Varchar	25		y	Region of family member
Work	Varchar	20		n	Work of family member
Sector	Varchar	12	A | B | C | D | E | F	n	Sector of family member: A – Senior Citizen; B – Pregnant; C – Lactating Women; D – PWD; E – Solo Parent; and F – Homeless
HealthCond	Integer	1	1 | 2 | 3 | 4 | 5	n	Health condition of family member 1 – Heart Disease; 2 – High Blood Pressure; 3 – Lung Disease; 4 – Diabetes; and 5 – Cancer
Sex	Char	1	M | F	y	Sex of family member (M – Male, F – Female)
Birthdate	Date		YYYY-MM-DD	y	Birthdate of family member
Role	Char	1	H | M	y	Role of family member in the family (H – Head, M – Member)
Relation	Varchar	10		n	Relation of family member to family head

Table 2. Family Head Metadata

Field Name	Data Type	Size	Allowable Values	Required?	Description
FamNo	Integer	5		y	Foreign key that points to the unique family member number
IDNo	Varchar	25		y	Unique family head identification number
IDType	Varchar	25		y	Type of family head's identification
Income	Double	8		n	Monthly income of family head
WorkAdd	Varchar	80		n	Work address of family head
PhoneNo	Char	11	09999999999	y	Cellphone number of family head
UCTBeneficiary	Char	1	Y | N	y	If family head is a UCT beneficiary (Y – Yes, N – No)
4PsBeneficiary	Char	1	Y | N	y	If family head is a 4Ps beneficiary (Y – Yes, N – No)
IndigenousGroup	Varchar	10		n	Indigenous group of family head

ENTITY RELATIONSHIP DIAGRAM (EERD)

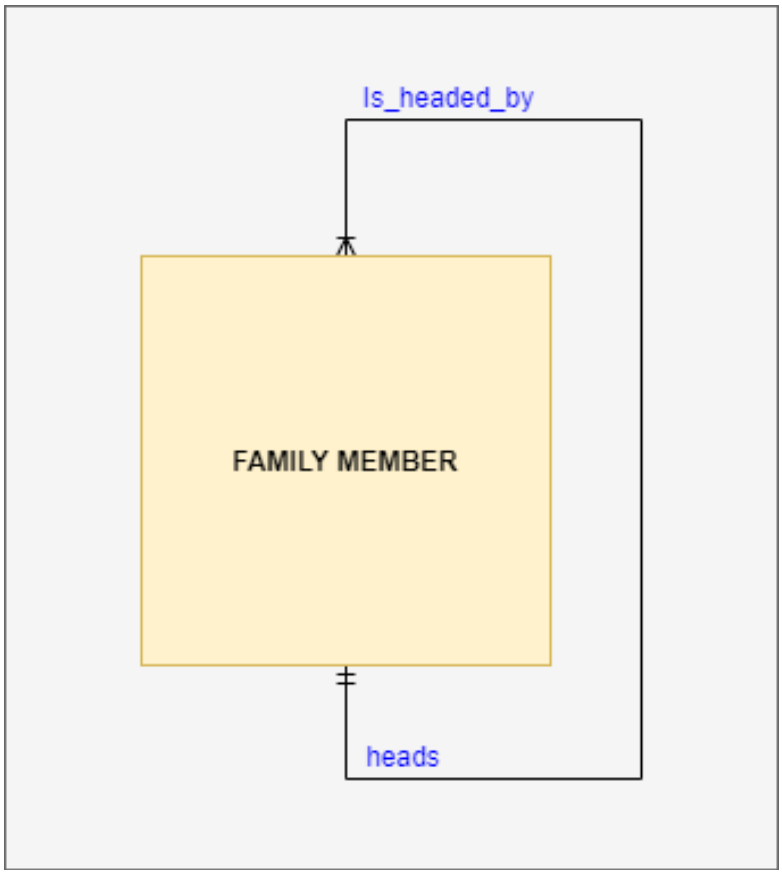


Figure 4. ERD of Social Amelioration Program (SAP) Management System

ENCHANED ENTITY RELATIONSHIP DIAGRAM (EERD)

