

In [1]: import pandas as pd

In [3]: data=pd.read_csv(r"C:\Users\hp\Downloads\7. Udemy Courses.csv")

In [4]: data

Out[4]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	0	288942 #1 Piano Hand Coordination: Play 10th Ballad L...	True	35	3137	18	68	All Levels	1.5 hours	2014-09-18T05:07:05Z	Musical Instruments
	1	1170074 #10 Hand Coordination - Transfer Chord Ballad ...	True	75	1593	1	41	Intermediate Level	1 hour	2017-04-12T19:06:34Z	Musical Instruments
	2	1193886 #12 Hand Coordination: Let your Hands dance wi...	True	75	482	1	47	Intermediate Level	1.5 hours	2017-04-26T18:34:57Z	Musical Instruments
	3	1116700 #4 Piano Hand Coordination: Fun Piano Runs in ...	True	75	850	3	43	Intermediate Level	1 hour	2017-02-21T23:48:18Z	Musical Instruments
	4	1120410 #5 Piano Hand Coordination: Piano Runs in 2 ...	True	75	940	3	32	Intermediate Level	37 mins	2017-02-21T23:44:49Z	Musical Instruments

	3677	328960 Your Own Site in 45 Min: The Complete Wordpres...	True	120	1566	29	36	All Levels	4 hours	2015-04-20T22:15:17Z	Web Development
	3678	552700 Your Second Course on Piano: Two Handed Playing	True	70	1018	12	22	Beginner Level	5 hours	2015-10-26T20:04:21Z	Musical Instruments
	3679	631754 Zend Framework 2: Learn the PHP framework ZF2 ...	True	40	723	130	37	All Levels	6.5 hours	2015-11-11T18:55:45Z	Web Development
	3680	1225194 Zoho Books Gestion Financière d'Entreprise pas...	False	Free	229	0	33	All Levels	2 hours	2017-05-26T16:45:55Z	Business Finance
	3681	964478 Zombie Apocalypse Photoshop Actions	True	50	12	1	15	All Levels	1.5 hours	2016-09-26T22:19:48Z	Graphic Design

3682 rows x 11 columns

In [5]: #data.sub.unique name
data.subject.unique()

Out[5]: array(['Musical Instruments', 'Business Finance', 'Graphic Design',
 'Web Development'], dtype=object)

In [7]: #maximum course
data.subject.value_counts()

Out[7]:

Web Development	1208
Business Finance	1199
Musical Instruments	680
Graphic Design	683

Name: subject, dtype: int64

In [8]: #show all the courses which are free of cost
data.head(1)

Out[8]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	0	288942 #1 Piano Hand Coordination: Play 10th Ballad L...	True	35	3137	18	68	All Levels	1.5 hours	2014-09-18T05:07:05Z	Musical Instruments

In [10]: data[data.is_paid==False]

Out[10]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	41	286070 5 lecciones que todo guitarrista debe tomar	False	Free	4452	263	14	Beginner Level	1 hour	2014-08-23T05:08:14Z	Musical Instruments
	49	696630 7 Ways A Beginner Guitarist Can Sound Better, ...	False	Free	4529	193	7	Beginner Level	36 mins	2015-12-21T18:50:50Z	Musical Instruments
	57	955914 A beginner's guide to fingerpicking and strumming...	False	Free	3481	29	20	Beginner Level	2 hours	2016-09-13T21:51:59Z	Musical Instruments
	67	270976 A how to guide in HTML	False	Free	7318	205	8	Beginner Level	35 mins	2014-08-10T20:19:10Z	Web Development
	74	1214144 ¡Triunfar en La Bolsa de Valores No Requiere d...	False	Free	338	7	6	Beginner Level	1 hour	2017-05-30T14:30:12Z	Business Finance

	3620	552598 WordPress in under an hour - Create/manage you...	False	Free	6474	86	15	All Levels	1 hour	2015-07-15T00:21:56Z	Web Development
	3638	1068590 Wordpress Website Mastery 2017	False	Free	5181	64	22	Beginner Level	2.5 hours	2017-01-18T17:01:40Z	Web Development
	3652	752706 Write quicker HTML5 and CSS 3; productivity ha...	False	Free	13016	286	15	All Levels	1.5 hours	2016-03-03T17:45:31Z	Web Development
	3674	1257976 Your First 10 Guitar Lessons - Learn how to pl...	False	Free	924	4	18	Beginner Level	1 hour	2017-06-29T00:29:36Z	Musical Instruments
	3680	1225194 Zoho Books Gestion Financière d'Entreprise pas...	False	Free	229	0	33	All Levels	2 hours	2017-05-26T16:45:55Z	Business Finance

310 rows x 11 columns

In [11]: #paid courses
data[data.is_paid==True]

Out[11]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	0	288942 #1 Piano Hand Coordination: Play 10th Ballad L...	True	35	3137	18	68	All Levels	1.5 hours	2014-09-18T05:07:05Z	Musical Instruments
	1	1170074 #10 Hand Coordination - Transfer Chord Ballad ...	True	75	1593	1	41	Intermediate Level	1 hour	2017-04-12T19:06:34Z	Musical Instruments
	2	1193886 #12 Hand Coordination: Let your Hands dance wi...	True	75	482	1	47	Intermediate Level	1.5 hours	2017-04-26T18:34:57Z	Musical Instruments
	3	1116700 #4 Piano Hand Coordination: Fun Piano Runs in ...	True	75	850	3	43	Intermediate Level	1 hour	2017-02-21T23:48:18Z	Musical Instruments
	4	1120410 #5 Piano Hand Coordination: Piano Runs in 2 ...	True	75	940	3	32	Intermediate Level	37 mins	2017-02-21T23:44:49Z	Musical Instruments

	3676	498488 Your First Successful Forex Trades - With Case...	True	200	1079	34	16	All Levels	2.5 hours	2015-05-26T20:48:48Z	Business Finance
	3677	328960 Your Own Site in 45 Min: The Complete Wordpres...	True	120	1566	29	36	All Levels	4 hours	2015-04-20T22:15:17Z	Web Development
	3678	552700 Your Second Course on Piano: Two Handed Playing	True	70	1018	12	22	Beginner Level	5 hours	2015-10-26T20:04:21Z	Musical Instruments
	3679	631754 Zend Framework 2: Learn the PHP framework ZF2 ...	True	40	723	130	37	All Levels	6.5 hours	2015-11-11T18:55:45Z	Web Development
	3681	964478 Zombie Apocalypse Photoshop Actions	True	50	12	1	15	All Levels	1.5 hours	2016-09-26T22:19:48Z	Graphic Design

3372 rows x 11 columns

In [12]: #top selling courses
data.sort_values('num_subscribers',ascending=False)

Out[12]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	2230	41295 Learn HTML5 Programming From Scratch	False	Free	268923	8629	45	All Levels	10.5 hours	2013-02-14T07:03:41Z	Web Development
	776	59014 Coding for Entrepreneurs Basic	False	Free	161029	279	27	Beginner Level	3.5 hours	2013-06-09T15:51:55Z	Web Development
	3385	625204 The Web Developer Bootcamp	True	200	121584	27445	342	All Levels	43 hours	2015-11-02T21:13:27Z	Web Development
	640	173548 Build Your First Website in 1 Week with HTML5 ...	False	Free	120291	5924	30	Beginner Level	3 hours	2014-04-08T16:21:30Z	Web Development
	3316	764164 The Complete Web Developer Course 2.0	True	200	114512	22412	304	All Levels	30.5 hours	2016-03-08T22:28:36Z	Web Development

	2290	1223240 Learn Pirates of the Caribbean by Ear on the P...	True	20	0	0	6	All Levels	32 mins	2015-05-22T17:14:43Z	Musical Instruments
	1267	1258666 Financial Statement Auditing Cycles	True	50	0	0	9	Intermediate Level	2 hours	2017-06-29T23:20:10Z	Business Finance
	2070	1215926 Kickstarter success in 5 easy steps	True	20	0	0	12	All Levels	31 mins	2017-05-16T14:55:28Z	Business Finance
	1931	1247992 Introduction to Project Management for Finance...	True	50	0	0	9	Beginner Level	2 hours	2017-07-03T21:40:32Z	Business Finance
	3165	1087466 Stop Creditors from Harassing you and Avoid Ba...	True	20	0	0	7	Beginner Level	37 mins	2017-02-02T16:22:37Z	Business Finance

3682 rows x 11 columns

In [13]: #least selling courses
data.sort_values('num_subscribers',ascending=True)

Out[13]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	649	1233314 Building a Balanced Scorecard	True	50	0	0	11	Intermediate Level	2 hours	2017-07-03T21:38:22Z	Business Finance
	3259	1232282 The Cash Flow Statement - An Introduction	True	50	0	0	10	Beginner Level	1.5 hours	2017-06-28T16:05:51Z	Business Finance
	3261	1275872 The Complete Adobe Spark Course	True	150	0	0	29	All Levels	2 hours	2017-07-03T17:39:57Z	Graphic Design
	910	726314 Create Beautiful Image Maps for Your Website	True	20	0	0	8	Intermediate Level	37 mins	2016-01-18T17:56:36Z	Graphic Design
	3328	715476 The Cuckoo Strategy to get European Funding	True	160	0	0	6	All Levels	1 hour	2016-01-06T02:38:23Z	Business Finance

	3316	764164 The Complete Web Developer Course 2.0	True	200	114512	22412	304	All Levels	30.5 hours	2016-03-08T22:28:36Z	Web Development
	640	173548 Build Your First Website in 1 Week with HTML5 ...	False	Free	120291	5924	30	Beginner Level	3 hours	2014-04-08T16:21:30Z	Web Development
	3385	625204 The Web Developer Bootcamp	True	200	121584	27445	342	All Levels	43 hours	2015-11-02T21:13:27Z	Web Development
	776	59014 Coding for Entrepreneurs Basic	False	Free	161029	279	27	Beginner Level	3.5 hours	2013-06-09T15:51:55Z	Web Development
	2230	41295 Learn HTML5 Programming From Scratch	False	Free	268923	8629	45	All Levels	10.5 hours	2013-02-14T07:03:41Z	Web Development

3682 rows x 11 columns

In [22]: #courses of graphic design price below is 100
data[(data.subject=="Graphic Design")& (data.price<'100')]
data.head(2)

Out[22]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	0	288942 #1 Piano Hand Coordination: Play 10th Ballad L...	True	35	3137	18	68	All Levels	1.5 hours	2014-09-18T05:07:05Z	Musical Instruments
	1	1170074 #10 Hand Coordination - Transfer Chord Ballad ...	True	75	1593	1	41	Intermediate Level	1 hour	2017-04-12T19:06:34Z	Musical Instruments

In [23]: data[(data.subject=="Graphic Design")& (data.price=="100")]
data.head()

Out[23]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	0	288942 #1 Piano Hand Coordination: Play 10th Ballad L...	True	35	3137	18	68	All Levels	1.5 hours	2014-09-18T05:07:05Z	Musical Instruments
	1	1170074 #10 Hand Coordination - Transfer Chord Ballad ...	True	75	1593	1	41	Intermediate Level	1 hour	2017-04-12T19:06:34Z	Musical Instruments
	2	1193886 #12 Hand Coordination: Let your Hands dance wi...	True	75	482	1	47	Intermediate Level	1.5 hours	2017-04-26T18:34:57Z	Musical Instruments
	3	1116700 #4 Piano Hand Coordination: Fun Piano Runs in ...	True	75	850	3	43	Intermediate Level	1 hour	2017-02-21T23:48:18Z	Musical Instruments
	4	1120410 #5 Piano Hand Coordination: Piano Runs in 2 ...	True	75	940	3	32	Intermediate Level	37 mins	2017-02-21T23:44:49Z	Musical Instruments

In [28]: # courses related to python
data[data.course_title.str.contains('Python')]

Out[28]:

	course_id	course_title	is_paid	price	num_subscribers	num_reviews	num_lectures	level	content_duration	published_timestamp	subject
	216	599504 Advanced Scalable Python Web Development Using...	True	120	1299	56	71	Intermediate Level	14 hours	2016-08-11T22:09:24Z	Web Development
	777	47963 Coding for Entrepreneurs: Learn Python, Django...	True	195	23412	799	251	All Levels	45 hours	2013-04-08T00:46:14Z	Web Development
	814	631128 Complete Python Web Course: Build 8 Python Web...	True	110	7489	941	173	All Levels	16 hours	2015-11-08T20:57:35Z	Web Development
	842	186096 Core: A Web App Reference Guide for Django, Py...	True	195	2497	98	154	All Levels	26 hours	2014-05-29T00:58:43Z	Web Development
	1400	394832 Fun and creative web engineering with Python a...	False	Free	10917	319	25	All Levels	2 hours	2016-06-19T19:51:50Z	Web Development
	1932	1038538 Introduction to QGIS Python Programming	True	85	197	26	28	Beginner Level	3.5 hours	2016-12-22T00:11:22Z	Web Development
	1969	902888 Investment Portfolio Analysis with Python	True	50	209	13	37	All Levels	7 hours	2016-07-13T21:40:32Z	Business Finance
	2294	391546 Learn Python and Django: Payment Processing	True	70	17714	198	23	All Levels	3.5 hours	2015-02-09T15:37:56Z	Web Development
	2295	1063722 Learn Python Django - A Hands-On Course	True	50	1339	21	18	Beginner Level	2 hours	2017-01-18T21:53:34Z	Web Development
	2341	546848 Learn to code in Python and learn Adobe Photos...	True	50	1132	1	29	All Levels	2 hours	2017-07-08T00:15:12Z	Graphic Design
	2906	368340 Professional Python Web Development Using Flask	True	120	3420	489	102	Beginner Level	14.5 hours	2015-03-04T00:10:36Z	Web Development
	2908	1035940 Professional RESTful API Design using Python F...	True	120	578	25	36	Intermediate Level	4.5 hours	2017-01-11T21:15:25Z	Web Development
	2929	270808 Projects in Django and Python	True	60	1764	53	28	All Levels	6.5 hours	2014-10-21T07:58:07Z	Web Development
	2952	1170894 Python Algo Stock Trading: Automate Your Trading!	True	95	1165	21	41	Beginner Level	2.5 hours	2017-05-28T23:41:03Z	Business Finance
	2953	1070886 Python Algo Trading: FX Trading with Qanda	True	200	453	42	33	Intermediate Level	3 hours	2017-03-14T00:39:45Z	Business Finance
	2954	1196544 Python Algo Trading: Sentiment Trading with News	True	200	294	19	42	All Levels	7 hours	2017-04-28T16:41:44Z	Business Finance
	2955	822444 Python and Django Full Stack Web Developer Boo...	True	200	11832	1883	191	All Levels	31.5 hours	2017-02-24T18:40:55Z	Web Development
	2956	477702 Python for Beginners: Python Programming Langu...	True	150	6153	125	84	Beginner Level	5 hours	2015-06-14T18:18:57Z	Web Development
	2957	1035472 Python for Finance: Investment Fundamentals & ...	True	195	3811	278	103	All Levels	6.5 hours	2017-03-30T22:17:09Z	Business Finance
	2958	529828 Python for Trading & Investing	True	95	638	25	36	All Levels	5 hours	2015-06-17T22:23:31Z	Business Finance
	2959	70640 Python Programming: Create an Digital Marketpl...	True	195	4198	145	161	All Levels	26 hours	2013-10-20T19:53:28Z	Web Development
	2960	523312 Python Web Programming	True	100	1020	46	60	Beginner Level	6 hours	2015-07-01T21:46:36Z	Web Development
	2962	1088656 Quantitative Trading Analysis with Python	True	50	256	17	49	All Levels	5.5 hours	2017-01-27T17:11:28Z	Business Finance
	3013	978600 REST APIs with Flask and Python	True	110	5151	737	115	Intermediate Level	12.5 hours	2016-11-06T19:00:38Z	Web Development
	3154	815482 Stock Technical Analysis with Python	True	50	409	35	46	All Levels	8 hours	2016-04-12T00:40:03Z	Business Finance
	3272	938560 The Complete Ethical Hacking Course 2.0: Pytho...	True	195	7827	268	66	All Levels	11 hours	2016-09-28T15:08:29Z	Web Development
	3460	76052 Try Django 1.9 Build a Blog and Learn Python...	True	50	7407	172	147	All Levels	20 hours	2014-03-04T07:12:21Z	Web Development
	3573	16646 Web Programming with Python	True	50	35267	217	53	All Levels	4 hours	2012-04-25T00:01:43Z	Web Development
	3574	574082 Web Scraping with Python, Ruby & Import. io	True	75	973	50	46	All Levels	4.5 hours	2015-08-09T22:16:41Z	Web Development

In [29]: # courses that published in 2015
data.dtypes

Out[29]:

course_id	int64
course_title	object
is_paid	bool
price	object
num_subscribers	int64
num_reviews</	