**PROJECT: \*\*Integumentary System:\*\***

- Program: Skin Type Checker

- Design a program that asks the user a series of questions about their skin type (e.g., sensitivity to the sun, tendency to burn or tan). Based on their answers, classify their skin type (e.g., oily, dry, normal).

1. \*\*Question:\*\* How does your skin react to prolonged sun exposure?

\*\*Answers:\*\*

- A. I rarely burn and easily develop a tan. (Normal)

- B. I burn easily but can also tan. (Normal to Oily)

- C. I burn quickly and struggle to tan. (Dry to Normal)

- D. I always burn and never tan. (Dry)

2. \*\*Question:\*\* How does your skin feel a few hours after cleansing?

\*\*Answers:\*\*

- A. My skin feels comfortable and not too oily or dry. (Normal)

- B. My skin tends to feel a bit oily. (Oily)

- C. My skin feels tight and dry. (Dry)

- D. My skin feels excessively oily. (Very Oily)

3. \*\*Question:\*\* How does your skin react to new skincare products?

\*\*Answers:\*\*

- A. My skin usually adapts well without any negative reactions. (Normal)

- B. I may experience some breakouts initially, but they clear up. (Normal to Oily)

- C. My skin often becomes red and irritated. (Sensitive, potentially Dry)

- D. I frequently experience breakouts and irritation. (Sensitive, potentially Oily)

4. \*\*Question:\*\* How often do you need to moisturize your face?

\*\*Answers:\*\*

- A. Rarely, my skin retains moisture well. (Normal)

- B. Occasionally, especially in certain areas. (Normal to Oily)

- C. Regularly, my skin feels dry without moisturizer. (Dry)

- D. Constantly, my skin is always dry and tight. (Very Dry)

5. \*\*Question:\*\* How does your skin feel in the afternoon or evening?

\*\*Answers:\*\*

- A. My skin remains comfortable and balanced. (Normal)

- B. My skin becomes a bit shiny or oily. (Normal to Oily)

- C. My skin feels tight and dry. (Dry)

- D. My skin feels greasy and looks shiny. (Very Oily)

I see Ranges

1. Very Dry
2. Dry
3. Dry to Normal
4. Normal
5. Normal to Oily
6. Oily
7. Very oily

Extras

1. Maybe Dry (Sensitive Potentially Dry)
2. Maybe Oily (Sensitive Potentially Oily)

(On a scale of 1 to 7, normal is 4)

Collate all the answers e.g

It doesn’t matter, the answer with the highest number is the result.

Test Case 1 :

A user chooses A A B C D for Questions 1 to 5 respectively.

1 A = Normal -> 4 on scale

2 A = Normal -> 4 on scale

3 B = Normal to Oily -> 5 on scale

4 C = Dry -> 2 on scale

5 D = Very Oily. -> 7 on scale

SO we have

4, 4 , 5, 2, 7

With four occurring twice = Skin is normal

(I can try something = let the Maybe Oily and Maybe Dry Equate 8 and 9 and are extra features regardless of number on scale)

Test Case 2 :

A user chooses A B D C D for Questions 1 to 5 respectively.

1 A = Normal -> 4 on scale

2 B = Oily -> 6 on Scale

3 D = Sensitive Potentially Dry -> 8 on scale

4 C = Dry -> 2 on scale

5 D = Very Oily. -> 7 on scale

Answer : Here tell the user

If there is no recurring value like in Test Case 1 accept 8 or 9 as the answer i.e. Sensitive Potentially Dry, and Sensitive Potentially Oily.

If there is NO recurring value OR 8 or 9 chosen then:

“ The answer cannot be determined. This quiz is not comprehensive enough to give an accurate answer to this input”

Steps to take in Code

1 Create a question

std::cout << “ QUESTION 1”

auto Option A = “ ……“ ;

std::cout << Option A <<std::endl;

(Repeat for Option B , C, D)

auto answer = “”;

std::cin >> answer ;

//For Question 1

If (answer == “ a ” or “A”)

Scale = 4 // (A = Normal)

else if (answer == “ b “ or “ B “ )

Scale = 5 //(B = Normal to oily)

else if (answer == “ c ” or “ C “ )

Scale = 3 // (C = Dry to Normal)

else if (answer == “ d “ or “ D “ )

Scale = 2 //(D = Dry)

Idea II

Why don’t I assign numbers to each option in the question… paired vector or 2 vectors, with one reading from the first one and assigning a value based on the contained element in the second one.

Checking:

pair <int, double> p1 ( 10, 1.1e-2 )

vector <int> v1, v2;

v1.push\_back( 1 );

v2.push\_back( 2 );

std::vector < std::pair <std::string , int >> Question 1

Question\_1.pushback { “ A “ , 4} //I’ll see if this works if not then Question\_1.pushback (“ A “ , 4)

Question\_1.pushback { “ B “ , 5}

Question\_1.pushback { “ C “ , 3}

Question\_1.pushback { “ D “ , 4}

Step 2:

Create a system for evaluating the results

auto answer = “”;

std::cin >> answer ;

std::vector < int > vector\_of\_answers

if (const auto& value : Question\_1)

{

//To check

std::cout << “ answer “ << std::endl;

std::cout << \*value.first << std::endl;

if (answer ==\* value.first)

{std::cout << \*value.second <<std::endl;

vector\_of\_answers.pushback(\*value.second);

}

}

Step 2 b

Find a method to return the most reoccurring values from the vector\_of\_answers

To do this: I will use the count function from the <algorithm> header file

Checking

result = count(v1.begin(), v1.end(), 10);

Wakateru

If

1. auto Very Dry = 1
2. auto Dry = 2
3. auto Dry to Normal = 3
4. auto Normal = 4
5. auto Normal to Oily = 5
6. auto Oily = 6
7. auto Very oily = 7

//Find a way to read the info based on the numbers in the vector\_of answers

//Next: Find a way process the info gotten to give a specific answer / find the average of the answers except from 8 and 9 and tell the user where they are based on the scale

Range {0 – 3 = Dry }, {4 = Normal}, {5-7 = Oily}, (8 = Sensitive Oily}, {9 = Sensitive Dry}

Print out the user’s result per question first and then state your hypothesis based on the range given above.

If

auto result = 0;

result = count (vector\_of\_answers.begin(), vector\_of\_answers.end() - 1, 1)

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Just print out the results and the ranges so the user can decipher their results themselves!

I could just use a vector to store the answer

Use conditional statements to print the results of each answer