

Df last meeting:

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In [166]: df.head(45)
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Out[166]:
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	Date	TEAM	Hi Pass Player	Hi Pass Yards	Hi Rush Player	Hi Rush Yards	Hi REC Player	Hi REC Yards	Opponent Ranking	Opposing Team	W-L	Total Season Wins	Total Season Losses	Total Conf Season Wins	Total Conf Season Losses	Score1	Score2	H T
0	2021-09-04	Alabama	Young	344	Robinson	60	Williams	126	14	Miami	W	1	0	0	0	44	13	A
1	2021-09-11	Alabama	Young	227	Robinson	70	Earle	85		Mercer	W	2	0	0	0	48	14	A
2	2021-09-18	Alabama	Young	240	Robinson	78	Williams	61	11	Florida	W	3	0	1	0	31	29	F
3	2021-09-25	Alabama	Young	313	Williams	110	Billingsley	105		Southern Miss	W	4	0	1	0	63	14	A
4	2021-10-02	Alabama	Young	241	Robinson	171	Williams	65	12	Ole Miss	W	5	0	2	0	42	21	A
5	2021-10-09	Alabama	Young	369	Robinson	147	Williams	146		Texas A&M	L	5	1	2	1	41	38	T A

- Had duplicate games (1 from each team's perspective)
- Had non-conference game data (where 1 of the teams in SEC and 1 not in SEC)

Df now:

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: df3
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	Date	Home Team	Away Team	Home Score	Away Score	Home Team Ranking_x	Away Hi Pass Player_x	Away Hi Pass Yards_x	Away Hi Rush Player_x	Away Hi Rush Yards_x	Away Hi REC Player_x	Away Hi REC Yards_x	Away Team Ranking_y	Home Hi Pass Player_y	Home Hi Pass Yards_y	Home Hi Rush Player_y	Home Hi Rush Yards_y	Home Hi REC Player_y	Home Hi REC Yards_y
0	2021-09-18	Florida	Alabama	29	31	11	Young	240	Robinson	78	Williams	61	1	Jones	195	Davis	86	Zipperer	51
1	2021-10-09	Texas A&M	Alabama	41	38		Young	369	Robinson	147	Williams	146	1	Calzada	285	Spiller	46	Smith	85
2	2021-10-02	Georgia	Arkansas	37	0	2	Jefferson	65	Green	28	Sanders	22	8	Bennett	72	Cook	87	McIntosh	27
3	2021-10-09	Ole Miss	Arkansas	52	51	17	Jefferson	326	Sanders	139	Burks	136	13	Corral	287	Parrish	111	Sanders	127
4	2021-10-02	LSU	Auburn	19	24		Nix	255	Nix	74	Shenker	102	22	Johnson	325	Kiner	22	Boutte	127
...
836	2005-11-19	Tennessee	Vanderbilt	24	28		Cutler	315	Jackson-Garrison	60	Bennett	167	NaN	NaN	NaN	NaN	NaN	NaN	NaN
837	2004-09-18	Ole Miss	Vanderbilt	26	23		Cutler	131	McKenzie	99	Davis	66		Flatt	187	Pearson	111	Flowers	75
838	2004-10-16	Georgia	Vanderbilt	33	3	12	Cutler	133	Jackson-Garrison	37	Davis	45		Greene	191	Ware	127	Brown	86
839	2004-10-30	LSU	Vanderbilt	24	7	19	Cutler	111	McKenzie	56	White	72		Randall	78	Broussard	80	Davis	47
840	2004-11-13	Kentucky	Vanderbilt	14	13		NaN	nan	NaN	NaN	NaN	NaN		NaN	nan	NaN	NaN	NaN	NaN

- Removed games where both teams were not in the SEC
- Created Home Score and Away Score
- Separated stats by Home team and away team
- Created 3 dataframes from df:
 - Away for past games (W-L not null) and contains away stats
 - Home for past games and contains home stats
 - Upcoming for games that haven't

New problem -joining main df with other tables

Example: ESPN (next page) needs to merge with upcoming games, since it's only relevant to the next weeks games. To do so, needed to first get the Upcoming games df with one game per row like main df (above)

