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11 America/New_York http://oversight.house.gov/wp-content/uploads/...
12 America/New_York https://www.nysdot.gov/rexdesign/design/commun...
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17 America/New_York http://www.usda.gov/wps/portal/usda/usdahome?c...
18 America/Denver http://www.monroecounty.gov/etc/911/rss.php
19 Europe/Rome http://www.nasa.gov/mission_pages/nustar/main/...
20 Africa/Ceuta http://voyager.jpl.nasa.gov/imagesvideo/uranus...
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[3560 rows x 18 columns]

In [55]: clear

In [56]: frame

Out[56]:

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8	<a href="http://www.facebook.com/l.php?u=http%3A%2F%2F1...">http://www.facebook.com/l.php?u=http%3A%2F%2F1...</a>	1.331923e+09
9	<a href="http://t.co/o1Pd0WeV">http://t.co/o1Pd0WeV</a>	1.331923e+09
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14	direct	1.331923e+09
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3	America/Sao_Paulo	<a href="http://apod.nasa.gov/apod/ap120312.html">http://apod.nasa.gov/apod/ap120312.html</a>
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23	America/New_York	<a href="http://www.tricare.mil/mybenefit/ProfileFilter...">http://www.tricare.mil/mybenefit/ProfileFilter...</a>
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28		<a href="https://www.nysdot.gov/rexdesign/design/commun...">https://www.nysdot.gov/rexdesign/design/commun...</a>
29		<a href="http://www.ed.gov/news/media-advisories/us-dep...">http://www.ed.gov/news/media-advisories/us-dep...</a>

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3533 America/New_York http://apod.nasa.gov/apod/
3534 America/Chicago https://www.nysdot.gov/rexdesign/design/commun...
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3536 http://www.nasa.gov/mission_pages/hurricanes/a...
3537 America/Tegucigalpa http://apod.nasa.gov/apod/ap120312.html
3538 America/Los_Angeles http://healthypeople.gov/2020/connect/webinars...
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3543 NaN NaN
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3545 America/Chicago https://www.nysdot.gov/rexdesign/design/commun...
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[3560 rows x 18 columns]

In [57]: print frame

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4 NaN Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit...
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6 NaN Mozilla/5.0 (Windows NT 5.1) AppleWebKit/535.1...
7 NaN Mozilla/5.0 (Windows NT 6.1; rv:2.0.1) Gecko/2...
8 NaN Opera/9.80 (X11; Linux zbov; U; en) Presto/2.1...
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3536      NaN Mozilla/5.0 (BlackBerry; U; BlackBerry 9800; e...
3537      NaN Mozilla/5.0 (Windows NT 6.1; WOW64; rv:10.0.2)...
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3539      NaN Mozilla/5.0 (compatible; Fedora Core 3) FC3 KDE
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3	pt-br	BR	Braz	zCaLwp
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20	51	ytZYWR	1.331671e+09	bitly.com	NaN	jplnews
21	MD	zKpJBR	1.331923e+09	1.usa.gov	NaN	bnjacobs
22	DE	y3ZImz	1.331064e+09	1.usa.gov	NaN	bitly
23	PA	wWi0iD	1.330218e+09	1.usa.gov	NaN	bitly
24	59	zKpJBR	1.331923e+09	1.usa.gov	NaN	bnjacobs
25	14	zKpJBR	1.331923e+09	1.usa.gov	NaN	bnjacobs
26	04	zKpJBR	1.331923e+09	1.usa.gov	NaN	bnjacobs
27	27	zUtuOu	1.331923e+09	1.usa.gov	NaN	alelex88
28	NaN	u0uD9q	1.319564e+09	1.usa.gov	NaN	o_4us71ccioa
29	NaN	FPX0IL	1.331923e+09	1.usa.gov	NaN	twittershare
...	...	...	...	...	...	...
3530	CA	wqUkTo	1.331908e+09	go.nasa.gov	NaN	nasatwitter
3531	NaN	zKpJBR	1.331923e+09	1.usa.gov	NaN	bnjacobs
3532	DC	A9ct6C	1.331926e+09	1.usa.gov	NaN	ncsha
3533	FL	ieCdGh	1.301393e+09	go.nasa.gov	NaN	nasatwitter
3534	TX	u0uD9q	1.319564e+09	1.usa.gov	NaN	o_4us71ccioa
3535	TX	yrPaLt	1.331903e+09	aash.to	NaN	aashto
3536	NaN	yG1TTf	1.331728e+09	go.nasa.gov	NaN	nasatwitter
3537	08	w63FZW	1.331547e+09	1.usa.gov	NaN	bufferapp
3538	CA	qds1Ge	1.310474e+09	1.usa.gov	NaN	healthypeople
3539	WA	zDhdro	1.331586e+09	bit.ly	NaN	glimtwin
3540	UT	zKpJBR	1.331923e+09	1.usa.gov	NaN	bnjacobs

3541	WA	zDhdro	1.331586e+09	1.usa.gov	NaN	glimtwin
3542	CA	y3reI1	1.331926e+09	1.usa.gov	NaN	bitly
3543	NaN	NaN	NaN	NaN	NaN	NaN
3544	MO	u0uD9q	1.319564e+09	1.usa.gov	NaN	o_4us71ccioa
3545	IL	u0uD9q	1.319564e+09	1.usa.gov	NaN	o_4us71ccioa
3546	CA	qds1Ge	1.310474e+09	1.usa.gov	NaN	healthypeople
3547	MD	y0jYkg	1.331852e+09	1.usa.gov	NaN	bitly
3548	AR	xANY60	1.331916e+09	1.usa.gov	NaN	twitterfeed
3549	24	7dtjei	1.260316e+09	1.usa.gov	NaN	tweetdeckapi
3550	PA	yGSwzn	1.331918e+09	1.usa.gov	NaN	addthis
3551	NaN	zkipJBR	1.331923e+09	1.usa.gov	NaN	bnjacobs
3552	AL	xcz8vt	1.331227e+09	1.usa.gov	NaN	bootsnall
3553	MA	9b6kNl	1.273672e+09	bit.ly	NaN	bitly
3554	MA	axNK8c	1.273673e+09	bit.ly	NaN	bitly
3555	NJ	fqPSr9	1.301298e+09	1.usa.gov	NaN	tweetdeckapi
3556	OK	jQLtP4	1.307530e+09	1.usa.gov	NaN	bitly
3557	UT	mwszkS	1.308262e+09	j.mp	NaN	bitly
3558	CA	zjtI4X	1.327529e+09	1.usa.gov	NaN	bitly
3559	VA	qxKrTK	1.312898e+09	1.usa.gov	NaN	bitly

		ll	nk	\
0	[42.576698, -70.954903]	1.0		
1	[40.218102, -111.613297]	0.0		
2	[38.9007, -77.043098]	1.0		
3	[-23.549999, -46.616699]	0.0		
4	[42.286499, -71.714699]	0.0		
5	[42.286499, -71.714699]	0.0		
6	[51.116699, 15.2833]	0.0		
7	NaN	0.0		
8	NaN	0.0		
9	NaN	0.0		
10	[47.5951, -122.332603]	1.0		
11	[38.937599, -77.092796]	0.0		
12	[38.790901, -77.094704]	1.0		
13	NaN	NaN		
14	[33.953201, -84.5177]	1.0		
15	[22.2833, 114.150002]	1.0		
16	[22.2833, 114.150002]	1.0		
17	[44.299702, -70.369797]	0.0		
18	[40.218102, -111.613297]	0.0		
19	[45.438599, 12.3267]	0.0		
20	[37.516701, -5.9833]	0.0		
21	[38.939201, -76.635002]	0.0		
22	[39.785, -75.682297]	0.0		
23	[40.174999, -76.3078]	0.0		
24	[43.25, -2.9667]	0.0		
25	[3.1667, 101.699997]	0.0		
26	[35.166698, 33.366699]	0.0		
27	[-23.5333, -46.616699]	0.0		
28	NaN	0.0		
29	NaN	1.0		
...	...	...		
3530	[37.7645, -122.429398]	0.0		
3531	NaN	0.0		
3532	[38.904202, -77.031998]	1.0		
3533	[30.279301, -81.585098]	1.0		
3534	[33.149899, -96.855499]	1.0		
3535	[29.775499, -95.415199]	1.0		
3536	NaN	0.0		
3537	[14.1, -87.216698]	0.0		
3538	[34.041599, -118.298798]	0.0		
3539	[47.615398, -122.210297]	0.0		
3540	[40.014198, -111.738899]	0.0		
3541	[47.615398, -122.210297]	0.0		
3542	[38.0051, -121.838699]	0.0		
3543	NaN	NaN		
3544	[38.790001, -90.854897]	1.0		
3545	[41.9352, -88.290901]	1.0		

3546	[34.041599, -118.298798]	1.0
3547	[39.052101, -77.014999]	1.0
3548	[33.628399, -91.356903]	1.0
3549	[63.166698, 17.266701]	1.0
3550	[40.0798, -75.2855]	0.0
3551	NaN	0.0
3552	[34.572701, -86.940598]	0.0
3553	[42.286499, -71.714699]	0.0
3554	[42.286499, -71.714699]	0.0
3555	[40.9445, -74.07]	1.0
3556	[35.4715, -97.518997]	0.0
3557	[40.218102, -111.613297]	0.0
3558	[37.419201, -122.057404]	0.0
3559	[38.935799, -77.162102]	0.0

	r	t \
0	http://www.facebook.com/l/7AQEFzjSi/1.usa.gov/...	1.331923e+09
1	http://www.AwareMap.com/	1.331923e+09
2	http://t.co/03elZC4Q	1.331923e+09
3	direct	1.331923e+09
4	http://www.shrewsbury-ma.gov/selco/	1.331923e+09
5	http://www.shrewsbury-ma.gov/selco/	1.331923e+09
6	http://plus.url.google.com/url?sa=z&n=13319232...	1.331923e+09
7	http://www.facebook.com/	1.331923e+09
8	http://www.facebook.com/l.php?u=http%3A%2F%2F1...	1.331923e+09
9	http://t.co/o1Pd0WeV	1.331923e+09
10	direct	1.331923e+09
11	http://t.co/ND7SoPyo	1.331923e+09
12	direct	1.331923e+09
13	NaN	NaN
14	direct	1.331923e+09
15	http://forum2.hkgolden.com/view.aspx?type=BW&m...	1.331923e+09
16	http://forum2.hkgolden.com/view.aspx?type=BW&m...	1.331923e+09
17	http://t.co/6Cx4ROLs	1.331923e+09
18	http://www.AwareMap.com/	1.331923e+09
19	http://www.facebook.com/	1.331923e+09
20	http://www.facebook.com/	1.331923e+09
21	http://www.facebook.com/	1.331923e+09
22	direct	1.331923e+09
23	http://www.facebook.com/l.php?u=http%3A%2F%2F1...	1.331923e+09
24	http://www.facebook.com/	1.331923e+09
25	http://www.facebook.com/	1.331923e+09
26	http://www.facebook.com/?ref=tn_tnmn	1.331923e+09
27	direct	1.331923e+09
28	direct	1.331923e+09
29	http://t.co/5xlp0B34	1.331923e+09
...	...	...
3530	http://www.facebook.com/l.php?u=http%3A%2F%2Fg...	1.331927e+09
3531	direct	1.331927e+09
3532	http://www.ncsha.org/	1.331927e+09
3533	direct	1.331927e+09
3534	direct	1.331927e+09
3535	direct	1.331927e+09
3536	http://t.co/g1VKE8zS	1.331927e+09
3537	http://t.co/A8TJyibE	1.331927e+09
3538	direct	1.331927e+09
3539	direct	1.331927e+09
3540	http://www.facebook.com/l.php?u=http%3A%2F%2F1...	1.331927e+09
3541	direct	1.331927e+09
3542	http://www.facebook.com/l.php?u=http%3A%2F%2F1...	1.331927e+09
3543	NaN	NaN
3544	direct	1.331927e+09
3545	direct	1.331927e+09
3546	direct	1.331927e+09
3547	direct	1.331927e+09
3548	https://twitter.com/fdarecalls/status/18069759...	1.331927e+09
3549	direct	1.331927e+09
3550	http://www.linkedin.com/home?trk=hb_tab_home_top	1.331927e+09

3551	<a href="http://plus.url.google.com/url?sa=z&amp;n=13319268...">http://plus.url.google.com/url?sa=z&amp;n=13319268...</a>	1.331927e+09
3552	direct	1.331927e+09
3553	<a href="http://www.shrewsbury-ma.gov/selco/">http://www.shrewsbury-ma.gov/selco/</a>	1.331927e+09
3554	<a href="http://www.shrewsbury-ma.gov/selco/">http://www.shrewsbury-ma.gov/selco/</a>	1.331927e+09
3555	direct	1.331927e+09
3556	<a href="http://www.facebook.com/l.php?u=http%3A%2F%2F1...">http://www.facebook.com/l.php?u=http%3A%2F%2F1...</a>	1.331927e+09
3557	<a href="http://www.AwareMap.com/">http://www.AwareMap.com/</a>	1.331927e+09
3558	direct	1.331927e+09
3559	<a href="http://t.co/0EEvWjU">http://t.co/0EEvWjU</a>	1.331927e+09

	tz	u
0	America/New_York	<a href="http://www.ncbi.nlm.nih.gov/pubmed/22415991">http://www.ncbi.nlm.nih.gov/pubmed/22415991</a>
1	America/Denver	<a href="http://www.monroecounty.gov/etc/911/rss.php">http://www.monroecounty.gov/etc/911/rss.php</a>
2	America/New_York	<a href="http://boxer.senate.gov/en/press/releases/0316...">http://boxer.senate.gov/en/press/releases/0316...</a>
3	America/Sao_Paulo	<a href="http://apod.nasa.gov/apod/ap120312.html">http://apod.nasa.gov/apod/ap120312.html</a>
4	America/New_York	<a href="http://www.shrewsbury-ma.gov/egov/gallery/1341...">http://www.shrewsbury-ma.gov/egov/gallery/1341...</a>
5	America/New_York	<a href="http://www.shrewsbury-ma.gov/egov/gallery/1341...">http://www.shrewsbury-ma.gov/egov/gallery/1341...</a>
6	Europe/Warsaw	<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
7		<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
8		<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
9		<a href="http://apod.nasa.gov/apod/ap120312.html">http://apod.nasa.gov/apod/ap120312.html</a>
10	America/Los_Angeles	<a href="https://www.nysdot.gov/rexdesign/design/commun...">https://www.nysdot.gov/rexdesign/design/commun...</a>
11	America/New_York	<a href="http://oversight.house.gov/wp-content/uploads/...">http://oversight.house.gov/wp-content/uploads/...</a>
12	America/New_York	<a href="https://www.nysdot.gov/rexdesign/design/commun...">https://www.nysdot.gov/rexdesign/design/commun...</a>
13	NaN	NaN
14	America/New_York	<a href="http://toxtown.nlm.nih.gov/index.php">http://toxtown.nlm.nih.gov/index.php</a>
15	Asia/Hong_Kong	<a href="http://www.ssd.noaa.gov/PS/TR0P/TCFP/data/curr...">http://www.ssd.noaa.gov/PS/TR0P/TCFP/data/curr...</a>
16	Asia/Hong_Kong	<a href="http://www.usno.navy.mil/NOOC/nmfc-ph/RSS/jtwc...">http://www.usno.navy.mil/NOOC/nmfc-ph/RSS/jtwc...</a>
17	America/New_York	<a href="http://www.usda.gov/wps/portal/usda/usdahome?c...">http://www.usda.gov/wps/portal/usda/usdahome?c...</a>
18	America/Denver	<a href="http://www.monroecounty.gov/etc/911/rss.php">http://www.monroecounty.gov/etc/911/rss.php</a>
19	Europe/Rome	<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
20	Africa/Ceuta	<a href="http://voyager.jpl.nasa.gov/imagesvideo/uranus...">http://voyager.jpl.nasa.gov/imagesvideo/uranus...</a>
21	America/New_York	<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
22	America/New_York	<a href="http://portal.hud.gov/hudportal/documents/hudd...">http://portal.hud.gov/hudportal/documents/hudd...</a>
23	America/New_York	<a href="http://www.tricare.mil/mybenefit/ProfileFilter...">http://www.tricare.mil/mybenefit/ProfileFilter...</a>
24	Europe/Madrid	<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
25	Asia/Kuala_Lumpur	<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
26	Asia/Nicosia	<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
27	America/Sao_Paulo	<a href="http://apod.nasa.gov/apod/ap120312.html">http://apod.nasa.gov/apod/ap120312.html</a>
28		<a href="https://www.nysdot.gov/rexdesign/design/commun...">https://www.nysdot.gov/rexdesign/design/commun...</a>
29		<a href="http://www.ed.gov/news/media-advisories/us-dep...">http://www.ed.gov/news/media-advisories/us-dep...</a>
...	...	...
3530	America/Los_Angeles	<a href="http://www.nasa.gov/multimedia/imagegallery/im...">http://www.nasa.gov/multimedia/imagegallery/im...</a>
3531		<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
3532	America/New_York	<a href="http://portal.hud.gov/hudportal/HUD?src=/press...">http://portal.hud.gov/hudportal/HUD?src=/press...</a>
3533	America/New_York	<a href="http://apod.nasa.gov/apod/">http://apod.nasa.gov/apod/</a>
3534	America/Chicago	<a href="https://www.nysdot.gov/rexdesign/design/commun...">https://www.nysdot.gov/rexdesign/design/commun...</a>
3535	America/Chicago	<a href="http://ntl.bts.gov/lib/44000/44300/44374/FHWA-...">http://ntl.bts.gov/lib/44000/44300/44374/FHWA-...</a>
3536		<a href="http://www.nasa.gov/mission_pages/hurricanes/a...">http://www.nasa.gov/mission_pages/hurricanes/a...</a>
3537	America/Tegucigalpa	<a href="http://apod.nasa.gov/apod/ap120312.html">http://apod.nasa.gov/apod/ap120312.html</a>
3538	America/Los_Angeles	<a href="http://healthypeople.gov/2020/connect/webinars...">http://healthypeople.gov/2020/connect/webinars...</a>
3539	America/Los_Angeles	<a href="http://www.federalreserve.gov/newsevents/press...">http://www.federalreserve.gov/newsevents/press...</a>
3540	America/Denver	<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
3541	America/Los_Angeles	<a href="http://www.federalreserve.gov/newsevents/press...">http://www.federalreserve.gov/newsevents/press...</a>
3542	America/Los_Angeles	<a href="http://www.sba.gov/community/blogs/community-b...">http://www.sba.gov/community/blogs/community-b...</a>
3543	NaN	NaN
3544	America/Chicago	<a href="https://www.nysdot.gov/rexdesign/design/commun...">https://www.nysdot.gov/rexdesign/design/commun...</a>
3545	America/Chicago	<a href="https://www.nysdot.gov/rexdesign/design/commun...">https://www.nysdot.gov/rexdesign/design/commun...</a>
3546	America/Los_Angeles	<a href="http://healthypeople.gov/2020/connect/webinars...">http://healthypeople.gov/2020/connect/webinars...</a>
3547	America/New_York	<a href="http://www.epa.gov/otaq/regs/fuels/additive/e1...">http://www.epa.gov/otaq/regs/fuels/additive/e1...</a>
3548	America/Chicago	<a href="http://www.fda.gov/Safety/Recalls/ucm296326.htm">http://www.fda.gov/Safety/Recalls/ucm296326.htm</a>
3549	Europe/Stockholm	<a href="http://www.nasa.gov/mission_pages/WISE/main/in...">http://www.nasa.gov/mission_pages/WISE/main/in...</a>
3550	America/New_York	<a href="http://www.nlm.nih.gov/medlineplus/news/fullst...">http://www.nlm.nih.gov/medlineplus/news/fullst...</a>
3551		<a href="http://www.nasa.gov/mission_pages/nustar/main/...">http://www.nasa.gov/mission_pages/nustar/main/...</a>
3552	America/Chicago	<a href="http://travel.state.gov/passport/passport_5535...">http://travel.state.gov/passport/passport_5535...</a>
3553	America/New_York	<a href="http://www.shrewsbury-ma.gov/egov/gallery/1341...">http://www.shrewsbury-ma.gov/egov/gallery/1341...</a>
3554	America/New_York	<a href="http://www.shrewsbury-ma.gov/egov/gallery/1341...">http://www.shrewsbury-ma.gov/egov/gallery/1341...</a>
3555	America/New_York	<a href="http://www.fda.gov/AdvisoryCommittees/Committe...">http://www.fda.gov/AdvisoryCommittees/Committe...</a>

```

3556      America/Chicago  http://www.okc.gov/PublicNotificationSystem/Fo...
3557      America/Denver    http://www.monroecounty.gov/etc/911/rss.php
3558  America/Los_Angeles   http://www.ahrq.gov/qual/qitoolkit/
3559      America/New_York  http://herndon-va.gov/Content/public_safety/Pu...

```

[3560 rows x 18 columns]

In [58]: frame['tz'][:10]

Out[58]:

```

0      America/New_York
1      America/Denver
2      America/New_York
3      America/Sao_Paulo
4      America/New_York
5      America/New_York
6      Europe/Warsaw
7
8
9

```

Name: tz, dtype: object

In [59]: tz\_counts = frame['tz']

Display all 405 possibilities? (y or n)

```

%%!
%%HTML
%%SVG
%%bash
%%capture
%%debug
%%file
%%html
%%javascript
%%latex
%%perl
%%prun
%%pypy
%%python
%%python2
%%python3
%%ruby
%%script
%%sh
%%svg
%%sx
%%system
%%time
%%timeit
%%writefile
%alias
%alias_magic
%autocall
%autoindent
%automagic
%bookmark
%cat
%cd
%clear
%colors
%config
%cp
%cpaste
%debug
%dhist
%dirs
%doctest_mode
%ed
%edit
%env
__import__
__name__
__package__
_dh
_exit_code
_i
_i1
_i10
_i11
_i12
_i13
_i14
_i15
_i16
_i17
_i18
_i19
_i2
_i20
_i21
_i22
_i23
_i24
_i25
_i26
_i27
_i28
_i29
_i3
_i30
_i31
_i32
_i33
_i34
_i35
_i36
_i37
_i38
_i39
_i4
_i40
_i41
_i42
_i43
_i44

```

%gui	_i45
%hist	_i46
%history	_i47
%install_default_config	_i48
%install_ext	_i49
%install_profiles	_i5
%killbgscripts	_i50
%ldir	_i51
%less	_i52
%lf	_i53
%lk	_i54
%ll	_i55
%load	_i56
%load_ext	_i57
%loadpy	_i58
%logoff	_i6
%logon	_i7
%logstart	_i8
%logstate	_i9
%logstop	_ih
%ls	_ii
%lsmagic	_iii
%lx	_oh
%macro	_sh
%magic	abs
%man	all
%matplotlib	and
%mkdir	any
%more	apply
%mv	as
%notebook	assert
%page	basestring
%paste	bin
%pastebin	bool
%pdb	break
%pdef	buffer
%pdoc	bytearray
%pfile	bytes
%pinfo	callable
%pinfo2	chr
%popd	class
%pprint	classmethod
%precision	cmp
%profile	coerce
%prun	compile
%psearch	complex
%psource	continue
%pushd	copyright
%pwd	counts
%pycat	credits
%pylab	def
%quickref	defaultdict
%recall	del
%rehashx	delattr
%reload_ext	dict
%rep	dir
%rerun	divmod
%reset	reload
%reset_selective	elif
%rm	else
%rmdir	enumerate
%run	eval
%save	except
%sc	exec
%set_env	execfile
%store	exit
%sx	file
%system	filter

%tb	finally
%time	float
%timeit	for
%unalias	format
%unload_ext	frame
%who	from
%who_ls	frozenset
%whos	get_counts
%xdel	get_counts2
%xmode	get_ipython
ArithmeticError	getattr
AssertionError	global
AttributeError	globals
BaseException	hasattr
BufferError	hash
BytesWarning	help
Counter	hex
DataFrame	id
DeprecationWarning	if
EOFError	import
Ellipsis	in
EnvironmentError	input
Exception	int
False	intern
FloatingPointError	is
FutureWarning	isinstance
GeneratorExit	issubclass
IOError	iter
ImportError	json
ImportWarning	lambda
In	len
IndentationError	license
IndexError	line
KeyError	list
KeyboardInterrupt	locals
LookupError	long
MemoryError	map
NameError	max
None	memoryview
NotImplemented	min
NotImplementedError	movielens
OSError	names
Out	next
OverflowError	not
PendingDeprecationWarning	object
ReferenceError	oct
RuntimeError	open
RuntimeWarning	or
Series	ord
StandardError	pass
StopIteration	path
SyntaxError	pd
SyntaxWarning	pow
SystemError	print
SystemExit	property
TabError	quit
True	raise
TypeError	range
UnboundLocalError	raw_input
UnicodeDecodeError	rec
UnicodeEncodeError	records
UnicodeError	reduce
UnicodeTranslateError	reload
UnicodeWarning	repr
UserWarning	return
ValueError	reversed
Warning	round
ZeroDivisionError	set

_	setattr
_23	slice
_26	sorted
_27	staticmethod
_33	str
_39	sum
_40	super
_41	time_zones
_43	top10_counts
_47	try
_48	tuple
_53	type
_54	unichr
_56	unicode
_58	usagov_bitly_data2012-03-16-1331923249.txt
--	vars
__IPYTHON__	while
__IPYTHON__active	with
---	xrange
__builtin__	yield
__debug__	zip
__doc__	

```
In [59]: tz_counts = frame['tz'].value_counts()
```

```
In [60]: tz_counts[:10]
```

```
Out[60]:
America/New_York      1251
                    521
America/Chicago       400
America/Los_Angeles   382
America/Denver        191
Europe/London         74
Asia/Tokyo            37
Pacific/Honolulu      36
Europe/Madrid         35
America/Sao_Paulo     33
Name: tz, dtype: int64
```

```
In [61]: clean_tz = frame['tz'].fillna('Missing')
```

```
In [62]: tz_counts = clean_tz.value_counts()
```

```
In [63]: tz_counts[:10]
```

```
Out[63]:
America/New_York      1251
                    521
America/Chicago       400
America/Los_Angeles   382
America/Denver        191
Missing               120
Europe/London         74
Asia/Tokyo            37
Pacific/Honolulu      36
Europe/Madrid         35
Name: tz, dtype: int64
```

```
In [64]: clean_tz[clean_tz == ''] = 'Unknown'
```

```
In [65]: tz_counts = clean_tz.value_counts()
```

```
In [66]: tz_counts
```

```
Out[66]:
America/New_York      1251
                    521
America/Chicago       400
America/Los_Angeles   382
America/Denver        191
```



Missing	120
Europe/London	74
Asia/Tokyo	37
Pacific/Honolulu	36
Europe/Madrid	35
America/Sao_Paulo	33
Europe/Berlin	28
Europe/Rome	27
America/Rainy_River	25
Europe/Amsterdam	22
America/Phoenix	20
America/Indianapolis	20
Europe/Warsaw	16
America/Mexico_City	15
Europe/Paris	14
Europe/Stockholm	14
America/Vancouver	12
Pacific/Auckland	11
Europe/Prague	10
Europe/Helsinki	10
Asia/Hong_Kong	10
America/Puerto_Rico	10
Europe/Oslo	10
Europe/Moscow	10
Asia/Calcutta	9

...

Europe/Belgrade	2
Asia/Pontianak	1
America/Mazatlan	1
Europe/Skopje	1
America/Argentina/Cordoba	1
Europe/Sofia	1
America/Argentina/Mendoza	1
America/St_Kitts	1
America/Santo_Domingo	1
America/Monterrey	1
Asia/Novosibirsk	1
America/Argentina/Buenos_Aires	1
Europe/Volgograd	1
America/Caracas	1
Australia/Queensland	1
Europe/Ljubljana	1
Asia/Riyadh	1
Asia/Manila	1
Africa/Casablanca	1
Africa/Johannesburg	1
Asia/Yekaterinburg	1
America/Lima	1
Asia/Kuching	1
Africa/Lusaka	1
America/Tegucigalpa	1
America/La_Paz	1
Asia/Nicosia	1
Europe/Uzhgorod	1
America/Costa_Rica	1
America/Montevideo	1

Name: tz, dtype: int64

In [67]: tz\_counts[:10]

Out[67]:

America/New_York	1251
	521
America/Chicago	400
America/Los_Angeles	382
America/Denver	191
Missing	120
Europe/London	74
Asia/Tokyo	37

```
Pacific/Honolulu      36
Europe/Madrid         35
Name: tz, dtype: int64
```

```
In [68]: clean_tz = frame['tz'].fillna('Missing')
```

```
In [69]: clean_tz[clean_tz == ''] = 'Unknown'
```

```
In [70]: tz_counts = clean_tz.value_counts()
```

```
In [71]: tz_counts
```

```
Out[71]:
America/New_York      1251
Unknown               521
America/Chicago       400
America/Los_Angeles   382
America/Denver        191
Missing               120
Europe/London         74
Asia/Tokyo            37
Pacific/Honolulu     36
Europe/Madrid         35
America/Sao_Paulo     33
Europe/Berlin         28
Europe/Rome           27
America/Rainy_River   25
Europe/Amsterdam     22
America/Indianapolis  20
America/Phoenix       20
Europe/Warsaw         16
America/Mexico_City   15
Europe/Stockholm     14
Europe/Paris          14
America/Vancouver     12
Pacific/Auckland      11
Asia/Hong_Kong        10
Europe/Prague         10
Europe/Helsinki       10
America/Puerto_Rico   10
Europe/Oslo           10
Europe/Moscow         10
Asia/Calcutta         9
...
Europe/Belgrade       2
Asia/Pontianak        1
America/Mazatlan      1
Europe/Skopje         1
America/Argentina/Cordoba 1
Europe/Sofia          1
America/Argentina/Mendoza 1
America/St_Kitts      1
America/Santo_Domingo 1
America/Monterrey     1
Asia/Novosibirsk     1
America/Argentina/Buenos_Aires 1
Europe/Volgograd     1
America/Caracas       1
Australia/Queensland  1
Europe/Ljubljana      1
Asia/Riyadh           1
Asia/Manila           1
Africa/Casablanca     1
Africa/Johannesburg   1
Asia/Yekaterinburg    1
America/Lima           1
Asia/Kuching          1
Africa/Lusaka         1
America/Tegucigalpa   1
```

```
America/La_Paz          1
Asia/Nicosia            1
Europe/Uzhgorod         1
America/Costa_Rica      1
America/Montevideo      1
Name: tz, dtype: int64
```

```
In [72]: tz_counts[]
File "<ipython-input-72-063b92788e03>", line 1
      tz_counts[]
            ^
SyntaxError: invalid syntax
```

```
In [73]: tz_counts[:010]
Out[73]:
America/New_York      1251
Unknown               521
America/Chicago       400
America/Los_Angeles   382
America/Denver        191
Missing              120
Europe/London         74
Asia/Tokyo            37
Name: tz, dtype: int64
```

```
In [74]: tz_counts[
Display all 428 possibilities? (y or n)
%%!                _i
%%HTML             _i1
%%SVG              _i10
%%bash             _i11
%%capture          _i12
%%debug            _i13
%%file             _i14
%%html             _i15
%%javascript       _i16
%%latex            _i17
%%perl             _i18
%%prun             _i19
%%pypy             _i2
%%python           _i20
%%python2          _i21
%%python3          _i22
%%ruby             _i23
%%script           _i24
%%sh               _i25
%%svg              _i26
%%sx               _i27
%%system           _i28
%%time             _i29
%%timeit           _i3
%%writefile        _i30
%alias             _i31
%alias_magic       _i32
%autocall          _i33
%autoindent        _i34
%automagic         _i35
%bookmark          _i36
%cat               _i37
%cd                _i38
%clear             _i39
%colors            _i4
%config            _i40
%cp                _i41
%cpaste            _i42
%debug             _i43
%dhist             _i44
```

%dirs	_i45
%doctest_mode	_i46
%ed	_i47
%edit	_i48
%env	_i49
%gui	_i5
%hist	_i50
%history	_i51
%install_default_config	_i52
%install_ext	_i53
%install_profiles	_i54
%killbgscripts	_i55
%ldir	_i56
%less	_i57
%lf	_i58
%lk	_i59
%ll	_i6
%load	_i60
%load_ext	_i61
%loadpy	_i62
%logoff	_i63
%logon	_i64
%logstart	_i65
%logstate	_i66
%logstop	_i67
%ls	_i68
%lsmagic	_i69
%lx	_i7
%macro	_i70
%magic	_i71
%man	_i72
%matplotlib	_i73
%mkdir	_i8
%more	_i9
%mv	_ih
%notebook	_ii
%page	_iii
%paste	_oh
%pastebin	_sh
%pdb	abs
%pdef	all
%pdoc	and
%pfile	any
%pinfo	apply
%pinfo2	as
%popd	assert
%pprint	basestring
%precision	bin
%profile	bool
%prun	break
%psearch	buffer
%psource	bytearray
%pushd	bytes
%pwd	callable
%pycat	chr
%pylab	class
%quickref	classmethod
%recall	clean_tz
%rehashx	cmp
%reload_ext	coerce
%rep	compile
%rerun	complex
%reset	continue
%reset_selective	copyright
%rm	counts
%rmdir	credits
%run	def
%save	defaultdict

%sc	del
%set_env	delattr
%store	dict
%sx	dir
%system	divmod
%tb	dreload
%time	elif
%timeit	else
%unalias	enumerate
%unload_ext	eval
%who	except
%who_ls	exec
%whos	execfile
%xdel	exit
%xmode	file
ArithmeticError	filter
AssertionError	finally
AttributeError	float
BaseException	for
BufferError	format
BytesWarning	frame
Counter	from
DataFrame	frozenset
DeprecationWarning	get_counts
EOFError	get_counts2
Ellipsis	get_ipython
EnvironmentError	getattr
Exception	global
False	globals
FloatingPointError	hasattr
FutureWarning	hash
GeneratorExit	help
IOError	hex
ImportError	id
ImportWarning	if
In	import
IndentationError	in
IndexError	input
KeyError	int
KeyboardInterrupt	intern
LookupError	is
MemoryError	isinstance
NameError	issubclass
None	iter
NotImplemented	json
NotImplementedError	lambda
OSError	len
Out	license
OverflowError	line
PendingDeprecationWarning	list
ReferenceError	locals
RuntimeError	long
RuntimeWarning	map
Series	max
StandardError	memoryview
StopIteration	min
SyntaxError	movielens
SyntaxWarning	names
SystemError	next
SystemExit	not
TabError	object
True	oct
TypeError	open
UnboundLocalError	or
UnicodeDecodeError	ord
UnicodeEncodeError	pass
UnicodeError	path
UnicodeTranslateError	pd

UnicodeWarning	pow
UserWarning	print
ValueError	property
Warning	quit
ZeroDivisionError	raise
_	range
_23	raw_input
_26	rec
_27	records
_33	reduce
_39	reload
_40	repr
_41	return
_43	reversed
_47	round
_48	set
_53	setattr
_54	slice
_56	sorted
_58	staticmethod
_60	str
_63	sum
_66	super
_67	time_zones
_71	top10_counts
_73	try
--	tuple
__IPYTHON__	type
__IPYTHON__active	tz_counts
---	unichr
__builtin__	unicode
__debug__	usagov_bitly_data2012-03-16-1331923249.txt
__doc__	vars
__import__	while
__name__	with
__package__	xrange
_dh	yield
_exit_code	zip

```
In [74]: tz_counts[:10].plot(kind='barh', rot = 0)
Out[74]: <matplotlib.axes._subplots.AxesSubplot at 0x119217050>
```

```
In [75]: tz_counts[:10].plot(kind='barh', rot = 0).show()
```

```
-----
AttributeError                                Traceback (most recent call last)
<ipython-input-75-a6dfbef0da75> in <module>()
----> 1 tz_counts[:10].plot(kind='barh', rot = 0).show()
```

```
AttributeError: 'AxesSubplot' object has no attribute 'show'
```

```
In [76]: tz_counts[:10].plot(kind='barh', rot = 0)
Out[76]: <matplotlib.axes._subplots.AxesSubplot at 0x119217050>
```

```
In [77]: plt.show()
```

```
-----
NameError                                Traceback (most recent call last)
<ipython-input-77-c4e69632d98a> in <module>()
----> 1 plt.show()
```

```
NameError: name 'plt' is not defined
```

```
In [78]: plot.show()
```

```
-----
NameError                                Traceback (most recent call last)
<ipython-input-78-104bfcfa303e> in <module>()
----> 1 plot.show()
```

```
NameError: name 'plot' is not defined
```

```
In [79]: show
```

```
-----  
NameError                                Traceback (most recent call last)  
<ipython-input-79-70fa03b6c3ec> in <module>()  
----> 1 show
```

```
NameError: name 'show' is not defined
```

```
In [80]: %matplotlib inline
```

```
UsageError: Invalid GUI request u'inline', valid ones are: pyglet, osx, qt5, qt, glut, gtk, gtk3, tk, wx
```

```
In [81]: import ma
```

```
macerrors      macpath      mactypes      mailbox      markupbase    marshal      matplotlib  
macostools     macresource  macurl2path  mailcap      markupsafe    math
```

```
In [81]: import matplotlib
```

```
In [82]: %matplotlib inline
```

```
UsageError: Invalid GUI request u'inline', valid ones are: pyglet, osx, qt5, qt, glut, gtk, gtk3, tk, wx
```

```
In [83]: %matplotlib
```

```
Using matplotlib backend: MacOSX
```

```
In [84]: tz_counts[:10].plot(kind='barh', rot = 0)
```

```
Out[84]: <matplotlib.axes._subplots.AxesSubplot at 0x11a91f750>
```

```
In [85]: import seaborn
```

```
In [86]: tz_counts[:10].plot(kind='barh', rot = 0)
```

```
Out[86]: <matplotlib.axes._subplots.AxesSubplot at 0x11a91f750>
```

```
In [87]: results = S
```

```
%%SVG      StandardError  SyntaxError  SystemError  
Series      StopIteration  SyntaxWarning  SystemExit
```

```
In [87]: results = Series([x.split()[0] for x in frame.a.dropna()])
```

```
In [88]: results[:5]
```

```
Out[88]:  
0      Mozilla/5.0  
1  GoogleMaps/RochesterNY  
2      Mozilla/4.0  
3      Mozilla/5.0  
4      Mozilla/5.0  
dtype: object
```

```
In [89]: results.value_counts()[:8]
```

```
Out[89]:  
Mozilla/5.0      2594  
Mozilla/4.0      601  
GoogleMaps/RochesterNY  121  
Opera/9.80       34  
TEST_INTERNET_AGENT  24  
GoogleProducer   21  
Mozilla/6.0      5  
BlackBerry8520/5.0.0.681  4  
dtype: int64
```

```
In [90]: cframe = frame[frame.a.notnull()]
```

```
In [91]: import numpy as np
```

```
In [92]: operating_system = np.where(cframe['a'].str.contains('Windows'), 'Windows', 'Not Windows')
```

```
In [93]: operating_system[:5]
```

```
Out[93]:  
array(['Windows', 'Not Windows', 'Windows', 'Not Windows', 'Windows'],
```

```
dtype='iS11')
```

```
In [94]: by_tz_os = cframe.groupby(['tz', operating_system])
```

```
In [95]: agg_counts = by  
by_tz_os    bytearray    bytes
```

```
In [95]: agg_counts = by_tz_os.size().unstack().fillna(0)
```

```
In [96]: indexer = agg_counts.sum(1).argsort()
```

```
In [97]: count_subset =
```

```
Display all 465 possibilities? (y or n)
```

