Coding & Programming

Event Type: I or T
Equipment Setup Time: 5 minutes (timer starts when 5 minutes are up)
Prep Time: N/A
Performance Time: 7 minutes
Warning Time: 6 minutes
Time Up: 7 minutes
Q&A: Yes (3 minutes)

Specific Guidelines

• Solution must run standalone with no programming errors.
• Data must be free of viruses/malware.
• The usability and functionality of the program must be demonstrated to the judges.
• Visual aids and samples specifically related to the demonstration may be used; however, no items may be left with judges or audience.
• Competitors must show the judges any of the following that are applicable: readme file, source code, documentation of templates/libraries used, documentation of copyrighted material used.

2023 NLC Topic

Develop a program that will help improve student involvement at your school. This original computer program will track student participation and attendance at school events. Once students participate or attend events, they are awarded points. You must have a way to pick a random winner each quarter from each grade level, as well as the student with the top point accumulation. The number of points a person has accumulated will translate to the prize they will win. You will need to have at least three prizes (a school reward, a food reward, and a school spirit item).
• Assign a point value for participating in or attending events.
• Must have at least five sporting events and five non-sports school events.
• Track students' names, grades, points.
• Generate a report at the end of the quarter to show points per student in each grade.
• Data must be stored persistently. Storage may be in a relational database,

a document-oriented NoSQL database, flat text files, flat JSON, or XML files.
• The user interface must be a GUI with a minimum of five different control types including such things as drop-down lists, text fields, checkboxes, date picker, or other relevant control types.
• All data entry must be validated with appropriate user notification and error messages including the use of required fields.

Project Guidelines

• Competitors must prepare projects. Advisers and others are not permitted to help.
• Competitors are expected to follow all applicable copyright laws. Refer to the Format Guide for copyright guidelines.
• Competitors are responsible for ensuring the usability and functionality of their project when demonstrating it to the judges.
• Any photographs, texts, trademarks, or names used must be supported by proper documentation and approvals indicated on the project.
• When applicable, the use of templates must be identified.

Coding & Programming (CONT.)

Demonstration Guidelines
- Demonstration of the project must be conducted by competitors who created/authored the event.
- Visual aids related to the project may be used; however, no items may be left with the judges or audience.
- Final demonstrations may be open to conference attendees, space permitting. Finalists may not view other competitors' demonstrations in their event.

Technology Guidelines
- Five minutes will be allowed to set up equipment or presentation items. When five minutes have elapsed, the timer will automatically start the seven-minute performance clock.
- See General Performance Event Guidelines for additional Technology guidelines.

Penalty Points Deducted by Judges
- Competitors may be disqualified if they violate competitive event guidelines.
- Five points are deducted if competitors do not follow the dress code.
- Five points may be deducted for each instance of not following guidelines.