

```

1 # Nested List
2
3 """
4 NESTED LIST:
5     --> List inside a List is called Nested List.
6     --> Multidimensional List
7     --> Complex Data Structures - Matrices
8     --> Game Boards / Mazes
9     --> Rows and Columns for visualizations, tabulation and grouping data.
10 """
11 profile = ['Abhishek Baghel', 21, ['Programming', 'Music', 'Maths'],
12           ['Gwalior', 'MP', 'Country']]
13 print(profile[2])
14 print(profile[2][1])
15 print(profile[3][-1])
16
17 nested_list = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
18 print(nested_list)
19
20 for x in nested_list:
21     for y in x:
22         print(y)
23
24 for x in nested_list:
25     print(f"{x[0]} {x[1]} {x[2]}")
26
27 for x in nested_list:
28     res = ""
29     for y in x:
30         res += f"{y} "
31     print(res)
32
33 """
34 Nested List Comprehension
35 """
36 z = [[y*y for y in x] for x in nested_list]
37 print(z)
38
39 a = [[y**2 if y % 2 == 0 else y**3 for y in x] for x in nested_list]
40 print(a)
41
42 b = [["0" if y % 2 == 0 else "X" for y in range(1, 4)] for x in range(1, 4)]
43 print(b)
44
45 """
46 Making a Nested List Using range
47 """
48 nested_using_range = [[y for y in range(1, 4)] for x in range(1, 10)]
49 print(nested_using_range)

```