Ski Wax Selection

Objectives

1. To demonstrate your understanding of objects and functions
2. To demonstrate your understanding of controlling execution
3. To demonstrate your understanding of access control

Overview

The Wicks Corporation manufactures a line of 14 different waxes for cross-country skiing. Because many of their customers have a difficult time selecting the proper wax to use, the company has decided to sell a hand-held computer to aid in the selection. You have been hired to write the program for this computer. Wax choice depends on temperature and snow conditions. The waxes come in various degrees of hardness that are devided into six color groups. A skier selects a wax color on the basis of temperature. All of the color groups except Yellow and White have three varieties (Special, Standard, and Extra) to account for variations in snow conditions (Powder, Firm, and Crusty). The two waxes for the highest and lowest temperature extremes (Yellow and White) come only in Standard. Your program should accept as input the current temperature and snow condition. Then compute and print out the most appropriate wax. The temperature and snow condition guidelines are shown below.

Temperature Guidelines (used to select a wax group) Wax Group Temperature Yellow 38 < Temp Red 31 < Temp <= 38 Violet 26 < Temp <= 31 Blue 18 < Temp <= 26 Green 5 < Temp <= 18 White Temp <= 5

Snow Condition Guidelines (used to select a variety for waxes other than the extreme - temperature waxes (Yellow and White). Wax Variety Snow Conditions Special Powder Standard Firm Extra Crusty

Unit Test

UML is required Unit test in place before proceeding with code

Instructions

1. Program must have an object that has methods for creating, returning and displaying Wax objects
2. Each Wax object should have private fields for Wax Group and Snow Conditions that are accessed with getters and setters

3. Print final output to screen