Chapter7. MERGE문 활용하기
Chapter8. 새로운 변수의 생성

182STG27
임지연

Chapter7. MERGE문 활용하기
1. 두 개의 DATASET 합치기

Chapter7. MERGE문 활용하기

1. 두 개의 DATASET 합치기

```
DATA class;
    INPUT name $ 1-25 year $ 26-34 major $ 36-50;
    CARDS;
Abbott, JennIFer          freshman
Carter, Tom               junior    Theater
Kirby, Elissa             senior    Mathematics
Tucker, Rachel            freshman
Uhl, Roland               sophomore
Wacenske, Maurice         junior    Theater
;
RUN;
PROC PRINT DATA=class;
    TITLE 'The Data Set CLASS';
RUN;
```

The Data Set CLASS

OBS	name	year	major
1	Abbott, JennIFer	freshman	
2	Carter, Tom	junior	Theater
3	Kirby, Elissa	senior	Mathematics
4	Tucker, Rachel	freshman	
5	Uhl, Roland	sophomore	
6	Wacenske, Maurice	junior	Theater

```
DATA timeslot;
    INPUT date date7. @10 time $ @17 room $;
    FORMAT date date7.;
    CARDS;
12sep88  10:00  103
12sep88  10:30  103
12sep88  11:00  207
13sep88  10:00  105
13sep88  10:30  105
15sep88  11:00  207
;
RUN;
PROC PRINT DATA=timeslot;
    TITLE 'Dates, Times, and Locations of Conferences';
RUN;
```

Dates, Times, and Locations of Conferences

OBS	date	time	room
1	12SEP88	10:00	103
2	12SEP88	10:30	103
3	12SEP88	11:00	207
4	13SEP88	10:00	105
5	13SEP88	10:30	105
6	15SEP88	11:00	207

```
DATA schedule;
    MERGE class timeslot;        →    MERGE timeslot class ;
RUN;
PROC PRINT DATA=schedule;
    TITLE 'Merging CLASS and TIMESLOT to Assign';
    TITLE2 'Conference Times to Students';
RUN;
```

Merging CLASS and TIMESLOT to Assign
Conference Times to Students

OBS	name	year	major	date	time	room
1	Abbott, JennIFer	freshman		12SEP88	10:00	103
2	Carter, Tom	junior	Theater	12SEP88	10:30	103
3	Kirby, Elissa	senior	Mathematics	12SEP88	11:00	207
4	Tucker, Rachel	freshman		13SEP88	10:00	105
5	Uhl, Roland	sophomore		13SEP88	10:30	105
6	Wacenske, Maurice	junior	Theater	15SEP88	11:00	207

Merging TIMESLOT and CLASS to Assign
Conference Times to Students

OBS	date	time	room	name	year	major
1	12SEP88	10:00	103	Abbott, JennIFer	freshman	
2	12SEP88	10:30	103	Carter, Tom	junior	Theater
3	12SEP88	11:00	207	Kirby, Elissa	senior	Mathematics
4	13SEP88	10:00	105	Tucker, Rachel	freshman	
5	13SEP88	10:30	105	Uhl, Roland	sophomore	
6	15SEP88	11:00	207	Wacenske, Maurice	junior	Theater

2. 세 개의 DATASET 합치기

```
DATA class2;
    INPUT name $ 1-25 year $ 26-34 major $ 36-50;
    CARDS;
Hitchcock-Tyler, Erin    sophomore
Keil, Deborah            junior    Theater
Nacewicz, Chester        junior    Theater
Norgaard, Rolf           sophomore
Prism, Lindsay           senior    Anthropology
Singh, Rajiv             sophomore
Wittich, Stefan          junior    Physics
;
RUN;
PROC PRINT DATA=class2;
    TITLE 'The Data Set CLASS2';
RUN;
```

