* While writing my code, I encountered the problem of using cin.ignore( INT\_MAX, ‘\n’). I used it to get the output of the string even though the input before it was not an integer, which caused the output to have a new line in between “Donor Name: “ and “Gender: “.
* Another problem I faced was returning a number to show an error before the end of int main (). Since we were given an option, I chose to get all the details before displaying the error message.
* In general, for my code, I used a series of ‘if’, ‘else if’ and ‘else’ statements to make the program checks different cases and display the relevant corresponding output.
* Test data used: (reasoning for test provided under data in red)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DONOR NAME** | **GENDER** | **AGE** | **WEIGHT** | **HEIGHT** | **OUTPUT** |
| Jack Green | Male | 15  (age < 16) | 115 | 60 | --- No, Jack Green you cannot donate blood. |
| Jack | Male | 16 | 105  (weight < 110) | 60 | --- No, Jack you cannot donate blood. |
| Jack Brown | Male | 17 | 120 | 55  (height < 60) | --- No, Jack Brown you cannot donate blood. |
| John Brown | Male | 20 | 125 | 65  (height >= 60) | --- Yes, John Brown you can donate blood. |
| John | Male | 40  (to test else statement) | 200 | 70 | --- Yes, John you can donate blood. |
| Ashley Evans | Female | 9  (age < 16) | 90 | 49 | --- No, Ashley Evans you cannot donate blood. |
| Ashley | Female | 17 | 107  (weight < 110) | 60 | --- No, Ashley you cannot donate blood. |
| Alice Mary Evans | Female | 20 | 113 | 55  (height < 58) | --- No, Alice Mary Evans you cannot donate blood. |
| Alice Evans | Female | 20 | 113  (weight < 146 when height == 58) | 58 | --- No, Alice Evans you cannot donate blood. |
| Margaret Reynolds | Female | 20 | 147  (weight >= 146 when height == 58) | 58 | --- Yes, Margaret Reynolds you can donate blood. |
| Mary Sebastian | Female | 20 | 113  (weight < 142 when height == 59) | 59 | --- No, Mary Sebastian you cannot donate blood. |
| Jane Sebastian | Female | 20 | 145  (weight >= 142 when height == 59) | 59 | --- Yes, Jane Sebastian you can donate blood. |
| Jane | Female | 20 | 140 | 62  (height >= 60) | --- Yes, Jane you can donate blood. |
| Megan | Female | 35  (to test else statement) | 140 | 55 | --- Yes, Megan you can donate blood. |
| Spencer | Trans Male | 15  (age < 16) | 132 | 62 | --- No, Spencer you cannot donate blood. |
| Joe Walker | Different | 18 | 108  (weight < 110) | 60 | --- No, Joe Walker you cannot donate blood. |
| Jackie Turner | Trans Female | 17  (age >= 16 and age <= 22) | 150 | 65 | --- No, Jackie Turner you cannot donate blood. |
| Max Bolton | Queer | 30  (to test else statement) | 140 | 60 | --- Yes, Max Bolton you can donate blood. |
| (name provided is empty string) | Male | 15 | 150 | 65 | --- You must enter a valid name. |
| Taylor L | Fem  (Wrong spelling of gender) | 17 | 120 | 70 | --- You must enter a valid gender. |
| Tyler | Trans Male | -10  (age <= 0) | 190 | 74 | --- You must enter a valid age. |
| Sam Queen | Trans Female | 35 | -12  (weight <= 0) | 61 | --- You must enter a valid weight. |
| Ben J Franklin | Queer | 56 | 187 | 0  (height <= 0) | --- You must enter a valid height. |