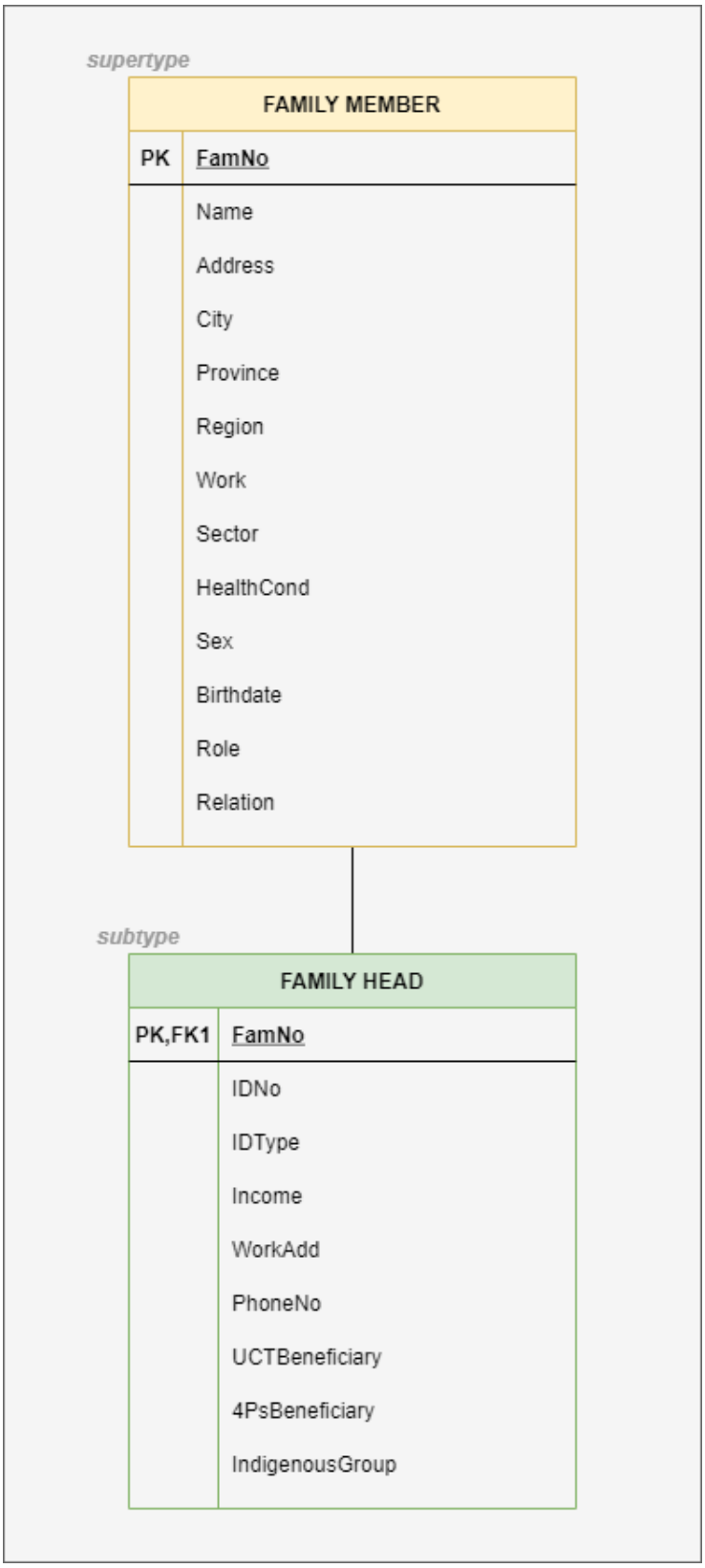


Figure 5. EERD of Social Amelioration Program (SAP) Management System

SQL STATEMENTS

Problem Statements: Simple

1. Display the names and works of all family heads/members in region IV-A.

SQL code:

```
SELECT Name, Work
FROM family_member
WHERE Region = 'IV-A';
```

Output:

2. List down the ID number and income of all family head whose income ranges from 2000 to 10000 in descending order.

SQL code:

```
SELECT IDNo, Income
FROM family_head
WHERE Income BETWEEN 2000 AND 10000
ORDER BY 2 DESC;
```

Output:

3. List down the names, sex, and role (family head or member) whose last name is Santos.

SQL code:

```
SELECT Name, Sex, Role
FROM family_member
WHERE Name LIKE '%Santos';
```

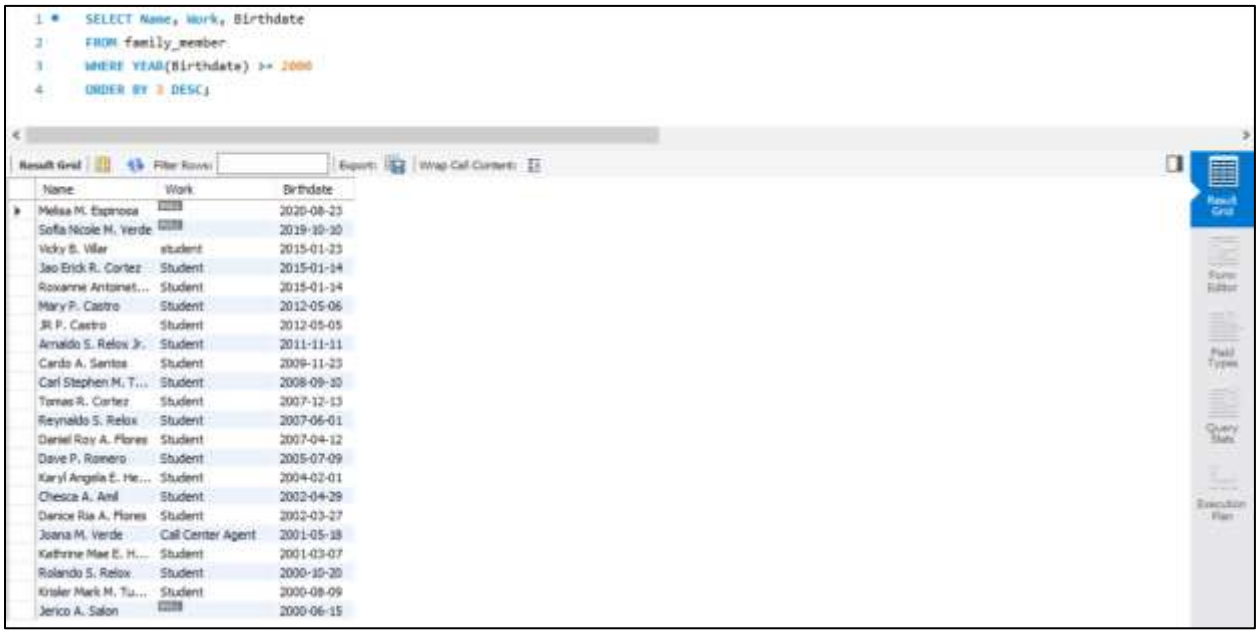
Output:

4. Display the name, work, and birthday of those born in year 2000 and above. Arrange their birthdate in descending order.

SQL code:

```
SELECT Name, Work, Birthdate
FROM family_member
WHERE YEAR(Birthdate) >= 2000
ORDER BY 3 DESC;
```

Output:



Name	Work	Birthdate
Melisa M. Espinosa	[redacted]	2020-08-23
Sofia Nicole M. Verde	[redacted]	2019-10-10
Vicky B. Villar	student	2015-01-23
Jao Erick R. Cortez	Student	2015-01-14
Roxanne Antoinet...	Student	2015-01-14
Mary P. Castro	Student	2012-05-06
JR P. Castro	Student	2012-05-05
Arnaldo S. Relox Jr.	Student	2011-11-11
Cardo A. Santos	Student	2009-11-23
Carl Stephen M. T...	Student	2008-09-10
Tomas R. Cortez	Student	2007-12-13
Reynaldo S. Relox	Student	2007-06-01
Daniel Roy A. Flores	Student	2007-04-12
Dave P. Romero	Student	2005-07-09
Karyl Angelia E. He...	Student	2004-02-01
Chesca A. Anil	Student	2002-04-29
Denice Ria A. Flores	Student	2002-03-27
Joana M. Verde	Call Center Agent	2001-05-18
Kathrine Mae E. H...	Student	2001-03-07
Rolando S. Relox	Student	2000-10-20
Krister Mark M. Tu...	Student	2000-08-09
Jerico A. Salon	[redacted]	2000-06-15

5. Display the name, address, and city of those who live in the province of Samar. Arrange their name in alphabetical order.

SQL code:

```
SELECT Name, Address, City
FROM family_member
WHERE Province = 'Samar'
ORDER BY 1;
```

Output:

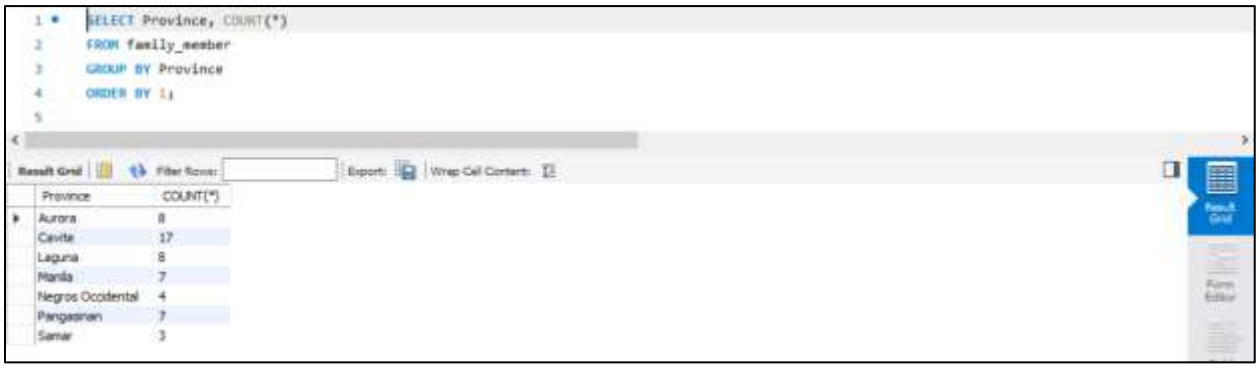
Problem Statements: With Group By/Having

1. Display the province and the count of all the members living in each province. Arrange it in alphabetical order.

   SQL code:

```
SELECT Province, COUNT(*)
FROM family_member
GROUP BY Province
ORDER BY 1;
```

Output:



2. Separately display the counts for the number of family members with the same health conditions.

   SQL code:

```
SELECT HealthCond, COUNT(*)
FROM family_member
WHERE HealthCond BETWEEN 1 AND 5
GROUP BY HealthCond;
```

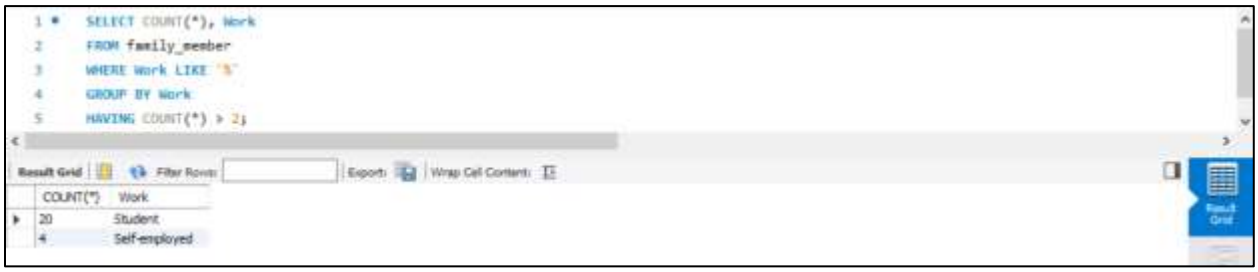
Output:

3. Count how many family members have the same work and display only the count which is greater than 2. Do not include nonworking family members (null value).

   SQL code:

```
SELECT COUNT(*), Work
FROM family_member
WHERE Work LIKE '%'
GROUP BY Work
HAVING COUNT(*) > 2;
```

Output:

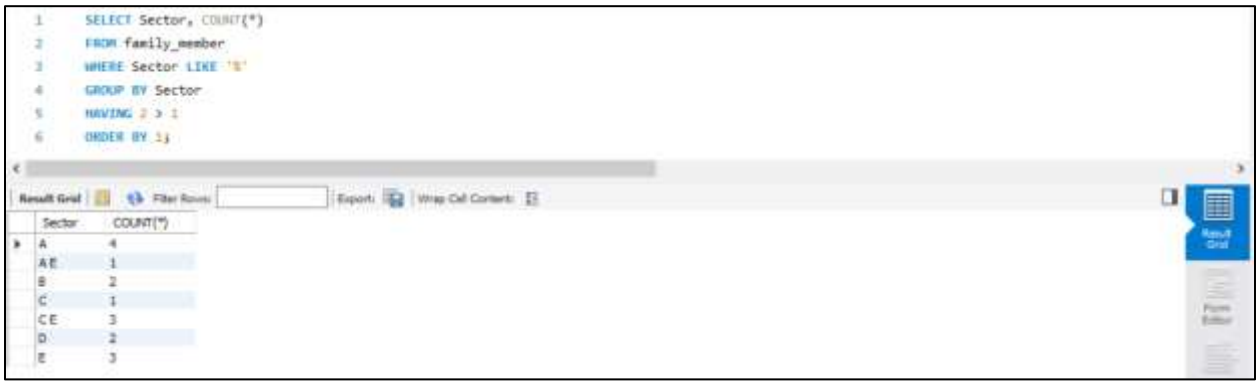


4. Count how many family members are in the same sector. Display only the counts greater than 1, sorted in alphabetical order of sector. Do not include family members who are not in any sector (null value).

