
Mobile Application Development

Society is daily moving to a constant feed of communication, transfer of information, and the need to access or process information in a mobile environment. Mobile Applications are necessary to provide users with the ability to be productive while away from their full computers. Mobile Applications can be used as a lite version of something that would be done on a full computer, or they can provide a tool for something that users would only need to do on their phone.

Competencies

This event is composed of two (2) parts: a pre-judged mobile application and a performance.

Pre-Judged Competencies

- development of program is logical and creative
- code is commented at appropriate points
- interface is a logical arrangement and contains all necessary information
- necessary information
- app runs without error

Performance Competencies

- explains content logically and systematically
- understanding of the programming logic and coding is evident
- design process effectively communicated
- tips, techniques, and tools used are presented including identifying the most difficult programming task(s) completed and explanation of the scenario/logic used to overcome and implement these tasks
- professional appearance
- self-confidence apparent through knowledge of content and articulation of facts
- answer questions effectively

Business Education Curriculum Standard(s):

Information Technology; Management

2018 Topic

Develop an app to manage the issuance of books and to provide other information at a school library. Give the school a name. The app must be able to do or show the following: Allow students and teachers to reserve books.

- Allow students and teachers to check out books.
- Remind students and teachers when books are overdue.
- Show a map of the school library.

State Eligibility

Each local chapter may enter two (2) mobile applications. One member or a team of up to 3 members may create the mobile application. The local chapter must be on record in the Pennsylvania state and the FBLA-PBL national offices as having paid dues by January 31 of the current school year. **Members participating in this event may not compete in another competitive event at a Region Leadership Conference.**

In the event of a team entry, no more than one (1) member may have submitted a project for judging at a previous State Leadership Conference. A member who has competed as an individual in an individual/team event (1-3) may compete again in the same event as a team member the following year, not as an individual. If a member is competing as part of a team and members withdraw from the team leaving that member as the only remaining competitor, he/she may not compete/advance to the next level if the member competed as an individual in prior years.

The top 10 rated programs from among those submitted will be required to give an oral presentation at the SLC.

The Statement of Assurance and event entry form must be submitted with the pre-judged program.

At the State Leadership Conference, the chapter adviser must confirm students' participation in the event. Participants who are not confirmed will be disqualified.

State Regulations

Prejudged Mobile Application

1. The program must address the topic given.
2. The individual or team will research the topic, and then create a mobile application on national topic.
3. The pre-judged submission must include the source code and screen shots of the GUI in PDF format for review.
4. The solution must run standalone with no programming errors.
5. May use one of the following platforms to develop the mobile
 - a. Google's Android™,
 - b. Apple iOS™;
 - c. Microsoft Windows Phone™.
6. The application may not be deployed as a web application delivered over HTTP.
7. The application may deploy from a smartphone, tablet, or both, but must be smartphone deployable.
8. The application must be presented to the judges (projection equipment may be used).
9. The application need not to be available for download for a digital-distribution multimedia-content service such as Google Play™, Apple Store, or Microsoft.
10. The prejudged submission must include the source code and screen shots of the GUI in PDF format for review.
11. Program produced for this event must be prepared by the participant(s) without help from other programmers or teachers.

State Procedure

1. The event consists of two parts: (1) submission of mobile application, and (2) performance.
2. At the State Leadership Conference, the chapter adviser must confirm students' participation in the event. Participants who are not confirmed will be disqualified.
3. Participants are required to complete both parts to be eligible to win an award.

Preconference Requirements

1. The participant(s) must submit the following items:
 - c. An event entry form, which is posted on the PA FBLA web site, certified by the local chapter adviser.
 - d. Statement of Assurance.
2. Mobile applications must be uploaded by the chapter adviser and received by the deadline posted on the www.pafbla.org website. Chapter advisers must request Dropbox access from the PA FBLA Executive Director/State Chairman prior to the deadline; specific instructions regarding the upload will be sent directly to the chapter adviser.

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3. **The materials must be received by the PA FBLA Executive Director/State Chairman by the deadline date published at www.pafbla.org/importantdates.php, which is posted on the PA FBLA web site. Failure to submit these documents by the received by date will result in the participants being disqualified.**

Oral Presentation

1. The top ten (10) individuals or teams will be scheduled for a final presentation at the SLC.
2. Presentation of the entry must be conducted by participants who authored the event. In the case of a team event, at least one author must give the presentation. However, all team members who wish to be recognized as state winners must register for the SLC. No replacements or substitutes will be allowed.
3. Five (5) minutes will be allowed to set up and remove equipment or presentation items.
4. The chapter must provide the computer for the event. Internet, a LCD projector, screen, table, and electrical power will be provided on-site. Participants that will be utilizing Apple products or other devices that do not have a VGA port will need to provide their own adapters. Access may not be available via WiFi, so participants should plan appropriately when selecting laptops/tablets on which to present.
5. Visual aids and samples related to the project may be used (including a mobile device with the App loaded); however, no items may be left with the judges or audience.
6. The individual or team members must perform all aspects of the presentation (e.g., speaking, set-up, operating audiovisual equipment). Other representatives of the chapter may not provide assistance.
7. All individuals or team members are expected to actively participate in the performance.
8. Individuals or teams will have seven (7) minutes to describe the program, address copyright laws, explain development software used, and explain the features and functionality.
9. At the end of six (6) minutes, a timekeeper will stand until noticed and hold up a colored time card indicating one minute is left, and at seven (7) minutes the timekeeper will stand and hold up a colored time card indicating time is up. When the presentation is finished, the timekeeper will record the time used, noting a deduction of five (5) points for any time over seven (7) minutes.
10. Following each presentation, the judges will conduct a three-minute (3) question-and-answer period.
11. The performance is open to all conference attendees, except performing participants of this event. If participants of the event view other presentations before or after their scheduled presentation time, they (or their team if they are part of one) will be disqualified.
12. **The participant must comply with the PA FBLA Dress Code which can be found at www.pafbla.org/dresscode.php. If the participant does not comply, he or she will not be admitted to the oral presentation areas until he or she is in compliance.**

State Judging

Reports will be screened to determine if chapters have complied with event eligibility and regulations. A panel of judges will then select the winners, and all decisions of the judges are final.

