```python
In [1]: from requests import Request, Session
        from requests.exceptions import ConnectionError, Timeout, TooManyRedirect
        import json

        url = 'https://pro-api.coinmarketcap.com/v1/cryptocurrency/listings/lates
        parameters = {
          'start':'1',
          'limit':'15',
          'convert':'USD'
        }
        headers = {
          'Accepts': 'application/json',
          'X-CMC_PRO_API_KEY': 'a0fc5d95-db6a-4b4a-8d14-d23e93b6a823',
        }

        session = Session()
        session.headers.update(headers)

        try:
          response = session.get(url, params=parameters)
          data = json.loads(response.text)
          print(data)
        except (ConnectionError, Timeout, TooManyRedirects) as e:
          print(e)
```

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lf_reported_circulating_supply': None, 'self_reported_market_cap': None,
'tvl_ratio': None, 'last_updated': '2023-10-12T21:01:00.000Z', 'quote':
{'USD': {'price': 60.899661102744034, 'volume_24h': 172299805.200099, 'vo
lume_change_24h': -8.2447, 'percent_change_1h': -0.07021652, 'percent_cha
nge_24h': -0.97970698, 'percent_change_7d': -6.38902613, 'percent_change_
30d': 0.96545594, 'percent_change_60d': -26.76745219, 'percent_change_90
d': -35.16058276, 'market_cap': 4491618831.047967, 'market_cap_dominanc
e': 0.4306, 'fully_diluted_market_cap': 5115571532.63, 'tvl': None, 'last
_updated': '2023-10-12T21:01:00.000Z'}}}]
```
In [3]:   import pandas as pd

          pd.set_option('display.max_columns', None)
          pd.set_option('display.max_rows', None)
```

```
In [4]:   df = pd.json_normalize(data['data'])
          df['timestamp'] = pd.to_datetime('now')
          df
```

Out[4]:

	id	name	symbol	slug	num_market_pairs	date_added	ta
0	1	Bitcoin	BTC	bitcoin	10493	2010-07-13T00:00:00.000Z	[mineab pow, sh 256, stoi of-valu state
							[pos, sma

1	1027	Ethereum	ETH	ethereum	7545	2015-08-07T00:00:00.000Z	contrac ethereu ecosyste cc
2	825	Tether USDt	USDT	tether	63622	2015-02-25T00:00:00.000Z	[paymen stablecc asse backe stablecoi
3	1839	BNB	BNB	bnb	1679	2017-07-25T00:00:00.000Z	[marketpla centralize exchang payments,
4	52	XRP	XRP	xrp	1113	2013-08-04T00:00:00.000Z	[medium-e exchang enterpris solutio ar
5	3408	USDC	USDC	usd-coin	14422	2018-10-08T00:00:00.000Z	[medium-e exchang stablecc asse backed
6	5426	Solana	SOL	solana	535	2020-04-10T00:00:00.000Z	[pc platfor solar ecosyste cm holdings
7	2010	Cardano	ADA	cardano	946	2017-10-01T00:00:00.000Z	[dpos, pc platfor researc sma contrac
8	74	Dogecoin	DOGE	dogecoin	806	2013-12-15T00:00:00.000Z	[mineab pow, scry medium-e exchang me
9	1958	TRON	TRX	tron	852	2017-09-13T00:00:00.000Z	[mec paymen tro ecosyste dwf-lab po
10	11419	Toncoin	TON	toncoin	158	2021-08-26T13:40:22.000Z	[pos, f bankrupto estate, dv lab portfo
11	4943	Dai	DAI	multi-collateral-dai	2666	2019-11-22T00:00:00.000Z	[de stablecc asse backe stablecc e

	id	name	symbol	slug	num_market_pairs	date_added	ta
12	6636	Polkadot	DOT	polkadot-new	592	2020-08-19T00:00:00.000Z	[substra... polkad... binanc... cha... polkadot...
13	3890	Polygon	MATIC	polygon	1000	2019-04-28T00:00:00.000Z	[po... platfor... enterpris... solution... zero-kn...
14	2	Litecoin	LTC	litecoin	1010	2013-04-28T00:00:00.000Z	[mineab... pow, scry... medium-... exchang...

In [5]:
```python
pd.set_option('display.float_format', lambda x: '%.5f' % x)
```

In [6]:
```python
df
```

Out[6]:

	id	name	symbol	slug	num_market_pairs	date_added	ta
0	1	Bitcoin	BTC	bitcoin	10493	2010-07-13T00:00:00.000Z	[mineab... pow, sh... 256, stor... of-val... stat...
1	1027	Ethereum	ETH	ethereum	7545	2015-08-07T00:00:00.000Z	[pos, sma... contrac... ethereu... ecosyste... cc...
2	825	Tether USDt	USDT	tether	63622	2015-02-25T00:00:00.000Z	[paymen... stableco... ass... backe... stablecoi...
3	1839	BNB	BNB	bnb	1679	2017-07-25T00:00:00.000Z	[marketpla... centralize... exchang... payments,...
4	52	XRP	XRP	xrp	1113	2013-08-04T00:00:00.000Z	[medium-... exchang... enterpris... solution... ar...
5	3408	USDC	USDC	usd-coin	14422	2018-10-08T00:00:00.000Z	[medium-... exchang... stableco... ass... backed...
6	5426	Solana	SOL	solana	535	2020-04-10T00:00:00.000Z	[po... platfor... solan... ecosyste... cm... holding...

7	2010	Cardano	ADA	cardano	946	2017-10-01T00:00:00.000Z	[dpos, p platfor researc sma contrac
8	74	Dogecoin	DOGE	dogecoin	806	2013-12-15T00:00:00.000Z	[mineab pow, scry medium-e exchang me
9	1958	TRON	TRX	tron	852	2017-09-13T00:00:00.000Z	[mec paymen tro ecosyste dwf-lab po
10	11419	Toncoin	TON	toncoin	158	2021-08-26T13:40:22.000Z	[pos, f bankrupto estate, dv lab portfo
11	4943	Dai	DAI	multi-collateral-dai	2666	2019-11-22T00:00:00.000Z	[d stablecc ass backe stablecc e
12	6636	Polkadot	DOT	polkadot-new	592	2020-08-19T00:00:00.000Z	[substra polkad binanc cha polkadot
13	3890	Polygon	MATIC	polygon	1000	2019-04-28T00:00:00.000Z	[p platfor enterpris solution zero-kno
14	2	Litecoin	LTC	litecoin	1010	2013-04-28T00:00:00.000Z	[mineab pow, scry medium-e exchang

In [7]:
```python
df3 = df.groupby('name', sort=False)[['quote.USD.percent_change_1h','quot
df3
```

name	quote.USD.percent_change_1h	quote.USD.percent_change_24h	quote.USD.perc
Bitcoin	0.10686	0.08266	
Ethereum	0.32836	-1.76748	
Tether USDt	-0.01312	-0.00376	
BNB	-0.15590	-0.46846	
XRP	0.10561	-0.83752	
USDC	-0.00273	0.00781	
Solana	-0.06790	-2.76688	
Cardano	0.41769	-0.82480	
Dogecoin	0.11253	-0.51339	
TRON	0.08664	-0.83179	
Toncoin	-0.55478	-3.35125	
Dai	0.06878	0.03979	
Polkadot	-0.17498	-1.54326	
Polygon	0.28280	-1.30047	
Litecoin	-0.07022	-0.97971	

In [8]:
```python
df4 = df3.stack()
df4
```

Out[8]:
```
name
Bitcoin      quote.USD.percent_change_1h       0.10686
             quote.USD.percent_change_24h      0.08266
             quote.USD.percent_change_7d      -2.70480
             quote.USD.percent_change_30d      2.58743
             quote.USD.percent_change_60d     -9.06905
             quote.USD.percent_change_90d    -11.49111
Ethereum     quote.USD.percent_change_1h       0.32836
             quote.USD.percent_change_24h     -1.76748
             quote.USD.percent_change_7d      -5.02610
             quote.USD.percent_change_30d     -3.87788
             quote.USD.percent_change_60d    -17.14543
             quote.USD.percent_change_90d    -19.87717
Tether USDt  quote.USD.percent_change_1h      -0.01312
             quote.USD.percent_change_24h     -0.00376
             quote.USD.percent_change_7d      -0.05650
             quote.USD.percent_change_30d     -0.02408
             quote.USD.percent_change_60d      0.03378
             quote.USD.percent_change_90d     -0.11021
BNB          quote.USD.percent_change_1h      -0.15590
             quote.USD.percent_change_24h     -0.46846
             quote.USD.percent_change_7d      -2.81420
             quote.USD.percent_change_30d     -3.30070
             quote.USD.percent_change_60d    -14.93125
             quote.USD.percent_change_90d    -16.57445
XRP          quote.USD.percent_change_1h       0.10561
```

```
                      quote.USD.percent_change_24h      -0.83752
                      quote.USD.percent_change_7d       -7.77983
                      quote.USD.percent_change_30d      -0.11733
                      quote.USD.percent_change_60d     -23.71356
                      quote.USD.percent_change_90d     -32.27560
USDC                  quote.USD.percent_change_1h       -0.00273
                      quote.USD.percent_change_24h       0.00781
                      quote.USD.percent_change_7d       -0.00379
                      quote.USD.percent_change_30d      -0.00232
                      quote.USD.percent_change_60d       0.00397
                      quote.USD.percent_change_90d      -0.01619
Solana                quote.USD.percent_change_1h       -0.06790
                      quote.USD.percent_change_24h      -2.76688
                      quote.USD.percent_change_7d       -7.09112
                      quote.USD.percent_change_30d      18.57765
                      quote.USD.percent_change_60d     -13.54371
                      quote.USD.percent_change_90d     -18.94470
Cardano               quote.USD.percent_change_1h        0.41769
                      quote.USD.percent_change_24h      -0.82480
                      quote.USD.percent_change_7d       -6.66888
                      quote.USD.percent_change_30d      -0.88663
                      quote.USD.percent_change_60d     -16.21353
                      quote.USD.percent_change_90d     -24.28408
Dogecoin              quote.USD.percent_change_1h        0.11253
                      quote.USD.percent_change_24h      -0.51339
                      quote.USD.percent_change_7d       -5.22782
                      quote.USD.percent_change_30d      -5.51980
                      quote.USD.percent_change_60d     -23.52696
                      quote.USD.percent_change_90d     -15.36026
TRON                  quote.USD.percent_change_1h        0.08664
                      quote.USD.percent_change_24h      -0.83179
                      quote.USD.percent_change_7d       -3.54304
                      quote.USD.percent_change_30d       4.68402
                      quote.USD.percent_change_60d       9.96712
                      quote.USD.percent_change_90d       7.37691
Toncoin               quote.USD.percent_change_1h       -0.55478
                      quote.USD.percent_change_24h      -3.35125
                      quote.USD.percent_change_7d       -6.56780
                      quote.USD.percent_change_30d       6.59409
                      quote.USD.percent_change_60d      36.19277
                      quote.USD.percent_change_90d      43.50452
Dai                   quote.USD.percent_change_1h        0.06878
                      quote.USD.percent_change_24h       0.03979
                      quote.USD.percent_change_7d        0.00772
                      quote.USD.percent_change_30d       0.02212
                      quote.USD.percent_change_60d       0.02512
                      quote.USD.percent_change_90d       0.07269
Polkadot              quote.USD.percent_change_1h       -0.17498
                      quote.USD.percent_change_24h      -1.54326
                      quote.USD.percent_change_7d       -9.11761
                      quote.USD.percent_change_30d      -8.29492
                      quote.USD.percent_change_60d     -27.28013
                      quote.USD.percent_change_90d     -31.96290
Polygon               quote.USD.percent_change_1h        0.28280
                      quote.USD.percent_change_24h      -1.30047
                      quote.USD.percent_change_7d       -7.70639
                      quote.USD.percent_change_30d      -0.47365
                      quote.USD.percent_change_60d     -25.99869
                      quote.USD.percent_change_90d     -35.71280
Litecoin              quote.USD.percent_change_1h       -0.07022
                      quote.USD.percent_change_24h      -0.97971
```

```
                        quote.USD.percent_change_7d     -6.38903
                        quote.USD.percent_change_30d     0.96546
                        quote.USD.percent_change_60d   -26.76745
                        quote.USD.percent_change_90d   -35.16058
              dtype: float64
```

In [9]:
```
df5 = df4.to_frame(name='values')
df5
```

Out[9]:

name		values
Bitcoin	quote.USD.percent_change_1h	0.10686
	quote.USD.percent_change_24h	0.08266
	quote.USD.percent_change_7d	-2.70480
	quote.USD.percent_change_30d	2.58743
	quote.USD.percent_change_60d	-9.06905
	quote.USD.percent_change_90d	-11.49111
Ethereum	quote.USD.percent_change_1h	0.32836
	quote.USD.percent_change_24h	-1.76748
	quote.USD.percent_change_7d	-5.02610
	quote.USD.percent_change_30d	-3.87788
	quote.USD.percent_change_60d	-17.14543
	quote.USD.percent_change_90d	-19.87717
Tether USDt	quote.USD.percent_change_1h	-0.01312
	quote.USD.percent_change_24h	-0.00376
	quote.USD.percent_change_7d	-0.05650
	quote.USD.percent_change_30d	-0.02408
	quote.USD.percent_change_60d	0.03378
	quote.USD.percent_change_90d	-0.11021
BNB	quote.USD.percent_change_1h	-0.15590
	quote.USD.percent_change_24h	-0.46846
	quote.USD.percent_change_7d	-2.81420
	quote.USD.percent_change_30d	-3.30070
	quote.USD.percent_change_60d	-14.93125
	quote.USD.percent_change_90d	-16.57445
XRP	quote.USD.percent_change_1h	0.10561
	quote.USD.percent_change_24h	-0.83752
	quote.USD.percent_change_7d	-7.77983
	quote.USD.percent_change_30d	-0.11733
	quote.USD.percent_change_60d	-23.71356

	quote.USD.percent_change_90d	-32.27560
USDC	quote.USD.percent_change_1h	-0.00273
	quote.USD.percent_change_24h	0.00781
	quote.USD.percent_change_7d	-0.00379
	quote.USD.percent_change_30d	-0.00232
	quote.USD.percent_change_60d	0.00397
	quote.USD.percent_change_90d	-0.01619
Solana	quote.USD.percent_change_1h	-0.06790
	quote.USD.percent_change_24h	-2.76688
	quote.USD.percent_change_7d	-7.09112
	quote.USD.percent_change_30d	18.57765
	quote.USD.percent_change_60d	-13.54371
	quote.USD.percent_change_90d	-18.94470
Cardano	quote.USD.percent_change_1h	0.41769
	quote.USD.percent_change_24h	-0.82480
	quote.USD.percent_change_7d	-6.66888
	quote.USD.percent_change_30d	-0.88663
	quote.USD.percent_change_60d	-16.21353
	quote.USD.percent_change_90d	-24.28408
Dogecoin	quote.USD.percent_change_1h	0.11253
	quote.USD.percent_change_24h	-0.51339
	quote.USD.percent_change_7d	-5.22782
	quote.USD.percent_change_30d	-5.51980
	quote.USD.percent_change_60d	-23.52696
	quote.USD.percent_change_90d	-15.36026
TRON	quote.USD.percent_change_1h	0.08664
	quote.USD.percent_change_24h	-0.83179
	quote.USD.percent_change_7d	-3.54304
	quote.USD.percent_change_30d	4.68402
	quote.USD.percent_change_60d	9.96712
	quote.USD.percent_change_90d	7.37691
Toncoin	quote.USD.percent_change_1h	-0.55478
	quote.USD.percent_change_24h	-3.35125
	quote.USD.percent_change_7d	-6.56780
	quote.USD.percent_change_30d	6.59409
	quote.USD.percent_change_60d	36.19277

		quote.USD.percent_change_90d	43.50452
	Dai	quote.USD.percent_change_1h	0.06878
		quote.USD.percent_change_24h	0.03979
		quote.USD.percent_change_7d	0.00772
		quote.USD.percent_change_30d	0.02212
		quote.USD.percent_change_60d	0.02512
		quote.USD.percent_change_90d	0.07269
	Polkadot	quote.USD.percent_change_1h	-0.17498
		quote.USD.percent_change_24h	-1.54326
		quote.USD.percent_change_7d	-9.11761
		quote.USD.percent_change_30d	-8.29492
		quote.USD.percent_change_60d	-27.28013
		quote.USD.percent_change_90d	-31.96290
	Polygon	quote.USD.percent_change_1h	0.28280
		quote.USD.percent_change_24h	-1.30047
		quote.USD.percent_change_7d	-7.70639
		quote.USD.percent_change_30d	-0.47365
		quote.USD.percent_change_60d	-25.99869
		quote.USD.percent_change_90d	-35.71280
	Litecoin	quote.USD.percent_change_1h	-0.07022
		quote.USD.percent_change_24h	-0.97971
		quote.USD.percent_change_7d	-6.38903
		quote.USD.percent_change_30d	0.96546
		quote.USD.percent_change_60d	-26.76745
		quote.USD.percent_change_90d	-35.16058

In [10]:
```python
df5.count()
```

Out[10]:
```
values    90
dtype: int64
```

In [16]:
```python
index = pd.Index(range(90))

df6 = df5.reset_index()
df6
```

Out[16]:

	name	level_1	values
0	Bitcoin	quote.USD.percent_change_1h	0.10686
1	Bitcoin	quote.USD.percent_change_24h	0.08266
2	Bitcoin	quote.USD.percent_change_7d	-2.70480

3	Bitcoin	quote.USD.percent_change_30d	2.58743
4	Bitcoin	quote.USD.percent_change_60d	-9.06905
5	Bitcoin	quote.USD.percent_change_90d	-11.49111
6	Ethereum	quote.USD.percent_change_1h	0.32836
7	Ethereum	quote.USD.percent_change_24h	-1.76748
8	Ethereum	quote.USD.percent_change_7d	-5.02610
9	Ethereum	quote.USD.percent_change_30d	-3.87788
10	Ethereum	quote.USD.percent_change_60d	-17.14543
11	Ethereum	quote.USD.percent_change_90d	-19.87717
12	Tether USDt	quote.USD.percent_change_1h	-0.01312
13	Tether USDt	quote.USD.percent_change_24h	-0.00376
14	Tether USDt	quote.USD.percent_change_7d	-0.05650
15	Tether USDt	quote.USD.percent_change_30d	-0.02408
16	Tether USDt	quote.USD.percent_change_60d	0.03378
17	Tether USDt	quote.USD.percent_change_90d	-0.11021
18	BNB	quote.USD.percent_change_1h	-0.15590
19	BNB	quote.USD.percent_change_24h	-0.46846
20	BNB	quote.USD.percent_change_7d	-2.81420
21	BNB	quote.USD.percent_change_30d	-3.30070
22	BNB	quote.USD.percent_change_60d	-14.93125
23	BNB	quote.USD.percent_change_90d	-16.57445
24	XRP	quote.USD.percent_change_1h	0.10561
25	XRP	quote.USD.percent_change_24h	-0.83752
26	XRP	quote.USD.percent_change_7d	-7.77983
27	XRP	quote.USD.percent_change_30d	-0.11733
28	XRP	quote.USD.percent_change_60d	-23.71356
29	XRP	quote.USD.percent_change_90d	-32.27560
30	USDC	quote.USD.percent_change_1h	-0.00273
31	USDC	quote.USD.percent_change_24h	0.00781
32	USDC	quote.USD.percent_change_7d	-0.00379
33	USDC	quote.USD.percent_change_30d	-0.00232
34	USDC	quote.USD.percent_change_60d	0.00397
35	USDC	quote.USD.percent_change_90d	-0.01619
36	Solana	quote.USD.percent_change_1h	-0.06790
37	Solana	quote.USD.percent_change_24h	-2.76688
38	Solana	quote.USD.percent_change_7d	-7.09112

39	Solana	quote.USD.percent_change_30d	18.57765
40	Solana	quote.USD.percent_change_60d	-13.54371
41	Solana	quote.USD.percent_change_90d	-18.94470
42	Cardano	quote.USD.percent_change_1h	0.41769
43	Cardano	quote.USD.percent_change_24h	-0.82480
44	Cardano	quote.USD.percent_change_7d	-6.66888
45	Cardano	quote.USD.percent_change_30d	-0.88663
46	Cardano	quote.USD.percent_change_60d	-16.21353
47	Cardano	quote.USD.percent_change_90d	-24.28408
48	Dogecoin	quote.USD.percent_change_1h	0.11253
49	Dogecoin	quote.USD.percent_change_24h	-0.51339
50	Dogecoin	quote.USD.percent_change_7d	-5.22782
51	Dogecoin	quote.USD.percent_change_30d	-5.51980
52	Dogecoin	quote.USD.percent_change_60d	-23.52696
53	Dogecoin	quote.USD.percent_change_90d	-15.36026
54	TRON	quote.USD.percent_change_1h	0.08664
55	TRON	quote.USD.percent_change_24h	-0.83179
56	TRON	quote.USD.percent_change_7d	-3.54304
57	TRON	quote.USD.percent_change_30d	4.68402
58	TRON	quote.USD.percent_change_60d	9.96712
59	TRON	quote.USD.percent_change_90d	7.37691
60	Toncoin	quote.USD.percent_change_1h	-0.55478
61	Toncoin	quote.USD.percent_change_24h	-3.35125
62	Toncoin	quote.USD.percent_change_7d	-6.56780
63	Toncoin	quote.USD.percent_change_30d	6.59409
64	Toncoin	quote.USD.percent_change_60d	36.19277
65	Toncoin	quote.USD.percent_change_90d	43.50452
66	Dai	quote.USD.percent_change_1h	0.06878
67	Dai	quote.USD.percent_change_24h	0.03979
68	Dai	quote.USD.percent_change_7d	0.00772
69	Dai	quote.USD.percent_change_30d	0.02212
70	Dai	quote.USD.percent_change_60d	0.02512
71	Dai	quote.USD.percent_change_90d	0.07269
72	Polkadot	quote.USD.percent_change_1h	-0.17498
73	Polkadot	quote.USD.percent_change_24h	-1.54326
74	Polkadot	quote.USD.percent_change_7d	-9.11761

	name		values
75	Polkadot	quote.USD.percent_change_30d	-8.29492
76	Polkadot	quote.USD.percent_change_60d	-27.28013
77	Polkadot	quote.USD.percent_change_90d	-31.96290
78	Polygon	quote.USD.percent_change_1h	0.28280
79	Polygon	quote.USD.percent_change_24h	-1.30047
80	Polygon	quote.USD.percent_change_7d	-7.70639
81	Polygon	quote.USD.percent_change_30d	-0.47365
82	Polygon	quote.USD.percent_change_60d	-25.99869
83	Polygon	quote.USD.percent_change_90d	-35.71280
84	Litecoin	quote.USD.percent_change_1h	-0.07022
85	Litecoin	quote.USD.percent_change_24h	-0.97971
86	Litecoin	quote.USD.percent_change_7d	-6.38903
87	Litecoin	quote.USD.percent_change_30d	0.96546
88	Litecoin	quote.USD.percent_change_60d	-26.76745
89	Litecoin	quote.USD.percent_change_90d	-35.16058

In [17]:
```python
df7 = df6.rename(columns={'level_1': 'percent_change'})
df7
```

Out[17]:

	name	percent_change	values
0	Bitcoin	quote.USD.percent_change_1h	0.10686
1	Bitcoin	quote.USD.percent_change_24h	0.08266
2	Bitcoin	quote.USD.percent_change_7d	-2.70480
3	Bitcoin	quote.USD.percent_change_30d	2.58743
4	Bitcoin	quote.USD.percent_change_60d	-9.06905
5	Bitcoin	quote.USD.percent_change_90d	-11.49111
6	Ethereum	quote.USD.percent_change_1h	0.32836
7	Ethereum	quote.USD.percent_change_24h	-1.76748
8	Ethereum	quote.USD.percent_change_7d	-5.02610
9	Ethereum	quote.USD.percent_change_30d	-3.87788
10	Ethereum	quote.USD.percent_change_60d	-17.14543
11	Ethereum	quote.USD.percent_change_90d	-19.87717
12	Tether USDt	quote.USD.percent_change_1h	-0.01312
13	Tether USDt	quote.USD.percent_change_24h	-0.00376
14	Tether USDt	quote.USD.percent_change_7d	-0.05650
15	Tether USDt	quote.USD.percent_change_30d	-0.02408
16	Tether USDt	quote.USD.percent_change_60d	0.03378

17	Tether USDt	quote.USD.percent_change_90d	-0.11021
18	BNB	quote.USD.percent_change_1h	-0.15590
19	BNB	quote.USD.percent_change_24h	-0.46846
20	BNB	quote.USD.percent_change_7d	-2.81420
21	BNB	quote.USD.percent_change_30d	-3.30070
22	BNB	quote.USD.percent_change_60d	-14.93125
23	BNB	quote.USD.percent_change_90d	-16.57445
24	XRP	quote.USD.percent_change_1h	0.10561
25	XRP	quote.USD.percent_change_24h	-0.83752
26	XRP	quote.USD.percent_change_7d	-7.77983
27	XRP	quote.USD.percent_change_30d	-0.11733
28	XRP	quote.USD.percent_change_60d	-23.71356
29	XRP	quote.USD.percent_change_90d	-32.27560
30	USDC	quote.USD.percent_change_1h	-0.00273
31	USDC	quote.USD.percent_change_24h	0.00781
32	USDC	quote.USD.percent_change_7d	-0.00379
33	USDC	quote.USD.percent_change_30d	-0.00232
34	USDC	quote.USD.percent_change_60d	0.00397
35	USDC	quote.USD.percent_change_90d	-0.01619
36	Solana	quote.USD.percent_change_1h	-0.06790
37	Solana	quote.USD.percent_change_24h	-2.76688
38	Solana	quote.USD.percent_change_7d	-7.09112
39	Solana	quote.USD.percent_change_30d	18.57765
40	Solana	quote.USD.percent_change_60d	-13.54371
41	Solana	quote.USD.percent_change_90d	-18.94470
42	Cardano	quote.USD.percent_change_1h	0.41769
43	Cardano	quote.USD.percent_change_24h	-0.82480
44	Cardano	quote.USD.percent_change_7d	-6.66888
45	Cardano	quote.USD.percent_change_30d	-0.88663
46	Cardano	quote.USD.percent_change_60d	-16.21353
47	Cardano	quote.USD.percent_change_90d	-24.28408
48	Dogecoin	quote.USD.percent_change_1h	0.11253
49	Dogecoin	quote.USD.percent_change_24h	-0.51339
50	Dogecoin	quote.USD.percent_change_7d	-5.22782
51	Dogecoin	quote.USD.percent_change_30d	-5.51980
52	Dogecoin	quote.USD.percent_change_60d	-23.52696

53	Dogecoin	quote.USD.percent_change_90d	-15.36026
54	TRON	quote.USD.percent_change_1h	0.08664
55	TRON	quote.USD.percent_change_24h	-0.83179
56	TRON	quote.USD.percent_change_7d	-3.54304
57	TRON	quote.USD.percent_change_30d	4.68402
58	TRON	quote.USD.percent_change_60d	9.96712
59	TRON	quote.USD.percent_change_90d	7.37691
60	Toncoin	quote.USD.percent_change_1h	-0.55478
61	Toncoin	quote.USD.percent_change_24h	-3.35125
62	Toncoin	quote.USD.percent_change_7d	-6.56780
63	Toncoin	quote.USD.percent_change_30d	6.59409
64	Toncoin	quote.USD.percent_change_60d	36.19277
65	Toncoin	quote.USD.percent_change_90d	43.50452
66	Dai	quote.USD.percent_change_1h	0.06878
67	Dai	quote.USD.percent_change_24h	0.03979
68	Dai	quote.USD.percent_change_7d	0.00772
69	Dai	quote.USD.percent_change_30d	0.02212
70	Dai	quote.USD.percent_change_60d	0.02512
71	Dai	quote.USD.percent_change_90d	0.07269
72	Polkadot	quote.USD.percent_change_1h	-0.17498
73	Polkadot	quote.USD.percent_change_24h	-1.54326
74	Polkadot	quote.USD.percent_change_7d	-9.11761
75	Polkadot	quote.USD.percent_change_30d	-8.29492
76	Polkadot	quote.USD.percent_change_60d	-27.28013
77	Polkadot	quote.USD.percent_change_90d	-31.96290
78	Polygon	quote.USD.percent_change_1h	0.28280
79	Polygon	quote.USD.percent_change_24h	-1.30047
80	Polygon	quote.USD.percent_change_7d	-7.70639
81	Polygon	quote.USD.percent_change_30d	-0.47365
82	Polygon	quote.USD.percent_change_60d	-25.99869
83	Polygon	quote.USD.percent_change_90d	-35.71280
84	Litecoin	quote.USD.percent_change_1h	-0.07022
85	Litecoin	quote.USD.percent_change_24h	-0.97971
86	Litecoin	quote.USD.percent_change_7d	-6.38903
87	Litecoin	quote.USD.percent_change_30d	0.96546
88	Litecoin	quote.USD.percent_change_60d	-26.76745

| | 89 | Litecoin | quote.USD.percent_change_90d | -35.16058 |

In [22]:
```python
df7['percent_change']=df7['percent_change'].replace(['quote.USD.percent_c
df7
```

Out[22]:

	name	percent_change	values
0	Bitcoin	1h	0.10686
1	Bitcoin	24h	0.08266
2	Bitcoin	7d	-2.70480
3	Bitcoin	30d	2.58743
4	Bitcoin	60d	-9.06905
5	Bitcoin	90d	-11.49111
6	Ethereum	1h	0.32836
7	Ethereum	24h	-1.76748
8	Ethereum	7d	-5.02610
9	Ethereum	30d	-3.87788
10	Ethereum	60d	-17.14543
11	Ethereum	90d	-19.87717
12	Tether USDt	1h	-0.01312
13	Tether USDt	24h	-0.00376
14	Tether USDt	7d	-0.05650
15	Tether USDt	30d	-0.02408
16	Tether USDt	60d	0.03378
17	Tether USDt	90d	-0.11021
18	BNB	1h	-0.15590
19	BNB	24h	-0.46846
20	BNB	7d	-2.81420
21	BNB	30d	-3.30070
22	BNB	60d	-14.93125
23	BNB	90d	-16.57445
24	XRP	1h	0.10561
25	XRP	24h	-0.83752
26	XRP	7d	-7.77983
27	XRP	30d	-0.11733
28	XRP	60d	-23.71356
29	XRP	90d	-32.27560
30	USDC	1h	-0.00273

31	USDC	24h	0.00781
32	USDC	7d	-0.00379
33	USDC	30d	-0.00232
34	USDC	60d	0.00397
35	USDC	90d	-0.01619
36	Solana	1h	-0.06790
37	Solana	24h	-2.76688
38	Solana	7d	-7.09112
39	Solana	30d	18.57765
40	Solana	60d	-13.54371
41	Solana	90d	-18.94470
42	Cardano	1h	0.41769
43	Cardano	24h	-0.82480
44	Cardano	7d	-6.66888
45	Cardano	30d	-0.88663
46	Cardano	60d	-16.21353
47	Cardano	90d	-24.28408
48	Dogecoin	1h	0.11253
49	Dogecoin	24h	-0.51339
50	Dogecoin	7d	-5.22782
51	Dogecoin	30d	-5.51980
52	Dogecoin	60d	-23.52696
53	Dogecoin	90d	-15.36026
54	TRON	1h	0.08664
55	TRON	24h	-0.83179
56	TRON	7d	-3.54304
57	TRON	30d	4.68402
58	TRON	60d	9.96712
59	TRON	90d	7.37691
60	Toncoin	1h	-0.55478
61	Toncoin	24h	-3.35125
62	Toncoin	7d	-6.56780
63	Toncoin	30d	6.59409
64	Toncoin	60d	36.19277
65	Toncoin	90d	43.50452
66	Dai	1h	0.06878

67	Dai	24h	0.03979
68	Dai	7d	0.00772
69	Dai	30d	0.02212
70	Dai	60d	0.02512
71	Dai	90d	0.07269
72	Polkadot	1h	-0.17498
73	Polkadot	24h	-1.54326
74	Polkadot	7d	-9.11761
75	Polkadot	30d	-8.29492
76	Polkadot	60d	-27.28013
77	Polkadot	90d	-31.96290
78	Polygon	1h	0.28280
79	Polygon	24h	-1.30047
80	Polygon	7d	-7.70639
81	Polygon	30d	-0.47365
82	Polygon	60d	-25.99869
83	Polygon	90d	-35.71280
84	Litecoin	1h	-0.07022
85	Litecoin	24h	-0.97971
86	Litecoin	7d	-6.38903
87	Litecoin	30d	0.96546
88	Litecoin	60d	-26.76745
89	Litecoin	90d	-35.16058

In [23]:
```python
import seaborn as sns
import matplotlib.pyplot as plt
```

In [24]:
```python
sns.catplot(x='percent_change', y='values',hue='name',data=df7,kind='poin
```

/Users/tauffique/anaconda3/lib/python3.11/site-packages/seaborn/axisgrid.
py:118: UserWarning: The figure layout has changed to tight
  self._figure.tight_layout(*args, **kwargs)

Out[24]: <seaborn.axisgrid.FacetGrid at 0x13b00fa50>