Mobile Application Development



Mobile Application Development provides members with the opportunity to develop a mobile application based on a given topic. This competitive event consists of a presentation component where the application is demonstrated for the judges.

Event Overview

Division: High School

Event Type: Team of 1, 2 or 3 members

Event Category: Presentation

Event Elements: Presentation with a Topic

Presentation Time: 3-minute set-up, 7-minute presentation time, 3-minute question & answer

time

NACE Connections: Career & Self-Development, Communication, Critical Thinking,

Leadership, Professionalism, Teamwork, Technology

2024-25 Topic

Design a mobile application that gamifies learning for subjects like math, science, history, or language arts, offering interactive quizzes, puzzles, and progress tracking.

The following skills are emphasized: Game development, educational content creation, interactive design, and user feedback mechanisms.



This topic was created in partnership with code.org. Learn more about code.org, resources available, and expanding computer science in your school or district at <u>this</u> link.

District/Region/Section

Check with your District/Region/Section leadership for District/Region/Section-specific competition information.

State

Check with your State Leader for state-specific competition information.

National

Required Competition Items

| | Items Competitor Must Provide | Items FBLA Provides | |
|-----------------------------|--|---|--|
| Preliminary Presentation | Technology and presentation items Conference-provided nametag Photo identification Attire that meets the FBLA Dress Code | TableInternet access | |
| Final Presentation | Technology and presentation items Conference-provided nametag <u>Photo identification</u> Attire that meets the <u>FBLA Dress</u> <u>Code</u> | Table Internet access Power Projector with HDMI cord Projector screen | |

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Important FBLA Documents

• Competitors should be familiar with the Competitive Events <u>Policy & Procedures</u> <u>Manual, Honor Code, Code of Conduct, and Dress Code</u>.

Eligibility

- FBLA membership dues are paid by 11:59 pm Eastern Time on March 1 of the current school year.
- Members may compete in an event at NLC more than once if they have not previously placed in the top ten of that event at NLC. If a member places in the top ten of an event at NLC, they are no longer eligible to compete in that event.
- Members must be registered for the NLC and pay the national conference registration fee to participate in competitive events.
- Members must stay in an official FBLA hotel block to compete.
- Each state may submit four entries.
- Each competitor can only compete in one individual/team event and one chapter event (American Enterprise Project, Community Service Project, Local Chapter Annual Business Report, Partnership with Business Project).
- Only competitors are allowed to plan, research, prepare, and set up their presentations.
- Each competitor must compete in all parts of an event for award eligibility.
- All members of a team must consist of individuals from the same chapter.
- Picture identification (physical or digital: driver's license, passport, state-issued identification, or school-issued identification) matching the conference nametag is required when checking in for competitive events.
- If competitors are late for their assigned presentation time, they will be allowed to compete with a five-point penalty until such time that results are finalized, or the accommodation would impact the fairness and integrity of the event.
- Some competitive events start in the morning before the Opening Session of NLC. The schedules for competitive events are displayed in the local time of the NLC location. Competitive event schedules cannot be changed.

Recognition

• The number of competitors will determine the number of winners. The maximum number of winners for each competitive event is 10.

Event Administration

- This event has two parts: preliminary presentation and final presentation
- Preliminary Presentation Information
 - o **Equipment Set-up Time:** 3 minutes
 - o **Presentation Time:** 7 minutes (one-minute warning)
 - o Question & Answer Time: 3 minutes
 - o **Internet Access:** Provided (Please note that internet reliability at any conference venue cannot be guaranteed. Always have a backup plan in case internet connections are lost or are unable to connect to your device.)

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- o The presentation is judged at the NLC. Preliminary presentations are not open to conference attendees. The presentation will take place in a large, open area, with a booth size of approximately 12' x 12'.
- o Competitors/teams are randomly assigned to sections.
- o Timing: The presentation time is exclusive to the allotted times. Once the setup time has been reached, the presentation time automatically begins. The presentation time shall not exceed the stated time, meaning that the set-up and Q&A time cannot be used as presentation time.
- Technology
 - Competitors present directly from a device which includes a laptop, tablet, mobile phone, or external monitor (approximately the size of a laptop screen). Competitors can present with one or two devices. If presenting with two devices, one device must face the judges and one device must face the competitors.
 - Projectors and projector screens are not allowed for use, and competitors are not allowed to bring their own.
 - Wireless slide advancers (such as a presentation clicker or mouse) are allowed.
 - External speakers are not allowed. Only device audio can be used.
 - Power is not available.
- Non-technology Items: Materials, notecards, visual aids, and samples related to the project may be used during the presentation; however, no items may be left with the judges or audience.
- Restricted Items: Animals (except authorized service animals), Food (for display only; may not be consumed by judges during the presentation), Links and QR codes (for display only; cannot be clicked or scanned by judges before, during, or after the presentation)
- o Teamwork: If performing as a team, all team members are expected to actively participate in the presentation.
- o Presentation should cover the following aspects of the application:
 - The platform used to develop the application. The following platforms may be used to develop the project: Google's Android, Apple iOS, or Microsoft Windows Phone.
 - The solution must run standalone with no programming errors.
 - Applications may deploy from a smartphone, tablet, or both, but must be smartphone deployable.
 - Applications do not need to be available for download from a digitaldistribution multimedia-content service.
 - The usability and functionality of the program must be demonstrated to the judges.
 - Competitors must show the judges any of the following that are applicable: read me file, source code, documentation of templates/libraries used, documentation of copyright and sources of materials used.
 - The presentation should follow the rating sheet and include the following:

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- Design and Code Quality: Explain the design and implementation of the application.
- User Experience: How do users experience the interface? Is there an ease-of-use and accessibility?
- Application Functionality: Social media integrations
- Final Presentation Information
 - o **Equipment Set-up Time:** 3 minutes
 - o **Presentation Time:** 7 minutes (one-minute warning)
 - o Question & Answer Time: 3 minutes
 - o **Internet Access:** Provided (Please note that internet reliability at any conference venue cannot be guaranteed. Always have a backup plan in case internet connections are lost or are unable to connect to your device.)
 - An equal number of top scoring competitors/teams from each section in the preliminary round will advance to the final round. When there are more than five sections of preliminary presentations for an event, two competitors/teams from each section will advance to the final round.
 - Final presentations may be open to conference attendees, space permitting.
 Finalists may not view other competitors' presentation in their event.
 - o Timing: The presentation time is exclusive to the allotted times. Once the setup time has been reached, the presentation time automatically begins. The presentation time shall not exceed the stated time, meaning that the set-up and Q&A time cannot be used as presentation time.
 - Technology
 - Competitors can present with one or two devices which includes a laptop, tablet, mobile phone, or external monitor (approximately the size of a laptop screen). If presenting with two devices, one device must be connected to the projector or facing the judges and one device must face the competitors.
 - The following will be provided for the final round if it occurs in a conference room: Projector, projector screen, power, and table.
 - Competitors using laptops or other devices that do not have an HDMI port will need to provide their own adapters.
 - It is up to final-round competitors to determine if they wish to use the technology provided.
 - Wireless slide advancers (such as a presentation clicker or mouse) are allowed.
 - Non-technology Items: Materials, notecards, visual aids, and samples related to the project may be used during the presentation; however, no items may be left with the judges or audience.
 - Restricted Items: Animals (except authorized service animals), Food (for display only; may not be consumed by judges during the presentation), Links and QR codes (for display only; cannot be clicked or scanned by judges before, during, or after the presentation)
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 - o Presentation should cover the following aspects of the application:



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- Competitors must show the judges any of the following that are applicable: read me file, source code, documentation of templates/libraries used, documentation of copyright and sources of materials used.
- The presentation should follow the rating sheet and include the following:
 - Design and Code Quality: Explain the design and implementation of the application.
 - User Experience: How do users experience the interface? Is there an ease-of-use and accessibility?
 - Application Functionality: Social media integrations

Scoring

- The preliminary presentation score will determine the finalists.
- The final presentation score will determine the winners.
- Judges must break ties.
- The decision of the judges is considered final. All announced results are final upon the conclusion of the National Leadership Conference.

Americans with Disabilities Act (ADA)

• FBLA meets the criteria specified in the Americans with Disabilities Act for all competitors with accommodations submitted through the conference registration system by the registration deadline.

Recording of Presentations

- No unauthorized audio or video recording devices will be allowed in any competitive event.
- Competitors in the events should be aware FBLA reserves the right to record any presentation for use in study or training materials.

Penalty Points

- Competitors may be disqualified if they violate the Code of Conduct or the Honor Code.
- Five points are deducted if competitors do not follow the Dress Code or are late to their assigned presentation time.