The Data Set CLASS2

OBS	name	year	major
1	Hitchcock-Tyler, Erin	sophomore	
2	Keil, Deborah	junior	Theater
3	Nacewicz, Chester	junior	Theater
4	Norgaard, Rolf	sophomore	
5	Prism, Lindsay	senior	Anthropology
6	Singh, Rajiv	sophomore	
7	Wittich, Stefan	junior	Physics

```
DATA exercise;
    MERGE class (DROP=year major) class2 (DROP=year major RENAME=(name=name2)) timeslot;
RUN;
PROC PRINT DATA=exercise;
    TITLE 'Merging Three Data Sets While Dropping and Renaming';
    TITLE2 'Some Variables';
RUN;
```

Merging Three Data Sets While Dropping and Renaming
Some Variables

OBS	name	name2	date	time	room
1	Abbott, Jennifer	Hitchcock-Tyler, Erin	12SEP88	10:00	103
2	Carter, Tom	Keil, Deborah	12SEP88	10:30	103
3	Kirby, Elissa	Nacewicz, Chester	12SEP88	11:00	207
4	Tucker, Rachel	Norgaard, Rolf	13SEP88	10:00	105
5	Uhl, Roland	Prism, Lindsay	13SEP88	10:30	105
6	Wacenske, Maurice	Singh, Rajiv	15SEP88	11:00	207
7		Wittich, Stefan	.		

```
DATA class2;
    INPUT name $ 1-25 year $ 26-34 major $ 36-50;
    CARDS;
Hitchcock-Tyler, Erin    sophomore
Keil, Deborah            junior    Theater
Nacewicz, Chester        junior    Theater
Norgaard, Rolf           sophomore
Prism, Lindsay           senior    Anthropology
Singh, Rajiv             sophomore
Wittich, Stefan          junior    Physics
;
RUN;
PROC PRINT DATA=class2;
    TITLE 'The Data Set CLASS2';
RUN;
```

The Data Set CLASS2

OBS	name	year	major
1	Hitchcock-Tyler, Erin	sophomore	
2	Keil, Deborah	junior	Theater
3	Nacewicz, Chester	junior	Theater
4	Norgaard, Rolf	sophomore	
5	Prism, Lindsay	senior	Anthropology
6	Singh, Rajiv	sophomore	
7	Wittich, Stefan	junior	Physics

```
DATA exercise;
    MERGE class (DROP=year major) class2 (DROP=year major RENAME (name=name2)) timeslot;
RUN;
PROC PRINT DATA=exercise;
    TITLE 'Merging Three Data Sets While Dropping and Renaming';
    TITLE2 'Some Variables';
RUN;
```

Merging Three Data Sets While Dropping and Renaming
Some Variables

OBS	name	name2	date	time	room
1	Abbott, Jennifer	Hitchcock-Tyler, Erin	12SEP88	10:00	103
2	Carter, Tom	Keil, Deborah	12SEP88	10:30	103
3	Kirby, Elissa	Nacewicz, Chester	12SEP88	11:00	207
4	Tucker, Rachel	Norgaard, F			
5	Uhl, Roland	Prism, Linds			
6	Wacenske, Maurice	Singh, Rajiv			
7		Wittich, Ste			

Merging Three Data Sets While Dropping and Renaming
Some Variables

OBS	name	date	time	room
1	Hitchcock-Tyler, Erin	12SEP88	10:00	103
2	Keil, Deborah	12SEP88	10:30	103
3	Nacewicz, Chester	12SEP88	11:00	207
4	Norgaard, Rolf	13SEP88	10:00	105
5	Prism, Lindsay	13SEP88	10:30	105
6	Singh, Rajiv	15SEP88	11:00	207
7	Wittich, Stefan		.	

