COSC2100

Robert Macklem

100955944

March 12, 2025

*ICE 7 Report*

Here is a screenshot of my running Windows Forms App as soon as it launches:

A screenshot of a computer

AI-generated content may be incorrect.

After choosing the right answer:

**A screenshot of a computer

AI-generated content may be incorrect.**

After choosing the wrong answer:

A screenshot of a computer

AI-generated content may be incorrect.

**Question 1:** What is a **key-value pair** in a dictionary

**Answer:** A key value pair is a matched set of two pieces of data that are associated with each other. The *key* in a dictionary uniquely identifies some associated data, which is the *value* paired with it.

**Question 2:** Explain why **keys** in a dictionary **must be unique**.

**Answer:** Keys uniquely identify a value. If there are two identical keys, then they create an *ambiguous reference* to two different values.

**Question 2:** What are the **advantages** of using dictionaries over **arrays/lists** when it comes to

**searching** for **elements**?

**Answer:** Theadvantage is being able to look up data based on property values. Any property of a class could be any type, and any type can be a key to look up data in the map. Also faster.

**Question 2:** Based on the dictionary below, provide a **1-LINE** code example **printing the colour of**

**a banana**?

**Answer:** Console.WriteLine(fruitColours[“Banana”]);