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and total number of students\n","print(\"Final List of Students:\")
\n","print(students)\n","print(\"Total Students:\", len(students))"],"metadata":
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\n","['Aarav Sharma', 'Riya', 'Kabir', 'Nisha', 'Ishita', 'Vihaan', 'Sara', 'Arjun',
'Tanya', 'Krish']\n","Total Students: 10\n"]}]},{"cell_type":"code","source":["#
Q2 : write a python program to interchange a list items with & without using
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[{"output_type":"stream","name":"stdout","text":["After swapping: [10, 20, 30,
40]\n"]}],"source":["numbers = [10, 20, 30, 40]\n","temp =
numbers[5:0]\n","print(\"After swapping:\", numbers)"]},
{"cell_type":"code","source":["# Step 1: Create a dictionary of students with
their marks\n","students = {\"Aarav\": 85,\"Riya\": 92,\"Kabir\": 78,\"Ananya\":
88,\"Ishaan\": 90}\n","print(\"Original Dictionary:\")
\n","print(students)"],"metadata":{"id":"VnVXwUxkP_WZ","colab":
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\n","{'Aarav': 85, 'Riya': 92, 'Kabir': 78, 'Ananya': 88, 'Ishaan': 90}\n"]}]},
{"cell_type":"code","source":["# Step 2: Add new
elements\n","students[\"Meera\"] = 95\n","students.update({\"Vihaan\": 80})
\n","print(\"After Adding Elements:\")\n","print(students)"],"metadata":{"colab":
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'Vihaan': 80}\n"]}]},{"cell_type":"code","source":["# Step 3: Change (update) an
element\n","students[\"Kabir\"] = 82\n","print(\"After Changing Kabir's Marks:\")
\n","print(students)\n"],"metadata":{"colab":{"base_uri":"https://
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95, 'Vihaan': 80}\n"]}]},{"cell_type":"code","source":["# Step 4: Remove

elements\n","students.pop(\"Riya\")\n","removed_item = students.popitem()\n","print(\"After Removing Elements:\")\n","print(students)\n","print(\"Removed Item:\", removed_item)"],"metadata":{"colab":{"base_uri":"https://localhost:8080/"},"id":"9A0iETLDWQPj","outputId":"2af835eb-c3ab-41fe-e218-aea2ddd15983"},"execution_count":null,"outputs":[{"output_type":"stream","name":"stdout","text":["After Removing Elements:\n","{'Aarav': 85, 'Kabir': 82, 'Ananya': 88, 'Ishaan': 90, 'Meera': 95}\n","Removed Item: ('Vihaan', 80)\n"]}]},{"cell_type":"code","source":["# Step 5: Copy dictionary\n","students_copy = students.copy()\n","print(\"Copied Dictionary:\")\n","print(students_copy)"],"metadata":{"colab":{"base_uri":"https://localhost:8080/"},"id":"6B1IL1CIWTg5","outputId":"ab0b4def-492c-4af7-c0ef-081acc5114f1"},"execution_count":null,"outputs":[{"output_type":"stream","name":"stdout","text":["Copied Dictionary:\n","{'Aarav': 85, 'Kabir': 82, 'Ananya': 88, 'Ishaan': 90, 'Meera': 95}\n"]}]},{"cell_type":"code","source":["# Step 6: Create a nested dictionary\n","classroom = {\"ClassA\": {\"Aarav\": 85,\"Ananya\": 88},\"ClassB\": {\"Meera\": 95,\"Vihaan\": 80}}\n","print(\"Nested Dictionary (Classroom):\")\n","print(classroom)"],"metadata":{"colab":{"base_uri":"https://localhost:8080/"},"id":"WO3Bc4LlWW6a","outputId":"8426b747-0aa4-4f7c-8774-4853dee3da8f"},"execution_count":null,"outputs":[{"output_type":"stream","name":"stdout","text":["\n","Nested Dictionary (Classroom):\n","{'ClassA': {'Aarav': 85, 'Ananya': 88}, 'ClassB': {'Meera': 95, 'Vihaan': 80}}\n"]}]},{"cell_type":"code","source":["# Step 7: Access nested dictionary items\n","print(\"Accessing Nested Items:\")\n","print(\"Marks of Meera in ClassB:\", classroom[\"ClassB\"][\"Meera\"])\n"],"metadata":{"colab":{"base_uri":"https://localhost:8080/"},"id":"xtyAiaqkWkDE","outputId":"e7510830-237d-4d56-99c6-7675d7de73ac"},"execution_count":null,"outputs":[{"output_type":"stream","name":"stdout","text":["Accessing Nested Items:\n","Marks of Meera in ClassB: 95\n"]}]},{"cell_type":"code","source":[],"metadata":{"id":"kKJXsjbSWpY2"},"execution_count":null,"outputs":[]}]}