Chapter7. MERGE문 활용하기

3. 기준변수에 의한 DATASET 합치기

```
DATA company;
    INPUT name $ 1-25 age 27-28 sex $ 30;
    CARDS;
Vincent, Martina         34 F
Phillipon, Marie-Odile   28 F
Gunter, Thomas           27 M
Harbinger, Nicholas      36 M
Benito, Gisela           32 F
Rudelich, Herbert        39 M
Sirignano, Emily         12 F
Morrison, Michael        32 M
;
RUN;
PROC SORT DATA=company;
    BY name;
RUN;
PROC PRINT DATA=company;
    TITLE 'The Data Set COMPANY Sorted by NAME';
RUN;
```

```
DATA finance;
    INPUT ssn $ 1-11 name $ 13-40 salary;
    CARDS;
074-53-9892 Vincent, Martina        35000
776-84-5391 Phillipon, Marie-Odile  29750
929-75-0218 Gunter, Thomas          27500
446-93-2122 Harbinger, Nicholas     33900
228-88-9649 Benito, Gisela          28000
029-46-9261 Rudelich, Herbert       35000
442-21-8075 Sirignano, Emily        5000
;
RUN;
PROC SORT DATA=finance;
    BY name;
RUN;
PROC PRINT DATA=finance;
    TITLE 'The Data Set FINANCE Sorted by NAME';
RUN;
```

The Data Set COMPANY Sorted by NAME

OBS	name	age	sex
1	Benito, Gisela	32	F
2	Gunter, Thomas	27	M
3	Harbinger, Nicholas	36	M
4	Morrison, Michael	32	M
5	Phillipon, Marie-Odile	28	F
6	Rudelich, Herbert	39	M
7	Sirignano, Emily	12	F
8	Vincent, Martina	34	F

The Data Set FINANCE Sorted by NAME

OBS	ssn	name	salary
1	228-88-9649	Benito, Gisela	28000
2	929-75-0218	Gunter, Thomas	27500
3	446-93-2122	Harbinger, Nicholas	33900
4	776-84-5391	Phillipon, Marie-Odile	29750
5	029-46-9261	Rudelich, Herbert	35000
6	442-21-8075	Sirignano, Emily	5000
7	074-53-9892	Vincent, Martina	35000

```
DATA compfin;
    MERGE company finance;
    BY name;
RUN;
PROC PRINT DATA=compfin;
    TITLE 'Merging COMPANY and FINANCE';
RUN;
```

Merging COMPANY and FINANCE

OBS	name	age	sex	ssn	salary
1	Benito, Gisela	32	F	228-88-9649	28000
2	Gunter, Thomas	27	M	929-75-0218	27500
3	Harbinger, Nicholas	36	M	446-93-2122	33900
4	Morrison, Michael	32	M		.
5	Phillipon, Marie-Odile	28	F	776-84-5391	29750
6	Rudelich, Herbert	39	M	029-46-9261	35000
7	Sirignano, Emily	12	F	442-21-8075	5000
8	Vincent, Martina	34	F	074-53-9892	35000

Chapter7. MERGE문 활용하기
3. 기준변수에 의한 DATASET 합치기

```
DATA company;
    INPUT name $ 1-25 age 27-28 sex $ 30;
    CARDS;
Vincent, Martina          34 F
Phillipon, Marie-Odile    28 F
Gunter, Thomas            27 M
Harbinger, Nicholas       36 M
Benito, Gisela            32 F
Rudelich, Herbert         39 M
Sirignano, Emily          12 F
Morrison, Michael         32 M
;
RUN;
PROC SORT DATA=company;
    BY name;
RUN;
PROC PRINT DATA=company;
    TITLE 'The Data Set COMPANY Sorted by NAME';
RUN;
```

```
DATA finance;
    INPUT ssn $ 1-11 name $ 13-40 salary;
    CARDS;
074-53-9892 Vincent, Martina          35000
776-84-5391 Phillipon, Marie-Odile    29750
929-75-0218 Gunter, Thomas            27500
446-93-2122 Harbinger, Nicholas       33900
228-88-9649 Benito, Gisela            28000
029-46-9261 Rudelich, Herbert         35000
442-21-8075 Sirignano, Emily           5000
;
RUN;
PROC SORT DATA=finance;
    BY name;
RUN;
PROC PRINT DATA=finance;
    TITLE 'The Data Set FINANCE Sorted by NAME';
RUN;
```

The Data Set COMPANY Sorted by NAME

OBS	name	age	sex
1	Benito, Gisela	32	F
2	Gunter, Thomas	27	M
3	Harbinger, Nicholas	36	M
4	Morrison, Michael	32	M
5	Phillipon, Marie-Odile	28	F
6	Rudelich, Herbert	39	M
7	Sirignano, Emily	12	F
8	Vincent, Martina	34	F

The Data Set FINANCE Sorted by NAME

OBS	ssn	name	salary
1	228-88-9649	Benito, Gisela	28000
2	929-75-0218	Gunter, Thomas	27500
3	446-93-2122	Harbinger, Nicholas	33900
4	776-84-5391	Phillipon, Marie-Odile	29750
5	029-46-9261	Rudelich, Herbert	35000
6	442-21-8075	Sirignano, Emily	5000
7	074-53-9892	Vincent, Martina	35000

```
DATA compfin;
    MERGE company finance;
    BY name;
RUN;
PROC PRINT DATA=compfin;
    TITLE 'Merging COMPANY and FINANCE';
RUN;
```

Merging COMPANY and FINANCE

OBS	name	age	sex	ssn	salary
1	Benito, Gisela	32	F	228-88-9649	28000
2	Gunter, Thomas	27	M	929-75-0218	27500
3	Harbinger, Nicholas	36	M	446-93-2122	33900
4	Morrison, Michael	32	M		.
5	Phillipon, Marie-Odile	28	F	776-84-5391	29750
6	Rudelich, Herbert	39	M	029-46-9261	35000
7	Sirignano, Emily	12	F	442-21-8075	5000
8	Vincent, Martina	34	F	074-53-9892	35000

4. 특정변수를 제거하고 DATASET 합치기


```
□DATA finance;
    INPUT ssn $ 1-11 name $ 13-40 salary;
    CARDS;
074-53-9892 Vincent, Martina        35000
776-84-5391 Phillipon, Marie-Odile  29750
929-75-0218 Gunter, Thomas          27500
446-93-2122 Harbinger, Nicholas     33900
228-88-9649 Benito, Gisela          28000
029-46-9261 Rudelich, Herbert       35000
442-21-8075 Sirignano, Emily        5000
;
RUN;
□PROC SORT DATA=finance;
    BY name;
RUN;
□PROC PRINT DATA=finance;
    TITLE 'The Data Set FINANCE Sorted by NAME
RUN;
```

The Data Set FINANCE Sorted by NAME

OBS	ssn	name	salary
1	228-88-9649	Benito, Gisela	28000
2	929-75-0218	Gunter, Thomas	27500
3	446-93-2122	Harbinger, Nicholas	33900
4	776-84-5391	Phillipon, Marie-Odile	29750
5	029-46-9261	Rudelich, Herbert	35000
6	442-21-8075	Sirignano, Emily	5000
7	074-53-9892	Vincent, Martina	35000

```
□DATA reptory;
    INPUT play $ 1-23 role $ 25-48 ssn $ 50-60;
    CARDS;
No Exit                Estelle            074-53-9892
No Exit                Inez               776-84-5391
No Exit                Valet              929-75-0218
No Exit                Garcin             446-93-2122
Happy Days             Winnie             074-53-9892
Happy Days             Willie             446-93-2122
The Glass Menagerie    Amanda Wingfield   228-88-9649
The Glass Menagerie    Laura Wingfield    776-84-5391
The Glass Menagerie    Tom Wingfield      929-75-0218
The Glass Menagerie    Jim O'Connor       029-46-9261
The Dear Departed      Mrs. Slater        228-88-9649
The Dear Departed      Mrs. Jordan        074-53-9892
The Dear Departed      Henry Slater       029-46-9261
The Dear Departed      Ben Jordan         446-93-2122
The Dear Departed      Victoria Slater    442-21-8075
The Dear Departed      Abel Merryweather  929-75-0218
;
RUN;
□PROC PRINT DATA=reptory;
    TITLE 'The Data Set REPTORY';
RUN;
```