Upcoming games df

	Date	Home Team	Away Team	Home Score	Away Score	Home Team Ranking	Away Team Ranking	Home Hi Pass Player	Home Hi Pass Yards	Home Hi Rush Player	Home Hi Rush Yards	Home Hi REC Player	Home Hi REC Yards	Away Hi Pass Player	Away Hi Pass Yards	Away Hi Rush Player	Away Hi Rush Yards	Away Hi REC Player	Away Hi REC Yards	Remove/Keep	Home/Away df	Away Rank	Home Rank
6	2021-10-16	Mississippi State	Alabama		None											NaN	NaN	NaN	NaN	Keep	Upcoming game	No	No
7	2021-10-23	Alabama	Tennessee		None					NaN	NaN	NaN	NaN							Keep	Upcoming game	No	No
8	2021-11-06	Alabama	LSU		None					NaN	NaN	NaN	NaN							Keep	Upcoming game	No	No
10	2021-11-20	Alabama	Arkansas		None		13			NaN	NaN	NaN	NaN							Keep	Upcoming game	Yes	No
11	2021-11-27	Auburn	Alabama		None	18										NaN	NaN	NaN	NaN	Keep	Upcoming game	No	Yes

Home Ranked df

Away Hi REC Yards	Remove/Keep	Home/Away df	Away Rank	Home Rank
NaN	Keep	Upcoming game	No	Yes
NaN	Keep	Upcoming game	No	Yes
NaN	Keep	Upcoming game	No	Yes
NaN	Keep	Upcoming game	No	Yes
NaN	Keep	Upcoming game	No	Yes
NaN	Keep	Upcoming game	No	Yes
...	...	Upcoming

Away Ranked df

Remove/Keep	Home/Away df	Away Rank	Home Rank
Keep	Upcoming game	Yes	No
Keep	Upcoming game	Yes	No
Keep	Upcoming game	Yes	No
Keep	Upcoming game	Yes	No
Keep	Upcoming game	Yes	No
Keep	Upcoming game	Yes	No
Keep	Upcoming game	Yes	No

No Teams Ranked df

Remove/Keep	Home/Away df	Away Rank	Home Rank
Keep	Upcoming game	No	No
Keep	Upcoming game	No	No
Keep	Upcoming game	No	No
Keep	Upcoming game	No	No
Keep	Upcoming game	No	No
Keep	Upcoming game	No	No
Keep	Upcoming game	No	No

Upcoming_Ranked_Teams_df

	Date	Home Team	Away Team	Home Score	Away Score	Away Team Ranking	Home Hi Pass Player	Home Hi Pass Yards	Home Hi Rush Player	Home Hi Rush Yards	Home Hi REC Player	Home Hi REC Yards	Away Hi Pass Player	Away Hi Pass Yards	Away Hi Rush Player	Away Hi Rush Yards	Away Hi REC Player	Away Hi REC Yards	Home Team Ranking_y
0	2021-11-20	Alabama	Arkansas		None	13			NaN	NaN	NaN	NaN							1
1	2021-10-16	Arkansas	Auburn		None	18			NaN	NaN	NaN	NaN							13
2	2021-10-30	Auburn	Ole Miss		None	17			NaN	NaN	NaN	NaN							18
3	2021-11-27	Auburn	Alabama		None	1			NaN	NaN	NaN	NaN							18
4	2021-10-16	Georgia	Kentucky		None	16			NaN	NaN	NaN	NaN							2

- Removed duplicate games
- Split into 3 dataframes:
 - No Ranked Teams
 - Away Team Ranked
 - Home Team Ranked
- Merged Away and Home dfs

Problem is the merged data only includes teams that are both ranked doesn't include games where both teams don't have any team ranked

ESPN Before

	TEAM	Spread	LINE	ML	FPI	Game	REC-W	ATS-W	ATS-L	ATS-T	REC-L
0	Auburn	3.5	53.0	155	0.400	1	4	3	3	0	2
1	Arkansas	-3.5	53.0	-180	0.600	1	4	5	1	0	2
2	Florida	-10.0	59.0	-400	0.730	2	4	3	3	0	2
3	LSU	10.0	59.0	310	0.270	2	3	2	4	0	3
4	Texas A&M	-8.5	60.5	-330	0.771	3	4	3	3	0	2
5	Missouri	8.5	60.5	260	0.229	3	3	0	6	0	3
6	Kentucky	23.5	44.5	1100	0.046	4	6	5	1	0	0
7	Georgia	-23.5	44.5	-2400	0.954	4	6	5	1	0	0
8	Vanderbilt	18.5	51.0	700	0.074	5	2	1	5	0	4
9	South Carolina	-18.5	51.0	-1100	0.926	5	3	4	2	0	3
10	Alabama	-17.0	57.5	-900	0.820	6	5	3	2	0	1
11	Mississippi State	17.0	57.5	600	0.180	6	3	2	3	0	2
12	Ole Miss	-3.0	81.0	-150	0.462	7	4	2	2	1	1
13	Tennessee	3.0	81.0	130	0.538	7	4	3	3	0	2

ESPN Now

TEAM_x	Spread_x	LINE_x	ML_x	FPI_x	Game	REC-W_x	ATS-W_x	ATS-L_x	ATS-T_x	REC-L_x	TEAM_y	Spread_y	LINE_y	ML_y	FPI_y	REC-W_y	ATS-W_y	ATS-L_y	ATS-T_y	REC-L_y
Auburn	3.5	53.0	155	0.400	1	4	3	3	0	2	Arkansas	-3.5	53.0	-180.0	0.600	4	5	1	0	2
Florida	-10.0	59.0	-400	0.730	2	4	3	3	0	2	LSU	10.0	59.0	310.0	0.270	3	2	4	0	3
Texas A&M	-8.5	60.5	-330	0.771	3	4	3	3	0	2	Missouri	8.5	60.5	260.0	0.229	3	0	6	0	3
Kentucky	23.5	44.5	1100	0.046	4	6	5	1	0	0	Georgia	-23.5	44.5	-2400.0	0.954	6	5	1	0	0
Vanderbilt	18.5	51.0	700	0.074	5	2	1	5	0	4	South Carolina	-18.5	51.0	-1100.0	0.926	3	4	2	0	3
Alabama	-17.0	57.5	-900	0.820	6	5	3	2	0	1	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Ole Miss	-3.0	81.0	-150	0.462	7	4	2	2	1	1	Tennessee	3.0	81.0	130.0	0.538	4	3	3	0	2

Other upcoming datasets to merge

SECOR

	Team	Score	FD	RA	RY	PA	PY	TY	Time	PEN	penalty_yards	Penalty Yards Rank	YP	YR	Y/PL	TO
3	Alabama	45.00	23.86	36.71	166.43	33.29	315.14	481.57	32:10	7.71	72.14	115	13.70	4.53	6.88	0.71
4	Mississippi	43.67	28.33	48.33	262.83	32.17	290.17	553.00	27:44	10.17	88.33	129	13.93	5.44	6.87	0.67
10	Tennessee	39.29	26.00	48.43	248.43	27.29	224.00	472.43	26:08	5.86	56.71	69	13.18	5.13	6.24	1.00
14	Georgia	38.43	22.43	40.00	192.71	23.86	237.43	430.14	30:58	5.57	44.14	27	14.33	4.82	6.74	1.00
25	Auburn	35.43	22.00	34.14	196.00	35.00	251.86	447.86	28:27	5.86	47.14	41	12.16	5.74	6.48	0.71
26	Florida	34.43	24.14	40.14	256.29	30.71	245.43	501.71	31:13	7.00	63.29	97	12.18	6.38	7.08	1.86
27	Missouri	34.43	22.86	30.86	160.57	40.57	286.57	447.14	29:13	6.86	62.43	93	10.56	5.20	6.26	1.00
37	Louisiana State	32.43	20.29	31.00	117.57	36.71	272.71	390.29	28:27	4.29	33.14	4	12.48	3.79	5.76	0.71
46	Arkansas	31.00	23.43	47.00	243.00	24.29	216.71	459.71	29:59	8.14	68.86	112	14.45	5.17	6.45	0.71
67	Kentucky	28.43	20.71	37.00	189.29	26.29	196.86	386.14	31:44	4.57	37.00	8	11.20	5.12	6.10	1.71
76	Texas A&M	27.57	21.14	32.71	173.43	31.29	211.00	384.43	29:38	7.00	58.29	79	11.82	5.30	6.01	1.57
95	Mississippi State	24.67	24.00	18.67	46.67	56.50	360.33	407.00	33:52	8.00	57.33	72	8.65	2.50	5.41	1.67
109	South Carolina	21.86	17.57	35.14	127.57	29.86	222.86	350.43	30:43	7.86	62.43	94	12.48	3.63	5.39	2.00
127	Vanderbilt	14.29	18.57	34.86	112.29	35.71	198.14	310.43	30:25	5.57	48.14	47	10.20	3.22	4.40	1.86

SECODDS.head()

	Date	Away Team	Away Team Score	Home Team	Home Team Score	Result	Home Team Spread	ATS	Total	OU	Away Team Spread
0	2020-12-12	Alabama	52	Arkansas	3	W	28.5	W	69.5	U	-28.5
1	2019-10-26	Arkansas	7	Alabama	48	W	-32.0	W	56.0	U	32.0
2	2018-10-06	Alabama	65	Arkansas	31	W	35.0	L	58.5	O	-35.0
3	2017-10-14	Arkansas	9	Alabama	41	W	-37.0	L	54.5	U	37.0
4	2016-10-08	Alabama	49	Arkansas	30	W	14.5	W	48.5	O	-14.5

SECOR

	Team	Avg Score	FD	RA	RY	PA	PY	TY	PEN	penalty_yards	Penalty Yards Rank	YP	YR	Y/PL	TO	Avg Possession Minutes
3	Alabama	45.00	23.86	36.71	166.43	33.29	315.14	481.57	7.71	72.14	115	13.70	4.53	6.88	0.71	32.166667
4	Ole Miss	43.67	28.33	48.33	262.83	32.17	290.17	553.00	10.17	88.33	129	13.93	5.44	6.87	0.67	27.733333
10	Tennessee	39.29	26.00	48.43	248.43	27.29	224.00	472.43	5.86	56.71	69	13.18	5.13	6.24	1.00	26.133333
14	Georgia	38.43	22.43	40.00	192.71	23.86	237.43	430.14	5.57	44.14	27	14.33	4.82	6.74	1.00	30.966667
25	Auburn	35.43	22.00	34.14	196.00	35.00	251.86	447.86	5.86	47.14	41	12.16	5.74	6.48	0.71	28.450000
26	Florida	34.43	24.14	40.14	256.29	30.71	245.43	501.71	7.00	63.29	97	12.18	6.38	7.08	1.86	31.216667
27	Missouri	34.43	22.86	30.86	160.57	40.57	286.57	447.14	6.86	62.43	93	10.56	5.20	6.26	1.00	29.216667
37	LSU	32.43	20.29	31.00	117.57	36.71	272.71	390.29	4.29	33.14	4	12.48	3.79	5.76	0.71	28.450000
46	Arkansas	31.00	23.43	47.00	243.00	24.29	216.71	459.71	8.14	68.86	112	14.45	5.17	6.45	0.71	29.983333
67	Kentucky	28.43	20.71	37.00	189.29	26.29	196.86	386.14	4.57	37.00	8	11.20	5.12	6.10	1.71	31.733333
76	Texas A&M	27.57	21.14	32.71	173.43	31.29	211.00	384.43	7.00	58.29	79	11.82	5.30	6.01	1.57	29.633333
95	Mississippi State	24.67	24.00	18.67	46.67	56.50	360.33	407.00	8.00	57.33	72	8.65	2.50	5.41	1.67	33.866667
109	South Carolina	21.86	17.57	35.14	127.57	29.86	222.86	350.43	7.86	62.43	94	12.48	3.63	5.39	2.00	30.716667
127	Vanderbilt	14.29	18.57	34.86	112.29	35.71	198.14	310.43	5.57	48.14	47	10.20	3.22	4.40	1.86	30.416667

SECDR

	Team	Avg Score-D	FD-D	RA-D	RY-D	PA-D	PY-D	TY-D	PEN-D	penalty_yards-D	Penalty Yards Rank-D	YP-D	YR-D	Y/PL-D	TO-D	Avg Possession Minutes-D
0	Georgia	6.57	12.29	29.43	64.29	28.86	144.86	209.14	7.43	55.14	62	9.05	2.18	3.59	1.43	28.766667
13	Texas A&M	16.43	19.14	35.57	137.71	35.29	212.14	349.86	6.57	51.86	83	9.97	3.87	4.94	1.14	30.133333
23	Kentucky	19.29	18.29	31.71	119.14	31.71	201.71	320.86	6.29	50.00	90	9.87	3.76	5.06	0.57	28.200000
31	Auburn	19.71	19.29	39.00	124.29	30.71	217.71	342.00	4.71	36.57	123	10.66	3.19	4.91	0.86	31.533333
34	Alabama	20.14	19.14	31.86	92.29	30.71	208.14	300.43	6.57	52.43	78	10.56	2.90	4.80	1.71	27.800000
41	Florida	21.14	19.43	35.86	138.86	30.86	196.57	335.43	5.86	46.86	101	11.66	3.87	5.03	0.86	28.766667
44	South Carolina	21.71	18.57	36.43	152.00	26.43	174.00	326.00	3.71	28.43	130	10.78	4.17	5.19	2.29	29.183333
52	Tennessee	22.86	20.29	38.43	136.00	36.57	232.00	368.00	8.57	74.29	6	10.28	3.54	4.91	1.43	33.850000
75	Arkansas	26.43	17.71	39.71	174.86	25.71	175.43	350.29	7.57	52.71	75	11.70	4.40	5.35	1.00	29.916667
84	LSU	28.43	21.29	36.43	151.86	34.57	247.86	399.71	3.71	31.86	128	11.41	4.17	5.63	1.43	31.533333
89	Mississippi State	29.00	15.67	29.17	106.67	31.83	248.83	355.50	6.33	50.17	88	12.87	3.66	5.83	1.33	25.833333
94	Ole Miss	30.17	26.17	45.50	198.33	31.67	239.67	438.00	6.33	53.83	69	11.98	4.36	5.68	1.50	32.250000
112	Vanderbilt	34.00	20.14	35.43	188.71	31.86	261.14	449.86	8.57	73.14	10	13.34	5.33	6.69	1.43	28.850000
123	Missouri	37.14	25.71	46.57	287.43	25.57	201.71	489.14	4.57	42.29	111	13.58	6.17	6.78	1.43	30.766667

SECTS

	Year	Team	Total Points Per Game	Total Points	Total Touchdowns	Total 1st downs	Rushing 1st downs	Passing 1st downs	1st downs by penalty	3rd down %	4th down %	Net Passing Yards	Yards Per Pass Attempt	Net Passing Yards Per Game	Passing Touchdowns	Interceptions
0	2021	Alabama	44.3	266.0	34.0	145.0	48.0	84.0	13.0	51.19	77.78	1865.0	9.1	310.8	21.0	3.0
1	2020	Alabama	48.5	630.0	84.0	365.0	132.0	210.0	23.0	58.90	55.56	4656.0	10.0	358.2	42.0	4.0
2	2019	Alabama	47.2	614.0	83.0	318.0	126.0	168.0	24.0	52.29	68.42	4449.0	11.0	342.2	49.0	6.0
3	2018	Alabama	55.7	836.0	92.0	371.0	155.0	195.0	21.0	52.12	46.67	4854.0	11.1	323.6	52.0	8.0
4	2017	Alabama	37.1	519.0	66.0	311.0	174.0	119.0	18.0	40.68	83.33	2708.0	8.2	193.4	28.0	3.0
...
247	2008	Vanderbilt	18.7	243.0	29.0	193.0	93.0	72.0	28.0	31.52	50.00	1781.0	5.0	137.0	14.0	12.0
248	2007	Vanderbilt	20.7	248.0	30.0	229.0	102.0	99.0	28.0	39.67	57.14	2226.0	6.0	185.5	17.0	12.0
249	2006	Vanderbilt	21.5	258.0	34.0	212.0	94.0	101.0	17.0	32.89	55.00	2526.0	7.2	210.5	16.0	14.0
250	2005	Vanderbilt	28.1	309.0	39.0	257.0	82.0	149.0	0.0	44.05	50.00	3288.0	6.6	298.9	21.0	9.0
251	2004	Vanderbilt	18.0	198.0	26.0	209.0	99.0	95.0	0.0	38.67	30.77	2286.0	7.2	207.8	10.0	5.0