Team Number: 4 Members

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Team Member 2 Details: Hlebela, JM (221026973) Team

Member 3 Details: Ntuli, SD (221076674)

Team Member 4 Details: Ndhlovu, AJ (221020749)

Practical: Team Project

Design

1. Requirements

Requirement	*Input*	*Output*
1. *User will specify the number of people in a particular location*	*Number of people in the population*	*None*
2. *-User will state the type of disease and specify the number of people in the population that have the disease.* *-Data will be specified for each disease selected*	*-Type of disease* *-Specify the data about the selected disease* *- Number of people that have the stated disease*	*None*
3. *-Determine the top 3 diseases with the highest infection rate* *-Compare the disease and determine whether if a correlation exists.*	*-Number of people with a specified disease* *-Data about each disease specified.*	*-Display the top three diseases found in the population* *-Reasons for correlation between the diseases will found if it exist* *-A solution to respond to the number of people infected*

2. Use Case

Use Case	*Event*	*Action*
1.btnSetUpTheAppication	*User will press btnSetUpTheApplication (1.1)*	*-Specify the Number of people in a location/habitat*
2.BtnCaptureTheData	*User will press btnCaptureTheData(1.2)*	*-Specify the number of people that have a particular disease - Specify data /Information for each disease added for a specified population number*
3.BtnFindASolution	*User will press btnFindASolution(1.3)*	*-The program will determine the top 3 disease in the population based from the data provided in (2.2)* *- Compare the disease for correlation of the 3 diseases* *- A solution will be provided in a text box*

3. Algorithm

1.

(2.1) btnSetUpTheAppication

-User will specify the number of people/samples (Input Box).

-Confirm that the data was capture (Msgbox).

2.

(2.2) BtnCaptureTheData

-User will state the class the disease will be from (Input Box):

-Specify the number of people from the population that are affected by the stated diseases. (Input box)

- Data for each disease selected will be specified by the user (Input Box)

-If the Number of people are <= 0 or greater than the number stated in 3.1 an exception will be raised (MsgBox)

-All for the data will be converted to binary and saved in sequential files

3.

2.3. BtnFindASolution

-Convert sequential files from (3.2.2) into data to be used

-The Top 3 disease the will be found will be compared for correlation

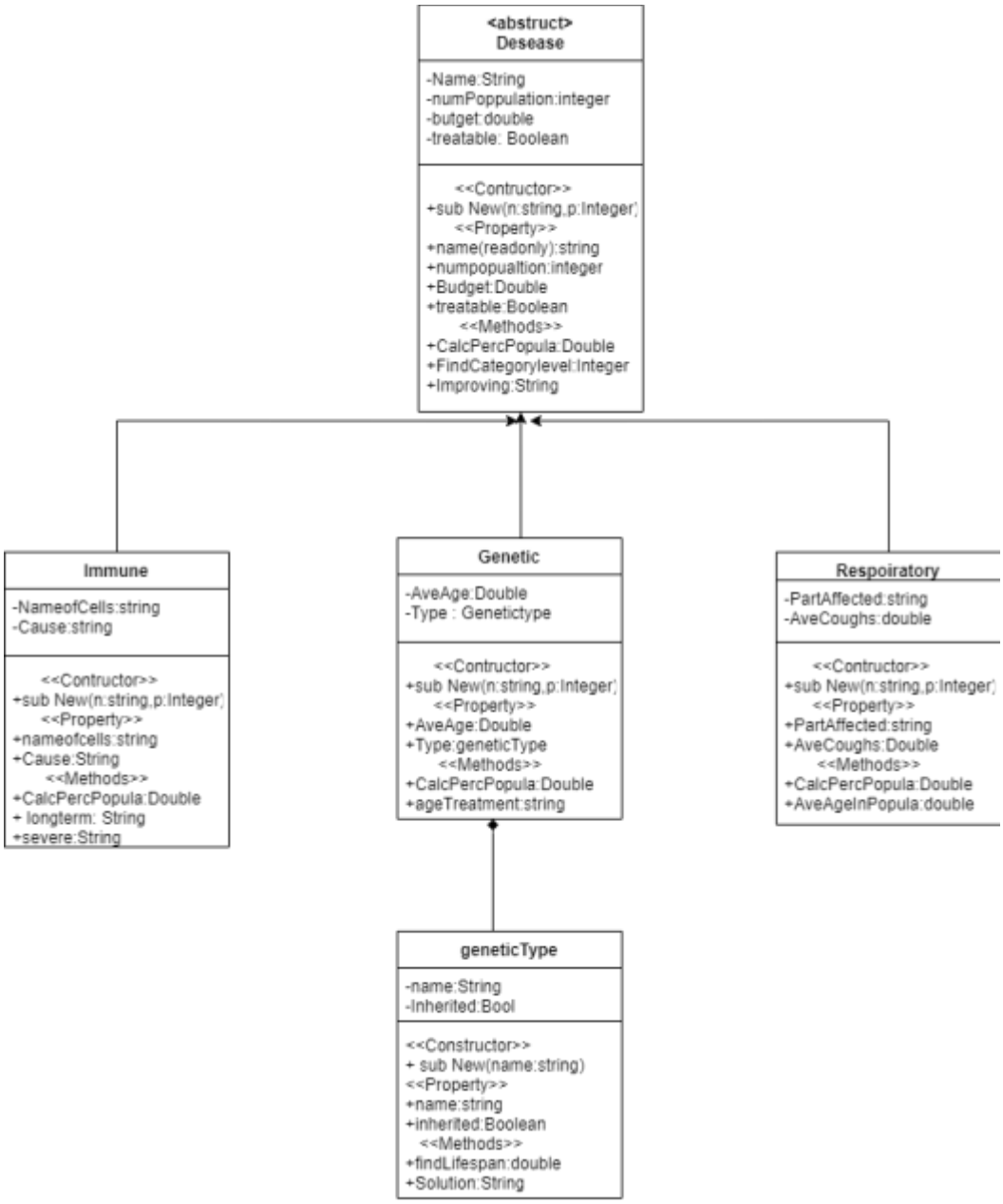
-if all the top 3 disease belong to the same class there is a possible correlation between the disease

-A possible solution will be found to combat the 3 top diseases that will be found, based from the data collected and displayed (Textbox)

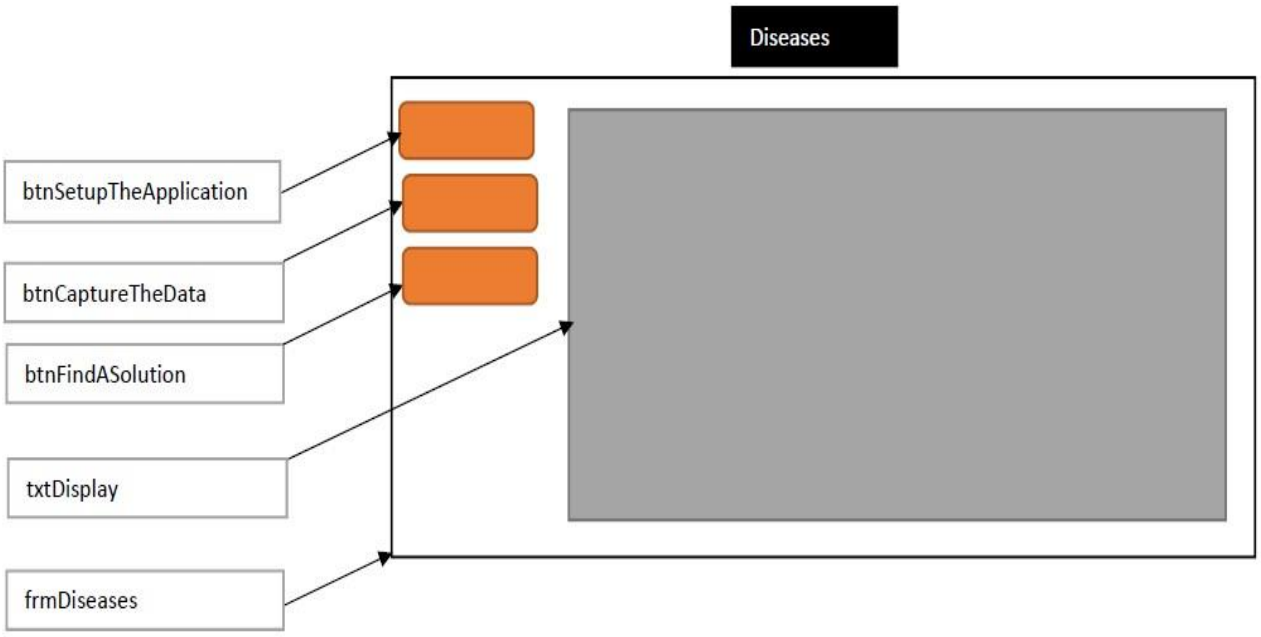
4. Variables

Variables	*Datatype*
Number	*Integer*
Diseases()	*Disease*
FStream	*FileSream*
Bformatter	*BinaryFormatter*

5.Uml class Diagram



6.User Interface Diagram


Diseases
btnSetupTheApplication
btnCaptureTheData
btnFindASolution
txtDisplay
frmDiseases