The Data Set REPTORY

OBS	play	role	ssn
1	No Exit	Estelle	074-53-9892
2	No Exit	Inez	776-84-5391
3	No Exit	Valet	929-75-0218
4	No Exit	Garcin	446-93-2122
5	Happy Days	Winnie	074-53-9892
6	Happy Days	Willie	446-93-2122
7	The Glass Menagerie	Amanda Wingfield	228-88-9649

```
□DATA newrep (DROP=ssn)
    MERGE finance (DROP=salary) reptory;
    BY ssn;
RUN;
□PROC PRINT DATA=newrep;
    TITLE 'Replacing Players'' Social Security Numbers';
    TITLE2 'with Their Names';
RUN;
```

Replacing Players' Social Security Numbers with Their Names

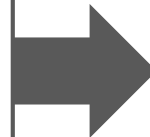| OBS	name	play	role
1	Rudelich, Herbert	The Glass Menagerie	Jim O'Connor
2	Rudelich, Herbert	The Dear Departed	Henry Slater
3	Vincent, Martina	No Exit	Estelle
4	Vincent, Martina	Happy Days	Winnie
5	Vincent, Martina	The Dear Departed	Mrs. Jordan
6	Benito, Gisela	The Glass Menagerie	Amanda Wingfield
7	Benito, Gisela	The Dear Departed	Mrs. Slater
8	Sirignano, Emily	The Dear Departed	Victoria Slater
9	Harbinger, Nicholas	No Exit	Garcin
10	Harbinger, Nicholas	Happy Days	Willie
11	Harbinger, Nicholas	The Dear Departed	Ben Jordan
12	Phillipon, Marie-Odile	No Exit	Inez
13	Phillipon, Marie-Odile	The Glass Menagerie	Laura Wingfield
14	Gunter, Thomas	No Exit	Valet
15	Gunter, Thomas	The Glass Menagerie	Tom Wingfield
16	Gunter, Thomas	The Dear Departed	Abel Merryweather

Chapter8. 새로운 변수의 생성
1. 새로운 변수 생성

```
□DATA travel;
    INPUT country $ nights aircost landcost vendor $;
 CARDS;
 France  8  793  575 Major
 Spain  10  805  510 Hispania
 India  10    .  489 Royal
 Peru   7  722  590 Mundial
 ;
 RUN;
□PROC PRINT DATA=travel;
    TITLE 'DATA SET Travel';
 RUN;
```

DATASET Travel

OBS	country	nights	aircost	landcost	vendor
1	France	8	793	575	Major
2	Spain	10	805	510	Hispania
3	India	10	.	489	Royal
4	Peru	7	722	590	Mundial

```
□DATA newair;
    SET travel;
    newacost=aircost+10;
 RUN;
□PROC PRINT DATA=newair;
    VAR country aircost newacost;
    TITLE 'Increasing the Air Fare by $10 in All Observations';
 RUN;
```

Increasing the Air Fare by $10 in All Observations

OBS	country	aircost	newacost
1	France	793	803
2	Spain	805	815
3	India	.	.
4	Peru	722	732

IF 문 형식
IF 조건식1 THEN 실행문1; ELSE IF 조건식2 THEN 실행문2; ELSE 조건식3 THEN 실행문3;

```
DATA bonus;
    SET travel;
    IF vendor='Hispania' THEN bonuspts='For 10+ people';
    ELSE IF vendor='Mundial' THEN bonuspts='Yes';
RUN;
PROC PRINT DATA=bonus;
    VAR country vendor bonuspts;
    TITLE 'The SAS System Creates a VARiable for All Observations';
RUN;
```

The SAS System Creates a VARiable for All Observations

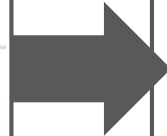| OBS	country	vendor	bonuspts
1	France	Major	
2	Spain	Hispania	For 10+ people
3	India	Royal	
4	Peru	Mundial	Yes

```
DATA newair;
   SET travel;
   newacost=aircost+10;
RUN;
PROC PRINT DATA=newair;
   VAR country aircost newacost;
   TITLE 'Increasing the Air Fare by $10 in All Observations';
RUN;
```

Increasing the Air Fare by $10 in All Observations

OBS	country	aircost	newacost
1	France	793	803
2	Spain	805	815
3	India	.	.
4	Peru	722	732

```
DATA newair2;
   SET travel;
   aircost=aircost+10;
RUN;
PROC PRINT DATA=newair2;
   VAR country aircost;
   TITLE 'Changing the InFORMATion in a VARiable';
RUN;
```

Changing the InFORMATion in a VARiable

OBS	country	aircost
1	France	803
2	Spain	815
3	India	.
4	Peru	732

4. 특정 관찰값들 삭제하기 (IF, DELETE문)

```
DATA travel;
    INPUT country $ nights aircost landcost vendor $;
 CARDS;
 France  8  793  575 Major
 Spain  10  805  510 Hispania
 India  10   .  489 Royal
 Peru   7  722  590 Mundial
 ;
 RUN;
PROC PRINT DATA=travel;
    TITLE 'DATA SET Travel';
 RUN;
```

DATASET Travel

OBS	country	nights	aircost	landcost	vendor
1	France	8	793	575	Major
2	Spain	10	805	510	Hispania
3	India	10		489	Royal
4	Peru	7	722	590	Mundial

```
DATA subset;
    SET travel;
    IF country='Peru' THEN delete;
 RUN;
PROC PRINT DATA=subset;
    TITLE 'Omitting a Discontinued Tour';
 RUN;
```

Omitting a Discontinued Tour

OBS	country	nights	aircost	landcost	vendor
1	France	8	793	575	Major
2	Spain	10	805	510	Hispania
3	India	10		489	Royal

5. ROUND, SUM 함수 이용해 새로운 변수생성

ROUND , SUM
ROUND(변수, 반올림숫자); SUM(변수, 변수);

참고)

X < 반올림숫자 - 반올림숫자/2 : 버림
반올림숫자 - 반올림숫자/2 <X < 반올림숫자 + 반올림숫자/2 : 반올림숫자
X > 반올림숫자 + 반올림숫자/2 : 반올림

```
DATA moretour;
    SET tours;
    roundair=ROUND(aircost,50);
    totcostr=ROUND(aircost+landcost,100);
    sumcost=SUM(aircost,landcost);
    roundsum=ROUND(SUM(aircost,landcost),100);
RUN;
PROC PRINT DATA=moretour;
    VAR country aircost landcost roundair totcostr sumcost roundsum;
    TITLE 'Rounding and Summing Values';
RUN;
```

Rounding and Summing Values

OBS	country	aircost	landcost	roundair	totcostr	sumcost	roundsum
1	Japan	982	1020	1000	2000	2002	2000
2	Greece	.	748	.	.	748	700
3	New Zealand	1368	1539	1350	2900	2907	2900
4	Ireland	787	628	800	1400	1415	1400
5	Venezuela	426	505	450	900	931	900
6	Italy	852	598	850	1500	1450	1500
7	USSR	1106	1024	1100	2100	2130	2100
8	Switzerland	816	834	800	1700	1650	1700
9	Australia	1299	1169	1300	2500	2468	2500
10	Brazil	682	610	700	1300	1292	1300

Chapter8. 새로운 변수의 생성

6. SCAN, LEFT 함수 이용해 새로운 문자변수 생성

SCAN , LEFT
새변수 = SCAN(변수, 숫자, 구분자);
새변수 = LEFT(변수);

```
DATA arvdept;
   SET depart;
   arvgate=SCAN(othrgate,1,',');
   deptgate=LEFT(SCAN(othrgate,2,','));
RUN;
PROC PRINT DATA=arvdept;
   VAR country othrgate arvgate deptgate;
   TITLE 'Dividing Character Values into Terms';
RUN;
```

