

# Exercício - Compras de Comércio Eletrônico

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Neste exercício, você receberá alguns dados falsos sobre algumas compras feitas pela Amazon! Basta seguir as instruções e tente dar melhor para responder as perguntas e completar as tarefas. Sinta-se a vontade para dar uma olhada nas soluções. A maioria das tarefas pode ser resolvida de diferentes maneiras. Para a maior parte, as perguntas ficam cada vez mais difíceis.

Os dados são falsos.

Todas essas questões podem ser respondidas com uma linha de código.

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**Importe pandas e leia o arquivo csv "ComprasComercioEletronico.csv" e configure-o para um DataFrame chamado ecom.**

In [2]:

```
import pandas as pd
import numpy as np
from pandas import DataFrame
```

In [3]:

```
from numpy.random import randn
np.random.seed(101)
```

In [4]:

```
# Le e armazenar em df - Federal Deposit Insurance Corporation
df = pd.read_html('http://www.fdic.gov/bank/individual/failed/banklist.html')
```

In [5]:

```
df = pd.read_csv('CSV/ComprasComercioEletronico.csv')
#df = pd.read_csv('CSV/ComprasComercioEletronico.csv', sep=';', encoding='ISO-8859-1')
#df = pd.read_csv("ComprasComercioEletronico.csv", sep=';', encoding='ISO-8859-1')
```

**Verifique o "head" do DataFrame.**

In [34]:

```
# Exemplo com excel
#df2 = pd.read_excel('Exemplo_Excel.xlsx', sheetname='Sheet1')
```

In [6]:

```
df.head
```

Out[6]:

```

<bound method NDFrame.head of
Address      Lot AM or PM  \
0      16629 Pace Camp Apt. 448\nAlexisborough, NE 77... 46 in      PM
1      9374 Jasmine Spurs Suite 508\nSouth John, TN 8... 28 rn      PM
2              Unit 0065 Box 5052\nDPO AP 27450      94 vE      PM
3              7780 Julia Fords\nNew Stacy, WA 45798      36 vm      PM
4      23012 Munoz Drive Suite 337\nNew Cynthia, TX 5... 20 IE      AM
5      7502 Powell Mission Apt. 768\nTravisland, VA 3... 21 XT      PM
6      93971 Conway Causeway\nAndersonburgh, AZ 75107      96 Xt      AM
7      260 Rachel Plains Suite 366\nCastroberg, WV 24... 96 pG      PM
8              2129 Dylan Burg\nNew Michelle, ME 28650      45 JN      PM
9      3795 Dawson Extensions\nLake Tinafort, ID 88739      15 Ug      AM
10     650 Elizabeth Park\nLake Maria, LA 13526-2530      65 Yn      PM
11     349 Laurie Parks\nThomasview, ID 08970      30 kK      PM
12     733 Heather Rest Apt. 670\nBoltonport, UT 78662      69 DO      AM
13     118 Melton Via Suite 681\nAlexanderbury, FL 32104      36 bu      PM
14     8774 Jason Keys Suite 427\nEast Scottborough, ... 70 zH      AM
15     31730 Chelsea Crest\nBlakemouth, CT 90395-0620      41 Cj      PM
16     5283 Thomas Trafficway Suite 343\nEast Brittne... 31 ho      AM
17     950 Jacqueline Village Apt. 592\nPort Kimberly... 23 Rh      PM
18     461 Christopher Square\nWest Michaelchester, C... 17 SB      PM
19     125 Hall Summit\nBoothton, IL 41721      99 CU      PM
20     7383 George Village\nLake Jamesview, CO 79828      23 dk      PM
21     282 Miller Valleys Suite 404\nWilkinsonbury, M... 24 RZ      AM
22     625 Laura Summit Suite 112\nShortmouth, AK 97156      45 oa      PM
23     25292 Shepherd Trail Apt. 798\nRussellmouth, S... 31 pS      PM
24     Unit 3046 Box 3197\nDPO AE 61496-4172      62 Ac      AM
25     80797 Ryan Trail Apt. 752\nAaronhaven, MI 0622... 66 SO      PM
26     5334 Sheppard Fort\nNorth Kirsten, ND 71170      40 ND      AM
27     5015 Smith Harbors\nSouth Ashley, OK 81283      34 JQ      PM
28     50533 Cooper Cliffs\nNorth Jonathanberg, MD 20482      17 kP      PM
29     30755 Joshua Plaza Apt. 567\nWest Susanton, FM... 93 OP      PM
...
9970     0060 Keith Stream\nWestport, CO 47097      11 nt      PM
9971     5806 Martinez Point\nLake Abigailstad, MD 6183... 07 wI      AM
9972     89504 Flynn Overpass Suite 822\nNew Elijah, WV... 23 eL      AM
9973     92126 Daniel Streets\nNorth Patricia, IA 10477      04 QN      PM
9974     500 Powell Rapid Apt. 114\nClarkfort, FL 70488      48 is      AM
9975     5208 Hanson Trail Suite 527\nSouth Jonathanshi... 67 OX      PM
9976     5419 Cruz Island Apt. 033\nLake Todd, AK 24863... 93 FM      PM
9977     02182 Keith Expressway\nEast Shannon, CT 20578... 34 RL      AM
9978     991 Watts Court\nSouth Danielstad, IA 39032-8865      66 eb      AM
9979     00490 Joseph Haven Apt. 149\nWest Keithfurt, S... 69 XK      PM
9980     6061 Dave Lights\nPhillipsview, UT 40500      25 Mv      AM
9981     087 Larson Roads Apt. 587\nRicestad, WI 98077-... 95 Kw      AM
9982     18044 Mcintosh Row Apt. 122\nLake Jennifer, NC... 77 uq      PM
9983     PSC 5678, Box 4503\nAPO AP 94998-5546      79 cd      AM
9984     7560 Boyle Keys\nAntoniomouth, DC 00522-0367      72 Qb      AM
9985     7456 Stevens Rest\nEricside, FL 16389      27 Yv      PM
9986     2719 Troy Drive Suite 062\nLisachester, PW 414... 80 Wl      PM
9987     2754 Klein Mission\nJohnsonview, PA 64925-9624      65 Fg      PM
9988     0154 Green Forest\nNew Timothy, IL 33670-4620      11 MC      AM
9989     5674 Cruz Trace\nNew Shelby, KY 51047-5469      12 Kf      AM
9990     75731 Molly Springs\nWest Danielle, VT 96934-5102      93 ty      PM
9991     PSC 8165, Box 8498\nAPO AP 60327-0346      50 dA      AM
9992     885 Allen Mountains Apt. 230\nWallhaven, LA 16995      40 vH      PM
9993     7555 Larson Locks Suite 229\nEllisburgh, MA 34... 72 jg      PM
9994     6276 Rojas Hollow\nLake Louis, WY 56410-7837      93 Ex      PM
9995     966 Castaneda Locks\nWest Juliafurt, CO 96415      92 XI      PM

```

9996	832 Curtis Dam Suite 785\nNorth Edwardburgh, T...	41 JY	AM
9997	Unit 4434 Box 6343\nDPO AE 28026-0283	74 Zh	AM
9998	0096 English Rest\nRoystad, IA 12457	74 cL	PM
9999	40674 Barrett Stravenue\nGrimesville, WI 79682	64 Hr	AM

## Browser Info \

```

0 Opera/9.56.(X11; Linux x86_64; sl-SI) Presto/2...
1 Opera/8.93.(Windows 98; Win 9x 4.90; en-US) Pr...
2 Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...
3 Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_0 ...
4 Opera/9.58.(X11; Linux x86_64; it-IT) Presto/2...
5 Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_8_5...
6 Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...
7 Mozilla/5.0 (X11; Linux i686) AppleWebKit/5350...
8 Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...
9 Mozilla/5.0 (X11; Linux i686; rv:1.9.7.20) Gec...
10 Mozilla/5.0 (iPod; U; CPU iPhone OS 4_1 like M...
11 Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...
12 Mozilla/5.0 (Macintosh; Intel Mac OS X 10_5_3 ...
13 Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...
14 Mozilla/5.0 (Windows 98; it-IT; rv:1.9.2.20) G...
15 Opera/8.95.(Windows NT 5.0; en-US) Presto/2.9....
16 Opera/9.73.(Windows NT 6.2; sl-SI) Presto/2.9....
17 Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...
18 Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...
19 Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...
20 Mozilla/5.0 (Windows; U; Windows NT 4.0) Apple...
21 Mozilla/5.0 (compatible; MSIE 6.0; Windows NT ...
22 Mozilla/5.0 (Windows 95) AppleWebKit/5342 (KHT...
23 Mozilla/5.0 (compatible; MSIE 5.0; Windows 98;...
24 Mozilla/5.0 (compatible; MSIE 6.0; Windows CE;...
25 Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_1...
26 Mozilla/5.0 (Macintosh; Intel Mac OS X 10_6_3)...
27 Opera/9.75.(Windows NT 6.0; en-US) Presto/2.9....
28 Mozilla/5.0 (Windows; U; Windows NT 6.1) Apple...
29 Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_7...
...
9970 Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...
9971 Mozilla/5.0 (X11; Linux i686) AppleWebKit/5360...
9972 Mozilla/5.0 (Windows NT 5.1; en-US; rv:1.9.2.2...
9973 Mozilla/5.0 (Windows NT 5.2) AppleWebKit/5362 ...
9974 Mozilla/5.0 (Windows 95) AppleWebKit/5312 (KHT...
9975 Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_8...
9976 Opera/9.38.(Windows NT 5.01; it-IT) Presto/2.9...
9977 Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...
9978 Mozilla/5.0 (Macintosh; PPC Mac OS X 10_7_3; r...
9979 Mozilla/5.0 (Windows NT 6.1) AppleWebKit/5311 ...
9980 Opera/8.58.(Windows NT 5.0; it-IT) Presto/2.9....
9981 Opera/9.63.(Windows NT 5.01; en-US) Presto/2.9...
9982 Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_0...
9983 Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...
9984 Mozilla/5.0 (Windows; U; Windows 98; Win 9x 4....
9985 Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...
9986 Mozilla/5.0 (Windows NT 5.2; sl-SI; rv:1.9.1.2...
9987 Opera/9.26.(Windows CE; sl-SI) Presto/2.9.188 ...
9988 Mozilla/5.0 (compatible; MSIE 7.0; Windows 98;...
9989 Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...
9990 Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7_4;...
9991 Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...
9992 Mozilla/5.0 (Macintosh; PPC Mac OS X 10_6_5) A...
9993 Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...

```

9994 Opera/9.68.(X11; Linux x86\_64; sl-SI) Presto/2...  
 9995 Mozilla/5.0 (Windows NT 5.1) AppleWebKit/5352 ...  
 9996 Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...  
 9997 Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10\_7...  
 9998 Mozilla/5.0 (Macintosh; Intel Mac OS X 10\_8\_8;...  
 9999 Mozilla/5.0 (X11; Linux i686; rv:1.9.5.20) Gec...