   SQL code:

```
SELECT Sector, COUNT(*)
FROM family_member
WHERE Sector LIKE '%'
GROUP BY Sector
HAVING 2 > 1
ORDER BY 1;
```

Output:



```
SELECT Sector, COUNT(*)
FROM family_member
WHERE Sector LIKE '%'
GROUP BY Sector
HAVING 2 > 1
ORDER BY 1;
```

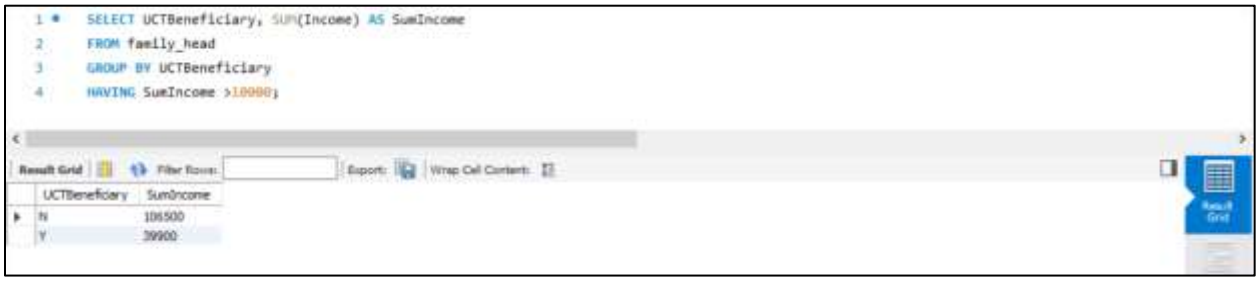
Sector	COUNT(*)
A	4
A E	1
B	2
C	1
C E	3
D	2
E	3

5. Find the total income for both the UCT beneficiaries and non-UCT beneficiaries. Display only sum of income higher than 10000.

   SQL code:

```
SELECT UCTBeneficiary, SUM(Income) AS SumIncome
FROM family_head
GROUP BY UCTBeneficiary
HAVING SumIncome >10000;
```

Output:



```
SELECT UCTBeneficiary, SUM(Income) AS SumIncome
FROM family_head
GROUP BY UCTBeneficiary
HAVING SumIncome >10000;
```

UCTBeneficiary	SumIncome
N	106500
Y	39900

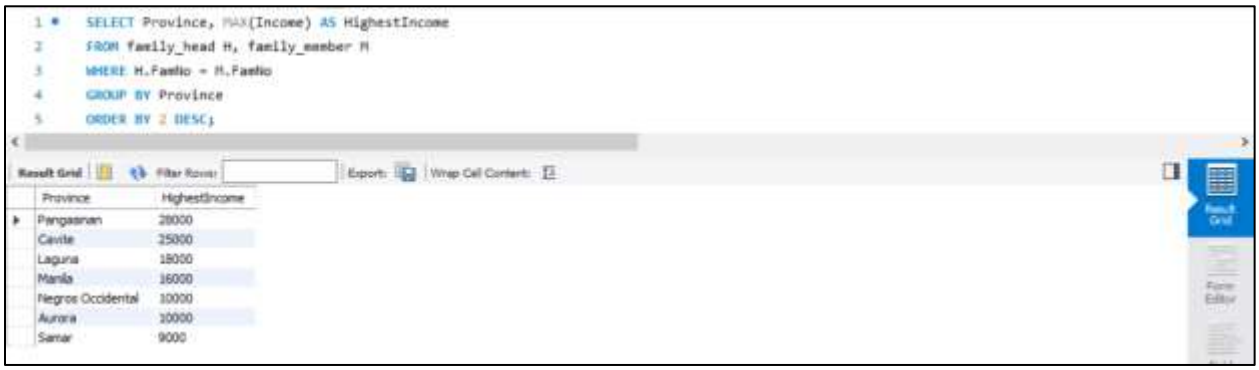
Problem Statements: With Multiple Table

1. Display the highest income for each province. Arrange the income in the highest to lowest order.

   SQL code:

```
SELECT Province, MAX(Income) AS HighestIncome
FROM family_head H, family_member M
WHERE H.FamNo = M.FamNo
GROUP BY Province
ORDER BY 2 DESC;
```

Output:



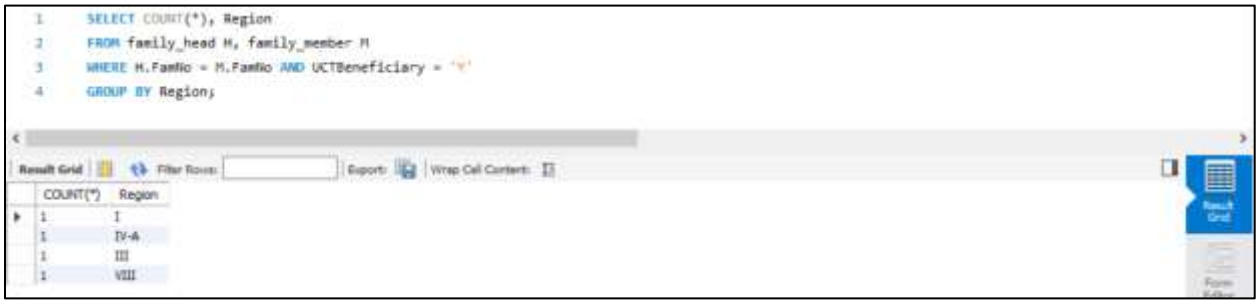
Province	HighestIncome
Pangasinan	28000
Cavite	25000
Laguna	18000
Manila	16000
Negros Occidental	10000
Aurora	10000
Samar	9000

2. Count how many UCT beneficiaries are there in each region.

   SQL code:

```
SELECT COUNT(*), Region
FROM family_head H, family_member M
WHERE H.FamNo = M.FamNo AND UCTBeneficiary = 'Y'
GROUP BY Region;
```

Output:



COUNT(*)	Region
1	I
1	IV-A
1	III
1	VIII

3. List down the names and work of all family heads whose income ranges from 5000 to 1000. Display in ascending order of their income.

   SQL code:

```
SELECT Name, Work, Income
FROM family_head H, family_member M
WHERE H.FamNo = M.FamNo AND Income BETWEEN 5000 AND 10000
ORDER BY 3;
```

Output:

```
SELECT Name, Work, Income
FROM family_head H, family_member M
WHERE H.FamNo = M.FamNo AND Income BETWEEN 5000 AND 10000
ORDER BY 3;
```

Name	Work	Income
Ariel F. Santos	Engineer	5000
Mary Anne E. Hernandez	Street Sweeper	5900
Gregorio O. Espinosa	Tricycle Driver	6500
RJ O. Castro	Driver	9000
Steven T. Romero	Bus Driver	10000
Carlos G. Tuazon	Self-employed	10000
Marites B. Villar	Online Seller	10000

4. List the total income of the family heads in each city in Region IV-A. Add only the income of those greater than or equal to 5000. Display the income in descending order.

   SQL code:

```
SELECT City,SUM(Income) AS SumIncome
FROM family_head H, family_member M
WHERE H.FamNo = M.FamNo AND Region = 'IV-A' AND Income >= 5000
GROUP BY City
ORDER BY 2 DESC;
```

Output:

```
SELECT City,SUM(Income) AS SumIncome
FROM family_head H, family_member M
WHERE H.FamNo = M.FamNo AND Region = 'IV-A' AND Income >= 5000
GROUP BY City
ORDER BY 2 DESC;
```

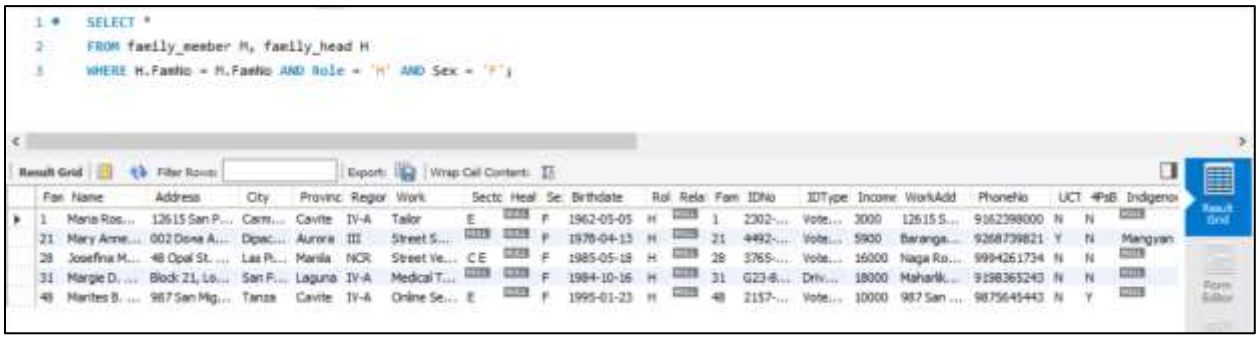
City	SumIncome
Bacoor	25000
San Pablo City	18000
Tanza	10000
General Trias City	6500
Carmona	5000

5. Display all the records of the female family heads.

SQL code:

```
SELECT *
FROM family_member M, family_head H
WHERE M.FamNo = H.FamNo AND Role = 'H' AND Sex = 'F';
```

Output:



```
SELECT *
FROM family_member M, family_head H
WHERE H.FamNo = M.FamNo AND Role = 'H' AND Sex = 'F';
```

Fan	Name	Address	City	Provinc	Regior	Work	Sectc	Heal	Se	Birthdate	Rol	Rela	Fam	IDNo	IDType	Income	WorkAdd	PhoneNo	UCT	4PsB	Indigeno
1	Maria Ros...	12615 San P...	Carm...	Cavite	IV-A	Tailor	E		F	1962-05-05	H		1	2302-...	Vote...	3000	12615 S...	9162398000	N	N	
21	Mary Anne...	002 Dona A...	Dipac...	Aurora	III	Street S...			F	1978-04-13	H		21	4492-...	Vote...	5900	Baranga...	9268739821	Y	N	Mangyan
28	Josefina M...	48 Opal St. ...	Las Pi...	Manila	NCR	Street Ve...	C E		F	1985-05-18	H		28	3765-...	Vote...	16000	Naga Ro...	9994261734	N	N	
31	Margie D. ...	Block 21, Lo...	San P...	Laguna	IV-A	Medical T...			F	1984-10-16	H		31	G23-8...	Driv...	18000	Mahanlk...	9198365243	N	N	
48	Marites B. ...	987 San Mig...	Tanza	Cavite	IV-A	Online Se...	E		F	1995-01-23	H		48	2157-...	Vote...	10000	987 San ...	9875645443	N	Y	

SCREENSHOT OF USER INTERFACE

Figure 7.1 Home Panel

Figure 7.3 SAC Form Panel – Family Head Internal Frame

Figure 7.4 SAC Form Panel – Family Head Internal Frame (Error Message)

Figure 7.5 SAC Form Panel – Family Head Internal Frame (Success Message)

Figure 7.6 SAC Form Panel – Family Member Internal Frame

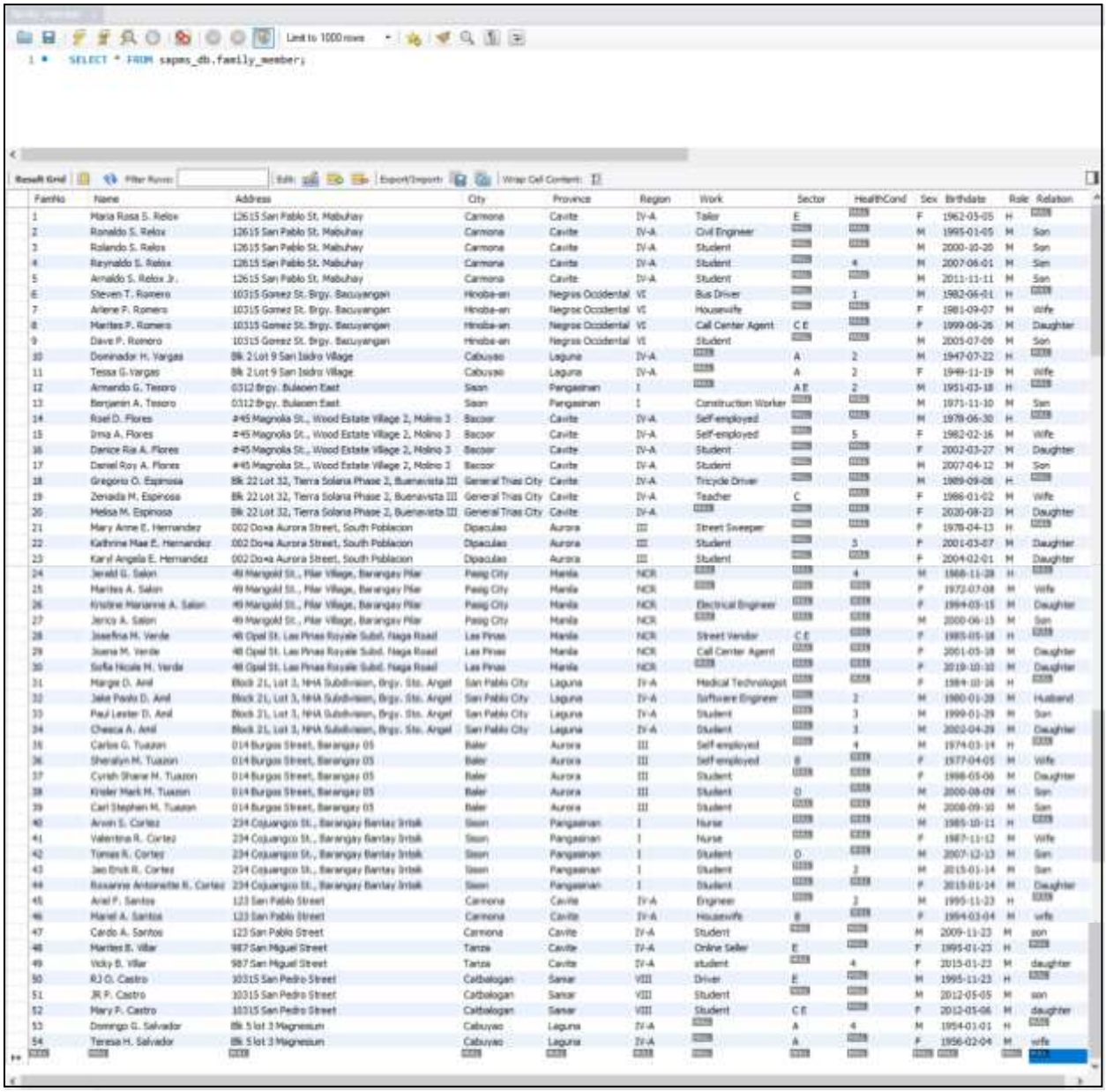
Figure 7.7 SAC Form Panel – Family Member Internal Frame (Confirmation Dialog)

Figure 7.8 View Profile Panel – View All Profiles Internal Frame

Figure 7.9 View Profile Panel – View Family Head Internal Frame

Figure 7.10 View Profile Panel – View Family Member Internal Frame

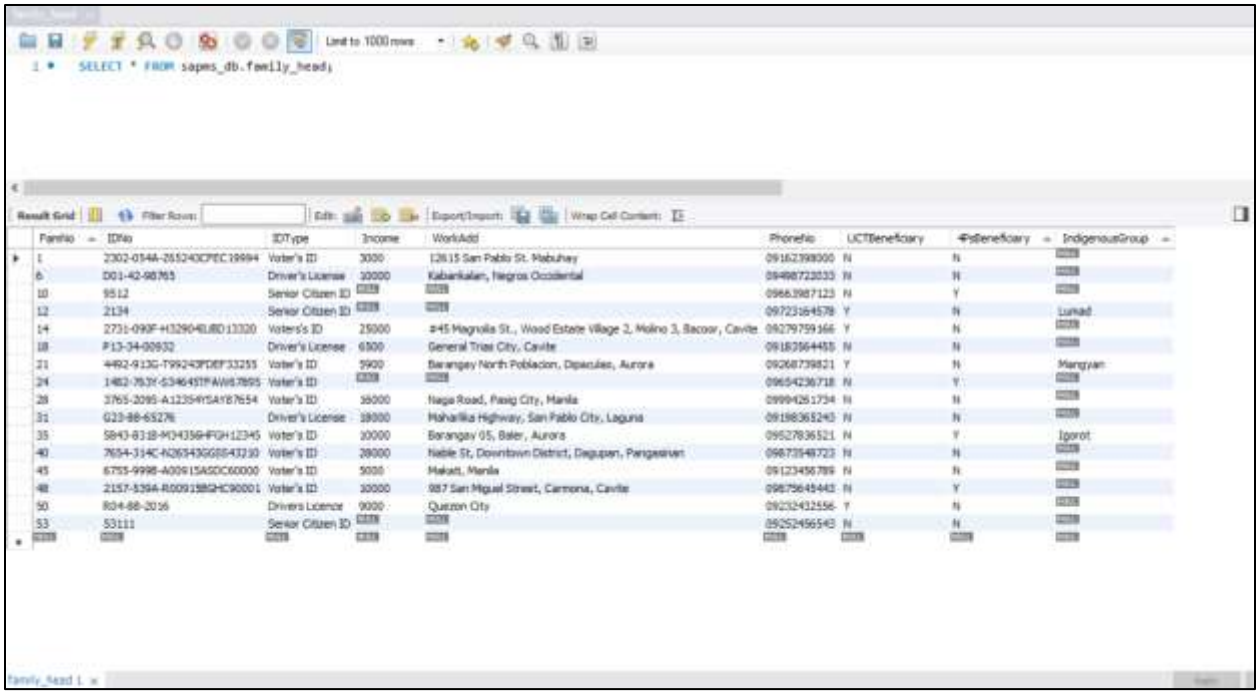
SCREENSHOT OF TEST DATA



```
SELECT * FROM sapms_db.family_member;
```

