Intro to CS Using Python

Programming Assignment #2

Decision Making

(15 points)

Problem Statement

A specialty donation allows you to give more of what patients need in just one appointment. During your donation, one part of your blood is collected, while the rest is returned to your body. This process is called apheresis (AY-fur-EE-sis). (reference: www.mbc.org/donate-blood/about-blood/right-type-your-type/)

In this decision problem, you are to determine the best types of donation for a particular blood type based on the following table. You must also check if any invalid blood types are entered at the user prompt.

If your type is:	You are the right type to give:
O+ or O-	Double Red Cells Whole Blood
A+	Plasma Platelets
A-	Double Red Cells Platelets
B+	Plasma Platelets
B-	Double Red Cells Platelets
AB+ or AB-	Plasma Platelets

Sample Execution

Below is shown a screen capture of what the program would look like if I ran it with the following test cases. Your program should work for all cases given in the table. TEST your program with multiple input sets. Your output should look just like the sample in terms of user prompts and output formatting. The values in **BOLD RED** are to show what values were entered by the user in this example execution.

```
Maximize your donation.
Enter the Donor's Blood Type: AB-

A donor with type AB- should donate plasma or platelets.

Thank you. Goodbye
```

Test Again:

```
Maximize your donation.
Enter the Donor's Blood Type: O+

A donor with type O+ should donate whole blood or double red cells.

Thank you. Goodbye
```

Another Test:

```
Maximize your donation.
Enter the Donor's Blood Type: AB_

I do not recognize the blood type of AB_

Thank you. Goodbye
```

TIPS:

Prompt the user for the input and write decision logic to print a particular message for the types of input. You can combine more than one type into the same branch of the if statement.

TURN IN:

Please submit your code file (.py) to canvas by the deadline.

Grading Requirements

- Your program must be well-commented. Remember to have a section of comments at the top of your program that includes your name, date, course section and a description of what your program does.
- Use good variable names.
- Use proper code indentation to make sure your program is easy to read and understand.
- See rubric posted in canvas for more information.