Dividing Character Values into Terms

OBS	country	othrgate	arvgate	deptgate
1	Japan	Tokyo, Osaka	Tokyo	Osaka
2	Italy	Rome, Naples	Rome	Naples
3	Australia	Sydney, Brisbane	Sydney	Brisbane
4	Venezuela	Caracas, Maracaibo	Caracas	Maracaibo
5	Brazil	Rio de Janeiro, Belem	Rio de Janeiro	Belem

Chapter8. 새로운 변수의 생성
7. 연결연산자(||,TRIM함수)를 이용한 새로운 문자변수의 생성(1)

```
DATA all;
    SET depart;
    allgates=usgate||othrgate;
RUN;
PROC PRINT DATA=all;
    VAR country usgate othrgate allgates;
    TITLE 'Simple Concatenation';
RUN;
```

Simple Concatenation

OBS	country	usgate	othrgate	allgates
1	Japan	San Francisco	Tokyo, Osaka	San FranciscoTokyo, Osaka
2	Italy	New York	Rome, Naples	New York Rome, Naples
3	Australia	Honolulu	Sydney, Brisbane	Honolulu Sydney, Brisbane
4	Venezuela	Miami	Caracas, Maracaibo	Miami Caracas, Maracaibo
5	Brazil		Rio de Janeiro, Belem	Rio de Janeiro, Belem

```
DATA all2;
    SET depart;
    allgate2=TRIM(usgate)||othrgate;
RUN;
PROC PRINT DATA=all2;
    VAR country usgate othrgate allgate2;
    TITLE 'Trimming Blanks in a Concatenation';
RUN;
```

Trimming Blanks in a Concatenation

OBS	country	usgate	othrgate	allgate2
1	Japan	San Francisco	Tokyo, Osaka	San FranciscoTokyo, Osaka
2	Italy	New York	Rome, Naples	New YorkRome, Naples
3	Australia	Honolulu	Sydney, Brisbane	HonoluluSydney, Brisbane
4	Venezuela	Miami	Caracas, Maracaibo	MiamiCaracas, Maracaibo
5	Brazil		Rio de Janeiro, Belem	Rio de Janeiro, Belem

```
DATA all3;
   SET depart;
   allgate3=TRIM(usgate)||', '||othrgate;
   IF country='Brazil' THEN allgate3=othrgate;
RUN;
PROC PRINT DATA=all3;
   VAR country usgate othrgate allgate3;
   TITLE 'Readable Concatenated Values';
RUN;
```

Readable Concatenated Values

OBS	country	usgate	othrgate	allgate3
1	Japan	San Francisco	Tokyo, Osaka	San Francisco, Tokyo, Osaka
2	Italy	New York	Rome, Naples	New York, Rome, Naples
3	Australia	Honolulu	Sydney, Brisbane	Honolulu, Sydney, Brisbane
4	Venezuela	Miami	Caracas, Maracaibo	Miami, Caracas, Maracaibo
5	Brazil		Rio de Janeiro, Belem	Rio de Janeiro, Belem

```
DATA rebuild2;
   LENGTH arvgate $ 14 deptgate $ 9;
   SET arvdept;
   othrgat2=TRIM(arvgate)||', '||deptgate;
RUN;
PROC PRINT DATA=rebuild2;
   VAR country othrgate othrgat2;
   TITLE 'All Concatenated Pieces Appear';
RUN;
```

All Concatenated Pieces Appear

OBS	country	othrgate	othrgat2
1	Japan	Tokyo, Osaka	Tokyo, Osaka
2	Italy	Rome, Naples	Rome, Naples
3	Australia	Sydney, Brisbane	Sydney, Brisbane
4	Venezuela	Caracas, Maracaibo	Caracas, Maracaibo
5	Brazil	Rio de Janeiro, Belem	Rio de Janeiro, Belem