FamNo	Name	Address	City	Province	Region	Work	Sector	HealthCond	Sex	Birthdate	Role	Relation
1	Maria Rosa S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Tailor	E		F	1962-05-05	H	
2	Ronaldo S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Civil Engineer			M	1995-01-05	M	Son
3	Rolando S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student			M	2000-10-20	M	Son
4	Raynaldo S. Relox	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student		4	M	2007-06-01	M	Son
5	Arnaldo S. Relox Jr.	12615 San Pablo St. Mabuhay	Carmona	Cavite	IV-A	Student			M	2011-11-11	M	Son
6	Steven T. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Bus Driver		1	M	1982-06-01	H	
7	Arlene F. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Housewife			F	1981-09-07	H	Wife
8	Marites P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Call Center Agent	C E		F	1999-06-26	M	Daughter
9	Dave P. Romero	10315 Gomez St. Brgy. Bacuyangan	Hinoba-an	Negros Occidental	VI	Student			M	2005-07-06	M	Son
10	Dominador H. Vargas	Blk 2 Lot 9 San Isidro Village	Cabuyao	Laguna	IV-A		A	2	M	1947-07-22	H	
11	Tessa G. Vargas	Blk 2 Lot 9 San Isidro Village	Cabuyao	Laguna	IV-A		A	2	F	1949-11-19	H	Wife
12	Armando G. Tesoro	0312 Brgy. Bulaoen East	Sison	Pangasinan	I		A E	2	M	1951-03-18	H	
13	Benjamin A. Tesoro	0312 Brgy. Bulaoen East	Sison	Pangasinan	I	Construction Worker			M	1971-11-10	M	Son
14	Roel D. Flores	#45 Magnolia St., Wood Estate Village 2, Molino 3	Bacoor	Cavite	IV-A	Self-employed			M	1978-06-30	H	
15	Irma A. Flores	#45 Magnolia St., Wood Estate Village 2, Molino 3	Bacoor	Cavite	IV-A	Self-employed		5	F	1982-02-16	M	Wife
16	Danice Ria A. Flores	#45 Magnolia St., Wood Estate Village 2, Molino 3	Bacoor	Cavite	IV-A	Student			F	2002-03-27	M	Daughter
17	Daniel Roy A. Flores	#45 Magnolia St., Wood Estate Village 2, Molino 3	Bacoor	Cavite	IV-A	Student			M	2007-04-12	M	Son
18	Gregorio O. Espinosa	Blk 22 Lot 32, Tierra Solana Phase 2, Buenavista III	General Trias City	Cavite	IV-A	Tricycle Driver			M	1989-09-08	H	
19	Zenaida M. Espinosa	Blk 22 Lot 32, Tierra Solana Phase 2, Buenavista III	General Trias City	Cavite	IV-A	Teacher	C		F	1986-01-02	M	Wife
20	Melisa M. Espinosa	Blk 22 Lot 32, Tierra Solana Phase 2, Buenavista III	General Trias City	Cavite	IV-A				F	2020-08-23	M	Daughter
21	Mary Anne E. Hernandez	002 Dona Aurora Street, South Poblacion	Dipaculao	Aurora	III	Street Sweeper			F	1978-04-13	H	
22	Kathrine Mae E. Hernandez	002 Dona Aurora Street, South Poblacion	Dipaculao	Aurora	III	Student		5	F	2001-03-07	M	Daughter
23	Karyl Angela E. Hernandez	002 Dona Aurora Street, South Poblacion	Dipaculao	Aurora	III	Student			F	2004-02-01	M	Daughter
24	Jerald G. Salon	49 Mangold St., Pilar Village, Barangay Pilar	Pasig City	Manila	NCR			4	M	1968-11-28	H	
25	Marites A. Salon	49 Mangold St., Pilar Village, Barangay Pilar	Pasig City	Manila	NCR				F	1972-07-08	M	Wife
26	Kristine Marianne A. Salon	49 Mangold St., Pilar Village, Barangay Pilar	Pasig City	Manila	NCR	Electrical Engineer			F	1994-03-15	M	Daughter
27	Jerico A. Salon	49 Mangold St., Pilar Village, Barangay Pilar	Pasig City	Manila	NCR				M	2000-06-15	M	Son
28	Josefina M. Verde	48 Opal St. Las Pinas Royale Subd. Naga Road	Las Pinas	Manila	NCR	Street Vendor	C E		F	1985-05-18	H	
29	Joana M. Verde	48 Opal St. Las Pinas Royale Subd. Naga Road	Las Pinas	Manila	NCR	Call Center Agent			F	2001-05-18	M	Daughter
30	Sofia Nicole M. Verde	48 Opal St. Las Pinas Royale Subd. Naga Road	Las Pinas	Manila	NCR				F	2019-10-10	M	Daughter
31	Margie D. Anil	Block 21, Lot 3, NHA Subdivision, Brgy. Sto. Angel	San Pablo City	Laguna	IV-A	Medical Technologist			F	1984-10-16	H	
32	Jake Paolo D. Anil	Block 21, Lot 3, NHA Subdivision, Brgy. Sto. Angel	San Pablo City	Laguna	IV-A	Software Engineer		2	M	1980-01-28	M	Husband
33	Paul Lester D. Anil	Block 21, Lot 3, NHA Subdivision, Brgy. Sto. Angel	San Pablo City	Laguna	IV-A	Student		3	M	1999-01-29	M	Son
34	Chesca A. Anil	Block 21, Lot 3, NHA Subdivision, Brgy. Sto. Angel	San Pablo City	Laguna	IV-A	Student		3	M	2002-04-29	M	Daughter
35	Carlos G. Tuazon	014 Burgos Street, Barangay 05	Baler	Aurora	III	Self-employed		4	M	1974-03-14	H	
36	Sheralyn M. Tuazon	014 Burgos Street, Barangay 05	Baler	Aurora	III	Self-employed	B		F	1977-04-05	M	Wife
37	Cyrish Shane M. Tuazon	014 Burgos Street, Barangay 05	Baler	Aurora	III	Student			F	1998-05-06	M	Daughter
38	Kristler Mark M. Tuazon	014 Burgos Street, Barangay 05	Baler	Aurora	III	Student	D		M	2000-08-09	M	Son
39	Carl Stephen M. Tuazon	014 Burgos Street, Barangay 05	Baler	Aurora	III	Student			M	2008-09-10	M	Son
40	Arvin S. Cortez	234 Cojuangco St., Barangay Bantay Intlak	Sison	Pangasinan	I	Nurse			M	1985-10-11	H	
41	Valentina R. Cortez	234 Cojuangco St., Barangay Bantay Intlak	Sison	Pangasinan	I	Nurse			F	1987-11-12	M	Wife
42	Tomas R. Cortez	234 Cojuangco St., Barangay Bantay Intlak	Sison	Pangasinan	I	Student	D		M	2007-12-13	M	Son
43	Jao Erick R. Cortez	234 Cojuangco St., Barangay Bantay Intlak	Sison	Pangasinan	I	Student		2	M	2015-01-14	M	Son
44	Roxanne Antoinette R. Cortez	234 Cojuangco St., Barangay Bantay Intlak	Sison	Pangasinan	I	Student			F	2015-01-14	M	Daughter
45	Ariel F. Santos	123 San Pablo Street	Carmona	Cavite	IV-A	Engineer		2	M	1995-11-23	H	
46	Mariel A. Santos	123 San Pablo Street	Carmona	Cavite	IV-A	Housewife	B		F	1994-03-04	M	wife
47	Cardo A. Santos	123 San Pablo Street	Carmona	Cavite	IV-A	Student			M	2009-11-23	M	son
48	Marites B. Villar	987 San Miguel Street	Tanza	Cavite	IV-A	Online Seller	E		F	1995-01-23	H	
49	Vicky B. Villar	987 San Miguel Street	Tanza	Cavite	IV-A	student		4	F	2015-01-23	M	daughter
50	RJ O. Castro	10315 San Pedro Street	Catbalogan	Samar	VIII	Driver	E		M	1995-11-23	H	
51	JR P. Castro	10315 San Pedro Street	Catbalogan	Samar	VIII	Student			M	2012-05-05	M	son
52	Mary P. Castro	10315 San Pedro Street	Catbalogan	Samar	VIII	Student	C E		F	2012-05-06	M	daughter
53	Domingo G. Salvador	Blk 5 lot 3 Magnesium	Cabuyao	Laguna	IV-A		A	4	M	1954-01-01	H	
54	Teresa H. Salvador	Blk 5 lot 3 Magnesium	Cabuyao	Laguna	IV-A		A		F	1956-02-04	M	wife

Figure 8.1 `family_member` Table Test Data



```
SELECT * FROM sapes_db.family_head;
```

FamNo	IDNo	IDType	Income	WorkAdd	PhoneNo	UCTBeneficiary	4PsBeneficiary	IndigenousGroup
1	2302-0344-265243CFEC19994	Voter's ID	3000	12615 San Pablo St. Mabuhay	09162398000	N	N	NULL
6	D01-42-98765	Driver's License	10000	Kabankalan, Negros Occidental	09498722033	N	N	NULL
10	9512	Senior Citizen ID	NULL	NULL	09663987123	N	Y	NULL
12	2134	Senior Citizen ID	NULL	NULL	09723164678	Y	N	Lumad
14	2731-090F-H32904L8D13320	Voters's ID	25000	#45 Magnolia St., Wood Estate Village 2, Molino 3, Bacoor, Cavite	09279759166	Y	N	NULL
18	P13-34-00832	Driver's License	6300	General Trias City, Cavite	09183964455	N	N	NULL
21	4492-913G-T99243PD0F33255	Voter's ID	5900	Barangay North Poblacion, Dipaculao, Aurora	09268739821	Y	N	Mangyan
24	1482-763Y-S3464STPAW67805	Voter's ID	NULL	NULL	09654236718	N	Y	NULL
28	3765-2095-A1235HYSAY67654	Voter's ID	16000	Naga Road, Pasig City, Manila	09994261734	N	N	NULL
31	G23-88-65276	Driver's License	18000	Maharlika Highway, San Pablo City, Laguna	09198363243	N	N	NULL
35	5843-831B-M34356HFGH12345	Voter's ID	20000	Barangay 05, Baler, Aurora	09527836521	N	Y	Igorot
40	7654-314C-N26543GG8543210	Voter's ID	28000	Noble St, Downtown District, Dagupan, Pangasinan	09673548723	N	N	NULL
45	6755-999B-A00915ASDC60000	Voter's ID	5000	Makati, Manila	09123456789	N	N	NULL
48	2157-539A-R00918BQHC90001	Voter's ID	30000	987 San Miguel Street, Carmona, Cavite	09875645443	N	Y	NULL
50	R04-88-2016	Drivers Licence	9000	Quezon City	09232432556	Y	N	NULL
53	53111	Senior Citizen ID	NULL	NULL	09252456543	N	N	NULL
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Figure 8.1 `family_head` Table Test Data