Programming Exercises

Using Dot Operator with Strings

Objective: Practice using the dot operator with string methods.

Instructions:

- Create a string variable greeting with the value 'Hello, Dart!'.

- Print the length of greeting.

- Convert greeting to uppercase and print it.

Adding and Removing Elements in a List

Objective: Practice adding and removing elements in a list.

Instructions:

- Create a list named colors with the values ['red', 'green', 'blue'].

- Add 'yellow' to the list and print the updated list.

- Remove 'green' from the list and print the updated list.

Set Properties

Objective: Learn about sets by checking properties like size and membership.

Instructions:

- Create a set named uniqueNumbers with the values {10, 20, 30, 40}.

- Print the length of uniqueNumbers.

- Check if the number 20 is present in the set and print the result.

Map Lookup

Objective: Practice accessing map values using keys.

Instructions:

- Create a map named person with the keys and values: 'name': 'Alice', 'age': '25', and 'city': 'New York'.

- Print the age of the person from the map.

- Update the city to 'Los Angeles' and print the updated map.

Using Comparison Operators

Objective: Use comparison operators to compare values.

Instructions:

- Create two integer variables, x and y, with values 50 and 30 respectively.

- Print true if x is less than y, otherwise print false.

If Condition with String Comparison

Objective: Use if to check string equality.

Instructions:

- Create a string variable password and set it to 'secret'.

- If password equals 'secret', print 'Access granted', otherwise print 'Access denied'.

If-Else with Grades

Objective: Practice conditional statements with integer values.

Instructions:

- Create an integer variable marks.

- If marks is 70 or higher, print 'Passed', otherwise print 'Failed'.

Nested If for Temperature Ranges

Objective: Use nested if statements to check multiple conditions.

Instructions:

- Create an integer variable temperature.

- If temperature is above 30, print 'It's hot!'.

- If it's between 15 and 30, print 'It's warm.'.

- Otherwise, print 'It's cold.'.

Switch Case with Seasons

Objective: Use switch for multiple cases.

Instructions:

- Create an integer variable month with a value between 1 and 12.

- Use a switch statement to print the season based on the month.

Null Safety with a Default Value

Objective: Practice using nullable variables with default values.

Instructions:

- Create a nullable integer variable score but do not assign it a value.

- Print score if it has a value, otherwise print 'No score'.

- Try assigning a value to score and run the code again to see the change.