	Company	Credit Card	CC Exp Date	\
0	Martinez-Herman	6011929061123406	02/20	
1	Fletcher, Richards and Whitaker	3337758169645356	11/18	
2	Simpson, Williams and Pham	675957666125	08/19	
3	Williams, Marshall and Buchanan	6011578504430710	02/24	
4	Brown, Watson and Andrews	6011456623207998	10/25	
5	Silva-Anderson	30246185196287	07/25	
6	Gibson and Sons	6011398782655569	07/24	
7	Marshall-Collins	561252141909	06/25	
8	Galloway and Sons	180041795790001	04/24	
9	Rivera, Buchanan and Ramirez	4396283918371	01/17	
10	Strickland, Michael and Gonzales	180036417827355	02/17	
11	Kim-Oliver	869975209012056	06/26	
12	Moore-Martin	5115990487067905	05/26	
13	Keller PLC	4603635169938574	01/25	
14	Leach, Howe and Ferguson	869967499275071	09/22	
15	Garcia-Steele	180069437020404	04/25	
16	Stanton, Villanueva and Swanson	676121145525	06/22	
17	Fernandez, Melton and Gilbert	3337515540944084	01/26	
18	Beard, Abbott and Pena	6011350184276270	12/22	
19	Turner-Mckinney	676343504830	02/20	
20	Santana, Montes and Pierce	6011833038852776	03/22	
21	Guzman-Reese	5491255326230898	03/25	
22	Burnett Ltd	3158663456056588	07/22	
23	Cruz Inc	502010078983	02/23	
24	Morris PLC	4749728852401144	07/18	
25	Saunders-Mendez	869938033091779	05/19	
26	Stephens, Johnson and Combs	60488441233	03/19	
27	Levine, Shaw and Jenkins	869948145612941	12/16	
28	Reed Inc	180026477662982	11/24	
29	Goodwin Ltd	4170734785397597	07/22	
...	...	...	...	
9970	Carpenter, Good and Hart	6011485664704662	07/19	
9971	Brewer-Howard	5359660631103048	01/21	
9972	Davis, Wise and Diaz	370589883240776	04/22	
9973	Morrow Inc	501850922854	02/19	
9974	Griffin-Lopez	630407297302	04/26	
9975	Bowen-Nelson	5361597780221625	01/19	
9976	Henderson-Kelley	4458996242274056	08/21	
9977	Deleon, Jacobson and Benton	4186094003664688	06/21	
9978	Perez Group	3088185172584201	11/21	
9979	Randall-Ramirez	346734838013255	10/23	
9980	Cortez-Frye	6011944199756993	12/24	
9981	Ortiz, Schultz and Adams	4690863684605	01/19	
9982	Chen LLC	210040992311995	09/18	
9983	Hall-Cantu	343856674589081	04/23	
9984	Johnson-Brandt	3088208142188125	03/21	
9985	Murphy-Cook	6011264939622870	08/21	
9986	Campbell-Hurley	4220882411745414	08/18	
9987	Curtis LLC	180027305702263	12/24	
9988	Williams-Walker	4207292109379681	10/16	
9989	Vargas, Nichols and Martinez	5278049688438382	12/23	
9990	Pace, Vazquez and Richards	869968197049750	04/24	
9991	Snyder Inc	4221582137197481	02/24	

9992	Wells Ltd	4664825258997302	10/20
9993	Colon and Sons	30025560104631	10/25
9994	Ritter-Smith	3112186784121077	01/25
9995	Randall-Sloan	342945015358701	03/22
9996	Hale, Collins and Wilson	210033169205009	07/25
9997	Anderson Ltd	6011539787356311	05/21
9998	Cook Inc	180003348082930	11/17
9999	Greene Inc	4139972901927273	02/19

	CC Security Code	CC Provider \
0	900	JCB 16 digit
1	561	Mastercard
2	699	JCB 16 digit
3	384	Discover
4	678	Diners Club / Carte Blanche
5	7169	Discover
6	714	VISA 16 digit
7	256	VISA 13 digit
8	899	JCB 16 digit
9	931	American Express
10	754	Voyager
11	9717	JCB 15 digit
12	119	VISA 16 digit
13	557	VISA 16 digit
14	427	VISA 16 digit
15	404	Diners Club / Carte Blanche
16	285	Diners Club / Carte Blanche
17	771	American Express
18	767	Mastercard
19	440	VISA 16 digit
20	740	Maestro
21	506	JCB 16 digit
22	508	Discover
23	60	VISA 13 digit
24	11	JCB 15 digit
25	901	Voyager
26	70	VISA 13 digit
27	310	Diners Club / Carte Blanche
28	16	JCB 15 digit
29	319	Maestro
...	...	...
9970	543	Discover
9971	586	Voyager
9972	748	VISA 13 digit
9973	2708	American Express
9974	627	VISA 16 digit
9975	225	JCB 16 digit
9976	291	VISA 16 digit
9977	397	JCB 16 digit
9978	589	Discover
9979	224	JCB 16 digit
9980	755	JCB 15 digit
9981	695	Mastercard
9982	79	JCB 16 digit
9983	206	JCB 16 digit
9984	572	Maestro
9985	847	VISA 16 digit
9986	460	JCB 16 digit
9987	865	Mastercard
9988	571	Diners Club / Carte Blanche
9989	996	VISA 16 digit

9990	877	JCB 15 digit
9991	969	Voyager
9992	431	Discover
9993	629	Maestro
9994	1823	Maestro
9995	838	JCB 15 digit
9996	207	JCB 16 digit
9997	1	VISA 16 digit
9998	987	American Express
9999	302	JCB 15 digit

Email \

0	pdunlap@yahoo.com
1	anthony41@reed.com
2	amymiller@morales-harrison.com
3	brent16@olson-robinson.info
4	christopherwright@gmail.com
5	ynguyen@gmail.com
6	olivia04@yahoo.com
7	phillip48@parks.info
8	kdavis@rasmussen.com
9	qcoleman@hunt-huerta.com
10	ustewart@hotmail.com
11	johnnymiller@coleman.com
12	tholt@hotmail.com
13	caitlin57@yahoo.com
14	aburns@yahoo.com
15	amanda39@yahoo.com
16	griffincatherine@wilson.com
17	stacymitchell@hall.com
18	hannah63@yahoo.com
19	ruiznicole@gmail.com
20	zstephenson@smith.info
21	rsmith@hotmail.com
22	chambersmichael@gmail.com
23	ltaylor@gardner-meadows.com
24	james07@yahoo.com
25	madison41@mooney.com
26	mlogan@gmail.com
27	michael35@hotmail.com
28	khandeborah@yahoo.com
29	stonekaren@yahoo.com
...	...
9970	rangelbrian@hotmail.com
9971	leslierichards@warner.org
9972	kellycole@hotmail.com
9973	rlewis@yahoo.com
9974	paula72@yahoo.com
9975	taylordiaz@roman.net
9976	pbrown@gmail.com
9977	daltoncarter@yahoo.com
9978	ywhite@hotmail.com
9979	qjohnson@yahoo.com
9980	mark74@kirby-stewart.org
9981	laurenbenett@richards.com
9982	heather24@gmail.com
9983	jacksonmanuel@rodriguez-welch.com
9984	clee@vasquez-luna.com
9985	cranejames@white.com
9986	belindaleon@schwartz.com
9987	denisehamilton@novak.biz

9988 hudsonmichael@pace.com  
 9989 walterswilliam@hotmail.com  
 9990 andersonmichael@sherman.biz  
 9991 kking@wise-liu.com  
 9992 bberry@wright.net  
 9993 chelseawilliams@lopez.biz  
 9994 iroberts@gmail.com  
 9995 iscott@wade-garner.com  
 9996 mary85@hotmail.com  
 9997 tyler16@gmail.com  
 9998 elizabethmoore@reid.net  
 9999 rachelford@vaughn.com

	Job	IP Address	Language \
0	Scientist, product/process development	149.146.147.205	el
1	Drilling engineer	15.160.41.51	fr
2	Customer service manager	132.207.160.22	de
3	Drilling engineer	30.250.74.19	es
4	Fine artist	24.140.33.94	es
5	Fish farm manager	55.96.152.147	ru
6	Dancer	127.252.144.18	de
7	Event organiser	224.247.97.150	pt
8	Financial manager	146.234.201.229	ru
9	Forensic scientist	236.198.199.8	zh
10	Development worker, community	26.59.93.1	el
11	Diagnostic radiographer	128.222.40.234	en
12	Surveyor, quantity	236.71.234.240	en
13	Accountant, chartered public finance	84.212.92.11	it
14	Acupuncturist	50.25.148.1	de
15	Retail manager	53.176.235.33	el
16	Therapist, art	8.145.170.52	de
17	Designer, jewellery	223.25.125.61	el
18	Photographer	73.250.176.201	el
19	Designer, interior/spatial	25.105.209.214	fr
20	Public relations officer	250.71.54.180	de
21	Presenter, broadcasting	125.58.66.253	it
22	Retail manager	65.106.61.141	en
23	Field seismologist	25.193.145.116	ru
24	Musician	21.113.231.220	es
25	Training and development officer	67.26.186.226	de
26	Barrister's clerk	61.197.134.185	en
27	Careers adviser	177.220.131.93	es
28	Scientist, research (life sciences)	142.131.235.225	es
29	Recycling officer	218.189.145.248	it
...	...	...	...
9970	Electrical engineer	242.8.85.205	en
9971	Therapist, art	81.2.189.127	de
9972	Sales professional, IT	102.53.225.61	zh
9973	Editor, magazine features	201.88.164.123	en
9974	Sports therapist	166.220.170.176	el
9975	Education officer, museum	114.197.6.210	zh
9976	Furniture designer	109.108.177.2	es
9977	Biomedical engineer	146.238.118.2	fr
9978	Designer, exhibition/display	232.219.30.162	de
9979	Lawyer	17.76.83.105	en
9980	Textile designer	110.103.77.195	fr
9981	Environmental education officer	106.21.237.73	pt
9982	Restaurant manager	93.254.124.2	it
9983	Scientist, research (life sciences)	245.22.66.225	de
9984	Editor, commissioning	140.157.37.218	el
9985	Designer, interior/spatial	188.73.131.92	de



9986	Cabin crew	110.103.102.55	it
9987	Primary school teacher	164.39.190.217	es
9988	Charity fundraiser	136.169.160.82	de
9989	Community development worker	39.162.164.169	pt
9990	Early years teacher	54.170.3.185	ru
9991	IT sales professional	254.25.31.156	el
9992	Set designer	174.173.51.32	de
9993	Designer, exhibition/display	177.46.82.128	el
9994	Education officer, museum	242.44.112.18	zh
9995	Printmaker	29.73.197.114	it
9996	Energy engineer	121.133.168.51	pt
9997	Veterinary surgeon	156.210.0.254	el
9998	Local government officer	55.78.26.143	es
9999	Embryologist, clinical	176.119.198.199	el

## Purchase Price

0	98.14
1	70.73
2	0.95
3	78.04
4	77.82
5	25.15
6	88.56
7	44.25
8	59.54
9	95.63
10	96.89
11	19.26
12	39.65
13	8.93
14	24.18
15	71.78
16	84.44
17	58.68
18	70.15
19	58.39
20	30.33
21	90.93
22	33.62
23	97.97
24	85.31
25	6.25
26	17.75
27	39.40
28	70.75
29	82.16
...	...
9970	17.76
9971	65.06
9972	18.10
9973	83.30
9974	66.45
9975	3.77
9976	37.73
9977	94.93
9978	14.49
9979	14.55
9980	16.05
9981	63.61
9982	56.25
9983	47.70

9984	33.57
9985	46.33
9986	22.02
9987	60.83
9988	89.76
9989	17.18
9990	18.35
9991	25.93
9992	67.96
9993	65.61
9994	31.85
9995	82.21
9996	25.63
9997	83.98
9998	38.84
9999	67.59

