NiCE Hack Hackathon 2024

Instructions

Please refer to this document for detailed information on the challenges. If you have any further queries, feel free to approach our Training Committee during the event or reach out via Telegram. Kindly note that we will **not** be responding on Telegram after 9 PM.

Category	Person-in-charge	Telegram Handle
Uni & Pre-U	ZhiYi	@flizy07
Uni	Bernice	@berniceYxY
Pre-U	ZhouFu	@zhoufu111

General Flow of Challenges

Workshop
1. Participants in the University and Pre-University categories will be split into two venues: **Uni: LT 23** **Pre-U: LT 22** 2. Participants will be taught the procedures on performing side channel attacks through the use of the Async2Secure application.
Commencement of Hackathon
Challenge 1
1. Challenge 1 will commence immediately following the conclusion of the workshop on Saturday, 28 September 2024, at 1700 hours. 2. An email containing both the dataset zip file and the QR code for accessing the Google Form for answer submission will be sent to the participants' email accounts that they used for registration. 3. Please note that only responses adhering to the specified format will be accepted.The format is specified in the description accompanying each question. Any deviations in format or incorrect values will result in rejection. 4. Upon successful submission of Challenge 1 answers, participants will receive the Google Form link for Challenge 2 in the submission confirmation note. Please be aware that the link for Challenge 2 will only be provided after the submission of Challenge 1.
Challenge 2
1. Challenge 2 will only be accessible after the successful submission of Challenge 1. 2. Again, please note that only responses adhering to the specified format will be accepted. The format is specified in the description accompanying each question. Any deviations in format or incorrect values will result in rejection. Only answers with the correct format and value will be considered. 3. Upon successful submission of Challenge 2 answers, participants will receive the Google Form link for Challenge 3 in the submission confirmation note. Please be

aware that the link for Challenge 3 will only be provided after the submission of Challenge 2.

Challenge 3

1. Challenge 3 will only be accessible after the successful submission of Challenge 2.
2. Participants are required to go to the oscilloscope station to collect the Arduino boards from the Training Committee. There will be 1 oscilloscope station located at the front of each respective LT.
3. Participants are required to use the oscilloscope to collect traces for the side channel attacks. Teams must queue and register for the usage of oscilloscopes on a first-come, first-served basis.
4. Each team will have 20 minutes to collect the traces at the oscilloscope.
5. After 20 minutes, teams are required to re-queue for another turn to use the oscilloscope.
6. Teams must begin collecting traces within the first 10 minutes of their assigned time. Failure to commence within this timeframe will necessitate re-queuing.
7. Any member of the training committee reserves the right to terminate the session or prohibit participants from using the oscilloscope if they demonstrate uncooperative behaviour.
8. Training Committee members will be stationed to provide assistance if needed.
9. Please remember that this is still a competition, and participants are expected to complete the task independently.
10. Upon successful submission, you have reached the end of the hackathon—congratulations! Please note that winners will be determined primarily by accuracy (correct answers), followed by speed (earliest submission).

Last 30 minutes of Hackathon

1. Participants may submit their responses for the current challenge, regardless of whether their answers are correct.
2. Please note that you will no longer be allowed to proceed to the next challenge at this time.

Results Evaluation

1. Judging criteria will prioritise accuracy as the primary factor, followed by speed.
2. For those required to submit Python scripts, please be aware that the presentation and neatness, as well as code readability, will also be taken into consideration. Therefore, ensure that your code includes comments and explanations to demonstrate a genuine and comprehensive understanding of the content.

Prize Ceremony

1. Winners will be announced, and prizes will be awarded to the top teams.
2. If your team name is called, please proceed to the front of the LT.
3. If you have won a prize, including the Lucky Draw:
    a. Please remember to fill in the prize collection form at the front of the LT.
    b. Do so before returning to your seats.
4. Cash prize is disbursed via GIRO bank transfer. Team leaders will collect for teams of two.

Rules and Regulations

General Rules

1. **Discussion and Sharing of Answers**:

   This is a competitive event, and participants are strictly prohibited from discussing or sharing answers with other groups. Any participant found engaging in such actions will face immediate disqualification. Furthermore, please note that each group has been assigned a unique data set,meaning that the correct answers will vary across groups.

2. **Support for Issues or Inquiries During the Event**:

   Should you encounter any issues or have questions throughout the event, you are encouraged to approach our committee members. They will be readily available to provide assistance. However, for any issues or specific inquiries related to the competition or challenges, please reach out to the Training Committee for guidance. Contact details can be found on page 1 of this document.

3. **Submission of Answers:**

   Answers may only be submitted if they are in correct format and accurate. Progress to the next challenge will only be permitted upon successful completion of the preceding challenge.

4. **Submission Guidelines for Prize Eligibility:**

   Please ensure that you submit your forms using either your email address or your partner's email address registered for the event. Submissions made with any email other than those used for registration will be deemed invalid and will result in disqualification from the prize, even if the team answers the questions correctly.

Point Distribution

Pre-U			
Challenge	Question	Points	Remarks
1.1	1	5	
	2	5	
	3	5	
	4	5	
	5	10	
1.2	1	5	
	2	5	
	3	5	
2.1	1	10	
	2	30	
2.2	1	15	
	2	50	
3.0	1	25	
	2	30	**Evaluation Criteria** - Correctness of the Logic and Concept: Assessment of the accuracy and validity of the underlying concept presented
	3	60	**Code Evaluation Criteria** Logical Structure and Functionality (25%) - Purpose fulfillment: Assessment of the script's ability to successfully collect the required data Explanation (25%) - Clarity of Logic and Concept: Evaluation of how effectively the underlying logic and concepts of the code are articulated Code Quality (10%) - Organisation and Readability: Examination of the overall structure and clarity of the code - Naming Conventions: Review of the appropriateness and consistency of variable and function names - Documentation: Assessment of the presence and quality of comments

Uni			
Challenge	Question	Points	Remarks
1.1	1	5	
	2	5	
	3	5	
	4	5	
	5	10	
1.2	1	5	
	2	5	
	3	5	
2.1	1	15	
	2	50	
2.2	1	80	
	2	15	
	3	15	
	4	25	**Evaluation Criteria** - Correctness of the Logic and Concept: Assessment of the accuracy and validity of the underlying concept presented
	5	25	**Code Evaluation Criteria** Logical Structure and Functionality (20%) - Purpose fulfillment: Assessment of the script's ability to obtain correct key Code Quality (5%) - Organisation and Readability: Examination of the overall structure and clarity of the code - Naming Conventions: Review of the appropriateness and consistency of variable and function names - Documentation: Assessment of the presence and quality of comments
3.0	1	25	

	2	30	**Evaluation Criteria** - Correctness of the Logic and Concept: Assessment of the accuracy and validity of the underlying concept presented
	3	60	**Code Evaluation Criteria** Logical Structure and Functionality (25%) - Purpose fulfillment: Assessment of the script's ability to successfully collect the required data Explanation (25%) - Clarity of Logic and Concept: Evaluation of how effectively the underlying logic and concepts of the code are articulated Code Quality (10%) - Organisation and Readability: Examination of the overall structure and clarity of the code - Naming Conventions: Review of the appropriateness and consistency of variable and function names - Documentation: Assessment of the presence and quality of comments