If there is a tie after the pre-judged program in order to determine the top 10 finalists for the SLC, ties will be broken based on the following:

First Tiebreaker

- Total points of the *Game Concept and Design Evaluation* section on the Production Rating Sheet.

Second Tiebreaker

- Total points of the "Fully addresses concept and topic" category within the *Game Concept and Design Evaluation* section on the Production Rating Sheet.

Third Tiebreaker

- Total points of the “Instructions clear and application can be loaded on phone” category within the *Program Usability and Support* section on the Production Rating Sheet.

If there is a tie after the pre-judged program portion and the oral presentation portion of the event, ties will be broken based on the following:

First Tiebreaker

- Total points of the *Production* Rating Sheet.

Second Tiebreaker

- Total points of the *Content* section on the Performance Rating Sheet.

Third Tiebreaker

- Total points of the “Demonstrates the ability to effectively answer questions” section within the *Delivery* section on the Performance Rating Sheet.

Tiebreaker implementation examples can be found in this handbook or at www.pafbld.org/tiebreakers.php.

State Awards

The state will present a maximum of ten (10) awards at the State Leadership Conference.

National Conference Eligibility

The first-, second-, third-, and fourth-place award winning projects at the State Leadership Conference are eligible for entry at the National Leadership Conference. All NLC qualifiers will be expected to present a seven-minute (7) oral presentation of the program at the NLC. Advisers and participants should refer to the latest edition of the National Chapter Management Handbook for official National Leadership Conference event guidelines.

In the event that the local chapter of the first-, second-, third-, or fourth-place winning program cannot attend the National Leadership Conference or does not wish to have its program submitted for competition at the National Leadership Conference, it is the responsibility of the:

local chapter adviser

- to contact the PA FBLA Executive Director/State Chairman about not participating at the National Leadership Conference.

PA FBLA Executive Director/State Chairman

- to contact the next eligible award winner about participating at the National Leadership Conference.



MOBILE APPLICATION DEVELOPMENT

Production Rating Sheet

Revised 2017-18

| | Not Demonstrated | Below Expectations | Meets Expectations | Exceeds Expectations | Points Earned |
|--|------------------|--------------------|--------------------|----------------------|------------------|
| Application Readability | | | | | |
| Packaged with complete file, readme, and instructions | 0 | 1-7 | 8-14 | 15-20 | |
| Application functionality | 0 | 1-7 | 8-14 | 15-20 | |
| Application Design | | | | | |
| Application addresses the topic/problem | 0 | 1-14 | 15-21 | 22-30 | |
| Social media is incorporated into program | 0 | 1-14 | 15-21 | 22-30 | |
| Navigation | 0 | 1-7 | 8-14 | 15-20 | |
| Code | 0 | 1-7 | 8-14 | 15-20 | |
| Icon and Graphics | 0 | 1-14 | 15-21 | 22-30 | |
| Bugs | 0 | 1-14 | 15-21 | 22-30 | |
| Subtotal | | | | | /100 max. |
| Penalty Points Deduct five (5) points for not following event Guidelines. | | | | | |
| Total Points | | | | | /100 max |

Name: _____

School: _____ Region: _____

Judge's Signature: _____ Date: _____

Judge's Comments:



MOBILE APPLICATION DEVELOPMENT

Performance Rating Sheet

Revised 2017-18

Final Round

| | Not Demonstrated | Below Expectations | Meets Expectations | Exceeds Expectations | Points Earned |
|---|------------------|--------------------|--------------------|----------------------|------------------|
| Expectation Item | | | | | |
| Demonstrates understanding of the event topic | 0 | 1-2 | 3-4 | 5 | |
| Explains the planning process used to design the application through planning documents such as storyboards, flowcharts, etc. | 0 | 1-5 | 6-10 | 11-15 | |
| Describes user interface (input/output) and application parameters | 0 | 1-3 | 4-7 | 8-10 | |
| Describe the application flow and structure | 0 | 1-10 | 11-20 | 21-30 | |
| Describe the application usefulness | 0 | 1-7 | 8-14 | 15-20 | |
| Delivery Skills | | | | | |
| Statements are well-organized and clearly stated | 0 | 1 | 2-3 | 4-5 | |
| Demonstrates self-confidence, poise, assertiveness, and good voice projection | 0 | 1 | 2-3 | 4-5 | |
| Demonstrates the ability to effectively answer questions | 0 | 1-3 | 4-7 | 8-10 | |
| Subtotal | | | | | /100 max. |
| Time Penalty Deduct five (5) points for presentation over seven (7) minutes. Time: | | | | | |
| Dress Code Penalty Deduct five (5) points when dress code is not followed. | | | | | |
| Penalty Deduct five (5) points for materials left | | | | | |
| Total Points | | | | | /100 max. |
| Prejudged Score | | | | | /100 max. |
| Final Score (add total points and prejudged score) | | | | | /200 max. |

| | | | |
|--------------------|--|---------|--|
| Name: | | | |
| School: | | Region: | |
| Judge's Signature: | | Date: | |

Judge's Comments: