Python Development

PLEASE NOTE: The information in this overview is NOT a final version and is, therefore, subject to change. The final version will have the conference date in the logo above.

Contest Overview and Components

The Python contest gives teams the chance to demonstrate their programming skills to fill a company's needs using unique code, rather than Commercial off the shelf (COTS) solutions, giving a company a strategic advantage.

Teams will be given a problem statement at the beginning of the contest time that will explain a company's unique requirements. Time will be allowed to read the problem statement and ask any questions in a common session. Once the question and answer time has closed, no further questions will be answered. At the end of the contest period, each team will be asked to submit a copy of their solution (all source code/resources and compiled application) for judging.

Team Composition

Individuals or teams of 2 students can register for this competition.

Skills

Python programming, Object-Oriented programming, module creation and use, refactoring, ability to properly document code with docstrings, JSON, REST API familiarity.

General Skills

- Exception handling
- Code Documentation
- Classes and Object-Oriented design principles

- Events and Handlers
- Data import, export, access, binding, connections, and manipulations
- XML / JSON
- Web knowledge/REST familiarity
- Output (Printing, PDF, Reports, or HTML formatted output)
- Encryption, decryption
- Three tier approach / MVC (data/model, interface/view, and business/controller)
- Database connections / create, read, update, and delete

Scoring

Your submission must compile in order to be evaluated. A scoring rubric will be distributed with the problem statement at the beginning of the contest time. General evaluation will be:

- Completion of requirements 80%
- Code Documentation 10%
- Application Documentation 10%

In the event of a tie, Code Documentation and the use of Object-Oriented Approach will distinguish differences.

Schedule

See contest schedule for contest time and place. The time will include contest overview, contest work, and turn in.

Check in will begin 20 minutes before the contest begins.

Resources

- Each team must have at least 1 computer to complete your project
- A general Text Editor as well as PyCharm can be used.
- All projects can contain additional packages from pip
- All projects must use Python 3.10 or higher
- HTML code can be developed using HTML5
- Internet access is allowed for research, although you must write your own code.