Lecture 27

Dictionary part 5

practice question - 1

Write a Python script to concatenate the following dictionaries to create a new one.

In [7]:
```python
dic1 = {1:10,2:20}
dic2 = {3:30,4:40}
dic3 = {5:50,6:60}

dic4 = {}

for d in (dic1,dic2,dic3):dic4.update(d)
print(dic4)
```

```
{1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
```

Print a dictionary where the keys are numbers between 1 and 15 and the values are square of keys

In [9]:
```python
square_dict = {}

for num in range(1,16):
    square_dict[num] = num**2

print(square_dict)
```

```
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 12
1, 12: 144, 13: 169, 14: 196, 15: 225}
```

In [10]:
```python
square_dict = {}

for num in range(1,101):
    square_dict[num] = num**2

print(square_dict)
```

{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 12
1, 12: 144, 13: 169, 14: 196, 15: 225, 16: 256, 17: 289, 18: 324, 19: 361, 2
0: 400, 21: 441, 22: 484, 23: 529, 24: 576, 25: 625, 26: 676, 27: 729, 28: 78
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6, 37: 1369, 38: 1444, 39: 1521, 40: 1600, 41: 1681, 42: 1764, 43: 1849, 44:
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2: 2704, 53: 2809, 54: 2916, 55: 3025, 56: 3136, 57: 3249, 58: 3364, 59: 348
1, 60: 3600, 61: 3721, 62: 3844, 63: 3969, 64: 4096, 65: 4225, 66: 4356, 67:
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5: 5625, 76: 5776, 77: 5929, 78: 6084, 79: 6241, 80: 6400, 81: 6561, 82: 672
4, 83: 6889, 84: 7056, 85: 7225, 86: 7396, 87: 7569, 88: 7744, 89: 7921, 90:
8100, 91: 8281, 92: 8464, 93: 8649, 94: 8836, 95: 9025, 96: 9216, 97: 9409, 9
8: 9604, 99: 9801, 100: 10000}

In [11]:
```python
square_dict = {}

for num in range(1,1001):
    square_dict[num] = num**2

print(square_dict)
```

{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196, 15: 225, 16: 256, 17: 289, 18: 324, 19: 361, 20: 400, 21: 441, 22: 484, 23: 529, 24: 576, 25: 625, 26: 676, 27: 729, 28: 784, 29: 841, 30: 900, 31: 961, 32: 1024, 33: 1089, 34: 1156, 35: 1225, 36: 1296, 37: 1369, 38: 1444, 39: 1521, 40: 1600, 41: 1681, 42: 1764, 43: 1849, 44: 1936, 45: 2025, 46: 2116, 47: 2209, 48: 2304, 49: 2401, 50: 2500, 51: 2601, 52: 2704, 53: 2809, 54: 2916, 55: 3025, 56: 3136, 57: 3249, 58: 3364, 59: 3481, 60: 3600, 61: 3721, 62: 3844, 63: 3969, 64: 4096, 65: 4225, 66: 4356, 67: 4489, 68: 4624, 69: 4761, 70: 4900, 71: 5041, 72: 5184, 73: 5329, 74: 5476, 75: 5625, 76: 5776, 77: 5929, 78: 6084, 79: 6241, 80: 6400, 81: 6561, 82: 6724, 83: 6889, 84: 7056, 85: 7225, 86: 7396, 87: 7569, 88: 7744, 89: 7921, 90: 8100, 91: 8281, 92: 8464, 93: 8649, 94: 8836, 95: 9025, 96: 9216, 97: 9409, 98: 9604, 99: 9801, 100: 10000, 101: 10201, 102: 10404, 103: 10609, 104: 10816, 105: 11025, 106: 11236, 107: 11449, 108: 11664, 109: 11881, 110: 12100, 111: 12321, 112: 12544, 113: 12769, 114: 12996, 115: 13225, 116: 13456, 117: 13689, 118: 13924, 119: 14161, 120: 14400, 121: 14641, 122: 14884, 123: 15129, 124: 15376, 125: 15625, 126: 15876, 127: 16129, 128: 16384, 129: 16641, 130: 16900, 131: 17161, 132: 17424, 133: 17689, 134: 17956, 135: 18225, 136: 18496, 137: 18769, 138: 19044, 139: 19321, 140: 19600, 141: 19881, 142: 20164, 143: 20449, 144: 20736, 145: 21025, 146: 21316, 147: 21609, 148: 21904, 149: 22201, 150: 22500, 151: 22801, 152: 23104, 153: 23409, 154: 23716, 155: 24025, 156: 24336, 157: 24649, 158: 24964, 159: 25281, 160: 25600, 161: 25921, 162: 26244, 163: 26569, 164: 26896, 165: 27225, 166: 27556, 167: 27889, 168: 28224, 169: 28561, 170: 28900, 171: 29241, 172: 29584, 173: 29929, 174: 30276, 175: 30625, 176: 30976, 177: 31329, 178: 31684, 179: 32041, 180: 32400, 181: 32761, 182: 33124, 183: 33489, 184: 33856, 185: 34225, 186: 34596, 187: 34969, 188: 35344, 189: 35721, 190: 36100, 191: 36481, 192: 36864, 193: 37249, 194: 37636, 195: 38025, 196: 38416, 197: 38809, 198: 39204, 199: 39601, 200: 40000, 201: 40401, 202: 40804, 203: 41209, 204: 41616, 205: 42025, 206: 42436, 207: 42849, 208: 43264, 209: 43681, 210: 44100, 211: 44521, 212: 44944, 213: 45369, 214: 45796, 215: 46225, 216: 46656, 217: 47089, 218: 47524, 219: 47961, 220: 48400, 221: 48841, 222: 49284, 223: 49729, 224: 50176, 225: 50625, 226: 51076, 227: 51529, 228: 51984, 229: 52441, 230: 52900, 231: 53361, 232: 53824, 233: 54289, 234: 54756, 235: 55225, 236: 55696, 237: 56169, 238: 56644, 239: 57121, 240: 57600, 241: 58081, 242: 58564, 243: 59049, 244: 59536, 245: 60025, 246: 60516, 247: 61009, 248: 61504, 249: 62001, 250: 62500, 251: 63001, 252: 63504, 253: 64009, 254: 64516, 255: 65025, 256: 65536, 257: 66049, 258: 66564, 259: 67081, 260: 67600, 261: 68121, 262: 68644, 263: 69169, 264: 69696, 265: 70225, 266: 70756, 267: 71289, 268: 71824, 269: 72361, 270: 72900, 271: 73441, 272: 73984, 273: 74529, 274: 75076, 275: 75625, 276: 76176, 277: 76729, 278: 77284, 279: 77841, 280: 78400, 281: 78961, 282: 79524, 283: 80089, 284: 80656, 285: 81225, 286: 81796, 287: 82369, 288: 82944, 289: 83521, 290: 84100, 291: 84681, 292: 85264, 293: 85849, 294: 86436, 295: 87025, 296: 87616, 297: 88209, 298: 88804, 299: 89401, 300: 90000, 301: 90601, 302: 91204, 303: 91809, 304: 92416, 305: 93025, 306: 93636, 307: 94249, 308: 94864, 309: 95481, 310: 96100, 311: 96721, 312: 97344, 313: 97969, 314: 98596, 315: 99225, 316: 99856, 317: 100489, 318: 101124, 319: 101761, 320: 102400, 321: 103041, 322: 103684, 323: 104329, 324: 104976, 325: 105625, 326: 106276, 327: 106929, 328: 107584, 329: 108241, 330: 108900, 331: 109561, 332: 110224, 333: 110889, 334: 111556, 335: 112225, 336: 112896, 337: 113569, 338: 114244, 339: 114921, 340: 115600, 341: 116281, 342: 116964, 343: 117649, 344: 118336, 345: 119025, 346: 119716, 347: 120409, 348: 121104, 349: 121801, 350: 122500, 351: 123201, 352: 123904, 353: 124609, 354: 125316, 355: 126025, 356: 126736, 357: 127449, 358: 128164, 359: 128881, 360: 129600, 361: 130321, 362: 131044, 363: 131769, 364: 132496, 365: 133225, 366: 133956, 367: 134689, 368: 135424, 369: 136161, 370: 136900, 371: 137641, 372: 138384, 373: 139129, 374: 139876, 375: 140625, 376: 141376, 377: 142129, 378: 142884, 379: 143641, 380: 144400, 381: 145161,

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994: 988036, 995: 990025, 996: 992016, 997: 994009, 998: 996004, 999: 998001,
1000: 1000000}
```

Check whether a given key already exists in a dictionary

In [12]:
```python
d = {1:10, 2:20,3:30, 4:40,5:50,6:60}

def is_key_present(x):
    if x in d:
        print("key is present in the dictionary")

    else:
        print("key is not present in the dictionary")
```

In [13]:
```python
is_key_present(3)
```

key is present in the dictionary

In [14]:
```python
is_key_present(10)
```

key is not present in the dictionary

In [ ]: