PYTHON PROGRAMMING

FACE-TO-FACE COMPETITION
(Team Composition: 2 participants per school)

CONTEST GUIDELINES

In a Python programming contest, participants aim to achieve several key goals that test their coding proficiency and problem-solving abilities. First, they are expected to write efficient, correct, and optimized Python code to solve various algorithmic challenges within a set time limit. This requires not only a deep understanding of Python syntax and libraries but also the ability to analyze the problem and devise an effective approach. Second, debugging skills are critical, as participants often need to identify and fix errors in their code under pressure. Collaboration and adaptability may also play a role in team-based competitions, where participants must communicate and share ideas effectively. Lastly, creativity and innovation are celebrated, particularly in competitions with open-ended tasks, where participants are encouraged to come up with unique or unconventional solutions. Ultimately, the contest hones coding skills, improves problem-solving speed, and provides valuable experience in handling competitive environments.

1. FORMAT OF THE COMPETITION

a. CODE OF CONDUCT

Fair Play: Participants must engage in the competition with integrity. Plagiarism or the use of external sources (other than publicly available libraries or the problem statement) is strictly prohibited.

- ✔ **No collaboration:**
  In team-based competitions, collaboration is allowed within the team but prohibited with external participants**.**
- ✔ **No external help:**
  No using online forums, tutors, or programming help websites (like Stack Overflow, GitHub, etc.) during the competition. Assistance from anyone, including other participants, is not allowed.
- **Judge Scoring:**
  All scores awarded by the judge are final and cannot be contested or changed. The judge's decisions regarding scoring are conclusive and will not be subject to review or appeal. Participants and teams must respect the judge's rulings, as they are made based on the established rules and criteria of the competition. Any concerns about the scoring must be raised by the coach, and only the coach has the authority to formally dispute a score. Disputes must be addressed immediately following the announcement of scores, before the final results are confirmed. Once the

final scores are determined and communicated, they will stand as the official outcome of the event.

2. COMPETITION DURATION

- **Competition Duration**:
  - Each team will have a total of **two (2) hours** to work on **six (6) problems**.
- **Punctuality**:
- No team or participant, including the coach, will be accepted if they arrive late to the venue. The competition will start promptly at the designated time, and late arrivals will not be allowed to join. It is essential for all teams to arrive early, complete registration, and be seated prior to the start of the competition. Any team or participant, including the coach, arriving after the official start time will be disqualified and will not be permitted to participate.

- **No Extensions:**
  - The two-hour limit is strictly enforced. Teams should ensure they are fully prepared and ready to begin as scheduled.

3. ENVIRONMENT AND TOOLS

✔ Requirements during the competition proper:

- **Device Requirements**:
  - This competition follows a Bring-Your-Own-Device (BYOD) format, meaning that all participants are required to bring one laptop for use during the competition. In addition, each team must bring one back-up laptop in case of technical issues **(See Security Monitoring)**. Both devices should meet the following minimum requirements:
  - A **laptop** with a stable operating system Windows that supports Python 3.x programming.

- **Connectivity and Restrictions**:
  - The competition will be held in an offline environment, all laptops, including backup devices, must be pre-configured to function without internet access. This ensures participants can work on coding problems independently, without external assistance. No additional time or special conditions will be provided in the event of delays.
  - **Internet Use**: Internet connectivity is restricted throughout the competition.

- **Device Specifications**:
  - **Bring Your Own Device**: Ensure that your device has sufficient battery life to last the entire duration of the competition (2 hours). It is highly advisable to bring your charger and a power cord extension to guarantee uninterrupted participation. Teams should take extra care to ensure their devices are fully charged and prepared for the event. The organizers will not be held responsible for any lost or damaged items.

- **Software and Tools**: Participants must install **PyCharm Community Edition 2024.1.3** (the official IDE) to be used during the competition. Any additional software or tools that cause delays or technical issues will not be permitted to affect the competition. **Only the required software should be installed on the device being inspected.**

    - ***Note**: Only the following Python libraries are permitted such as collections, itertools, sys, and os. and the following libraries are not permitted such as Pandas, NumPy, requests, matplotlib*

- **Technical Support**:
    - **Pre-Competition Setup**: We encourage all participants to test their devices and software well before the event day to avoid technical issues during the competition.
    - **During the Competition**: If a participant experiences any technical issues (such as system crashes or malfunctioning software) during the event, they must notify the organizers immediately **(See Devices Specifications)**. A pre-inspected backup laptop may be used as a replacement. While there may be some leeway in resolving minor technical difficulties, no extra time will be granted unless the issue is caused by competition-provided equipment or the competition environment itself.
    - Only the devices that have been inspected and approved by the organizers will be permitted for use during the competition. Any device that has not undergone the pre-inspection process will be disqualified from participation.
    - In the event that both devices experience technical issues, the participant will be automatically disqualified from the competition.