| Mobile Application De | Mobile Application Development Presentation Rating Sheet | | | | | | | |
|--|--|--|--|---|------------------|--|--|--|
| Expectation Item | Not Demonstrated | Below Expectations | Meets Expectations | Exceeds Expectations | Points Earned | | | |
| Design and Code Quality | | | | | | | | |
| Planning Process | No explanation or description of the planning process | Explains the process but does not share tangible planning documents | Explains the process and shares tangible planning documents | Explains process using industry terminology and displays tangible planning documents | | | | |
| | 0 points | 1-6 points | 7-8 points | 9-10 points | | | | |
| Appropriate use of classes, modules, and/or components | No use of classes, modules, or components | Use of classes, modules, and/or components | Appropriate use of classes, modules, and/or components | Expert use of classes, modules, and/or components | | | | |
| | 0 points | 1-2 points | 3-4 points | 5 points | | | | |
| Appropriate use of mobile app architectural patterns | No use of architectural patterns | Unclear use of architectural patterns | Appropriate use of architectural patterns | Expert use of architectural patterns | | | | |
| | 0 points | 1-2 points | 3-4 points | 5 points | | | | |
| Innovation and Creativity | No innovation or creativity is demonstrated | Very little innovation or creativity is demonstrated | App is innovative or creative | App is innovative and creative | | | | |
| | 0 points | 1-2 points | 3-4 points | 5 points | | | | |
| User Experience | | | | | | | | |
| Users can easily navigate between pages | App navigation is unclear | App navigation contains errors | App navigation is clear and contains no more than one error | App navigation is error free and can be used without instruction | | | | |
| | 0 points | 1-2 points | 3-4 points | 5 points | | | | |
| User interface is intuitive or clear instructions are provided | No instructions provided and is not intuitive | Instructions provided or app is not intuitive | Appropriate & clear instructions are provided | App is intuitive and clear instructions are provided | | | | |
| | 0 points | 1-2 points | 3-4 points | 5 points | | | | |
| lcons/graphical elements are appropriate and consistent | App does not have a custom icon or graphics | App has a basic custom icon and graphics | App has an icon that tells something about the app | App has an icon that tells something about the app and is integrated into app graphics | | | | |
| | 0 points | 1-2 points | 7 A nainta | F :- t | | | | |
| | о рошиз | p | 3-4 points | 5 points | | | | |
| User input is validated | User input isn't validated | User input is somewhat validated | User input is validated | Input validation applied on both syntactical and semantic levels | | | | |
| · | User input isn't | User input is | | Input validation applied on both syntactical and | | | | |
| User input is validated Application Functionality | User input isn't validated | User input is somewhat validated | User input is validated | Input validation applied on both syntactical and semantic levels | | | | |
| | User input isn't validated | User input is somewhat validated | User input is validated | Input validation applied on both syntactical and semantic levels | | | | |
| Application Functionality Program addresses all | User input isn't validated 0 points Application does not address the | User input is somewhat validated 1-2 points Application addresses the topic/problem at a | User input is validated 3-4 points Application fully addresses the | Input validation applied on both syntactical and semantic levels 5 points Application fully addresses the topic/problem, and the correlation is explained | | | | |
| Application Functionality Program addresses all | User input isn't validated 0 points Application does not address the topic/problem | User input is somewhat validated 1-2 points Application addresses the topic/problem at a minimal level | User input is validated 3-4 points Application fully addresses the topic/problem | Input validation applied on both syntactical and semantic levels 5 points Application fully addresses the topic/problem, and the correlation is explained in the instructions | | | | |



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| Expectation Item | Not Demonstrated | Below Expectations | Meets Expectations | Exceeds Expectations | Points Earned |
|---|---|---|---|--|------------------|
| Data Handling and Storage | No consideration of data handling and storage practices | Minimal consideration of data handling and storage practices with basic implementation | Adequate data handling and storage practices implemented with attention to data integrity and security | Comprehensive and secure data handling and storage practices implemented, ensuring data integrity, accessibility, and protection | |
| | 0 points | 1-2 points | 3-4 points | 5 points | |
| Documentation and copyright compliance | Sources are not cited | Sources/References are seldom cited to support statements | Professionally legitimate sources & resources that support statements are generally present | Compelling evidence from professionally legitimate sources & resources is given to support statements | |
| | 0 points | 1-2 points | 3-4 points | 5 points | |
| Presentation Delivery | | | | | |
| Statements are well- organized and clearly stated | Competitor(s) did not appear prepared | Competitor(s) were prepared, but flow was not logical | Presentation flowed in logical sequence | Presentation flowed in a logical sequence; statements were well organized | |
| | 0 points | 1-6 points | 7-8 points | 9-10 points | |
| Demonstrates self- confidence, poise, assertiveness, and good voice projection | Competitor(s) did not demonstrate self- confidence | Competitor(s) demonstrated self- confidence and poise | Competitor(s) demonstrated self- confidence, poise, and good voice projection | Competitor(s) demonstrated self- confidence, poise, good voice projection, and assertiveness | |
| | 0 points | 1-6 points | 7-8 points | 9-10 points | |
| Demonstrates the ability to effectively answer questions | Unable to answer questions | Does not completely answer questions | Completely answers questions | Interacted with the judges in the process of completely answering questions | |
| | 0 points | 1-6 points | 7-8 points | 9-10 points | |
| | Staff Only: Penalty Po | oints (5 points for dress | code penalty and/or 5 poi | nts for late arrival penalty) | |
| | | | Prese | ntation Total (100 points) | |
| Name(s): | | | | | |
| School: | | | | | |
| Judge Signature: | | | | | Date: |

Comments: