

In [12]:

```
# prime number from 1 - 2500 using filter function
```

```
def prime(i):
```

```
    for j in range(2,i):
```

```
        if i % j == 0:
```

```
            break
```

```
    else:
```


```
        return i
```

```
primeNo = filter(prime, range(1, 2500+1))
```

```
print ('\nPrime numbers between 1-2500:\n')
```

```
print(list(primeNo))
```

Prime numbers between 1-2500:



[1, 2, 3, 5, 7, 11, 13, 17, 19, 23,
29, 31, 37, 41, 43, 47, 53, 59, 61,
67, 71, 73, 79, 83, 89, 97, 101, 10
3, 107, 109, 113, 127, 131, 137, 13
9, 149, 151, 157, 163, 167, 173, 17
9, 181, 191, 193, 197, 199, 211, 22
3, 227, 229, 233, 239, 241, 251, 25
7, 263, 269, 271, 277, 281, 283, 29
3, 307, 311, 313, 317, 331, 337, 34
7, 349, 353, 359, 367, 373, 379, 38
3, 389, 397, 401, 409, 419, 421, 43
1, 433, 439, 443, 449, 457, 461, 46
3, 467, 479, 487, 491, 499, 503, 50
9, 521, 523, 541, 547, 557, 563, 56
9, 571, 577, 587, 593, 599, 601, 60
7, 613, 617, 619, 631, 641, 643, 64
7, 653, 659, 661, 673, 677, 683, 69
1, 701, 709, 719, 727, 733, 739, 74
3, 751, 757, 761, 769, 773, 787, 79
7, 809, 811, 821, 823, 827, 829, 83
9, 853, 857, 859, 863, 877, 881, 88
3, 887, 907, 911, 919, 929, 937, 94
1, 947, 953, 967, 971, 977, 983, 99
1, 997, 1009, 1013, 1019, 1021, 103
1, 1033, 1039, 1049, 1051, 1061, 106
3, 1069, 1087, 1091, 1093, 1097, 110
3, 1109, 1117, 1123, 1129, 1151, 115
3, 1163, 1171, 1181, 1187, 1193, 120
1, 1213, 1217, 1223, 1229, 1231, 123
7, 1249, 1259, 1277, 1279, 1283, 128
9, 1291, 1297, 1301, 1303, 1307, 131
9, 1321, 1327, 1361, 1367, 1373, 138
1, 1399, 1409, 1423, 1427, 1429, 143
3, 1439, 1447, 1451, 1453, 1459, 147
1, 1481, 1483, 1487, 1489, 1493, 149
9, 1511, 1523, 1531, 1543, 1549, 155
3, 1559, 1567, 1571, 1579, 1583, 159
7, 1601, 1607, 1609, 1613, 1619, 162
1, 1627, 1637, 1657, 1663, 1667, 166
9, 1693, 1697, 1699, 1709, 1721, 172

9, 1511, 1523, 1531, 1543, 1549, 155
3, 1559, 1567, 1571, 1579, 1583, 159
7, 1601, 1607, 1609, 1613, 1619, 162
1, 1627, 1637, 1657, 1663, 1667, 166
9, 1693, 1697, 1699, 1709, 1721, 172
3, 1733, 1741, 1747, 1753, 1759, 177
7, 1783, 1787, 1789, 1801, 1811, 182
3, 1831, 1847, 1861, 1867, 1871, 187
3, 1877, 1879, 1889, 1901, 1907, 191
3, 1931, 1933, 1949, 1951, 1973, 197
9, 1987, 1993, 1997, 1999, 2003, 201
1, 2017, 2027, 2029, 2039, 2053, 206
3, 2069, 2081, 2083, 2087, 2089, 209
9, 2111, 2113, 2129, 2131, 2137, 214
1, 2143, 2153, 2161, 2179, 2203, 220
7, 2213, 2221, 2237, 2239, 2243, 225
1, 2267, 2269, 2273, 2281, 2287, 229
3, 2297, 2309, 2311, 2333, 2339, 234
1, 2347, 2351, 2357, 2371, 2377, 238
1, 2383, 2389, 2393, 2399, 2411, 241
7, 2423, 2437, 2441, 2447, 2459, 246
7, 2473, 2477]