- **Fairness and Compliance**: All devices must comply with the competition's rules on external tools and resources **(See Connectivity and Restrictions)**. Use of unauthorized tools, libraries, or external assistance during the competition will lead to disqualification. Participants should refrain from using devices for any activity unrelated to solving the problems.

- **Security and Monitoring**:
    - **Device inspections**: Device inspections will be conducted by the organizers to ensure full compliance with the BYOD (Bring Your Own Device) rules. Participants are required to arrive two (2) hours prior to the start of the competition. This time is essential for the organizers and committees to thoroughly verify that all system and software requirements are properly configured on each device. This includes checking for the correct version of necessary tools, libraries (if any), and ensuring that devices are ready to operate in the offline environment.
    - **Screen monitoring or other surveillance:** To ensure the integrity of the competition and prevent cheating or unauthorized access to external

resources, screen monitoring and surveillance may be used. By participating, you consent to these measures, which may include real-time tracking of screen activity and monitoring for suspicious behavior or attempts to access restricted resources.

4. SUBMISSION RULES

- Participants are required to submit their solution in a **.py** (Python) file format. Please ensure that the code is clean, well-organized, and adheres to the following guidelines:
  - **No Non-ASCII Characters:** The code must only contain standard ASCII characters to ensure compatibility and prevent issues during evaluation. Avoid using special or non-ASCII characters in variable names, comments, or strings.
  - **Minimal Comments:** While commenting your code is encouraged for clarity, excessive or redundant comments should be avoided. Comments should be concise and used only when necessary to explain complex logic or specific sections of the code.
  - **No Unnecessary Print Statements:** Ensure that your solution does not contain any unnecessary print statements or debug output. Only essential print statements, if required by the problem, should be included. Excessive print statements may negatively affect performance and the clarity of the solution.
  - **FILENAME/CLASSNAME FORMAT INSTRUCTIONS:**

SchoolName_Problem#.py or SchoolAcronymName_Problem#.py

Examples:

ABCUniversityofthePhilippines_Problem1.py

ABCUP_Problem1.py

5. COMPETITION STRUCTURE: THREE ROUNDS OF PROBLEM DIFFICULTY

- The competition will be divided into three (3) rounds, each designed to assess different levels of problem-solving skills. These rounds are Easy, Average, and Difficult, with two problems in each round.
  1. Easy Round - (items 1-2)
  2. Average Round - (items 3-4)
  3. Difficult Round - (items 5-6)

6. NOTIFICATION OF COMPLETION AND EXIT FROM THE VENUE

- **Completion Notification**:
  Once a team has completed all six problems, they must immediately notify the facilitators or designated committee head of their completion. This must be done in a clear and timely manner to ensure accurate recording of the completion time.

- **Recording the Time**:
  Upon notification of completion, the facilitator or committee head will record the exact time when the team finished. This time will be used to calculate the team's total duration and performance, as well as to ensure that no team is still working past the competition's allotted two-hour time limit.
- **Exit from the Venue**:
  After notifying the facilitator and having the completion time recorded, all team members must leave the contest venue and move to the designated waiting area. Participants are not allowed to remain inside the competition area during the judging process to ensure fair play and to prevent any potential distractions or disruptions.
- **Waiting for Judging**:
  Teams must wait in their designated area until their school or team name is called for the official judging and results announcement. Teams are expected to be patient and respectful while waiting for their turn (**See Code of Conduct**).

RUBRICS

Criteria		Exemplary (E-10, A-20, D-30)	Acceptable (E-5, A-10, D-15)	Developing (E-1, A-5, D-5)	No Output (E-0, A-0, D-0)
Easy (10 | 5 | 1 | 0) Average (20 | 10 | 5 | 0) Difficult (30 | 15 | 5 | 0)	Program Correctness (Output & Logic)	• The program meets all the requirements specified in the program specifications. • The program is syntactically and logically correct for all cases. • The program follows the indicated specifications and does not violate indicated restrictions. • The program also exhibits appropriate use of programming constructs	• The code works for typical input, but fails for minor special cases; • The major requirements are met, though some minor ones are not. • Some implementation of the program violates indicated restrictions.	• The code sometimes fails or typical input. • Many parts of the implementation violate indicated restrictions and • Some parts of the solution are not implemented using appropriate programming constructs.	• The program that does not run and/or implemented incorrectly (based on specifications and restrictions)

Orientation will start at exactly 9:00 AM to clear some concerns (if any) before the start of the contest, and each participating school contestant as well as their coaches must be at the contest venue as early as 8:45 AM.

AWARDS

1. Certificates of Participation shall be given to all qualified participants and coaches.
2. The following prizes shall be given to the winners:
   - First Place- GOLD Medal, CERTIFICATE of RECOGNITION, and Cash Prize
   - Second Place- SILVER Medal, CERTIFICATE of RECOGNITION, and Cash Prize
   - Third Place- BRONZE Medal, CERTIFICATE of RECOGNITION, and Cash Prize

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