

# Project4

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```
myDF <- read.delim("/data/public/election2016/itcont.txt", sep="|", header=F)
```

## Question 1

The average donations were the largest on September 16, 2014.

```
sort(tapply(myDF$V15, myDF$V14, mean))
```

```
##      6212012      10142014      5022160      6302106      5282018      5212106
##      0.00000      11.00000      20.00000      20.00000      23.00000      25.00000
##      8292016      7022016      4263016      6019206      6032160      8302016
##      25.00000      27.85250      35.00000      35.00000      42.50000      44.54024
##      6281016      6303016      11262015      7042016      8052025      5292016
##      50.00000      50.00000      55.29659      57.61359      60.00000      62.07491
##      7172016      4172016      12252015      5222016      5082016      5212016
##      63.23645      64.00293      65.60571      66.20839      67.50515      68.66098
##      11272015      11282015      5142016      4162016      4092016      5302016
##      68.82564      69.55341      69.82448      69.91035      69.97834      70.79904
##      4232016      7102016      7162016      8302015      5282016      6082018
##      70.80984      71.03864      71.61176      72.07610      74.85274      75.00000
##      11292015      1032015      6042016      7032015      4032016      12202015
##      75.73775      76.48920      77.51168      78.73831      78.91840      79.69406
##      7262015      4242016      5152016      8312016      10312015      1172016
##      80.51256      80.76827      81.52566      83.15241      83.53001      85.54322
##      7232016      12272015      4102016      7242016      7092016      5072016
##      86.16528      86.47930      87.35731      87.91622      88.52983      88.56354
##      6052016      9132015      1042015      7042015      11152015      7052015
##      90.55923      91.51437      92.23695      92.56945      93.03699      95.46578
##      7032016      7302016      8152015      4302016      2282016      7252015
##      96.29045      96.70266      97.20357      97.83430      98.66412      99.44911
##      4212013      5102010      6072160      2272016      8022015      3272016
##      100.00000      100.00000      100.00000      101.03807      102.23680      103.29752
##      6192016      5032016      1162016      8282016      6182016      6112016
##      103.76375      104.28983      104.55862      105.20000      105.89729      106.49357
##      2142016      3062016      12132015      1302016      10042015      11212015
##      106.55978      106.94908      107.39762      108.39329      109.89850      110.10565
##      2202016      12052015      8072016      7312015      11132015      8292015
##      110.25915      111.85992      112.03879      112.21645      112.32514      113.34181
##      1102016      2132016      11072015      7122015      3132016      12262015
##      113.62583      114.07099      114.11450      114.78925      114.79377      115.01887
##      10032015      9072015      7192016      2212016      9202015      11202015
##      115.05797      115.60778      116.28136      116.99244      117.82358      118.81103
##      11082015      1032016      7192015      1022016      11142015      10252015
##      119.10659      119.47464      119.68097      120.94467      121.19994      121.24581
##      11222015      8222015      8162015      1232016      3052016      2072016
```

##	121.50811	121.86129	122.15714	122.18120	122.53794	122.73499
##	12192015	5012016	9052015	12242015	8232015	7212016
##	123.17386	124.13370	124.41007	125.59837	126.04845	126.06278
##	4292016	1112015	8312015	10102015	4052015	7182016
##	127.07871	128.55130	128.79063	129.02200	130.11893	130.48076
##	9062015	7012016	10182015	2062016	6122016	11302015
##	130.75994	130.89763	131.18864	131.70594	132.31603	134.00496
##	10302015	4082016	8142015	3122016	12062015	5312015
##	134.21293	134.38828	135.73393	136.13642	136.38158	136.81799
##	11012015	3262016	8092015	8252016	1242015	4062016
##	137.03455	137.52289	138.31775	138.50000	139.82572	140.40590
##	7312016	8012015	2152015	10112015	6082016	4022016
##	140.49207	140.62030	141.08604	141.43237	141.62735	142.54600
##	7222016	9262015	12122015	2222015	7102015	1252015
##	142.94783	143.45498	143.62394	144.61119	145.40924	146.11840
##	7182015	10242015	10022015	3202016	5032015	6212015
##	146.26110	146.28738	146.53016	148.50174	148.65611	148.74690
##	7052016	5272016	6302013	1242016	7272016	5202016
##	149.23741	149.25348	150.00000	150.08748	151.72728	152.38945
##	4052016	7302015	7122016	10152015	9122015	7242015
##	152.82027	153.22064	155.18828	155.78815	156.01102	157.24128
##	10172015	1012015	1172015	8132016	7152016	7112015
##	157.72669	157.95727	158.00617	158.21053	158.98307	159.13983
##	2102016	6202015	8172016	10162015	1092016	7292016
##	159.63376	160.73747	162.69942	162.70304	163.60874	164.50343
##	2152016	9272015	4262016	1282014	1182015	4152016
##	165.22332	165.98058	166.29520	166.66667	166.88977	167.40577
##	4202016	7152015	7172015	10092015	7062016	7262016
##	168.89835	172.21127	173.25680	173.61153	174.33712	174.65084
##	10232015	3192016	8132015	2292016	7022015	2012015
##	175.16784	175.81531	175.88054	176.26321	176.80801	177.31798
##	6262016	8082015	8262016	6282015	5112016	8212015
##	177.62210	178.20620	178.33333	179.19684	179.50604	180.59700
##	7082016	8282015	3312014	12152015	4072016	7282016
##	180.59827	181.14004	181.66667	181.70097	181.92715	182.10847
##	10292015	5312016	7142016	2082015	1182016	5232015
##	182.14574	182.80856	184.22454	184.81105	185.65877	187.98272
##	6142015	5252015	9042015	5062016	7072016	10122015
##	190.36347	190.98267	192.02023	193.11180	194.51952	194.82145
##	11062015	5162015	2142015	9192015	4222016	4132016
##	194.82848	194.83545	195.62079	197.13323	197.24780	199.08928
##	10082015	2102012	2122014	3052014	4222106	7072014
##	199.17240	200.00000	200.00000	200.00000	200.00000	200.00000
##	7222014	7232014	9272016	10092014	7252016	12182015
##	200.00000	200.00000	200.00000	200.00000	201.03747	201.14394
##	3152015	4182016	8052015	2022016	5102016	10142015
##	201.18525	203.26230	203.43385	204.76194	204.86210	207.91345
##	6132015	4262015	4032015	5292015	10222015	8212016
##	208.55291	208.60028	208.62790	210.63248	211.07724	211.32353
##	6102016	10132015	4042016	2282015	6072015	4282016
##	211.75320	212.21845	213.62332	213.74998	214.59894	214.65035
##	4192016	7282015	1252016	9112015	12012015	5182016
##	214.97475	215.20892	217.21538	217.43817	219.11427	219.68719
##	6122014	5092016	4192015	12042015	6152016	3012015

##	220.00000	220.06205	220.80698	221.50191	222.08425	222.55291
##	8262015	11192015	2212015	4272016	12312015	6072016
##	222.73082	223.16066	223.26404	225.45929	225.55618	226.97106
##	7132016	5152015	5302015	6022016	5102015	12032015
##	228.93584	230.38831	232.01206	233.40519	234.68019	235.67772
##	7112016	1192015	3282015	3292015	8032015	6092016
##	235.79146	237.64403	239.99324	240.99956	241.13489	241.79113
##	5242015	8062016	9302015	8072015	3082015	4012016
##	241.85464	242.14008	242.25972	244.11387	244.32687	245.55545
##	2182016	3222015	5192016	8122015	5052016	11112015
##	246.04086	246.23784	246.26763	246.61552	247.92074	249.46845
##	2022012	2112012	2182012	2212012	2222012	2272012
##	250.00000	250.00000	250.00000	250.00000	250.00000	250.00000
##	3312018	4182014	4282006	7292014	7312014	8012160
##	250.00000	250.00000	250.00000	250.00000	250.00000	250.00000
##	10022014	10032014	10222000	10282014	11012011	11292016
##	250.00000	250.00000	250.00000	250.00000	250.00000	250.00000
##	11302014	11302016	12122016	12272014	8062015	4242015
##	250.00000	250.00000	250.00000	250.00000	250.03980	250.30132
##	1022015	8202016	7012015	4042015	5232016	12112014
##	250.61695	251.34375	252.18944	253.38008	254.67271	255.00000
##	2032016	4252016	6272015	9022015	4112015	7202015
##	255.17804	256.27309	256.36785	256.41211	257.50355	257.81000
##	1312016	2092016	6122015	9242015	6242016	3212015
##	259.59321	260.06834	260.17633	260.42663	261.26971	262.58022
##	8152016	5022015	7092015	12292014	3252016	12052014
##	263.50000	263.74466	263.79673	264.28571	264.95963	265.00000
##	7272015	10012015	4212016	8172015	8272015	9252015
##	265.74779	266.08601	267.06405	269.62501	270.30884	271.60150
##	1012016	11052015	5092015	10282015	12182014	12292015
##	272.58031	273.41930	273.81250	274.62030	276.00000	277.08202
##	7212015	4252015	2072015	1132016	6252016	11042015
##	277.17491	277.85240	278.69121	278.73196	279.99280	280.52701
##	2172016	1142014	2142014	4122016	9252014	5222015
##	281.20831	282.00000	282.00000	283.04012	285.00000	285.37007
##	10272015	4112016	9162015	8112015	5042016	10202015
##	287.61513	287.93155	288.34938	288.73614	289.46728	289.61828
##	5162016	12112015	2082016	6062015	3142015	2012016
##	289.91514	290.06788	290.51637	292.67589	292.95342	293.84047
##	2262016	11102015	11092015	11172015	3022016	4122015
##	293.85949	295.14582	295.45595	297.76020	298.69360	298.76523
##	11232015	10292016	12302016	9012015	5122016	12162015
##	299.91560	300.00000	300.00000	301.39831	305.77067	305.80613
##	3162016	1102015	11122015	4302015	3082016	7222015
##	306.61309	307.89936	308.10112	308.15189	308.58610	309.34833
##	12072015	3142016	10192015	2232016	8192015	2272015
##	310.64088	312.77944	313.48578	313.89007	314.46241	314.76416
##	1042016	6172016	8232016	3292016	7082015	9082015
##	315.52659	317.93269	318.60204	320.40417	320.45124	320.50100
##	7142015	11162015	3232016	9152015	7292015	7132015
##	321.02992	321.05367	321.65248	321.81957	322.08672	323.20458
##	2192016	2112016	6062016	7162015	8102015	6042015
##	324.27666	324.56558	326.08217	326.77796	327.13242	328.01748
##	8012016	7232015	8142016	4142016	1212016	2132015

##	329.39493	330.20173	331.02703	331.76786	332.44155	333.19881
##	1282016	5132016	12282015	9172015	1052016	11022015
##	334.59848	335.06685	335.59605	336.59105	336.67250	336.68100
##	8202015	1122016	3302016	10062015	10252016	1292016
##	338.69437	339.52239	339.55248	339.62684	340.00000	340.21413
##	8192016	8092016	6032016	6232016	9032015	12302015
##	340.94624	341.06864	341.68706	342.80224	344.20415	345.17084
##	8052016	9212015	8242015	5022016	6302016	9182015
##	345.67178	347.24812	347.90660	348.20671	348.92189	349.01511
##	12222015	1272016	3282014	5012015	2052016	7202016
##	349.37687	349.39055	350.00000	350.21560	350.74451	350.76393
##	11252015	1262016	6192015	4152015	7072015	3182016
##	350.83104	351.50953	351.68257	352.09852	355.23134	356.13433
##	1152015	9232015	1162015	5172016	8252015	7062015
##	357.80910	358.82100	359.39609	361.88299	363.55390	366.57857
##	6052015	3132015	2162015	3102016	6202016	10152014
##	368.05367	368.66034	368.78373	370.05631	372.96738	375.00000
##	12242014	9092015	3152016	10052015	3092016	5082015
##	375.00000	375.27416	376.58677	377.28622	379.43739	380.83950
##	9222015	1212015	10072015	9142015	5242016	12102015
##	381.47191	381.53087	384.01506	384.33694	384.85435	387.69989
##	8162016	3072015	4022015	5252016	6132016	6152015
##	387.81395	389.97366	391.98807	392.65867	393.94114	394.52271
##	8032016	1302015	12142015	5262016	2202015	1052015
##	394.69474	397.08336	397.10679	398.70029	399.09021	399.69828
##	8182015	11242015	1222015	3312016	12212015	1312015
##	402.30801	403.06831	403.61695	405.73199	407.32501	408.08274
##	3282016	8242016	12232015	6292016	12032014	9102015
##	408.48747	409.33333	411.84948	413.88346	416.66667	416.86583
##	2022015	6222016	2122016	1222016	3112016	1062015
##	418.50234	418.92242	420.23347	420.31788	420.55496	427.75307
##	6142016	2162016	2242016	6282016	8042015	6212016
##	428.25570	429.79031	429.88810	430.60628	435.30586	436.92461
##	3032015	1092015	6162015	1142016	9282015	11182015
##	439.89043	440.37912	440.51361	441.70069	442.95609	445.22588
##	3062015	5262015	5222014	1282015	6012015	2042016
##	446.94874	449.45458	450.00000	450.86634	452.99075	454.19004
##	4232015	12082015	3102015	6032015	3072016	4012015
##	454.92315	455.52969	458.06119	459.31605	462.30276	465.05287
##	1152016	2032015	6022015	6272016	6182015	1062016
##	465.85286	468.43868	470.08981	471.20470	471.97378	474.21566
##	4292015	2252016	9292015	1132015	5052015	1192016
##	476.27550	480.98122	485.99425	487.18577	489.52911	489.95891
##	3122015	8222016	2062015	5132015	41031	2082018
##	490.94377	497.80899	499.50312	499.66348	500.00000	500.00000
##	2122012	2172012	2272014	8212014	9122014	11102016
##	500.00000	500.00000	500.00000	500.00000	500.00000	500.00000
##	11222013	12022014	12062014	12232016	12252016	3052015
##	500.00000	500.00000	500.00000	500.00000	500.00000	500.32369
##	1082015	3042015	5062015	8112016	8082016	1072016
##	500.65284	507.29329	507.93447	508.51020	511.12071	511.79639
##	4182015	5172015	3272015	5212015	1262015	12092015
##	513.09199	515.90322	517.15149	518.43236	519.29671	520.46452
##	3172016	6262015	3222016	5192015	2232015	6172015

##	522.56389	529.36170	529.40960	532.06855	535.17333	541.07474
##	3202015	3012016	4282015	4072015	4202015	4222015
##	541.44375	541.60340	544.30500	544.91897	548.61411	550.57474
##	3212016	6112015	5072015	7032014	2242015	6102015
##	551.94759	553.54561	554.72733	555.00000	556.13530	557.58349
##	1232015	4172015	5202015	4272015	5122015	2262015
##	563.07920	565.35942	565.98637	566.95372	566.98720	568.80808
##	4212015	5272015	8192014	2222016	3252015	3032016
##	570.66064	571.29848	575.00000	575.32794	575.64589	577.45560
##	2252015	3242015	4062015	6302015	12172015	3172014
##	577.47482	581.25097	582.91432	595.41795	598.48945	600.00000
##	8122016	3242016	2052015	2112015	3022015	5112015
##	601.14815	602.18287	602.49699	602.92573	603.13056	605.28166
##	2092015	1202015	2122015	6012016	3312015	11222014
##	608.37100	608.74989	614.13579	614.31006	621.98858	625.00000
##	11252014	11292014	5182015	3042016	5042015	12122014
##	625.00000	625.00000	626.69025	629.29548	630.31013	633.50000
##	3262015	7172014	1112016	8102016	4142015	12022015
##	640.31937	650.00000	651.51334	652.68362	658.62016	673.05728
##	1082016	3302012	4282014	3112015	1202016	2192015
##	676.37520	683.33333	690.00000	696.18524	697.17775	701.51587
##	3192015	5282015	1272015	10262015	2042015	4082015
##	712.07675	723.44703	732.96251	733.13572	733.78451	734.96737
##	6092015	12012014	11262014	12262014	5142015	8022016
##	746.93589	747.00000	750.00000	750.00000	775.50109	787.78538
##	6222015	11212014	1122015	3182015	3302015	10212015
##	796.07849	810.00000	824.99800	833.78634	844.60529	870.63185
##	3092015	2182015	3162015	6252015	12092014	8182016
##	874.09783	874.52181	884.12439	907.61084	908.33333	915.36585
##	6242015	11242014	11232014	11032015	4162015	12042014
##	918.72446	950.00000	970.00000	986.79389	988.47348	997.33333
##	1231916	6132013	6172916	6222014	10272014	10312014
##	1000.00000	1000.00000	1000.00000	1000.00000	1000.00000	1000.00000
##	11132016	6082015	12142016	11202014	6232015	2102015
##	1000.00000	1007.79232	1054.00000	1073.21429	1076.67863	1098.32665
##	3172015	4102015	8042016	3232015	12232014	12172014
##	1102.75841	1184.23713	1212.08978	1265.44962	1283.33333	1322.22222
##	12222014	3272011	6132106	12282014	12312014	11272016
##	1482.33333	1500.00000	1500.00000	1550.00000	1557.82353	1600.00000
##	4092015	12302014	6292015	3182014	12312011	6162016
##	1605.49497	1677.00000	1758.42242	1800.00000	1800.00000	1870.19226
##	4132015	1012014	4112014	6022201	6242014	12082014
##	1899.19713	1942.50000	2000.00000	2000.00000	2000.00000	2040.00000
##	10012014	8152014	5312006	11272014	1292015	11192014
##	2366.66667	2400.00000	2500.00000	2500.00000	2517.75142	2596.00000
##	12162014	3092000	12092016	1072015	11202016	1142015
##	2670.00000	2700.00000	2700.00000	2735.17096	2750.00000	3103.24577
##	3072014	12012013	1042014	12192014	2172015	3112006
##	3205.00000	3300.00000	5000.00000	5050.00000	5281.63768	5400.00000
##	9032014	12312016	3042014	3272014	9162014	
##	5500.00000	5974.00000	10000.00000	10000.00000	15000.00000	

## Question 2

2a. The largest number of donations were made on these 10 days, e.g., the most donations were made on December 31, 2015

```
tail(sort(table(myDF$V14)), 10)
```

```
##  
## 7312015 3312016 6302015 4302016 2292016 11302015 5312016 9302015  
## 100809 106715 109476 125790 129824 139073 147768 152212  
## 6302016 12312015  
## 181479 198283
```

2b. The largest dollar amounts of donations were made on these 10 days, e.g., the most donations were made on June 30, 2015

```
tail(sort(tapply(myDF$V15, myDF$V14, sum)), 10)
```

```
## 6292016 5312016 3312015 9302015 6292015 3312016 12312015 6162016  
## 26262975 27013255 33326148 36874836 37885211 43297689 44723957 62430758  
## 6302016 6302015  
## 63321995 65183975
```

## Question 3

3a. There were 1277 donations by people at Purdue.

```
length(grep("PURDUE", myDF$V12))
```

```
## [1] 1277
```

3b. Among those donations, 599 of them were made by residents of West Lafayette.

```
v <- myDF$V9[grep("PURDUE", myDF$V12)]  
v1 <- grep("WEST LAFAYETTE", v)  
v2 <- grep("W LAFAYETTE", v)  
v3 <- grep("W. LAFAYETTE", v)  
length(v1) + length(v2) + length(v3)
```

```
## [1] 599
```

3c. Among the donations by people at Purdue, the campaign C00401224 (ACTBLUE) received the largest number of donations.

```
tail(sort(table(myDF$V1[grep("PURDUE", myDF$V12)])))
```

```
##  
## C00000935 C00010603 C00370643 C00575795 C00577130 C00401224  
## 45 45 102 163 247 428
```

## Question 4

We search for the cities from Indiana that contain Lafayette in the name, because this will also get cities with West Lafayette in the name too. Then we look at all such donation amounts, and take the average. The average size of such a donation is 121.8081 dollars.

```
mean(myDF$V15[grepl("LAFAYETTE", myDF$V9) & grepl("IN", myDF$V10)])
```

```
## [1] 121.8081
```

## Question 5

5a. The largest number of donations were made from these 10 professions:

```
tail(sort(tapply(myDF$V15, myDF$V13, length)), 11)
```

```
##  HOMEMAKER  CONSULTANT  ENGINEER  PROFESSOR  UNEMPLOYED
##    100251      101454      128415      131053      135172
##  TEACHER    PHYSICIAN  ATTORNEY          NOT EMPLOYED
##    135585      175882      292282      486078      1627681
##    RETIRED
##    1669912
```

5b. The largest dollar amount of donations were made from these 10 professions:

```
tail(sort(tapply(myDF$V15, myDF$V13, sum)), 11)
```

```
##  INVESTOR      OWNER      CHAIRMAN  EXECUTIVE  HOMEMAKER
##  55655444      67703952  97069508  98262822  103255610
## NOT EMPLOYED      CEO      PRESIDENT  ATTORNEY  RETIRED
##  109089395      121593216  131069250  145975818  341684261
##
##  460083296
```

## Question 6

The total dollar amount of donations in the local zip codes are:

```
tapply(myDF$V15, strtrim(myDF$V11, 5), sum)[c("47901", "47902", "47903", "47904", "47905", "47906", "47907", "47908", "47909", "47910")]
```

```
## 47901 47902 47903 47904 47905 47906 47907 47909 47996
## 18232 17116 16712 22740 116823 207699 5910 84355 70
```

## Question 7

7a. The top 15 cities in Indiana, according to the amount donated, are

```
tail(sort(tapply(myDF$V15[myDF$V10 == "IN"],myDF$V9[myDF$V10 == "IN"],sum)),15)
```

```
##      LAFAYETTE JEFFERSONVILLE      COLUMBUS      VALPARAISO      GRANGER
##      276236      283306      320807      339999      362430
##      MISHAWAKA      GREENWOOD      FISHERS      ZIONSVILLE      SOUTH BEND
##      376463      391854      407783      594682      613114
##      EVANSVILLE      BLOOMINGTON      FORT WAYNE      CARMEL      INDIANAPOLIS
##      715520      1106125      1625149      2090512      7138254
```

7b. The top 15 cities in the whole country, according to the amount donated, are

```
tail(sort(tapply(myDF$V15,myDF$V9,sum)),15)
```

```
##      POTOMAC      CISCO      LAKE FOREST      LAS VEGAS      ATLANTA
##      22891238      23660751      25591164      26246949      28038012
##      MIAMI      LITTLE ROCK      CENTERBOOK      HOUSTON      DALLAS
##      29811784      31452907      50006000      65873981      74682450
##      LOS ANGELES      CHICAGO      SAN FRANCISCO      WASHINGTON      NEW YORK
##      78362275      82804829      97298200      150438869      289761590
```

## Question 8

8a. Hillary Clinton received the largest amount of money on July 29, 2016.

```
tail(sort(tapply(myDF$V15[myDF$V1 == "C00575795"],myDF$V14[myDF$V1 == "C00575795"],sum)))
```

```
## 7262016 6302015 6082016 7312016 7282016 7292016
## 1433047 1459562 1473796 1569475 2059280 2142567
```

8b. Donald Trump received the largest amount of money on June 22, 2016.

```
tail(sort(tapply(myDF$V15[myDF$V1 == "C00580100"],myDF$V14[myDF$V1 == "C00580100"],sum)))
```

```
## 7212016 7222016 6302016 6212016 7282016 6222016
## 802931 905337 1031298 1046260 2330263 3354893
```

## Question 9

9a. A vector of the donor information can be formed in this way:

```
donorvec <- paste(myDF$V8, myDF$V9, myDF$V10, myDF$V11)
```

9b. The donor who donated the most times to the Clinton campaign was MITCHELL, MARCIA LOS ANGELES CA 900363146

```
tail(sort(tapply(myDF$V1 == "C00575795", donorvec, sum)))
```



```
## WHITE, MICHELLE LAS VEGAS NV 891022133
## 154
## SHARA HALL, LISA PORTLAND OR 972213230
## 162
## SMITH, CHERYL SUN VALLEY CA 913523014
## 163
## SCOTT, MELVIN BENBROOK TX 761266442
## 170
## PHAN, JULIE IRVING TX 750604638
## 181
## MITCHELL, MARCIA LOS ANGELES CA 900363146
## 220
```

9c. The donor who donated the most times to the Trump campaign was Trump himself: TRUMP, DONALD J. NEW YORK NY 10022

```
tail(sort(tapply( myDF$V1 == "C00580100", donorvec, sum)))
```

```
## TEDDER, PHILLIP HARTSVILLE SC 29550      MOFFITT, LARRY RENO NV 89509
## 34 35
## TREIBEL, RANDY REDMOND WA 98053      ELLIS, MARK LAS VEGAS NV 89139
## 36 47
## TAMAYO, DINO EAST NORTHPORT NY 11731  TRUMP, DONALD J. NEW YORK NY 10022
## 68 101
```

9d. To get the counts of the number of times that each person donated to each of the two campaigns (respectively), we compute these two vectors:

```
clintoncounts <- tapply( myDF$V1 == "C00575795", donorvec, sum )
trumpcounts <- tapply( myDF$V1 == "C00580100", donorvec, sum )
```

We can make sure that they came in the same order, by checking the lengths,

```
length(clintoncounts)
```

```
## [1] 2384731
```

```
length(trumpcounts)
```

```
## [1] 2384731
```

and moreover by checking to see that the names of the vectors agree:

```
sum(names(clintoncounts) != names(trumpcounts))
```

```
## [1] 0
```

now we store the names of the donors in this order, and see which donors have a positive donation count for both:

```
donor_names <- names(clintoncounts)
donor_names[(clintoncounts > 0) & (trumpcounts > 0)]
```

```
## [1] "GINSBERG, MICHAEL TAMPA FL 33626"
## [2] "REESE, JOHN SAN FRANCISCO CA 94110"
## [3] "SHERMAN, JEFF BOSTON MA 02118"
```

There are only 3 such people.