Assignment 5

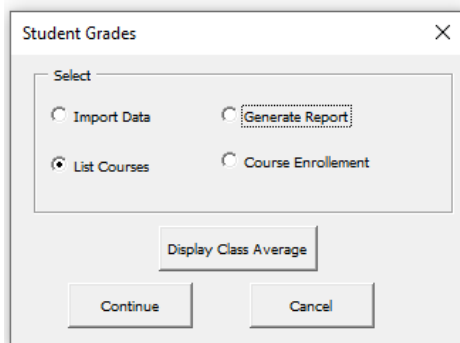**Due: Monday, December 4th, 2023, at 11:59 pm**

Example: Student Marking Application

Objectives

- Create and develop a complete application using Excel 2016/Excel 2019 that reads information from a database, produces a chart using Excel, and creates a report in Word.
- Write an application overview and documentation in a separate Word document.
- Develop your application using modular programming, error handling and the effective programming techniques discussed throughout the course.
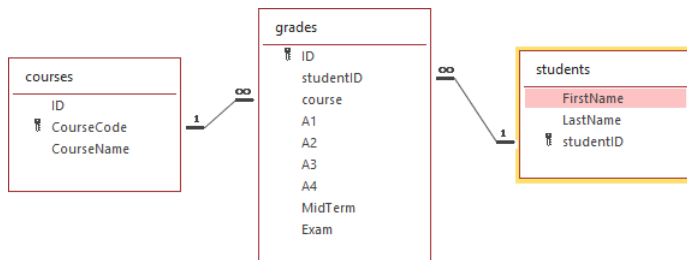- Develop Custom Userforms.

Description:

An application for storing student grades. One screen for the application could look like this (it is just an example):

Your application should import data from a database, chart some results in Excel and generate a report in Word that displays the chart (for example, class marks of an assignment chosen by the prof). This kind of application should also include averages and standard deviation of grades.

Your application should allow user to select a course from the course list and display the details of the students enrolled in this course (first name, last name, student ID) in a separate worksheet.

Your application needs to be able to read information from a database that has the same structure as registrar.mdb. Open the database to view the field names of the different tables. The following is an example of the relationship database diagram.

courses

ID
CourseCode
CourseName

grades

ID
studentID
course
A1
A2
A3
A4
MidTerm
Exam

students

FirstName
LastName
studentID

Required Files

registrar.mdb

Tips:

- Import Students - imports the data from database file the user specifies. The software should display a FileOpen Dialog to allow the user to choose the file from any location.
- Before you begin your application, you can open the Access table to find the names of each table and field.
- Your report must include ahistogram of the students' final grades.
- The weighting for the individual assessments is listed below:

Grades Breakdown	
Assessment	**Weight**
A1	5%
A2	5%
A3	5%
A4	5%
Midterm	30%
Final Exam	50%
Total	100%

The Word Report

A typical Word document would report the results of your application in some way. All reports must contain some text explaining what your application did or the results, as well as a chart from Excel. Typical examples would include:

- a histogram of student final grades
- tables of assignment and lab minimums, maximums, and averages

Essentially, the report is the output of your application.