%%!	Out	_i9
%%HTML	OverflowError	_i90
%%SVG	PendingDeprecationWarning	_i91
%%bash	ReferenceError	_i92
%%capture	RuntimeError	_i93
%%debug	RuntimeWarning	_i94
%%file	Series	_i95
%%html	StandardError	_i96
%%javascript	StopIteration	_ih
%%latex	SyntaxError	_ii
%%perl	SyntaxWarning	_iii
%%prun	SystemError	_oh
%%pypy	SystemExit	_sh
%%python	TabError	abs
%%python2	True	agg_counts
%%python3	TypeError	all
%%ruby	UnboundLocalError	and
%%script	UnicodeDecodeError	any
%%sh	UnicodeEncodeError	apply
%%svg	UnicodeError	as
%%sx	UnicodeTranslateError	assert
%%system	UnicodeWarning	basestring
%%time	UserWarning	bin
%%timeit	ValueError	bool
%%writefile	Warning	break
%alias	ZeroDivisionError	buffer
%alias_magic	-	by_tz_os
%autocall	_23	bytearray
%autoindent	_26	bytes
%automagic	_27	callable
%bookmark	_33	cframe
%cat	_39	chr
%cd	_40	class
%clear	_41	classmethod
%colors	_43	clean_tz
%config	_47	cmp
%cp	_48	coerce
%cpaste	_53	compile
%debug	_54	complex
%dhist	_56	continue
%dirs	_58	copyright
%doctest_mode	_60	counts
%ed	_63	credits
%edit	_66	def
%env	_67	defaultdict
%gui	_71	del
%hist	_73	delattr
%history	_74	dict
%install_default_config	_76	dir
%install_ext	_84	divmod
%install_profiles	_86	reload
%killbgscripts	_88	elif
%ldir	_89	else
%less	_93	enumerate
%lf	--	eval



%lk	__IPYTHON__	except
%ll	__IPYTHON__active	exec
%load	---	execfile
%load_ext	__builtin__	exit
%loadpy	__debug__	file
%logoff	__doc__	filter
%logon	__import__	finally
%logstart	__name__	float
%logstate	__package__	for
%logstop	_dh	format
%ls	_exit_code	frame
%lsmagic	_i	from
%lx	_i1	frozenset
%macro	_i10	get_counts
%magic	_i11	get_counts2
%man	_i12	get_ipython
%matplotlib	_i13	getattr
%mkdir	_i14	global
%more	_i15	globals
%mv	_i16	hasattr
%notebook	_i17	hash
%page	_i18	help
%paste	_i19	hex
%pastebin	_i2	id
%pdb	_i20	if
%pdef	_i21	import
%pdoc	_i22	in
%pfile	_i23	indexer
%pinfo	_i24	input
%pinfo2	_i25	int
%popd	_i26	intern
%pprint	_i27	is
%precision	_i28	isinstance
%profile	_i29	issubclass
%prun	_i3	iter
%psearch	_i30	json
%psource	_i31	lambda
%pushd	_i32	len
%pwd	_i33	license
%pycat	_i34	line
%pylab	_i35	list
%quickref	_i36	locals
%recall	_i37	long
%rehashx	_i38	map
%reload_ext	_i39	matplotlib
%rep	_i4	max
%rerun	_i40	memoryview
%reset	_i41	min
%reset_selective	_i42	next
%rm	_i43	not
%rmdir	_i44	np
%run	_i45	object
%save	_i46	oct
%sc	_i47	open
%set_env	_i48	operating_system
%store	_i49	or
%sx	_i5	ord
%system	_i50	pass
%tb	_i51	path
%time	_i52	pd
%timeit	_i53	pow
%unalias	_i54	print
%unload_ext	_i55	property
%who	_i56	quit
%who_ls	_i57	raise
%whos	_i58	range
%xdel	_i59	raw_input
%xmode	_i6	rec

ArithmeticError	_i60	records
AssertionError	_i61	reduce
AttributeError	_i62	reload
BaseException	_i63	repr
BufferError	_i64	results
BytesWarning	_i65	return
Counter	_i66	reversed
DataFrame	_i67	round
DeprecationWarning	_i68	seaborn
EOFError	_i69	set
Ellipsis	_i7	setattr
EnvironmentError	_i70	slice
Exception	_i71	sorted
False	_i72	staticmethod
FloatingPointError	_i73	str
FutureWarning	_i74	sum
GeneratorExit	_i75	super
IOError	_i76	time_zones
ImportError	_i77	top10_counts
ImportWarning	_i78	try
In	_i79	tuple
IndentationError	_i8	type
IndexError	_i80	tz_counts
KeyError	_i81	unichr
KeyboardInterrupt	_i82	unicode
LookupError	_i83	vars
MemoryError	_i84	while
NameError	_i85	with
None	_i86	x
NotImplemented	_i87	xrange
NotImplementedError	_i88	yield
OSError	_i89	zip

```
In [97]: count_subset = a
%alias      %autocall      %automagic      agg_counts      and      apply      assert
%alias_magic %autoindent  abs      all      any      as
```

```
In [97]: count_subset = agg_counts.take(indexer)[-10:]
```

```
In [98]: count_subset
```

```
Out[98]:
```

	Not Windows	Windows
tz		
America/Sao_Paulo	13.0	20.0
Europe/Madrid	16.0	19.0
Pacific/Honolulu	0.0	36.0
Asia/Tokyo	2.0	35.0
Europe/London	43.0	31.0
America/Denver	132.0	59.0
America/Los_Angeles	130.0	252.0
America/Chicago	115.0	285.0
	245.0	276.0
America/New_York	339.0	912.0

```
In [99]: normed_subset = count_subset.div(count_subset.sum(1), axis = 0)
```

```
In [100]: normed_subset.plot(kind = 'barh', stacked=True)
```

```
Out[100]: <matplotlib.axes._subplots.AxesSubplot at 0x11b38a990>
```

```
In [101]: count_subset.plot(kind = 'barh', stacked = True)
```

```
-----
NameError                                Traceback (most recent call last)
```

```
<ipython-input-101-9b632dd896a3> in <module>()
```

```
----> 1 count_subset.plot(kind = 'barh', stacked = True)
```

```
NameError: name 'count' is not defined
```

```
In [102]: count_subset.plot(kind = 'barh', stacked = True)
```