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In this assignment, you are tasked with developing a comprehensive application using Excel 2016/Excel 2019 that seamlessly integrates with a database, generates insightful charts using Excel functionalities, and produces a detailed report in Word. The application is designed to handle student grading information, emphasizing the use of modular programming, robust error handling, and effective programming techniques learned throughout the course. The assignment requires you to provide an application overview and documentation in a separate Word document, showcasing your ability to articulate the purpose and functionality of your application. Additionally, you are expected to enhance the user experience by creating a custom ribbon and incorporating user forms, demonstrating a user-friendly interface.

The application's core functionality centers around managing student grades, with a focus on generating visual representations such as histograms or charts in Excel to showcase the distribution of final grades. The report produced in Word is expected to include explanatory text detailing the application's purpose and results. Moreover, the report should encompass key statistical metrics for the grades, including minimum, maximum, average, mode, median, and standard deviation. To add complexity and depth to your application, consider implementing features that allow for multiple runs of a simulator, presenting the results in both Excel charts and Word reports. This assignment provides an opportunity to apply a holistic approach to programming, database integration, and report generation within the Microsoft Office suite.