

Program Summary - Program 1

Execution Environment

Author: u63155516
 File:
 SAS Platform: Linux LIN X64 5.14.0-284.30.1.el9_2.x86_64
 SAS Host: ODAWS01-USW2-2.ODA.SAS.COM
 SAS Version: 9.04.01M7P08062020
 SAS Locale: en_US
 Submission Time: 9/26/2024, 4:43:22 PM
 Browser Host: 130.191.100.220
 User Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36
 Application Server: ODAMID00-USW2-2.ODA.SAS.COM

Code: Program 1

```

/* Step 1: Load and Clean Data */
data WC;
length Player $ 20 Team $ 20 Pos $ 20 Club $ 20;
infile '/home/u63155516/STAT 520/players_list (1).csv' dsd truncover firstobs=2;
input
  X
  Player $
  Match_played
  Starts
  Minutes_played
  GlS
  Ast
  Shots
  Shots_on_target
  Goals_per_shot
  Goals_per_shot_on_target
  Non_penalty_goals
  Penalty_goal
  CrdY
  CrdR
  Pass_comp
  Pass_attempt
  Pass_comp_percent
  Tackles_made
  Successful_tackles
  Blocks
  Interceptions
  Clearance
  Err
  Touches
  Successful_dribbles
  Dribbles_attempted
  Successful_dribbles_percent
  Fouls_committed
  Fouls_drawn
  Offside
  Crosses
  Penalty_kick_won
  Penalty_kick_conceded
  Own_goal
  Aerial_duo_won
  Aerial_duo_lost
  Pos $
  Age
  Club_country $
  Club $
  Team $;
run;

/* Remove Unnecessary Columns */
data WC_Cleaned;
set WC (drop=X);
run;

/* Step 2: Check Data Stats */
proc means data=WC_Cleaned maxdec=3;
run;

/* Step 3: Perform PCA on Cleaned Data */

```

```

proc princomp data=WC_Cleaned out=result1;
var
    Gls
    Ast
    Shots
    Successful_dribbles
    Crosses
    Age
    Tackles_made
    Blocks
    Interceptions
    Clearence;
run;

/* Step 4: Scatter Plots for Principal Components */
ods graphics / width=10in height=10in; /* Set the size of the graph */
proc sgplot data=result1;
    scatter x=Prin1 y=Prin2 / datalabel=Player; /* Use Player labels */
    xaxis label='Principal Component 1';
    yaxis label='Principal Component 2';
run;

ods graphics / width=10in height=10in;
proc sgplot data=result1;
    scatter x=Prin2 y=Prin3 / datalabel=Player;
    xaxis label='Principal Component 2';
    yaxis label='Principal Component 3';
run;

ods graphics / width=10in height=10in;
proc sgplot data=result1;
    scatter x=Prin1 y=Prin3 / datalabel=Player;
    xaxis label='Principal Component 1';
    yaxis label='Principal Component 3';
run;

/* Step 5: Aggregate Team Data */
proc sql;
    create table Team_Aggregated as
    select
        Team,
        sum(Match_played) as Match_played,
        sum(Starts) as Starts,
        sum(Minutes_played) as Minutes_played,
        sum(Gls) as Gls,
        sum(Ast) as Ast,
        sum(Shots) as Shots,
        sum(Shots_on_target) as Shots_on_target,
        avg(Goals_per_shot) as Avg_Goals_per_shot,
        avg(Goals_per_shot_on_target) as Avg_Goals_per_shot_on_target,
        sum(Non_penalty_goals) as Non_penalty_goals,
        sum(Penalty_goal) as Penalty_goal,
        sum(CrdY) as CrdY,
        sum(CrdR) as CrdR,
        sum(Pass_comp) as Pass_comp,
        sum(Pass_attempt) as Pass_attempt,
        avg(Pass_comp_percent) as Avg_Pass_comp_percent,
        sum(Tackles_made) as Tackles_made,
        sum(Successful_tackles) as Successful_tackles,
        sum(Blocks) as Blocks,
        sum(Interceptions) as Interceptions,
        sum(Clearence) as Clearence,
        sum(Err) as Err,
        sum(Touches) as Touches,
        sum(Successful_dribbles) as Successful_dribbles,
        sum(Dribbles_attempted) as Dribbles_attempted,
        avg(Successful_dribbles_percent) as Avg_Successful_dribbles_percent,
        sum(Fouls_committed) as Fouls_committed,
        sum(Fouls_drawn) as Fouls_drawn,
        sum(Offside) as Offside,
        sum(Crosses) as Crosses,
        sum(Penalty_kick_won) as Penalty_kick_won,
        sum(Penalty_kick_conceded) as Penalty_kick_conceded,
        sum(Own_goal) as Own_goal,
        sum(Aerial_duo_won) as Aerial_duo_won,
        sum(Aerial_duo_lost) as Aerial_duo_lost,
        avg(Age) as Avg_Age
    from WC_Cleaned
    group by Team;
quit;

```

```

/* Step 6: Perform PCA on Aggregated Data */
proc princomp data=Team_Aggregated out=Team_PCA;
    var Gls Ast Shots Avg_Age Successful_dribbles Crosses Tackles_made Blocks Interceptions Clearance;
run;

/* Step 7: Scatter Plots for PCA on Aggregated Data */
proc sgplot data=Team_PCA;
    scatter x=Prin1 y=Prin2 / datalabel=Team;
    xaxis label='Principal Component 1';
    yaxis label='Principal Component 2';
run;

proc sgplot data=Team_PCA;
    scatter x=Prin2 y=Prin3 / datalabel=Team;
    xaxis label='Principal Component 2';
    yaxis label='Principal Component 3';
run;

proc sgplot data=Team_PCA;
    scatter x=Prin1 y=Prin3 / datalabel=Team;
    xaxis label='Principal Component 1';
    yaxis label='Principal Component 3';
run;

```

Log: Program 1

Notes (31)

```

1      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
NOTE: ODS statements in the SAS Studio environment may disable some output features.
69
70      /* Step 1: Load and Clean Data */
71      data WC;
72      length Player $ 20 Team $ 20 Pos $ 20 Club $ 20;
73      infile '/home/u63155516/STAT 520/players_list (1).csv' dsd truncover firstobs=2;
74      input
75      X
76      Player $
77      Match_played
78      Starts
79      Minutes_played
80      Gls
81      Ast
82      Shots
83      Shots_on_target
84      Goals_per_shot
85      Goals_per_shot_on_target
86      Non_penalty_goals
87      Penalty_goal
88      CrdY
89      CrdR
90      Pass_comp
91      Pass_attempt
92      Pass_comp_percent
93      Tackles_made
94      Successful_tackles
95      Blocks
96      Interceptions
97      Clearance
98      Err
99      Touches
100     Successful_dribbles
101     Dribbles_attempted
102     Successful_dribbles_percent
103     Fouls_committed
104     Fouls_drawn
105     Offside
106     Crosses
107     Penalty_kick_won
108     Penalty_kick_conceded
109     Own_goal
110     Aerial_duo_won
111     Aerial_duo_lost
112     Pos $
113     Age
114     Club_country $
115     Club $
116     Team $;
117     run;

```

NOTE: The infile '/home/u63155516/STAT 520/players_list (1).csv' is:

```

Filename=/home/u63155516/STAT 520/players_list (1).csv,
Owner Name=u63155516,Group Name=oda,
Access Permission=-rw-r--r--,
Last Modified=30Apr2024:13:11:39,
File Size (bytes)=88311

```

NOTE: 680 records were read from the infile '/home/u63155516/STAT 520/players_list (1).csv'.

```

The minimum record length was 108.
The maximum record length was 155.

```

NOTE: The data set WORK.WC has 680 observations and 42 variables.

NOTE: DATA statement used (Total process time):

```

real time      0.00 seconds
user cpu time  0.01 seconds
system cpu time 0.01 seconds
memory         1156.93k
OS Memory      28076.00k
Timestamp      09/26/2024 11:43:20 PM
Step Count     116   Switch Count  2
Page Faults    0
Page Reclaims  55
Page Swaps     0
Voluntary Context Switches 17
Involuntary Context Switches 0
Block Input Operations 0
Block Output Operations 784

```

```

118
119      /* Remove Unnecessary Columns */
120      data WC_Cleaned;
121      set WC (drop=X);
122      run;

```

NOTE: There were 680 observations read from the data set WORK.WC.

NOTE: The data set WORK.WC_CLEANED has 680 observations and 41 variables.

NOTE: DATA statement used (Total process time):

```

real time      0.00 seconds
user cpu time  0.00 seconds
system cpu time 0.00 seconds
memory         1557.71k
OS Memory      28464.00k
Timestamp      09/26/2024 11:43:20 PM
Step Count     117   Switch Count  2
Page Faults    0
Page Reclaims  121
Page Swaps     0
Voluntary Context Switches 11
Involuntary Context Switches 0
Block Input Operations 0
Block Output Operations 784

```

```

123
124      /* Step 2: Check Data Stats */
125      proc means data=WC_Cleaned maxdec=3;
126      run;

```

NOTE: There were 680 observations read from the data set WORK.WC_CLEANED.

NOTE: PROCEDURE MEANS used (Total process time):

```

real time      0.08 seconds
user cpu time  0.08 seconds
system cpu time 0.00 seconds
memory         7413.37k
OS Memory      33344.00k
Timestamp      09/26/2024 11:43:20 PM
Step Count     118   Switch Count  1
Page Faults    0
Page Reclaims  1415
Page Swaps     0
Voluntary Context Switches 23
Involuntary Context Switches 3
Block Input Operations 0
Block Output Operations 8

```

```

127
128      /* Step 3: Perform PCA on Cleaned Data */
129      proc princomp data=WC_Cleaned out=result1;
130      var
131          Gls
132          Ast
133          Shots
134          Successful_dribbles
135          Crosses
136          Age
137          Tackles_made
138          Blocks
139          Interceptions
140          Clearance;
141      run;

```

NOTE: The data set WORK.RESULT1 has 680 observations and 51 variables.

NOTE: PROCEDURE PRINCOMP used (Total process time):

real time	0.23 seconds
user cpu time	0.13 seconds
system cpu time	0.01 seconds
memory	11979.15k
OS Memory	37316.00k
Timestamp	09/26/2024 11:43:20 PM
Step Count	119 Switch Count 2
Page Faults	0
Page Reclaims	1967
Page Swaps	0
Voluntary Context Switches	177
Involuntary Context Switches	7
Block Input Operations	0
Block Output Operations	1624

```

142
143      /* Step 4: Scatter Plots for Principal Components */
144      ods graphics / width=10in height=10in; /* Set the size of the graph */
145      proc sgplot data=result1;
146          scatter x=Prin1 y=Prin2 / datalabel=Player; /* Use Player labels */
147          xaxis label='Principal Component 1';
148          yaxis label='Principal Component 2';
149      run;

```

NOTE: PROCEDURE SGPLOT used (Total process time):

real time	0.18 seconds
user cpu time	0.07 seconds
system cpu time	0.01 seconds
memory	5974.37k
OS Memory	41260.00k
Timestamp	09/26/2024 11:43:21 PM
Step Count	120 Switch Count 1
Page Faults	0
Page Reclaims	1530
Page Swaps	0
Voluntary Context Switches	2192
Involuntary Context Switches	2
Block Input Operations	0
Block Output Operations	824

NOTE: Data label collision avoidance has been disabled because the threshold has been reached. You can set LABELMAX=700 in the ODS GRAPHICS statement to restore collision avoidance.

NOTE: There were 680 observations read from the data set WORK.RESULT1.

```

150
151      ods graphics / width=10in height=10in;
152      proc sgplot data=result1;
153          scatter x=Prin2 y=Prin3 / datalabel=Player;
154          xaxis label='Principal Component 2';
155          yaxis label='Principal Component 3';
156      run;

```

NOTE: PROCEDURE SGPLOT used (Total process time):

real time	0.20 seconds
user cpu time	0.09 seconds
system cpu time	0.03 seconds
memory	12410.03k
OS Memory	54332.00k
Timestamp	09/26/2024 11:43:21 PM
Step Count	121 Switch Count 1
Page Faults	0
Page Reclaims	6856
Page Swaps	0
Voluntary Context Switches	2181
Involuntary Context Switches	2
Block Input Operations	0
Block Output Operations	1136

NOTE: Data label collision avoidance has been disabled because the threshold has been reached. You can set LABELMAX=700 in the ODS GRAPHICS statement to restore collision avoidance.

NOTE: There were 680 observations read from the data set WORK.RESULT1.

```

157
158      ods graphics / width=10in height=10in;
159      proc sgplot data=result1;
160          scatter x=Prin1 y=Prin3 / datalabel=Player;
161          xaxis label='Principal Component 1';
162          yaxis label='Principal Component 3';
163      run;

```

NOTE: PROCEDURE SGPLOT used (Total process time):

real time	0.20 seconds
user cpu time	0.09 seconds
system cpu time	0.02 seconds
memory	16814.75k
OS Memory	59716.00k
Timestamp	09/26/2024 11:43:21 PM
Step Count	122 Switch Count 1
Page Faults	0
Page Reclaims	9413

Page Swaps	0
Voluntary Context Switches	2191
Involuntary Context Switches	3
Block Input Operations	0
Block Output Operations	1272

NOTE: Data label collision avoidance has been disabled because the threshold has been reached. You can set LABELMAX=700 in the ODS GRAPHICS statement to restore collision avoidance.

NOTE: There were 680 observations read from the data set WORK.RESULT1.

```

164
165      /* Step 5: Aggregate Team Data */
166      proc sql;
167          create table Team_Aggregated as
168          select
169              Team,
170              sum(Match_played) as Match_played,
171              sum(Starts) as Starts,
172              sum(Minutes_played) as Minutes_played,
173              sum(Gls) as Gls,
174              sum(Ast) as Ast,
175              sum(Shots) as Shots,
176              sum(Shots_on_target) as Shots_on_target,
177              avg(Goals_per_shot) as Avg_Goals_per_shot,
178              avg(Goals_per_shot_on_target) as Avg_Goals_per_shot_on_target,
179              sum(Non_penalty_goals) as Non_penalty_goals,
180              sum(Penalty_goal) as Penalty_goal,
181              sum(CrdY) as CrdY,
182              sum(CrdR) as CrdR,
183              sum(Pass_comp) as Pass_comp,
184              sum(Pass_attempt) as Pass_attempt,
185              avg(Pass_comp_percent) as Avg_Pass_comp_percent,
186              sum(Tackles_made) as Tackles_made,
187              sum(Successful_tackles) as Successful_tackles,
188              sum(Blocks) as Blocks,
189              sum(Interceptions) as Interceptions,
190              sum(Clearence) as Clearence,
191              sum(Err) as Err,
192              sum(Touches) as Touches,
193              sum(Successful_dribbles) as Successful_dribbles,
194              sum(Dribbles_attempted) as Dribbles_attempted,
195              avg(Successful_dribbles_percent) as Avg_Successful_dribbles_percent,
196              sum(Fouls_committed) as Fouls_committed,
197              sum(Fouls_drawn) as Fouls_drawn,
198              sum(Offside) as Offside,
199              sum(Crosses) as Crosses,
200              sum(Penalty_kick_won) as Penalty_kick_won,
201              sum(Penalty_kick_conceded) as Penalty_kick_conceded,
202              sum(Own_goal) as Own_goal,
203              sum(Aerial_duo_won) as Aerial_duo_won,
204              sum(Aerial_duo_lost) as Aerial_duo_lost,
205              avg(Age) as Avg_Age
206          from WC_Cleaned
207          group by Team;

```

NOTE: Table WORK.TEAM_AGGREGATED created, with 32 rows and 37 columns.

```

208      quit;

```

NOTE: PROCEDURE SQL used (Total process time):

real time	0.00 seconds
user cpu time	0.00 seconds
system cpu time	0.01 seconds
memory	6737.62k
OS Memory	41652.00k
Timestamp	09/26/2024 11:43:21 PM
Step Count	123
Page Faults	0
Page Reclaims	368
Page Swaps	0
Voluntary Context Switches	14
Involuntary Context Switches	0
Block Input Operations	0
Block Output Operations	280

```

209
210      /* Step 6: Perform PCA on Aggregated Data */
211      proc princomp data=Team_Aggregated out=Team_PCA;
212          var Gls Ast Shots Avg_Age Successful_dribbles Crosses Tackles_made Blocks Interceptions Clearence;
213      run;

```

NOTE: The data set WORK.TEAM_PCA has 32 observations and 47 variables.

NOTE: PROCEDURE PRINCOMP used (Total process time):

real time	0.17 seconds
user cpu time	0.11 seconds
system cpu time	0.00 seconds
memory	5263.84k
OS Memory	39252.00k
Timestamp	09/26/2024 11:43:21 PM
Step Count	124
Page Faults	0
Page Reclaims	379
Page Swaps	0

Voluntary Context Switches	168
Involuntary Context Switches	3
Block Input Operations	0
Block Output Operations	800

```

214
215      /* Step 7: Scatter Plots for PCA on Aggregated Data */
216      proc sgplot data=Team_PCA;
217          scatter x=Prin1 y=Prin2 / datalabel=Team;
218          xaxis label='Principal Component 1';
219          yaxis label='Principal Component 2';
220      run;

```

NOTE: PROCEDURE SGPLOT used (Total process time):

real time	0.12 seconds
user cpu time	0.05 seconds
system cpu time	0.01 seconds
memory	3472.96k
OS Memory	38732.00k
Timestamp	09/26/2024 11:43:21 PM
Step Count	125 Switch Count 1
Page Faults	0
Page Reclaims	239
Page Swaps	0
Voluntary Context Switches	244
Involuntary Context Switches	1
Block Input Operations	0
Block Output Operations	464

NOTE: There were 32 observations read from the data set WORK.TEAM_PCA.

```

221
222      proc sgplot data=Team_PCA;
223          scatter x=Prin2 y=Prin3 / datalabel=Team;
224          xaxis label='Principal Component 2';
225          yaxis label='Principal Component 3';
226      run;

```

NOTE: PROCEDURE SGPLOT used (Total process time):

real time	0.10 seconds
user cpu time	0.06 seconds
system cpu time	0.00 seconds
memory	3826.84k
OS Memory	38476.00k
Timestamp	09/26/2024 11:43:21 PM
Step Count	126 Switch Count 1
Page Faults	0
Page Reclaims	237
Page Swaps	0
Voluntary Context Switches	246
Involuntary Context Switches	3
Block Input Operations	0
Block Output Operations	456

NOTE: There were 32 observations read from the data set WORK.TEAM_PCA.

```

227
228      proc sgplot data=Team_PCA;
229          scatter x=Prin1 y=Prin3 / datalabel=Team;
230          xaxis label='Principal Component 1';
231          yaxis label='Principal Component 3';
232      run;

```

NOTE: PROCEDURE SGPLOT used (Total process time):

real time	0.10 seconds
user cpu time	0.05 seconds
system cpu time	0.00 seconds
memory	3825.90k
OS Memory	38476.00k
Timestamp	09/26/2024 11:43:21 PM
Step Count	127 Switch Count 1
Page Faults	0
Page Reclaims	229
Page Swaps	0
Voluntary Context Switches	238
Involuntary Context Switches	7
Block Input Operations	0
Block Output Operations	456

NOTE: There were 32 observations read from the data set WORK.TEAM_PCA.

```

233
234
235      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
245

```

Results: Program 1

Program Summary - Program 1

Variable	N	Mean	Std Dev	Minimum	Maximum
Match_played	680	2.934	1.521	1.000	7.000
Starts	680	2.071	1.754	0.000	7.000
Minutes_played	680	191.194	147.775	1.000	690.000
Gls	680	0.250	0.699	0.000	8.000
Ast	680	0.178	0.488	0.000	3.000
Shots	680	2.107	3.032	0.000	29.000
Shots_on_target	680	0.706	1.338	0.000	13.000
Goals_per_shot	680	0.062	0.178	0.000	1.000
Goals_per_shot_on_target	680	0.110	0.275	0.000	1.000
Non_penalty_goals	680	0.225	0.600	0.000	6.000
Penalty_goal	680	0.025	0.212	0.000	4.000
CrdY	680	0.332	0.585	0.000	3.000
CrdR	680	0.006	0.077	0.000	1.000
Pass_comp	680	82.104	89.998	0.000	642.000
Pass_attempt	680	101.184	102.468	0.000	689.000
Pass_comp_percent	680	76.181	14.536	0.000	100.000
Tackles_made	680	3.041	3.550	0.000	26.000
Successful_tackles	680	1.763	2.326	0.000	17.000
Blocks	680	2.109	2.373	0.000	13.000
Interceptions	680	1.569	2.082	0.000	14.000
Clearance	680	3.534	5.017	0.000	37.000
Err	680	0.062	0.270	0.000	3.000
Touches	680	121.559	114.634	0.000	711.000
Successful_dribbles	680	1.085	2.200	0.000	25.000
Dribbles_attempted	680	2.906	4.896	0.000	52.000
Successful_dribbles_percent	680	24.631	33.691	0.000	100.000
Fouls_committed	680	2.351	2.614	0.000	17.000
Fouls_drawn	680	2.238	2.891	0.000	22.000
Offside	680	0.374	0.864	0.000	7.000
Crosses	680	3.201	5.563	0.000	40.000
Penalty_kick_won	680	0.028	0.165	0.000	1.000
Penalty_kick_conceded	680	0.034	0.181	0.000	1.000
Own_goal	680	0.003	0.054	0.000	1.000
Aerial_duo_won	680	2.543	3.336	0.000	21.000
Aerial_duo_lost	680	2.540	2.903	0.000	17.000
Age	680	26.587	4.161	17.000	39.000

The PRINCOMP Procedure

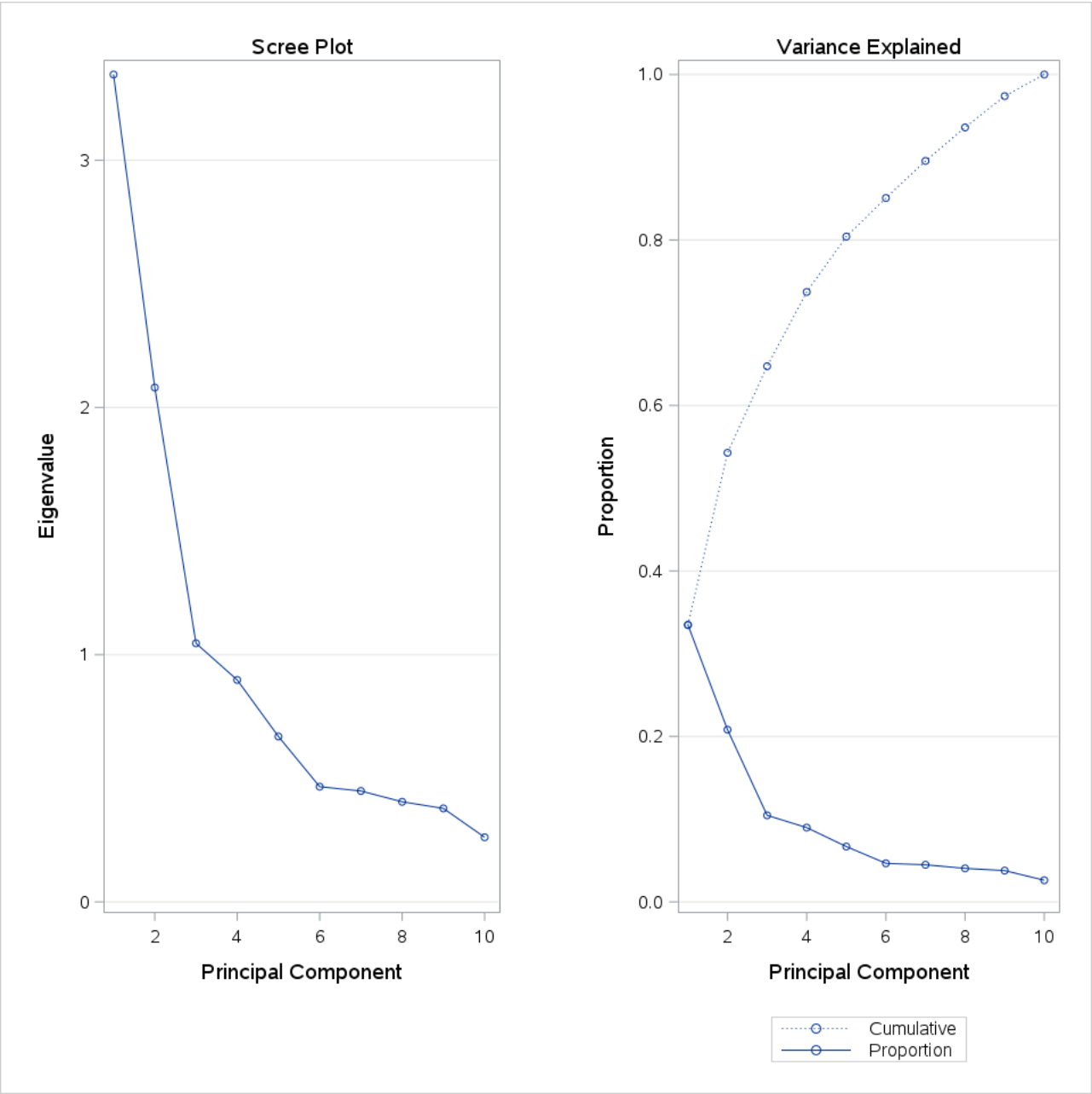
Observations	680
Variables	10

Simple Statistics										
	Gls	Ast	Shots	Successful_dribbles	Crosses	Age	Tackles_made	Blocks	Interceptions	Clearance
Mean	0.250000000	0.1779411765	2.107352941	1.085294118	3.201470588	26.58676471	3.041176471	2.108823529	1.569117647	3.533823529
Std	0.6987259603	0.4876518194	3.031781396	2.200231927	5.562789074	4.16112893	3.550362893	2.373127371	2.081813908	5.017380992

Correlation Matrix										
	Gls	Ast	Shots	Successful_dribbles	Crosses	Age	Tackles_made	Blocks	Interceptions	Clearance
Gls	1.0000	0.3144	0.6923	0.4143	0.2075	0.0052	0.0427	0.1399	-.0109	-.0192
Ast	0.3144	1.0000	0.4134	0.3386	0.4455	0.0370	0.2127	0.2339	0.1728	0.0815
Shots	0.6923	0.4134	1.0000	0.5727	0.3887	0.0020	0.1861	0.2723	0.1053	-.0128
Successful_dribbles	0.4143	0.3386	0.5727	1.0000	0.4431	-.0687	0.2575	0.2535	0.1376	-.0376
Crosses	0.2075	0.4455	0.3887	0.4431	1.0000	0.0165	0.3328	0.3106	0.2134	0.0263
Age	0.0052	0.0370	0.0020	-.0687	0.0165	1.0000	-.0357	-.0539	0.0236	0.0960
Tackles_made	0.0427	0.2127	0.1861	0.2575	0.3328	-.0357	1.0000	0.5910	0.5942	0.4311
Blocks	0.1399	0.2339	0.2723	0.2535	0.3106	-.0539	0.5910	1.0000	0.5574	0.4622
Interceptions	-.0109	0.1728	0.1053	0.1376	0.2134	0.0236	0.5942	0.5574	1.0000	0.5191
Clearance	-.0192	0.0815	-.0128	-.0376	0.0263	0.0960	0.4311	0.4622	0.5191	1.0000

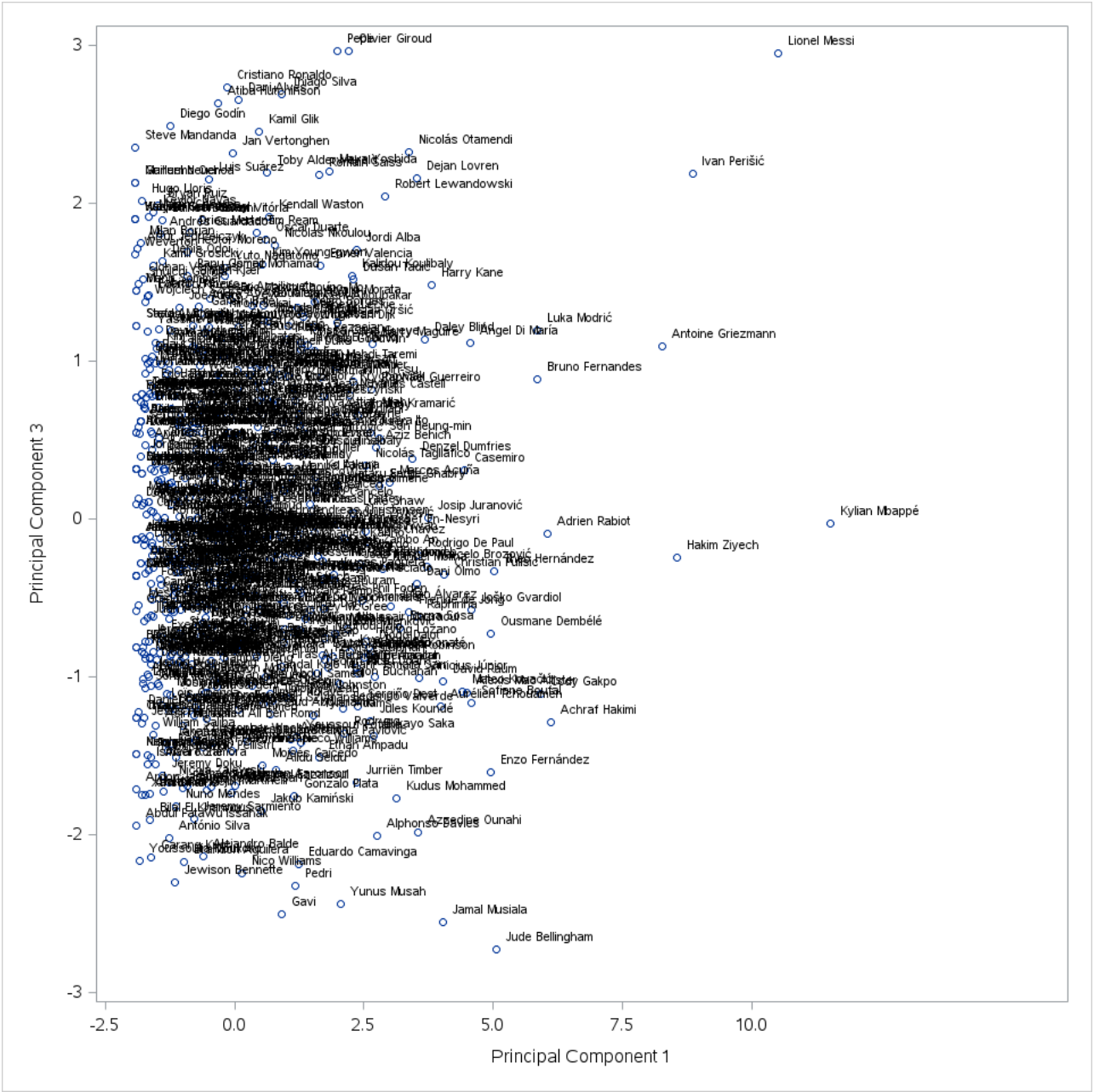
Eigenvalues of the Correlation Matrix				
	Eigenvalue	Difference	Proportion	Cumulative
1	3.34707787	1.26623703	0.3347	0.3347
2	2.08084084	1.03480316	0.2081	0.5428
3	1.04603768	0.14824312	0.1046	0.6474
4	0.89779457	0.22878303	0.0898	0.7372
5	0.66901154	0.20292681	0.0669	0.8041
6	0.46608474	0.01753951	0.0466	0.8507
7	0.44854523	0.04364361	0.0449	0.8955
8	0.40490161	0.02668433	0.0405	0.9360
9	0.37821728	0.11672864	0.0378	0.9739
10	0.26148864		0.0261	1.0000

	Eigenvectors									
	Prin1	Prin2	Prin3	Prin4	Prin5	Prin6	Prin7	Prin8	Prin9	Prin10
Gls	0.270142	-.402143	0.113846	0.535813	-.114738	-.233030	-.053387	0.232900	0.112393	0.572761
Ast	0.321391	-.189834	0.144400	-.362128	-.745251	0.273169	-.201570	-.186164	0.046501	0.034830
Shots	0.366982	-.378729	0.056503	0.291279	0.051834	-.107635	-.080964	0.061285	-.048690	-.779037
Successful_dribbles	0.347927	-.296664	-.138654	-.052244	0.452952	0.649465	0.244596	-.211169	-.068954	0.181213
Crosses	0.347910	-.142465	-.017343	-.607604	0.123422	-.458020	0.390661	0.320912	-.065894	0.064968
Age	-.003990	0.031939	0.939967	-.105216	0.282715	0.004143	-.100671	-.115345	0.005129	0.030735
Tackles_made	0.372440	0.321602	-.116618	-.079958	0.216236	-.008873	-.333293	0.049771	0.759810	-.012576
Blocks	0.389655	0.277939	-.103234	0.110653	0.053698	-.395700	-.066604	-.687055	-.315083	0.113130
Interceptions	0.326922	0.407826	0.005417	0.037852	0.038253	0.220826	-.358341	0.516414	-.526498	0.053093
Clearance	0.222538	0.449981	0.188798	0.306385	-.278063	0.149886	0.695311	0.072518	0.141150	-.100267









The PRINCOMP Procedure

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Simple Statistics										
	Gls	Ast	Shots	Avg_Age	Successful_dribbles	Crosses	Tackles_made	Blocks	Interceptions	Clearence
Mean	5.312500000	3.781250000	44.78125000	26.57439738	23.06250000	68.03125000	64.62500000	44.81250000	33.34375000	75.09375000
Std	4.130433860	3.220242177	22.56422286	0.96786566	13.67818489	27.97520143	28.94906539	17.09260829	14.18451990	31.59456811

Correlation Matrix										
	Gls	Ast	Shots	Avg_Age	Successful_dribbles	Crosses	Tackles_made	Blocks	Interceptions	Clearence
Gls	1.0000	0.9439	0.7920	-.2416	0.6905	0.6546	0.6927	0.5761	0.6434	0.2858
Ast	0.9439	1.0000	0.7731	-.2099	0.6682	0.7227	0.6669	0.5613	0.6415	0.2428
Shots	0.7920	0.7731	1.0000	-.0367	0.7854	0.8533	0.7476	0.6565	0.6101	0.3021
Avg_Age	-.2416	-.2099	-.0367	1.0000	-.2131	-.1311	-.0271	-.0697	-.0364	-.0533
Successful_dribbles	0.6905	0.6682	0.7854	-.2131	1.0000	0.6847	0.7878	0.6208	0.6900	0.4504
Crosses	0.6546	0.7227	0.8533	-.1311	0.6847	1.0000	0.6983	0.5518	0.5575	0.3230
Tackles_made	0.6927	0.6669	0.7476	-.0271	0.7878	0.6983	1.0000	0.8887	0.8740	0.7383
Blocks	0.5761	0.5613	0.6565	-.0697	0.6208	0.5518	0.8887	1.0000	0.7821	0.7674
Interceptions	0.6434	0.6415	0.6101	-.0364	0.6900	0.5575	0.8740	0.7821	1.0000	0.6973
Clearence	0.2858	0.2428	0.3021	-.0533	0.4504	0.3230	0.7383	0.7674	0.6973	1.0000

Eigenvalues of the Correlation Matrix			
Eigenvalue	Difference	Proportion	Cumulative

Eigenvalues of the Correlation Matrix				
	Eigenvalue	Difference	Proportion	Cumulative
1	6.32772057	4.94834578	0.6328	0.6328
2	1.37937479	0.40255502	0.1379	0.7707
3	0.97681977	0.50929756	0.0977	0.8684
4	0.46752221	0.15235202	0.0468	0.9151
5	0.31517019	0.09468466	0.0315	0.9467
6	0.22048553	0.06785040	0.0220	0.9687
7	0.15263512	0.06785459	0.0153	0.9840
8	0.08478054	0.02558620	0.0085	0.9925
9	0.05919434	0.04289740	0.0059	0.9984
10	0.01629694		0.0016	1.0000

Eigenvectors										
	Prin1	Prin2	Prin3	Prin4	Prin5	Prin6	Prin7	Prin8	Prin9	Prin10
Gls	0.336864	-.316203	0.020174	0.482418	-.016493	-.135392	0.304576	-.249837	-.343549	0.511459
Ast	0.333659	-.341613	0.073402	0.437601	-.143020	0.129547	0.150111	0.389065	0.416262	-.436662
Shots	0.347740	-.215439	0.268127	-.277880	-.065394	-.340489	-.100799	-.624931	0.078232	-.395632
Avg_Age	-.063456	0.359057	0.895385	0.125036	0.075994	0.003756	0.151448	0.076918	0.064287	0.104535
Successful_dribbles	0.340321	-.090409	-.043044	-.327044	0.773557	-.122073	0.177971	0.224744	0.209263	0.167124
Crosses	0.322196	-.223609	0.169828	-.540788	-.427324	0.466362	0.019615	0.154895	-.014964	0.316535
Tackles_made	0.373655	0.226438	0.016544	-.037183	0.046675	-.021636	-.051501	0.320667	-.741494	-.386667
Blocks	0.336366	0.320025	-.093311	0.030625	-.316543	-.568098	-.363627	0.264984	0.243611	0.300125
Interceptions	0.341899	0.252882	-.037915	0.281420	0.245287	0.526343	-.546334	-.293258	0.109285	0.069952
Clearance	0.246903	0.576338	-.281932	-.044711	-.160253	0.127684	0.621439	-.237084	0.182565	-.087630

