Complete the following tasks using SAS. Paste whatever is requested after each question and submit the completed file via the drop box prior to the assigned due date and time. Be sure to use appropriate comments in the SAS program, and that output has appropriate titles.

1. Write a SAS datastep to read profb.txt using “list input”. Use PROC PRINT to show what the resulting dataset looks like. Do not modify the original file in any way.

/\*Data Step to read profb.txt using LIST INPUT\*/

data work.list\_profb;

infile '/home/axb96520/sasuser.v94/profb.txt' firstobs = 49 obs=720 missover pad;

input homeoraway

fav

und

pts

favT :$3.

undT :$3.

year

wk

indicator $4.;

run;

/\*Print Procedure to read list\_profb\*/

proc print data=work.list\_profb;

run;

| Obs | homeoraway | fav | und | pts | favT | undT | year | wk | indicator |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 0 | 27 | 24 | 4.0 | BUF | MIA | 89 | 1 |  |
| 2 | 1 | 17 | 14 | 3.0 | CHI | CIN | 89 | 1 |  |
| 3 | 0 | 51 | 0 | 2.5 | CLE | PIT | 89 | 1 |  |
| 4 | 1 | 28 | 0 | 5.5 | NO | DAL | 89 | 1 |  |
| 5 | 1 | 38 | 7 | 5.5 | MIN | HOU | 89 | 1 |  |
| 6 | 1 | 34 | 20 | 6.0 | DEN | KC | 89 | 1 |  |
| 7 | 0 | 31 | 21 | 6.0 | LAN | ATL | 89 | 1 |  |
| 8 | 1 | 24 | 27 | 2.5 | NYJ | NE | 89 | 1 |  |
| 9 | 0 | 16 | 13 | 1.5 | PHX | DET | 89 | 1 |  |
| 10 | 1 | 40 | 14 | 3.5 | LAA | SD | 89 | 1 |  |
| 11 | 0 | 30 | 24 | 3.0 | SF | IND | 89 | 1 |  |
| 12 | 1 | 31 | 7 | 5.5 | PHA | SEA | 89 | 1 |  |
| 13 | 1 | 21 | 23 | 3.0 | GB | TB | 89 | 1 |  |
| 14 | 1 | 24 | 27 | 4.0 | WAS | NYG | 89 | 1 | M |
| 15 | 1 | 27 | 21 | 1.5 | ATL | DAL | 89 | 2 |  |
| 16 | 1 | 24 | 14 | 11.0 | NYG | DET | 89 | 2 |  |
| 17 | 0 | 34 | 27 | 4.0 | HOU | SD | 89 | 2 |  |
| 18 | 1 | 31 | 17 | 6.0 | LAN | IND | 89 | 2 |  |
| 19 | 1 | 24 | 19 | 2.0 | KC | LAA | 89 | 2 |  |
| 20 | 1 | 10 | 24 | 6.0 | NE | MIA | 89 | 2 |  |

1. Write a SAS data step to read profb.txt using “column input”. Use PROC PRINT to show what the resulting dataset looks like.

/\*Data Step to read profb.txt using COLUMN INPUT\*/

data work.col\_profb;

infile '/home/axb96520/sasuser.v94/profb.txt' firstobs = 49 obs=720 missover pad;

input homeoraway 2

fav 5-6

und 9-10

pts 12-15

favT $ 18-20

undT $ 23-25

year 29-30

wk 35-36

indicator $ 38-41;

run;

/\*Print Procedure to read col\_profb\*/

proc print data=work.col\_profb;

run;

| Obs | homeoraway | fav | und | pts | favT | undT | year | wk | indicator |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 0 | 27 | 24 | 4.0 | BUF | MIA | 89 | 1 |  |
| 2 | 1 | 17 | 14 | 3.0 | CHI | CIN | 89 | 1 |  |
| 3 | 0 | 51 | 0 | 2.5 | CLE | PIT | 89 | 1 |  |
| 4 | 1 | 28 | 0 | 5.5 | NO | DAL | 89 | 1 |  |
| 5 | 1 | 38 | 7 | 5.5 | MIN | HOU | 89 | 1 |  |
| 6 | 1 | 34 | 20 | 6.0 | DEN | KC | 89 | 1 |  |
| 7 | 0 | 31 | 21 | 6.0 | LAN | ATL | 89 | 1 |  |
| 8 | 1 | 24 | 27 | 2.5 | NYJ | NE | 89 | 1 |  |
| 9 | 0 | 16 | 13 | 1.5 | PHX | DET | 89 | 1 |  |
| 10 | 1 | 40 | 14 | 3.5 | LAA | SD | 89 | 1 |  |
| 11 | 0 | 30 | 24 | 3.0 | SF | IND | 89 | 1 |  |
| 12 | 1 | 31 | 7 | 5.5 | PHA | SEA | 89 | 1 |  |
| 13 | 1 | 21 | 23 | 3.0 | GB | TB | 89 | 1 |  |
| 14 | 1 | 24 | 27 | 4.0 | WAS | NYG | 89 | 1 | M |
| 15 | 1 | 27 | 21 | 1.5 | ATL | DAL | 89 | 2 |  |
| 16 | 1 | 24 | 14 | 11.0 | NYG | DET | 89 | 2 |  |
| 17 | 0 | 34 | 27 | 4.0 | HOU | SD | 89 | 2 |  |
| 18 | 1 | 31 | 17 | 6.0 | LAN | IND | 89 | 2 |  |
| 19 | 1 | 24 | 19 | 2.0 | KC | LAA | 89 | 2 |  |
| 20 | 1 | 10 | 24 | 6.0 | NE | MIA | 89 | 2 |  |

1. Write a SAS data step to read profb.txt using “formatted input” (and column pointers). Use PROC PRINT to show what the resulting dataset looks like.

/\*Data Step to read profb.txt using FORMATTED INPUT\*/

data work.formatted\_profb;

infile '/home/axb96520/sasuser.v94/profb.txt' firstobs = 49 obs=720 missover pad;

input @2 homeoraway 2.

@5 fav 2.

@9 und 2.

@12 pts 4.

@18 favT $3.

@23 undT $3.

@29 year 2.

@35 wk 2.

@38 indicator $4.;

run;

/\*Print Procedure to read formatted\_profb\*/

proc print data=work.formatted\_profb;

run;

| Obs | homeoraway | fav | und | pts | favT | undT | year | wk | indicator |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 0 | 27 | 24 | 4.0 | BUF | MIA | 89 | 1 |  |
| 2 | 1 | 17 | 14 | 3.0 | CHI | CIN | 89 | 1 |  |
| 3 | 0 | 51 | 0 | 2.5 | CLE | PIT | 89 | 1 |  |
| 4 | 1 | 28 | 0 | 5.5 | NO | DAL | 89 | 1 |  |
| 5 | 1 | 38 | 7 | 5.5 | MIN | HOU | 89 | 1 |  |
| 6 | 1 | 34 | 20 | 6.0 | DEN | KC | 89 | 1 |  |
| 7 | 0 | 31 | 21 | 6.0 | LAN | ATL | 89 | 1 |  |
| 8 | 1 | 24 | 27 | 2.5 | NYJ | NE | 89 | 1 |  |
| 9 | 0 | 16 | 13 | 1.5 | PHX | DET | 89 | 1 |  |
| 10 | 1 | 40 | 14 | 3.5 | LAA | SD | 89 | 1 |  |
| 11 | 0 | 30 | 24 | 3.0 | SF | IND | 89 | 1 |  |
| 12 | 1 | 31 | 7 | 5.5 | PHA | SEA | 89 | 1 |  |
| 13 | 1 | 21 | 23 | 3.0 | GB | TB | 89 | 1 |  |
| 14 | 1 | 24 | 27 | 4.0 | WAS | NYG | 89 | 1 | M |
| 15 | 1 | 27 | 21 | 1.5 | ATL | DAL | 89 | 2 |  |
| 16 | 1 | 24 | 14 | 11.0 | NYG | DET | 89 | 2 |  |
| 17 | 0 | 34 | 27 | 4.0 | HOU | SD | 89 | 2 |  |
| 18 | 1 | 31 | 17 | 6.0 | LAN | IND | 89 | 2 |  |
| 19 | 1 | 24 | 19 | 2.0 | KC | LAA | 89 | 2 |  |
| 20 | 1 | 10 | 24 | 6.0 | NE | MIA | 89 | 2 |  |