[10000 rows x 14 columns]>

### Quantas linhas e colunas existem?

In [ ]:

```
# df tem 10000 linhas e 14 colunas
```

In [7]:

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10000 entries, 0 to 9999
Data columns (total 14 columns):
Address                10000 non-null object
Lot                    10000 non-null object
AM or PM               10000 non-null object
Browser Info           10000 non-null object
Company                10000 non-null object
Credit Card            10000 non-null int64
CC Exp Date            10000 non-null object
CC Security Code        10000 non-null int64
CC Provider            10000 non-null object
Email                  10000 non-null object
Job                    10000 non-null object
IP Address             10000 non-null object
Language               10000 non-null object
Purchase Price         10000 non-null float64
dtypes: float64(1), int64(2), object(11)
memory usage: 1.1+ MB
```

In [8]:

```
sum(df[df['Job']!='xx']['Address'].value_counts() == 1)
```

Out[8]:

10000

### Qual é o preço de compra médio?

In [77]:

```
df
```

Out[77]:

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
0	16629 Pace Camp Apt. 448\nAlexisborough, NE 77...	46 in	PM	Opera/9.56.(X11; Linux x86_64; sl-SI) Presto/2...	Martinez- Herman	6011929061123406
1	9374 Jasmine Spurs Suite 508\nSouth John, TN 8...	28 rn	PM	Opera/8.93. (Windows 98; Win 9x 4.90; en-US) Pr...	Fletcher, Richards and Whitaker	3337758169645356
2	Unit 0065 Box 5052\nDPO AP 27450	94 vE	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Simpson, Williams and Pham	675957666125
3	7780 Julia Fords\nNew Stacy, WA 45798	36 vm	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_0 ...	Williams, Marshall and Buchanan	6011578504430710
4	23012 Munoz Drive Suite 337\nNew Cynthia, TX 5...	20 IE	AM	Opera/9.58.(X11; Linux x86_64; it-IT) Presto/2...	Brown, Watson and Andrews	6011456623207998
5	7502 Powell Mission Apt. 768\nTravisland, VA 3...	21 XT	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_8_5...	Silva- Anderson	30246185196287
6	93971 Conway Causeway\nAndersonburgh, AZ 75107	96 Xt	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Gibson and Sons	6011398782655569
7	260 Rachel Plains Suite 366\nCastroberg, WV 24...	96 pG	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5350...	Marshall- Collins	561252141909
8	2129 Dylan Burg\nNew Michelle, ME 28650	45 JN	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Galloway and Sons	180041795790001
9	3795 Dawson Extensions\nLake Tinafort, ID 88739	15 Ug	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.7.20) Gec...	Rivera, Buchanan and Ramirez	4396283918371
10	650 Elizabeth Park\nLake Maria, LA 13526-2530	65 Yn	PM	Mozilla/5.0 (iPod; U; CPU iPhone OS 4_1 like M...	Strickland, Michael and Gonzales	180036417827355
11	349 Laurie Parks\nThomasview, ID 08970	30 kK	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Kim-Oliver	869975209012056
12	733 Heather Rest Apt. 670\nBoltonport, UT 78662	69 DO	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_5_3 ...	Moore- Martin	5115990487067905
13	118 Melton Via Suite 681\nAlexanderbury, FL 32104	36 bu	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Keller PLC	4603635169938574
14	8774 Jason Keys Suite 427\nEast Scottborough, ...	70 zH	AM	Mozilla/5.0 (Windows 98; it-IT; rv:1.9.2.20) G...	Leach, Howe and Ferguson	869967499275071

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
15	31730 Chelsea Crest\nBlakemouth, CT 90395-0620	41 Cj	PM	Opera/8.95. (Windows NT 5.0; en-US) Presto/2.9....	Garcia- Steele	180069437020404
16	5283 Thomas Trafficway Suite 343\nEast Brittne...	31 ho	AM	Opera/9.73. (Windows NT 6.2; sl-SI) Presto/2.9....	Stanton, Villanueva and Swanson	676121145525
17	950 Jacqueline Village Apt. 592\nPort Kimberly...	23 Rh	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Fernandez, Melton and Gilbert	3337515540944084
18	461 Christopher Square\nWest Michaelchester, C...	17 SB	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Beard, Abbott and Pena	6011350184276270
19	125 Hall Summit\nBoothton, IL 41721	99 CU	PM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Turner- Mckinney	676343504830
20	7383 George Village\nLake Jamesview, CO 79828	23 dk	PM	Mozilla/5.0 (Windows; U; Windows NT 4.0) Apple...	Santana, Montes and Pierce	6011833038852776
21	282 Miller Valleys Suite 404\nWilkinsonbury, M...	24 RZ	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows NT ...	Guzman- Reese	5491255326230898
22	625 Laura Summit Suite 112\nShortmouth, AK 97156	45 oa	PM	Mozilla/5.0 (Windows 95) AppleWebKit/5342 (KHT...	Burnett Ltd	3158663456056588
23	25292 Shepherd Trail Apt. 798\nRussellmouth, S...	31 pS	PM	Mozilla/5.0 (compatible; MSIE 5.0; Windows 98;...	Cruz Inc	502010078983
24	Unit 3046 Box 3197\nDPO AE 61496-4172	62 Ac	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows CE;...	Morris PLC	4749728852401144
25	80797 Ryan Trail Apt. 752\nAaronhaven, MI 0622...	66 SO	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_1...	Saunders- Mendez	869938033091779
26	5334 Sheppard Fort\nNorth Kirsten, ND 71170	40 ND	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_6_3)...	Stephens, Johnson and Combs	60488441233
27	5015 Smith Harbors\nSouth Ashley, OK 81283	34 JQ	PM	Opera/9.75. (Windows NT 6.0; en-US) Presto/2.9....	Levine, Shaw and Jenkins	869948145612941
28	50533 Cooper Cliffs\nNorth Jonathanberg, MD 20482	17 kP	PM	Mozilla/5.0 (Windows; U; Windows NT 6.1) Apple...	Reed Inc	180026477662982
29	30755 Joshua Plaza Apt. 567\nWest Susanton, FM...	93 OP	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_7...	Goodwin Ltd	4170734785397597
...	...	...	...	...	...	...
9970	0060 Keith Stream\nWestport, CO 47097	11 nt	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Carpenter, Good and Hart	6011485664704662

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
9971	5806 Martinez Point\nLake Abigailstad, MD 6183...	07 wl	AM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5360...	Brewer- Howard	5359660631103048
9972	89504 Flynn Overpass Suite 822\nNew Elijah, WV...	23 eL	AM	Mozilla/5.0 (Windows NT 5.1; en-US; rv:1.9.2.2...	Davis, Wise and Diaz	370589883240776
9973	92126 Daniel Streets\nNorth Patricia, IA 10477	04 QN	PM	Mozilla/5.0 (Windows NT 5.2) AppleWebKit/5362 ...	Morrow Inc	501850922854
9974	500 Powell Rapid Apt. 114\nClarkfort, FL 70488	48 is	AM	Mozilla/5.0 (Windows 95) AppleWebKit/5312 (KHT...	Griffin- Lopez	630407297302
9975	5208 Hanson Trail Suite 527\nSouth Jonathanshi...	67 OX	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_8...	Bowen- Nelson	5361597780221625
9976	5419 Cruz Island Apt. 033\nLake Todd, AK 24863...	93 FM	PM	Opera/9.38. (Windows NT 5.01; it-IT) Presto/2.9...	Henderson- Kelley	4458996242274056
9977	02182 Keith Expressway\nEast Shannon, CT 20578...	34 RL	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Deleon, Jacobson and Benton	4186094003664688
9978	991 Watts Court\nSouth Danielstad, IA 39032-8865	66 eb	AM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_7_3; r...	Perez Group	3088185172584201
9979	00490 Joseph Haven Apt. 149\nWest Keithfurt, S...	69 XK	PM	Mozilla/5.0 (Windows NT 6.1) AppleWebKit/5311 ...	Randall- Ramirez	346734838013255
9980	6061 Dave Lights\nPhillipsview, UT 40500	25 Mv	AM	Opera/8.58. (Windows NT 5.0; it- IT) Presto/2.9....	Cortez- Frye	6011944199756993
9981	087 Larson Roads Apt. 587\nRicestad, WI 98077-...	95 Kw	AM	Opera/9.63. (Windows NT 5.01; en-US) Presto/2.9...	Ortiz, Schultz and Adams	4690863684605
9982	18044 McIntosh Row Apt. 122\nLake Jennifer, NC...	77 uq	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_0...	Chen LLC	210040992311995
9983	PSC 5678, Box 4503\nAPO AP 94998-5546	79 cd	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Hall-Cantu	343856674589081
9984	7560 Boyle Keys\nAntoniomouth, DC 00522-0367	72 Qb	AM	Mozilla/5.0 (Windows; U; Windows 98; Win 9x 4....	Johnson- Brandt	3088208142188125
9985	7456 Stevens Rest\nEricside, FL 16389	27 Yv	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Murphy- Cook	6011264939622870
9986	2719 Troy Drive Suite 062\nLisachester, PW 414...	80 WI	PM	Mozilla/5.0 (Windows NT 5.2; sl-SI; rv:1.9.1.2...	Campbell- Hurley	4220882411745414
9987	2754 Klein Mission\nJohnsonview, PA 64925-9624	65 Fg	PM	Opera/9.26. (Windows CE; sl-SI) Presto/2.9.188 ...	Curtis LLC	180027305702263

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
9988	0154 Green Forest\nNew Timothy, IL 33670-4620	11 MC	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows 98;...	Williams-Walker	4207292109379681
9989	5674 Cruz Trace\nNew Shelby, KY 51047-5469	12 Kf	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Vargas, Nichols and Martinez	5278049688438382
9990	75731 Molly Springs\nWest Danielle, VT 96934-5102	93 ty	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7_4;...	Pace, Vazquez and Richards	869968197049750
9991	PSC 8165, Box 8498\nAPO AP 60327-0346	50 dA	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Snyder Inc	4221582137197481
9992	885 Allen Mountains Apt. 230\nWallhaven, LA 16995	40 vH	PM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_6_5) A...	Wells Ltd	4664825258997302
9993	7555 Larson Locks Suite 229\nEllisburgh, MA 34...	72 jg	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Colon and Sons	30025560104631
9994	6276 Rojas Hollow\nLake Louis, WY 56410-7837	93 Ex	PM	Opera/9.68.(X11; Linux x86_64; sl-SI) Presto/2...	Ritter-Smith	3112186784121077
9995	966 Castaneda Locks\nWest Juliafurt, CO 96415	92 XI	PM	Mozilla/5.0 (Windows NT 5.1) AppleWebKit/5352 ...	Randall-Sloan	342945015358701
9996	832 Curtis Dam Suite 785\nNorth Edwardburgh, T...	41 JY	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Hale, Collins and Wilson	210033169205009
9997	Unit 4434 Box 6343\nDPO AE 28026-0283	74 Zh	AM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Anderson Ltd	6011539787356311
9998	0096 English Rest\nRoystad, IA 12457	74 cL	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_8;...	Cook Inc	180003348082930
9999	40674 Barrett Stravenue\nGrimesville, WI 79682	64 Hr	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.5.20) Gec...	Greene Inc	4139972901927273

10000 rows × 14 columns

In [9]:

```
df['Purchase Price'].mean()
```

Out[9]:

50.34730200000025

Quais foram os preços de compra mais altos e mais baixos?

In [79]:

```
df
```



Out[79]:

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
0	16629 Pace Camp Apt. 448\nAlexisborough, NE 77...	46 in	PM	Opera/9.56.(X11; Linux x86_64; sl-SI) Presto/2...	Martinez- Herman	6011929061123406
1	9374 Jasmine Spurs Suite 508\nSouth John, TN 8...	28 rn	PM	Opera/8.93. (Windows 98; Win 9x 4.90; en-US) Pr...	Fletcher, Richards and Whitaker	3337758169645356
2	Unit 0065 Box 5052\nDPO AP 27450	94 vE	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Simpson, Williams and Pham	675957666125
3	7780 Julia Fords\nNew Stacy, WA 45798	36 vm	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_0 ...	Williams, Marshall and Buchanan	6011578504430710
4	23012 Munoz Drive Suite 337\nNew Cynthia, TX 5...	20 IE	AM	Opera/9.58.(X11; Linux x86_64; it-IT) Presto/2...	Brown, Watson and Andrews	6011456623207998
5	7502 Powell Mission Apt. 768\nTravisland, VA 3...	21 XT	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_8_5...	Silva- Anderson	30246185196287
6	93971 Conway Causeway\nAndersonburgh, AZ 75107	96 Xt	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Gibson and Sons	6011398782655569
7	260 Rachel Plains Suite 366\nCastroberg, WV 24...	96 pG	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5350...	Marshall- Collins	561252141909
8	2129 Dylan Burg\nNew Michelle, ME 28650	45 JN	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Galloway and Sons	180041795790001
9	3795 Dawson Extensions\nLake Tinafort, ID 88739	15 Ug	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.7.20) Gec...	Rivera, Buchanan and Ramirez	4396283918371
10	650 Elizabeth Park\nLake Maria, LA 13526-2530	65 Yn	PM	Mozilla/5.0 (iPod; U; CPU iPhone OS 4_1 like M...	Strickland, Michael and Gonzales	180036417827355
11	349 Laurie Parks\nThomasview, ID 08970	30 kK	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Kim-Oliver	869975209012056
12	733 Heather Rest Apt. 670\nBoltonport, UT 78662	69 DO	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_5_3 ...	Moore- Martin	5115990487067905
13	118 Melton Via Suite 681\nAlexanderbury, FL 32104	36 bu	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Keller PLC	4603635169938574
14	8774 Jason Keys Suite 427\nEast Scottborough, ...	70 zH	AM	Mozilla/5.0 (Windows 98; it-IT; rv:1.9.2.20) G...	Leach, Howe and Ferguson	869967499275071

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
15	31730 Chelsea Crest\nBlakemouth, CT 90395-0620	41 Cj	PM	Opera/8.95. (Windows NT 5.0; en-US) Presto/2.9....	Garcia- Steele	180069437020404
16	5283 Thomas Trafficway Suite 343\nEast Brittne...	31 ho	AM	Opera/9.73. (Windows NT 6.2; sl-SI) Presto/2.9....	Stanton, Villanueva and Swanson	676121145525
17	950 Jacqueline Village Apt. 592\nPort Kimberly...	23 Rh	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Fernandez, Melton and Gilbert	3337515540944084
18	461 Christopher Square\nWest Michaelchester, C...	17 SB	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Beard, Abbott and Pena	6011350184276270
19	125 Hall Summit\nBoothton, IL 41721	99 CU	PM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Turner- Mckinney	676343504830
20	7383 George Village\nLake Jamesview, CO 79828	23 dk	PM	Mozilla/5.0 (Windows; U; Windows NT 4.0) Apple...	Santana, Montes and Pierce	6011833038852776
21	282 Miller Valleys Suite 404\nWilkinsonbury, M...	24 RZ	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows NT ...	Guzman- Reese	5491255326230898
22	625 Laura Summit Suite 112\nShortmouth, AK 97156	45 oa	PM	Mozilla/5.0 (Windows 95) AppleWebKit/5342 (KHT...	Burnett Ltd	3158663456056588
23	25292 Shepherd Trail Apt. 798\nRussellmouth, S...	31 pS	PM	Mozilla/5.0 (compatible; MSIE 5.0; Windows 98;...	Cruz Inc	502010078983
24	Unit 3046 Box 3197\nDPO AE 61496-4172	62 Ac	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows CE;...	Morris PLC	4749728852401144
25	80797 Ryan Trail Apt. 752\nAaronhaven, MI 0622...	66 SO	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_1...	Saunders- Mendez	869938033091779
26	5334 Sheppard Fort\nNorth Kirsten, ND 71170	40 ND	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_6_3)...	Stephens, Johnson and Combs	60488441233
27	5015 Smith Harbors\nSouth Ashley, OK 81283	34 JQ	PM	Opera/9.75. (Windows NT 6.0; en-US) Presto/2.9....	Levine, Shaw and Jenkins	869948145612941
28	50533 Cooper Cliffs\nNorth Jonathanberg, MD 20482	17 kP	PM	Mozilla/5.0 (Windows; U; Windows NT 6.1) Apple...	Reed Inc	180026477662982
29	30755 Joshua Plaza Apt. 567\nWest Susanton, FM...	93 OP	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_7...	Goodwin Ltd	4170734785397597
...	...	...	...	...	...	...
9970	0060 Keith Stream\nWestport, CO 47097	11 nt	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Carpenter, Good and Hart	6011485664704662

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
9971	5806 Martinez Point\nLake Abigailstad, MD 6183...	07 wl	AM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5360...	Brewer- Howard	5359660631103048
9972	89504 Flynn Overpass Suite 822\nNew Elijah, WV...	23 eL	AM	Mozilla/5.0 (Windows NT 5.1; en-US; rv:1.9.2.2...	Davis, Wise and Diaz	370589883240776
9973	92126 Daniel Streets\nNorth Patricia, IA 10477	04 QN	PM	Mozilla/5.0 (Windows NT 5.2) AppleWebKit/5362 ...	Morrow Inc	501850922854
9974	500 Powell Rapid Apt. 114\nClarkfort, FL 70488	48 is	AM	Mozilla/5.0 (Windows 95) AppleWebKit/5312 (KHT...	Griffin- Lopez	630407297302
9975	5208 Hanson Trail Suite 527\nSouth Jonathanshi...	67 OX	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_8...	Bowen- Nelson	5361597780221625
9976	5419 Cruz Island Apt. 033\nLake Todd, AK 24863...	93 FM	PM	Opera/9.38. (Windows NT 5.01; it-IT) Presto/2.9...	Henderson- Kelley	4458996242274056
9977	02182 Keith Expressway\nEast Shannon, CT 20578...	34 RL	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Deleon, Jacobson and Benton	4186094003664688
9978	991 Watts Court\nSouth Danielstad, IA 39032-8865	66 eb	AM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_7_3; r...	Perez Group	3088185172584201
9979	00490 Joseph Haven Apt. 149\nWest Keithfurt, S...	69 XK	PM	Mozilla/5.0 (Windows NT 6.1) AppleWebKit/5311 ...	Randall- Ramirez	346734838013255
9980	6061 Dave Lights\nPhillipsview, UT 40500	25 Mv	AM	Opera/8.58. (Windows NT 5.0; it- IT) Presto/2.9....	Cortez- Frye	6011944199756993
9981	087 Larson Roads Apt. 587\nRicestad, WI 98077-...	95 Kw	AM	Opera/9.63. (Windows NT 5.01; en-US) Presto/2.9...	Ortiz, Schultz and Adams	4690863684605
9982	18044 McIntosh Row Apt. 122\nLake Jennifer, NC...	77 uq	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_0...	Chen LLC	210040992311995
9983	PSC 5678, Box 4503\nAPO AP 94998-5546	79 cd	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Hall-Cantu	343856674589081
9984	7560 Boyle Keys\nAntoniomouth, DC 00522-0367	72 Qb	AM	Mozilla/5.0 (Windows; U; Windows 98; Win 9x 4....	Johnson- Brandt	3088208142188125
9985	7456 Stevens Rest\nEricside, FL 16389	27 Yv	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Murphy- Cook	6011264939622870
9986	2719 Troy Drive Suite 062\nLisachester, PW 414...	80 WI	PM	Mozilla/5.0 (Windows NT 5.2; sl-SI; rv:1.9.1.2...	Campbell- Hurley	4220882411745414
9987	2754 Klein Mission\nJohnsonview, PA 64925-9624	65 Fg	PM	Opera/9.26. (Windows CE; sl-SI) Presto/2.9.188 ...	Curtis LLC	180027305702263

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
9988	0154 Green Forest\nNew Timothy, IL 33670-4620	11 MC	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows 98;...	Williams-Walker	4207292109379681
9989	5674 Cruz Trace\nNew Shelby, KY 51047-5469	12 Kf	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Vargas, Nichols and Martinez	5278049688438382
9990	75731 Molly Springs\nWest Danielle, VT 96934-5102	93 ty	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7_4;...	Pace, Vazquez and Richards	869968197049750
9991	PSC 8165, Box 8498\nAPO AP 60327-0346	50 dA	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Snyder Inc	4221582137197481
9992	885 Allen Mountains Apt. 230\nWallhaven, LA 16995	40 vH	PM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_6_5) A...	Wells Ltd	4664825258997302
9993	7555 Larson Locks Suite 229\nEllisburgh, MA 34...	72 jg	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Colon and Sons	30025560104631
9994	6276 Rojas Hollow\nLake Louis, WY 56410-7837	93 Ex	PM	Opera/9.68.(X11; Linux x86_64; sl-SI) Presto/2...	Ritter-Smith	3112186784121077
9995	966 Castaneda Locks\nWest Juliafurt, CO 96415	92 XI	PM	Mozilla/5.0 (Windows NT 5.1) AppleWebKit/5352 ...	Randall-Sloan	342945015358701
9996	832 Curtis Dam Suite 785\nNorth Edwardburgh, T...	41 JY	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Hale, Collins and Wilson	210033169205009
9997	Unit 4434 Box 6343\nDPO AE 28026-0283	74 Zh	AM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Anderson Ltd	6011539787356311
9998	0096 English Rest\nRoystad, IA 12457	74 cL	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_8;...	Cook Inc	180003348082930
9999	40674 Barrett Stravenue\nGrimesville, WI 79682	64 Hr	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.5.20) Gec...	Greene Inc	4139972901927273

10000 rows × 14 columns

In [10]:

df['Purchase Price'].max()

Out[10]:

99.99

In [11]:

```
df[df['Purchase Price']== df['Purchase Price'].max()]
```

Out[11]:

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	CC Exp Date	Secur Co
<b>2092</b>	63773 Shelton Greens\nAshleyton, MA 00493	56 lu	AM	Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/53...	Pitts Group	4292741269160	06/18	8
<b>7807</b>	PSC 6177, Box 1004\nAPO AA 57143-1269	64 Nf	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_5_4)...	Porter, Johnson and Pratt	30109394842259	11/25	9

In [13]:

```
df['Purchase Price'].min()
```

Out[13]:

0.0

In [14]:

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df[df['Purchase Price']== df['Purchase Price'].min()]
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Out[14]:

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	CC Exp Date	CC Security Code	Pr
<b>2876</b>	332 Jones Parkways\nEast Katherineville, GA 64230	39 GT	AM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_9...	Lyons, Diaz and Clark	4204500444841766	01/18	38	V
<b>5487</b>	465 Mallory Ways\nNorth Rebecca, RI 82734-1160	93 OH	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Flynn and Sons	30469912089738	09/23	236	D

Quantas pessoas têm Inglês 'en' como sua língua de escolha no site?

In [15]:

```
df
```

Out[15]:

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
0	16629 Pace Camp Apt. 448\nAlexisborough, NE 77...	46 in	PM	Opera/9.56.(X11; Linux x86_64; sl-SI) Presto/2...	Martinez- Herman	6011929061123406
1	9374 Jasmine Spurs Suite 508\nSouth John, TN 8...	28 rn	PM	Opera/8.93. (Windows 98; Win 9x 4.90; en-US) Pr...	Fletcher, Richards and Whitaker	3337758169645356
2	Unit 0065 Box 5052\nDPO AP 27450	94 vE	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Simpson, Williams and Pham	675957666125
3	7780 Julia Fords\nNew Stacy, WA 45798	36 vm	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_0 ...	Williams, Marshall and Buchanan	6011578504430710
4	23012 Munoz Drive Suite 337\nNew Cynthia, TX 5...	20 IE	AM	Opera/9.58.(X11; Linux x86_64; it-IT) Presto/2...	Brown, Watson and Andrews	6011456623207998
5	7502 Powell Mission Apt. 768\nTravisland, VA 3...	21 XT	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_8_5...	Silva- Anderson	30246185196287
6	93971 Conway Causeway\nAndersonburgh, AZ 75107	96 Xt	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Gibson and Sons	6011398782655569
7	260 Rachel Plains Suite 366\nCastroberg, WV 24...	96 pG	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5350...	Marshall- Collins	561252141909
8	2129 Dylan Burg\nNew Michelle, ME 28650	45 JN	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Galloway and Sons	180041795790001
9	3795 Dawson Extensions\nLake Tinafort, ID 88739	15 Ug	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.7.20) Gec...	Rivera, Buchanan and Ramirez	4396283918371
10	650 Elizabeth Park\nLake Maria, LA 13526-2530	65 Yn	PM	Mozilla/5.0 (iPod; U; CPU iPhone OS 4_1 like M...	Strickland, Michael and Gonzales	180036417827355
11	349 Laurie Parks\nThomasview, ID 08970	30 kK	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Kim-Oliver	869975209012056
12	733 Heather Rest Apt. 670\nBoltonport, UT 78662	69 DO	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_5_3 ...	Moore- Martin	5115990487067905
13	118 Melton Via Suite 681\nAlexanderbury, FL 32104	36 bu	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Keller PLC	4603635169938574
14	8774 Jason Keys Suite 427\nEast Scottborough, ...	70 zH	AM	Mozilla/5.0 (Windows 98; it-IT; rv:1.9.2.20) G...	Leach, Howe and Ferguson	869967499275071

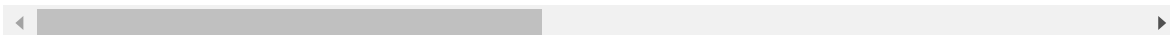
	Address	Lot	AM or PM	Browser Info	Company	Credit Card
15	31730 Chelsea Crest\nBlakemouth, CT 90395-0620	41 Cj	PM	Opera/8.95. (Windows NT 5.0; en-US) Presto/2.9....	Garcia- Steele	180069437020404
16	5283 Thomas Trafficway Suite 343\nEast Brittne...	31 ho	AM	Opera/9.73. (Windows NT 6.2; sl-SI) Presto/2.9....	Stanton, Villanueva and Swanson	676121145525
17	950 Jacqueline Village Apt. 592\nPort Kimberly...	23 Rh	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Fernandez, Melton and Gilbert	3337515540944084
18	461 Christopher Square\nWest Michaelchester, C...	17 SB	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Beard, Abbott and Pena	6011350184276270
19	125 Hall Summit\nBoothton, IL 41721	99 CU	PM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Turner- Mckinney	676343504830
20	7383 George Village\nLake Jamesview, CO 79828	23 dk	PM	Mozilla/5.0 (Windows; U; Windows NT 4.0) Apple...	Santana, Montes and Pierce	6011833038852776
21	282 Miller Valleys Suite 404\nWilkinsonbury, M...	24 RZ	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows NT ...	Guzman- Reese	5491255326230898
22	625 Laura Summit Suite 112\nShortmouth, AK 97156	45 oa	PM	Mozilla/5.0 (Windows 95) AppleWebKit/5342 (KHT...	Burnett Ltd	3158663456056588
23	25292 Shepherd Trail Apt. 798\nRussellmouth, S...	31 pS	PM	Mozilla/5.0 (compatible; MSIE 5.0; Windows 98;...	Cruz Inc	502010078983
24	Unit 3046 Box 3197\nDPO AE 61496-4172	62 Ac	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows CE;...	Morris PLC	4749728852401144
25	80797 Ryan Trail Apt. 752\nAaronhaven, MI 0622...	66 SO	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_1...	Saunders- Mendez	869938033091779
26	5334 Sheppard Fort\nNorth Kirsten, ND 71170	40 ND	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_6_3)...	Stephens, Johnson and Combs	60488441233
27	5015 Smith Harbors\nSouth Ashley, OK 81283	34 JQ	PM	Opera/9.75. (Windows NT 6.0; en-US) Presto/2.9....	Levine, Shaw and Jenkins	869948145612941
28	50533 Cooper Cliffs\nNorth Jonathanberg, MD 20482	17 kP	PM	Mozilla/5.0 (Windows; U; Windows NT 6.1) Apple...	Reed Inc	180026477662982
29	30755 Joshua Plaza Apt. 567\nWest Susanton, FM...	93 OP	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_7...	Goodwin Ltd	4170734785397597
...	...	...	...	...	...	...
9970	0060 Keith Stream\nWestport, CO 47097	11 nt	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Carpenter, Good and Hart	6011485664704662



	Address	Lot	AM or PM	Browser Info	Company	Credit Card
9971	5806 Martinez Point\nLake Abigailstad, MD 6183...	07 wl	AM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5360...	Brewer- Howard	5359660631103048
9972	89504 Flynn Overpass Suite 822\nNew Elijah, WV...	23 eL	AM	Mozilla/5.0 (Windows NT 5.1; en-US; rv:1.9.2.2...	Davis, Wise and Diaz	370589883240776
9973	92126 Daniel Streets\nNorth Patricia, IA 10477	04 QN	PM	Mozilla/5.0 (Windows NT 5.2) AppleWebKit/5362 ...	Morrow Inc	501850922854
9974	500 Powell Rapid Apt. 114\nClarkfort, FL 70488	48 is	AM	Mozilla/5.0 (Windows 95) AppleWebKit/5312 (KHT...	Griffin- Lopez	630407297302
9975	5208 Hanson Trail Suite 527\nSouth Jonathanshi...	67 OX	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_8...	Bowen- Nelson	5361597780221625
9976	5419 Cruz Island Apt. 033\nLake Todd, AK 24863...	93 FM	PM	Opera/9.38. (Windows NT 5.01; it-IT) Presto/2.9...	Henderson- Kelley	4458996242274056
9977	02182 Keith Expressway\nEast Shannon, CT 20578...	34 RL	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Deleon, Jacobson and Benton	4186094003664688
9978	991 Watts Court\nSouth Danielstad, IA 39032-8865	66 eb	AM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_7_3; r...	Perez Group	3088185172584201
9979	00490 Joseph Haven Apt. 149\nWest Keithfurt, S...	69 XK	PM	Mozilla/5.0 (Windows NT 6.1) AppleWebKit/5311 ...	Randall- Ramirez	346734838013255
9980	6061 Dave Lights\nPhillipsview, UT 40500	25 Mv	AM	Opera/8.58. (Windows NT 5.0; it- IT) Presto/2.9....	Cortez- Frye	6011944199756993
9981	087 Larson Roads Apt. 587\nRicestad, WI 98077-...	95 Kw	AM	Opera/9.63. (Windows NT 5.01; en-US) Presto/2.9...	Ortiz, Schultz and Adams	4690863684605
9982	18044 McIntosh Row Apt. 122\nLake Jennifer, NC...	77 uq	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_0...	Chen LLC	210040992311995
9983	PSC 5678, Box 4503\nAPO AP 94998-5546	79 cd	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Hall-Cantu	343856674589081
9984	7560 Boyle Keys\nAntoniomouth, DC 00522-0367	72 Qb	AM	Mozilla/5.0 (Windows; U; Windows 98; Win 9x 4....	Johnson- Brandt	3088208142188125
9985	7456 Stevens Rest\nEricside, FL 16389	27 Yv	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Murphy- Cook	6011264939622870
9986	2719 Troy Drive Suite 062\nLisachester, PW 414...	80 WI	PM	Mozilla/5.0 (Windows NT 5.2; sl-SI; rv:1.9.1.2...	Campbell- Hurley	4220882411745414
9987	2754 Klein Mission\nJohnsonview, PA 64925-9624	65 Fg	PM	Opera/9.26. (Windows CE; sl-SI) Presto/2.9.188 ...	Curtis LLC	180027305702263

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
9988	0154 Green Forest\nNew Timothy, IL 33670-4620	11 MC	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows 98;...	Williams-Walker	4207292109379681
9989	5674 Cruz Trace\nNew Shelby, KY 51047-5469	12 Kf	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Vargas, Nichols and Martinez	5278049688438382
9990	75731 Molly Springs\nWest Danielle, VT 96934-5102	93 ty	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7_4;...	Pace, Vazquez and Richards	869968197049750
9991	PSC 8165, Box 8498\nAPO AP 60327-0346	50 dA	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Snyder Inc	4221582137197481
9992	885 Allen Mountains Apt. 230\nWallhaven, LA 16995	40 vH	PM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_6_5) A...	Wells Ltd	4664825258997302
9993	7555 Larson Locks Suite 229\nEllisburgh, MA 34...	72 jg	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Colon and Sons	30025560104631
9994	6276 Rojas Hollow\nLake Louis, WY 56410-7837	93 Ex	PM	Opera/9.68.(X11; Linux x86_64; sl-SI) Presto/2...	Ritter-Smith	3112186784121077
9995	966 Castaneda Locks\nWest Juliafurt, CO 96415	92 XI	PM	Mozilla/5.0 (Windows NT 5.1) AppleWebKit/5352 ...	Randall-Sloan	342945015358701
9996	832 Curtis Dam Suite 785\nNorth Edwardburgh, T...	41 JY	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Hale, Collins and Wilson	210033169205009
9997	Unit 4434 Box 6343\nDPO AE 28026-0283	74 Zh	AM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Anderson Ltd	6011539787356311
9998	0096 English Rest\nRoystad, IA 12457	74 cL	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_8;...	Cook Inc	180003348082930
9999	40674 Barrett Stravenue\nGrimesville, WI 79682	64 Hr	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.5.20) Gec...	Greene Inc	4139972901927273

10000 rows × 14 columns



In [20]:

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df[df['Language']=='en']
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Out[20]:

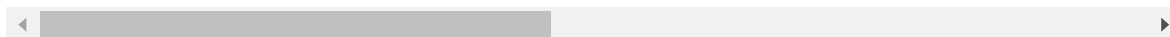
	Address	Lot	AM or PM	Browser Info	Company	Credit Card	E D:
11	349 Laurie Parks\nThomasview, ID 08970	30 kK	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Kim-Oliver	869975209012056	06.
12	733 Heather Rest Apt. 670\nBoltonport, UT 78662	69 DO	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_5_3 ...	Moore- Martin	5115990487067905	05
22	625 Laura Summit Suite 112\nShortmouth, AK 97156	45 oa	PM	Mozilla/5.0 (Windows 95) AppleWebKit/5342 (KHT...	Burnett Ltd	3158663456056588	07.
26	5334 Sheppard Fort\nNorth Kirsten, ND 71170	40 ND	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_6_3)...	Stephens, Johnson and Combs	60488441233	03
31	USNS Alvarado\nFPO AA 27052-1231	26 Lh	PM	Opera/8.84.(X11; Linux i686; sl-SI) Presto/2.9...	Nicholson Group	4614997834548	03.
38	9671 Riley Drives Apt. 746\nPort Davidtown, TN...	15 vj	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Bryant, Hubbard and Gonzales	210094965373094	12
44	907 Torres Spur Suite 083\nJuliefurt, NJ 99332	81 Ym	PM	Mozilla/5.0 (compatible; MSIE 6.0; Windows NT ...	Esparza Ltd	30003479457184	08.
54	1362 Woods Freeway Suite 659\nWeaverbury, NJ 9...	93 Zp	PM	Opera/9.12. (Windows 98; sl-SI) Presto/2.9.175 ...	Underwood- Morgan	4529081312229	11.
66	59651 Turner Tunnel Apt. 702\nRuiztown, IA 59612	51 iB	AM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_8_8...	Ewing and Sons	6011879049056030	07.
68	12962 Curtis Crescent\nWest Rickytown, OR 0859...	61 Lr	PM	Mozilla/5.0 (compatible; MSIE 6.0; Windows CE;...	Jones, Perez and Cole	3112101128292245	03.
77	1728 Ferguson Brook\nLake Deanna, MN 00857	26 qt	AM	Mozilla/5.0 (Windows 95) AppleWebKit/5342 (KHT...	Hampton Group	3096955150599680	02.
94	0266 Orr Forge Apt. 617\nThomastown, MO 71752-...	89 KL	AM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_8_9; r...	Salazar, Harris and Webster	5144649980077788	04.
105	56173 Brian Rapid\nPort Jason, ME 15715-1759	17 QU	AM	Opera/8.66.(X11; Linux x86_64; it-IT) Presto/2...	Martin Group	6011461160091540	06.
111	7098 Luis Rest\nPort Dustinstad, NH 85975- 6002	96 pV	PM	Mozilla/5.0 (Windows NT 4.0) AppleWebKit/5320 ...	Kline, Stout and Conrad	6011099548753157	05
112	5791 Daniel Orchard\nSouth Johnshire, ME 17890	46 ZZ	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_6...	Kelley- Jackson	3112230718725791	10.

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	E D
115	Unit 2148 Box 9294\nDPO AP 91159	33 kR	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows 95;...	Herrera- McLean	869931738337522	05
117	853 Ayers Forges\nEast Tiffany, MP 15967	95 Os	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5311...	Martinez, Rodriguez and Romero	4723833428371	10
119	133 Coleman Key Suite 921\nPughfort, MO 70480-...	24 Ye	AM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_8_0...	Horne Group	210014710207975	09
120	70617 Robert Bypass\nNorth Anita, AR 86445-2370	78 RT	PM	Opera/9.98. (Windows NT 6.1; sl-SI) Presto/2.9....	Green- Jones	4290973020590	07
123	81601 Jordan Creek Apt. 759\nPort Scott, CT 87078	01 Gx	PM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Weiss-Scott	4902917815801150	03
130	PSC 0514, Box 6842\nAPO AE 37889- 7946	29 QF	AM	Mozilla/5.0 (Windows NT 4.0; en-US; rv:1.9.2.2...	Prince Group	6011924488222881	07
149	16460 Alyssa Shore\nNorth Debraview, MI 80227-...	88 hm	AM	Mozilla/5.0 (compatible; MSIE 5.0; Windows NT ...	Mack, Smith and Robinson	869909671519918	07
156	763 Jose Roads Apt. 900\nColemantown, GU 17556	11 lu	AM	Opera/9.87.(X11; Linux x86_64; sl-SI) Presto/2...	Harris, Cobb and Cooper	4158719981529883	01
158	147 Antonio Trail\nMichaelport, IN 01536	69 LE	PM	Mozilla/5.0 (compatible; MSIE 6.0; Windows CE;...	Flores PLC	6011825021141720	01
159	PSC 1717, Box 9046\nAPO AP 75015- 9066	37 SP	PM	Opera/9.64.(X11; Linux i686; sl-SI) Presto/2.9...	Hall, Williams and Hurst	502092016158	09
164	USNS Cobb\nFPO AE 92579	99 ib	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Dougherty- Wilson	4065614824967790	11
166	8991 Sutton Unions\nDiazview, TN 65790-2439	24 uq	PM	Mozilla/5.0 (Windows CE) AppleWebKit/5320 (KHT...	Davis PLC	3337336355242963	01
173	8071 Ellis Courts Suite 037\nNew Katelynville,...	12 VI	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_8_1...	Ferrell, Cole and Dalton	6011174506757977	07
182	351 Amanda Forges\nMichaelberg, CT 56611	82 CL	AM	Opera/8.32.(X11; Linux x86_64; it-IT) Presto/2...	Stanley PLC	4879939810639	02
229	895 William Way\nSandraton, AK 04608	40 fm	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows NT ...	Russell, Lopez and Bruce	3088940701549939	10
...	...	...	...	...	...	...	...
9788	13512 Lisa Dam Suite 344\nHaleymouth, UT 38288	99 DW	AM	Mozilla/5.0 (Windows NT 5.0; sl-SI; rv:1.9.2.2...	Parker, Patterson and Schultz	210098490070695	01
9791	2247 Fields Islands Suite 836\nElizabethshire,...	54 il	PM	Mozilla/5.0 (Windows 98; Win 9x 4.90) AppleWeb...	Crawford Inc	869944078450599	01

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	E D
9818	27564 Gilbert Rest\nPort Megan, AR 71336	03 AT	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_5...	Webb, Alexander and Gibbs	5163439433047364	06.
9819	PSC 9978, Box 7923\nAPO AP 58000	62 tH	AM	Mozilla/5.0 (compatible; MSIE 5.0; Windows NT ...	Jones- Woods	3112224221030609	04.
9830	Unit 4183 Box 2949\nDPO AP 05524	34 wt	PM	Mozilla/5.0 (compatible; MSIE 7.0; Windows 95;...	Martin, Hatfield and Morris	4803950390628219	12
9834	662 Richard Orchard\nNorth Kristin, KS 98073	84 IH	AM	Opera/8.52. (Windows NT 5.01; en-US) Presto/2.9...	Peterson- Mckenzie	4736602207016	12
9846	Unit 6769 Box 4593\nDPO AA 97389	49 TE	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_6_8)...	Newman- Thomas	374053256818797	09.
9857	Unit 5206 Box 4943\nDPO AA 69262- 6645	79 eA	PM	Mozilla/5.0 (iPod; U; CPU iPhone OS 4_2 like M...	Christensen- Wade	346664915154229	06
9862	77399 Matthew Station\nHarrisbury, AL 01792-2266	44 pD	PM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Mitchell and Sons	4011540401132992	04.
9865	23547 Benson Keys Apt. 671\nDicksonfurt, GA 19...	70 Br	PM	Mozilla/5.0 (Windows; U; Windows 98; Win 9x 4....	Chambers, Bennett and Patton	5537774215028151	05.
9874	921 Amanda Prairie Apt. 383\nPort Kendra, OK 5...	28 qR	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows CE;...	Page LLC	60427477397	01.
9896	7722 Angela Point\nNew Raymond, VT 53766	51 RX	PM	Mozilla/5.0 (compatible; MSIE 7.0; Windows CE;...	Lloyd LLC	869909397913387	08.
9901	908 Norman Burgs\nPhillipsberg, VT 92023-9956	90 Ng	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Hughes Inc	30148833294789	09.
9907	750 Jonathan Light Suite 258\nNorth David, MT ...	48 kZ	AM	Mozilla/5.0 (compatible; MSIE 5.0; Windows NT ...	Davis, Yates and Barker	4062885072435	06.
9911	44320 Gray Centers Suite 325\nJenniferfurt, OK...	19 Bf	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.7.20) Gec...	Jones-Gray	4058074716188	12
9912	976 Orr Lodge Suite 811\nLake Michaelbury, SC ...	59 JC	AM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_5_4...	Smith, Simon and Andersen	4962026269982	02
9915	9224 Santos Junction Suite 401\nEast Austinbur...	41 Sy	AM	Opera/8.50. (Windows 98; Win 9x 4.90; sl-SI) Pr...	Anderson- Warner	180034973070155	06
9916	86832 Derek Shoal Apt. 500\nAmandaberg, NC 353...	94 zS	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7_6;...	Joyce- Brooks	379285157884347	08.
9923	313 Harris Drives Apt. 578\nTommyview, LA 1716...	15 VO	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.5.20) Gec...	Duffy, Sharp and Logan	502077008782	12

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	E D
9930	92246 George Meadows\nPort Jerryhaven, AL 52947	49 eG	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5341...	Waters-Sullivan	30113450933986	10.
9931	71958 Diaz Roads Apt. 343\nPort Richardville, ...	62 qP	AM	Opera/8.68.(X11; Linux i686; it-IT) Presto/2.9...	Thompson, Arnold and Ho	4432224867137016	12
9940	633 Judy Harbor Apt. 429\nSouth Michael, MS 75...	97 EW	PM	Mozilla/5.0 (Windows NT 6.0; sl-SI; rv:1.9.1.2...	Watson Ltd	4349475980821181	04.
9943	297 Rios Island Apt. 841\nNew Williamstad, VA ...	74 Uu	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows 95;...	Graham, Hughes and Ramos	4084266538450527	06
9948	95544 Johnson Isle Suite 939\nMichaelberg, RI ...	91 bW	AM	Opera/8.36.(X11; Linux x86_64; sl-SI) Presto/2...	Fox-Peterson	4762924304307	03.
9958	PSC 8781, Box 4214\nAPO AP 94478	72 Ez	AM	Mozilla/5.0 (iPod; U; CPU iPhone OS 3_0 like M...	Logan, Anderson and Martin	210030902457830	08
9961	714 Joshua Ridges\nCarpenterville, NJ 37418	84 rK	PM	Opera/9.49.(X11; Linux i686; it-IT) Presto/2.9...	White-Wilson	3158062139581601	08
9963	3865 Davis Meadow Suite 915\nPort Stacieview, ...	11 fo	AM	Mozilla/5.0 (iPod; U; CPU iPhone OS 3_3 like M...	Brown, Gentry and White	4295151255424068	07.
9970	0060 Keith Stream\nWestport, CO 47097	11 nt	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Carpenter, Good and Hart	6011485664704662	07.
9973	92126 Daniel Streets\nNorth Patricia, IA 10477	04 QN	PM	Mozilla/5.0 (Windows NT 5.2) AppleWebKit/5362 ...	Morrow Inc	501850922854	02
9979	00490 Joseph Haven Apt. 149\nWest Keithfurt, S...	69 XK	PM	Mozilla/5.0 (Windows NT 6.1) AppleWebKit/5311 ...	Randall-Ramirez	346734838013255	10.

1098 rows × 14 columns



In [21]:

```
sum(df[df['Language']=='en']['Address'].value_counts() == 1)
```

Out[21]:

1098

Quantas pessoas têm o cargo de "Advogado"?

In [22]:

```
sum(df[df['Job']=='Lawyer']['Address'].value_counts() == 1)
```

Out[22]:

30

**Quantas pessoas fizeram a compra durante a AM e quantas pessoas fizeram a compra durante o PM?**

(Sugestão: Confira [value\\_counts\(\)](http://pandas.pydata.org/pandas-docs/stable/generated/pandas.Series.value_counts.html) ([http://pandas.pydata.org/pandas-docs/stable/generated/pandas.Series.value\\_counts.html](http://pandas.pydata.org/pandas-docs/stable/generated/pandas.Series.value_counts.html)))



In [112]:

```
#AM or PM  
df
```

Out[112]:

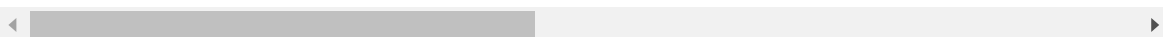
	Address	Lot	AM or PM	Browser Info	Company	Credit Card
0	16629 Pace Camp Apt. 448\nAlexisborough, NE 77...	46 in	PM	Opera/9.56.(X11; Linux x86_64; sl-SI) Presto/2...	Martinez- Herman	6011929061123406
1	9374 Jasmine Spurs Suite 508\nSouth John, TN 8...	28 rn	PM	Opera/8.93. (Windows 98; Win 9x 4.90; en-US) Pr...	Fletcher, Richards and Whitaker	3337758169645356
2	Unit 0065 Box 5052\nDPO AP 27450	94 vE	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Simpson, Williams and Pham	675957666125
3	7780 Julia Fords\nNew Stacy, WA 45798	36 vm	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_0 ...	Williams, Marshall and Buchanan	6011578504430710
4	23012 Munoz Drive Suite 337\nNew Cynthia, TX 5...	20 IE	AM	Opera/9.58.(X11; Linux x86_64; it-IT) Presto/2...	Brown, Watson and Andrews	6011456623207998
5	7502 Powell Mission Apt. 768\nTravisland, VA 3...	21 XT	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_8_5...	Silva- Anderson	30246185196287
6	93971 Conway Causeway\nAndersonburgh, AZ 75107	96 Xt	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Gibson and Sons	6011398782655569
7	260 Rachel Plains Suite 366\nCastroberg, WV 24...	96 pG	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5350...	Marshall- Collins	561252141909
8	2129 Dylan Burg\nNew Michelle, ME 28650	45 JN	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Galloway and Sons	180041795790001
9	3795 Dawson Extensions\nLake Tinafort, ID 88739	15 Ug	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.7.20) Gec...	Rivera, Buchanan and Ramirez	4396283918371
10	650 Elizabeth Park\nLake Maria, LA 13526-2530	65 Yn	PM	Mozilla/5.0 (iPod; U; CPU iPhone OS 4_1 like M...	Strickland, Michael and Gonzales	180036417827355
11	349 Laurie Parks\nThomasview, ID 08970	30 kK	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Kim-Oliver	869975209012056
12	733 Heather Rest Apt. 670\nBoltonport, UT 78662	69 DO	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_5_3 ...	Moore- Martin	5115990487067905
13	118 Melton Via Suite 681\nAlexanderbury, FL 32104	36 bu	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Keller PLC	4603635169938574
14	8774 Jason Keys Suite 427\nEast Scottborough, ...	70 zH	AM	Mozilla/5.0 (Windows 98; it-IT; rv:1.9.2.20) G...	Leach, Howe and Ferguson	869967499275071

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
15	31730 Chelsea Crest\nBlakemouth, CT 90395-0620	41 Cj	PM	Opera/8.95. (Windows NT 5.0; en-US) Presto/2.9....	Garcia- Steele	180069437020404
16	5283 Thomas Trafficway Suite 343\nEast Brittne...	31 ho	AM	Opera/9.73. (Windows NT 6.2; sl-SI) Presto/2.9....	Stanton, Villanueva and Swanson	676121145525
17	950 Jacqueline Village Apt. 592\nPort Kimberly...	23 Rh	PM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Fernandez, Melton and Gilbert	3337515540944084
18	461 Christopher Square\nWest Michaelchester, C...	17 SB	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.6.20) Gec...	Beard, Abbott and Pena	6011350184276270
19	125 Hall Summit\nBoothton, IL 41721	99 CU	PM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Turner- Mckinney	676343504830
20	7383 George Village\nLake Jamesview, CO 79828	23 dk	PM	Mozilla/5.0 (Windows; U; Windows NT 4.0) Apple...	Santana, Montes and Pierce	6011833038852776
21	282 Miller Valleys Suite 404\nWilkinsonbury, M...	24 RZ	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows NT ...	Guzman- Reese	5491255326230898
22	625 Laura Summit Suite 112\nShortmouth, AK 97156	45 oa	PM	Mozilla/5.0 (Windows 95) AppleWebKit/5342 (KHT...	Burnett Ltd	3158663456056588
23	25292 Shepherd Trail Apt. 798\nRussellmouth, S...	31 pS	PM	Mozilla/5.0 (compatible; MSIE 5.0; Windows 98;...	Cruz Inc	502010078983
24	Unit 3046 Box 3197\nDPO AE 61496-4172	62 Ac	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows CE;...	Morris PLC	4749728852401144
25	80797 Ryan Trail Apt. 752\nAaronhaven, MI 0622...	66 SO	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_1...	Saunders- Mendez	869938033091779
26	5334 Sheppard Fort\nNorth Kirsten, ND 71170	40 ND	AM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_6_3)...	Stephens, Johnson and Combs	60488441233
27	5015 Smith Harbors\nSouth Ashley, OK 81283	34 JQ	PM	Opera/9.75. (Windows NT 6.0; en-US) Presto/2.9....	Levine, Shaw and Jenkins	869948145612941
28	50533 Cooper Cliffs\nNorth Jonathanberg, MD 20482	17 kP	PM	Mozilla/5.0 (Windows; U; Windows NT 6.1) Apple...	Reed Inc	180026477662982
29	30755 Joshua Plaza Apt. 567\nWest Susanton, FM...	93 OP	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_7...	Goodwin Ltd	4170734785397597
...	...	...	...	...	...	...
9970	0060 Keith Stream\nWestport, CO 47097	11 nt	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Carpenter, Good and Hart	6011485664704662

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
9971	5806 Martinez Point\nLake Abigailstad, MD 6183...	07 wl	AM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5360...	Brewer- Howard	5359660631103048
9972	89504 Flynn Overpass Suite 822\nNew Elijah, WV...	23 eL	AM	Mozilla/5.0 (Windows NT 5.1; en-US; rv:1.9.2.2...	Davis, Wise and Diaz	370589883240776
9973	92126 Daniel Streets\nNorth Patricia, IA 10477	04 QN	PM	Mozilla/5.0 (Windows NT 5.2) AppleWebKit/5362 ...	Morrow Inc	501850922854
9974	500 Powell Rapid Apt. 114\nClarkfort, FL 70488	48 is	AM	Mozilla/5.0 (Windows 95) AppleWebKit/5312 (KHT...	Griffin- Lopez	630407297302
9975	5208 Hanson Trail Suite 527\nSouth Jonathanshi...	67 OX	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_7_8...	Bowen- Nelson	5361597780221625
9976	5419 Cruz Island Apt. 033\nLake Todd, AK 24863...	93 FM	PM	Opera/9.38. (Windows NT 5.01; it-IT) Presto/2.9...	Henderson- Kelley	4458996242274056
9977	02182 Keith Expressway\nEast Shannon, CT 20578...	34 RL	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Deleon, Jacobson and Benton	4186094003664688
9978	991 Watts Court\nSouth Danielstad, IA 39032-8865	66 eb	AM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_7_3; r...	Perez Group	3088185172584201
9979	00490 Joseph Haven Apt. 149\nWest Keithfurt, S...	69 XK	PM	Mozilla/5.0 (Windows NT 6.1) AppleWebKit/5311 ...	Randall- Ramirez	346734838013255
9980	6061 Dave Lights\nPhillipsview, UT 40500	25 Mv	AM	Opera/8.58. (Windows NT 5.0; it- IT) Presto/2.9....	Cortez- Frye	6011944199756993
9981	087 Larson Roads Apt. 587\nRicestad, WI 98077-...	95 Kw	AM	Opera/9.63. (Windows NT 5.01; en-US) Presto/2.9...	Ortiz, Schultz and Adams	4690863684605
9982	18044 McIntosh Row Apt. 122\nLake Jennifer, NC...	77 uq	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_6_0...	Chen LLC	210040992311995
9983	PSC 5678, Box 4503\nAPO AP 94998-5546	79 cd	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Hall-Cantu	343856674589081
9984	7560 Boyle Keys\nAntoniomouth, DC 00522-0367	72 Qb	AM	Mozilla/5.0 (Windows; U; Windows 98; Win 9x 4....	Johnson- Brandt	3088208142188125
9985	7456 Stevens Rest\nEricside, FL 16389	27 Yv	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Murphy- Cook	6011264939622870
9986	2719 Troy Drive Suite 062\nLisachester, PW 414...	80 WI	PM	Mozilla/5.0 (Windows NT 5.2; sl-SI; rv:1.9.1.2...	Campbell- Hurley	4220882411745414
9987	2754 Klein Mission\nJohnsonview, PA 64925-9624	65 Fg	PM	Opera/9.26. (Windows CE; sl-SI) Presto/2.9.188 ...	Curtis LLC	180027305702263

	Address	Lot	AM or PM	Browser Info	Company	Credit Card
9988	0154 Green Forest\nNew Timothy, IL 33670-4620	11 MC	AM	Mozilla/5.0 (compatible; MSIE 7.0; Windows 98;...	Williams- Walker	4207292109379681
9989	5674 Cruz Trace\nNew Shelby, KY 51047-5469	12 Kf	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Vargas, Nichols and Martinez	5278049688438382
9990	75731 Molly Springs\nWest Danielle, VT 96934-5102	93 ty	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_7_4;...	Pace, Vazquez and Richards	869968197049750
9991	PSC 8165, Box 8498\nAPO AP 60327-0346	50 dA	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows NT ...	Snyder Inc	4221582137197481
9992	885 Allen Mountains Apt. 230\nWallhaven, LA 16995	40 vH	PM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_6_5) A...	Wells Ltd	4664825258997302
9993	7555 Larson Locks Suite 229\nEllisburgh, MA 34...	72 jg	PM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_8...	Colon and Sons	30025560104631
9994	6276 Rojas Hollow\nLake Louis, WY 56410-7837	93 Ex	PM	Opera/9.68.(X11; Linux x86_64; sl-SI) Presto/2...	Ritter- Smith	3112186784121077
9995	966 Castaneda Locks\nWest Juliafurt, CO 96415	92 XI	PM	Mozilla/5.0 (Windows NT 5.1) AppleWebKit/5352 ...	Randall- Sloan	342945015358701
9996	832 Curtis Dam Suite 785\nNorth Edwardburgh, T...	41 JY	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Hale, Collins and Wilson	210033169205009
9997	Unit 4434 Box 6343\nDPO AE 28026-0283	74 Zh	AM	Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_7...	Anderson Ltd	6011539787356311
9998	0096 English Rest\nRoystad, IA 12457	74 cL	PM	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_8;...	Cook Inc	180003348082930
9999	40674 Barrett Stravenue\nGrimesville, WI 79682	64 Hr	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.5.20) Gec...	Greene Inc	4139972901927273

10000 rows × 14 columns



In [23]:

```
sum(df[df['AM or PM']=='AM']['Address'].value_counts() == 1)
```

Out[23]:

4932

In [44]:

```
sum(df[df['AM or PM']=='PM']['Address'].value_counts() == 1)
```

Out[44]:

5068

In [45]:

```
df['AM or PM'].value_counts()
```

Out[45]:

```
PM    5068
AM    4932
Name: AM or PM, dtype: int64
```

**Quais são os 5 títulos de trabalho mais comuns?**

In [25]:

```
df['Job'].value_counts().head(5)
```

Out[25]:

```
Interior and spatial designer    31
Lawyer                          30
Social researcher                28
Research officer, political party 27
Designer, jewellery             27
Name: Job, dtype: int64
```

**Alguém fez uma compra que veio do Lot: "90 WT", qual foi o preço de compra para esta transação?**

In [26]:

```
df[df['Lot']=='90 WT']
```

Out[26]:

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	CC Exp Date	CC Security Code	CC Provider
513	50398 Mccoy Rest Suite 597InSouth Garyborough,...	90 WT	AM	Mozilla/5.0 (iPod; U; CPU iPhone OS 3_2 like M...	Bright PLC	630438419693	11/19	173	American Express

**Qual é o email da pessoa com o seguinte número do cartão de crédito: 4926535242672853**

In [46]:

```
df[df['Credit Card']== 4926535242672853]['Email']
```

Out[46]:

```
1234    bondellen@williams-garza.com
```

```
Name: Email, dtype: object
```

**Quantas pessoas têm o American Express como seu fornecedor de cartão de crédito e fizeram uma compra acima de US \$ 95?**

In [39]:

```
df2 = df[(df['CC Provider']=='American Express') & (df['Purchase Price'] > 95)]
```

In [47]:

```
df2
```



Out[47]:

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	CC Exp Date
9	3795 Dawson Extensions\nLake Tinafort, ID 88739	15 Ug	AM	Mozilla/5.0 (X11; Linux i686; rv:1.9.7.20) Gec...	Rivera, Buchanan and Ramirez	4396283918371	01/17
280	81060 Dustin Causeway Apt. 503\nPort Danielche...	80 zh	PM	Mozilla/5.0 (Windows NT 5.01) AppleWebKit/5362...	Clay PLC	377737470673585	10/17
372	359 Stanley Coves\nSalasfort, SD 59457	75 Ub	PM	Opera/8.42.(X11; Linux x86_64; en- US) Presto/2...	Davis- Lawrence	371995567939253	02/26
677	4855 Peter Bridge\nJohnsonberg, PA 90599-0009	62 Nx	AM	Opera/9.49. (Windows 98; Win 9x 4.90; en-US) Pr...	Jones and Sons	4960556611626434	07/26
766	386 Alisha Unions\nSteelebury, ND 19782	28 pJ	PM	Opera/8.47.(X11; Linux x86_64; sl-SI) Presto/2...	Proctor PLC	30325623350308	04/24
1225	916 Amanda Heights\nNew Johnland, CA 52112- 8572	09 vg	PM	Mozilla/5.0 (X11; Linux i686; rv:1.9.7.20) Gec...	Clark, Ross and Travis	371229555854245	10/21
1381	79284 Lisa Mews Suite 069\nKellyborough, CT 71...	45 MR	PM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_5_5; r...	Randall- Cohen	4855262855037	05/17
1385	67796 James Keys Suite 656\nSouth Katieshire, ...	06 ia	PM	Mozilla/5.0 (Windows NT 5.1) AppleWebKit/5330 ...	Gonzalez, Gross and Allen	30407332938506	12/20
1568	76108 Barker Manors\nEast Amy, PW 49544-5921	82 Qw	AM	Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/53...	Nguyen, Branch and Wiley	5142451859832464	04/21
1727	478 Anita Hill Apt. 766\nAverymouth, FM 50629-...	94 qM	AM	Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/53...	Owen and Sons	30242757909967	11/19
2146	557 Barton Harbor\nFuentesport, VI 29961	96 MV	AM	Mozilla/5.0 (compatible; MSIE 6.0; Windows 98;...	Flores- Cook	3337255995040373	04/19
2264	040 Ingram Way Suite 602\nEast Matthew, AR 67341	52 WA	AM	Mozilla/5.0 (Windows NT 6.0) AppleWebKit/5341 ...	Baker, Simmons and Pitts	3096946456575623	11/22
2267	216 Olivia Court Apt. 439\nTonyshire, IN 19159...	11 za	PM	Mozilla/5.0 (Macintosh; PPC Mac OS X 10_6_4; r...	Olson Inc	5388757330269354	02/17
2642	899 Williams Prairie Suite 234\nEast Hunterbur...	46 hb	PM	Mozilla/5.0 (compatible; MSIE 7.0; Windows NT ...	Webb Inc	3096797127305092	05/17
2828	20135 Miller Green Apt. 763\nGarciaville, KY 6...	79 EI	PM	Mozilla/5.0 (Windows; U; Windows CE) AppleWebK...	Zavala, Cox and Parker	5173968976288215	11/22

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	CC Exp Date
3291	58939 Reese Cove\nSouth Ross, MA 54531	50 cD	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows 95;...	Chang, Davis and Snyder	349464844934636	11/23
3349	1984 Christopher Turnpike Suite 904\nRichardbu...	30 xs	AM	Mozilla/5.0 (X11; Linux x86_64; rv:1.9.7.20) G...	Martin-Mitchell	3096398727024637	03/19
3619	03233 Angela Road Apt. 808\nEast Jillantown, ...	41 nH	PM	Opera/9.53. (Windows 95; en-US) Presto/2.9.175 ...	Silva, Kim and Martinez	4807251488895729	10/21
4071	8161 Craig Passage Apt. 939\nPort Emilystad, R...	45 ab	AM	Mozilla/5.0 (Windows; U; Windows NT 6.1) Apple...	Wilson-Robinson	5506767693718324	08/23
4569	88284 Austin Summit Apt. 805\nKellerside, WY 6...	03 WL	AM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_5_5...	Fisher, Thompson and Lynch	3088726880694574	12/19
5385	USNS Smith\nFPO AA 37829	80 BX	AM	Opera/9.56.(X11; Linux x86_64; en-US) Presto/2...	Patterson-Miller	4411786056713950	12/22
5655	38674 McKay Vista\nWilsonbury, MO 55611-8663	95 aB	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5331...	Watson-Bailey	3096820981608615	05/20
5692	PSC 8264, Box 8124\nAPO AE 19700	97 sG	PM	Mozilla/5.0 (iPod; U; CPU iPhone OS 3_3 like M...	Moore Inc	6011499701167585	10/20
5814	Unit 5232 Box 4650\nDPO AE 28335-7543	71 So	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5342...	Garcia LLC	30346960979608	07/17
5875	8256 Anderson Forest\nFordbury, PA 81027-8980	17 Oe	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Kelly, Peterson and Oliver	5173335726386576	02/18
5895	87003 Jason Tunnel Apt. 216\nDariusville, MS 8...	72 gL	AM	Mozilla/5.0 (compatible; MSIE 9.0; Windows NT ...	Reyes, Fox and Wilson	180010957603245	09/24
6026	Unit 4385 Box 1428\nDPO AE 04110	58 Ex	AM	Mozilla/5.0 (Windows; U; Windows NT 5.01) Appl...	White Inc	3112975578138572	09/17
6524	344 Rivera Shore Apt. 224\nJoshuaaborough, ND 3...	44 SM	AM	Opera/8.62.(X11; Linux i686; en-US) Presto/2.9...	Lawson, Moyer and Valencia	379348662534664	06/17
7239	81561 Stein Rue\nEast Melissaport, MA 64959	45 sZ	PM	Mozilla/5.0 (X11; Linux i686) AppleWebKit/5310...	Smith Ltd	503825682670	07/19
7381	40804 Belinda Roads Apt. 186\nWest Nicoleberg,...	30 GH	AM	Opera/9.32. (Windows NT 4.0; it-IT) Presto/2.9....	Blair-Keith	180089858618619	05/19
7416	1082 Jason Alley Suite 707\nWhitestad, SC 97805	08 bm	PM	Mozilla/5.0 (Windows NT 5.1; sl-SI; rv:1.9.2.2...	Carroll, Harrison and Escobar	3088903707645291	12/18

	Address	Lot	AM or PM	Browser Info	Company	Credit Card	CC Exp Date
7514	678 David Manor Suite 323\nBobbymouth, PW 59942	91 NA	AM	Mozilla/5.0 (compatible; MSIE 8.0; Windows 98;...	Glenn, Lowe and Shah	676298897445	04/26
8233	327 Hamilton Hollow\nEast Nicolechester, RI 65868	53 dE	PM	Mozilla/5.0 (Macintosh; U; PPC Mac OS X 10_5_3...	Keller, Carter and Garcia	30299608736429	08/22
8381	274 Wallace Pine Apt. 189\nMartinberg, WY 7548...	32 rl	PM	Mozilla/5.0 (Windows; U; Windows 98; Win 9x 4....	Kelly- Newman	5527104423944290	05/18
8408	Unit 4967 Box 4574\nDPO AP 11412	05 zs	PM	Mozilla/5.0 (compatible; MSIE 5.0; Windows 98;...	Acevedo- Smith	3337721305744244	01/19
8434	474 Gonzalez Meadow Suite 581\nEast Vincent, M...	14 St	PM	Mozilla/5.0 (compatible; MSIE 6.0; Windows NT ...	Miller and Sons	180059754370698	07/24
8817	3658 Campos Lodge\nChambersfurt, MH 86260	24 ej	PM	Mozilla/5.0 (compatible; MSIE 5.0; Windows NT ...	Fisher- Jones	210046575239925	09/25
9168	18782 Hall Row Suite 810\nSouth Wesleyville, I...	15 QU	PM	Opera/9.57.(X11; Linux i686; it-IT) Presto/2.9...	Butler PLC	5412611065926441	05/25
9856	058 Miranda Locks Suite 792\nPort Davidstad, P...	73 IW	PM	Mozilla/5.0 (Windows NT 5.0) AppleWebKit/5360 ...	Olson- Navarro	6011037226242937	03/18

In [48]:

df2.count()

Out[48]:

```

Address      39
Lot          39
AM or PM    39
Browser Info 39
Company      39
Credit Card  39
CC Exp Date  39
CC Security Code 39
CC Provider  39
Email        39
Job          39
IP Address   39
Language     39
Purchase Price 39
dtype: int64

```

Difícil: quantas pessoas tem um cartão de crédito que expira em 2025?

In [50]:

```
sum(df['CC Exp Date'].apply(lambda x: x[3:]) == '25')
```

Out[50]:

1033

**Difícil: quais são os 5 principais provedores de e-mail / hosts mais populares (por exemplo, gmail.com, yahoo.com, etc ...)**

In [51]:

```
df['Email'].apply(lambda x: x.split('@')[1]).value_counts().head(5)
```

Out[51]:

hotmail.com	1638
yahoo.com	1616
gmail.com	1605
smith.com	42
williams.com	37

Name: Email, dtype: int64