Using the Open CV and Tkinter libraries and Python, develop a simple storeroom software. The

software should include the following items:

1. Write a class named Visualize .

2. An interface and a button (Considering the Visualize class) should be designed for

capturing video from webcam (storeroom).

3. Write a class named RawMaterials

4. Write a class named Products

5. Products class should inherit the RawMaterials class

6. At least 5 raw material items (objects) should be given to the software with the following

attributes:

 Name

 Date of purchase

 Name of Supplier

 Storage expiration date

 Storage code

 Description

7. At least 5 product items (objects) should be given to the software with the following

attributes:

 Name

 Date of Production

 Name of Customer

 Product expiration date

 Storage code

 List of raw material codes that are used

 Description

8. The raw material and product attributes should be able to be set and read using Setter and

Getter methods.

9. Use abstract classes and methods to avoid unwanted access

10. Use polymorphism (overriding and overloading) to avoid more than necessary methods

11. The code should be extendable

12. Add only one button named Image (Considering the Visualize class) to show the image

of the selected raw material/product photo.

13. The software should be able to save all attributes of the raw materials and products in an

Excel file.

14. The software should be able to load all attributes of the raw materials and products in an

Excel file.

15. You are supposed to submit the code and a report file as a zip file

Bonus part:

The following items will be considered as bonus:

 Application of database structures (like SQL) instead of Excel

 Adding a Report Generation button for generating a report for raw materials and

products considering their expiration and statistical information.

 Designing the graphical user interface and menus in a professional and attractive

format

 Any other useful extra feature (mention clearly in the report)