1. Write SAS statements using PROC COMPARE to compare the three data sets (two at a time).

/\*Compare procedure to compare col\_profb and formatted\_profb\*/

proc compare data= work.col\_profb comp=work.formatted\_profb listall;

run;

The COMPARE Procedure

Comparison of WORK.COL\_PROFB with WORK.FORMATTED\_PROFB

(Method=EXACT)

Data Set Summary

Dataset Created Modified NVar NObs

WORK.COL\_PROFB 09FEB16:07:47:18 09FEB16:07:47:18 9 672

WORK.FORMATTED\_PROFB 09FEB16:07:47:19 09FEB16:07:47:19 9 672

Variables Summary

Number of Variables in Common: 9.

Observation Summary

Observation Base Compare

First Obs 1 1

Last Obs 672 672

Number of Observations in Common: 672.

Total Number of Observations Read from WORK.COL\_PROFB: 672.

Total Number of Observations Read from WORK.FORMATTED\_PROFB: 672.

Number of Observations with Some Compared Variables Unequal: 0.

Number of Observations with All Compared Variables Equal: 672.

NOTE: No unequal values were found. All values compared are exactly equal.

/\*Compare procedure to compare col\_profb and list\_profb\*/

proc compare data= work.col\_profb comp=work.list\_profb listall;

run;

The COMPARE Procedure

Comparison of WORK.COL\_PROFB with WORK.LIST\_PROFB

(Method=EXACT)

Data Set Summary

Dataset Created Modified NVar NObs

WORK.COL\_PROFB 09FEB16:07:47:18 09FEB16:07:47:18 9 672

WORK.LIST\_PROFB 09FEB16:07:47:16 09FEB16:07:47:16 9 672

Variables Summary

Number of Variables in Common: 9.

Observation Summary

Observation Base Compare

First Obs 1 1

Last Obs 672 672

Number of Observations in Common: 672.

Total Number of Observations Read from WORK.COL\_PROFB: 672.

Total Number of Observations Read from WORK.LIST\_PROFB: 672.

Number of Observations with Some Compared Variables Unequal: 0.

Number of Observations with All Compared Variables Equal: 672.

NOTE: No unequal values were found. All values compared are exactly equal.

/\*Compare procedure to compare list\_profb and formatted\_profb\*/

proc compare data= work.list\_profb comp=work.formatted\_profb listall;

run;

The COMPARE Procedure

Comparison of WORK.LIST\_PROFB with WORK.FORMATTED\_PROFB

(Method=EXACT)

Data Set Summary

Dataset Created Modified NVar NObs

WORK.LIST\_PROFB 09FEB16:07:47:16 09FEB16:07:47:16 9 672

WORK.FORMATTED\_PROFB 09FEB16:07:47:19 09FEB16:07:47:19 9 672

Variables Summary

Number of Variables in Common: 9.

Observation Summary

Observation Base Compare

First Obs 1 1

Last Obs 672 672

Number of Observations in Common: 672.

Total Number of Observations Read from WORK.LIST\_PROFB: 672.

Total Number of Observations Read from WORK.FORMATTED\_PROFB: 672.

Number of Observations with Some Compared Variables Unequal: 0.

Number of Observations with All Compared Variables Equal: 672.

NOTE: No unequal values were found. All values compared are exactly equal.

1. Write assignment statements that reads in the SAS data set created in Problem 1, creates a new variable that contains the name (abbreviation) of the home team, and creates a second variable that contains the name of the away team. Subset the data to include only the Buffalo Bills games. Create a variable billswin that assigns a 1 if Buffalo won the game and a 0 if Buffalo lost the game. Use PROC PRINT show what the resulting dataset looks like.

/\*Data Step to read the output created from problem 1.\*/

data work.subset\_profb;

set work.list\_profb ;

/\*Subsetting to include only BUFFALO WINGS games.\*/

if favT="BUF" OR undT="BUF";

/\*Select/Do statement to make new variables HOME\_TEAM and AWAY\_TEAM based upon homeoraway variable\*/

select (homeoraway);

when(0) do;

HOME\_TEAM = (undT);

AWAY\_Team = (favT);

end;

when(1) do;

AWAY\_Team = (undT);

HOME\_TEAM = (favT);

end;

end;

/\*Creating of new varibale and assigning its value depending on the game won/lost by Buffalo Wings\*/

if favt="BUF" AND fav>und then bills\_win= 1;

else if favT="BUF" AND fav<und then bills\_win=0;

else if undT="BUF" AND fav<und then bills\_win=1;

else if undT="BUF" AND fav>und then bills\_win=0;

run;

/\*Print Procedure to read list\_profb\*/

proc print data=work.subset\_profb;

run;

| **Obs** | **homeoraway** | **fav** | **und** | **pts** | **favT** | **undT** | **year** | **wk** | **indicator** | **HOME\_TEAM** | **AWAY\_Team** | **bills\_win** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | 0 | 27 | 24 | 4.0 | BUF | MIA | 89 | 1 |  | MIA | BUF | 1 |
| **2** | 1 | 14 | 28 | 6.5 | BUF | DEN | 89 | 2 | M | BUF | DEN | 0 |
| **3** | 1 | 41 | 47 | 3.5 | HOU | BUF | 89 | 3 | ot | HOU | BUF | 1 |
| **4** | 1 | 31 | 10 | 7.0 | BUF | NE | 89 | 4 |  | BUF | NE | 1 |
| **5** | 0 | 14 | 37 | 0.0 | BUF | IND | 89 | 5 |  | IND | BUF | 0 |
| **6** | 0 | 20 | 23 | 3.5 | LAN | BUF | 89 | 6 | M | BUF | LAN | 1 |
| **7** | 1 | 34 | 3 | 7.0 | BUF | NYJ | 89 | 7 |  | BUF | NYJ | 1 |
| **8** | 1 | 31 | 17 | 4.0 | BUF | MIA | 89 | 8 |  | BUF | MIA | 1 |
| **9** | 0 | 28 | 30 | 3.0 | BUF | ATL | 89 | 9 |  | ATL | BUF | 0 |
| **10** | 1 | 30 | 7 | 6.5 | BUF | IND | 89 | 10 |  | BUF | IND | 1 |
| **11** | 0 | 24 | 33 | 6.0 | BUF | NE | 89 | 11 |  | NE | BUF | 0 |
| **12** | 1 | 24 | 7 | 3.0 | BUF | CIN | 89 | 12 |  | BUF | CIN | 1 |
| **13** | 0 | 16 | 17 | 5.5 | BUF | SEA | 89 | 13 | M | SEA | BUF | 0 |
| **14** | 1 | 19 | 22 | 6.0 | BUF | NO | 89 | 14 |  | BUF | NO | 0 |
| **15** | 1 | 21 | 10 | 6.5 | SF | BUF | 89 | 15 |  | SF | BUF | 0 |
| **16** | 0 | 37 | 0 | 7.0 | BUF | NYJ | 89 | 16 | S | NYJ | BUF | 1 |
| **17** | 1 | 26 | 10 | 8.0 | BUF | IND | 90 | 1 |  | BUF | IND | 1 |
| **18** | 0 | 7 | 30 | 2.0 | BUF | MIA | 90 | 2 |  | MIA | BUF | 0 |
| **19** | 0 | 30 | 7 | 2.0 | BUF | NYJ | 90 | 3 | M | NYJ | BUF | 1 |
| **20** | 1 | 29 | 28 | 3.0 | BUF | DEN | 90 | 4 |  | BUF | DEN | 1 |
| **21** | 1 | 38 | 24 | 3.0 | BUF | LAA | 90 | 5 | N | BUF | LAA | 1 |
| **22** | 1 | 30 | 27 | 9.0 | BUF | NYJ | 90 | 7 |  | BUF | NYJ | 1 |
| **23** | 0 | 27 | 10 | 6.5 | BUF | NE | 90 | 8 |  | NE | BUF | 1 |
| **24** | 0 | 42 | 0 | 3.0 | BUF | CLE | 90 | 9 |  | CLE | BUF | 1 |
| **25** | 1 | 45 | 14 | 12.5 | BUF | PHX | 90 | 10 |  | BUF | PHX | 1 |
| **26** | 1 | 14 | 0 | 14.5 | BUF | NE | 90 | 11 |  | BUF | NE | 1 |
| **27** | 1 | 27 | 24 | 3.0 | HOU | BUF | 90 | 12 | M | HOU | BUF | 0 |
| **28** | 1 | 30 | 23 | 3.0 | BUF | PHA | 90 | 13 |  | BUF | PHA | 1 |
| **29** | 0 | 31 | 7 | 5.5 | BUF | IND | 90 | 14 |  | IND | BUF | 1 |
| **30** | 1 | 13 | 17 | 3.5 | NYG | BUF | 90 | 15 | S | NYG | BUF | 1 |
| **31** | 1 | 24 | 14 | 3.5 | BUF | MIA | 90 | 16 |  | BUF | MIA | 1 |
| **32** | 1 | 29 | 14 | 5.0 | WAS | BUF | 90 | 17 |  | WAS | BUF | 0 |
| **33** | 1 | 35 | 31 | 7.0 | BUF | MIA | 91 | 1 |  | BUF | MIA | 1 |
| **34** | 1 | 52 | 34 | 7.0 | BUF | PIT | 91 | 2 |  | BUF | PIT | 1 |
| **35** | 0 | 23 | 20 | 8.0 | BUF | NYJ | 91 | 3 |  | NYJ | BUF | 1 |
| **36** | 0 | 17 | 10 | 8.0 | BUF | TB | 91 | 4 |  | TB | BUF | 1 |
| **37** | 1 | 35 | 20 | 7.5 | BUF | CHI | 91 | 5 |  | BUF | CHI | 1 |
| **38** | 0 | 6 | 33 | 3.0 | BUF | KC | 91 | 6 | M | KC | BUF | 0 |
| **39** | 1 | 42 | 6 | 19.5 | BUF | IND | 91 | 7 |  | BUF | IND | 1 |
| **40** | 1 | 35 | 16 | 13.0 | BUF | CIN | 91 | 8 | M | BUF | CIN | 1 |
| **41** | 1 | 22 | 17 | 17.5 | BUF | NE | 91 | 10 |  | BUF | NE | 1 |
| **42** | 0 | 34 | 24 | 7.0 | BUF | GB | 91 | 11 |  | GB | BUF | 1 |
| **43** | 0 | 41 | 27 | 4.0 | BUF | MIA | 91 | 12 | M | MIA | BUF | 1 |
| **44** | 0 | 13 | 16 | 8.0 | BUF | NE | 91 | 13 |  | NE | BUF | 0 |
| **45** | 1 | 24 | 13 | 9.0 | BUF | NYJ | 91 | 14 |  | BUF | NYJ | 1 |
| **46** | 1 | 27 | 30 | 2.0 | LAA | BUF | 91 | 15 | ot | LAA | BUF | 1 |
| **47** | 0 | 35 | 7 | 12.0 | BUF | IND | 91 | 16 | N | IND | BUF | 1 |
| **48** | 1 | 14 | 17 | 6.5 | BUF | DET | 91 | 17 |  | BUF | DET | 0 |