



Organisers



Co-organisers

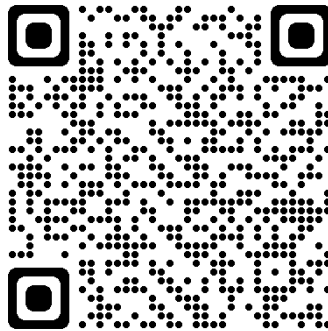


## Gold Sponsors

## Silver Sponsors



### Website



<http://ctf.hkcert.org>

### CTF Community



<https://discord.gg/hTwPJDm7jk>



# CAPTURE THE FLAG CHALLENGE 2024

In recent years, cybersecurity has become one of the most prominent and talent-scarce fields in the information technology sector. Offensive and defensive cybersecurity, in particular, will be a key future demand for industry professionals. This has led to the rise of positions such as "Penetration Tester," "Ethical Hacker," and "Red Team Operator." These roles require a deep understanding of programming, cryptography, application systems and etc. The mindset and techniques akin to those of hackers will also be the elements in order to quickly identify and patch security vulnerabilities.

Capture The Flag (CTF) competitions are designed to train these specific skills and mindsets. Participants must find hidden vulnerabilities in a simulated environment based on real systems to break through security defences. Upon success, they capture "flags" and earn points. Such competitions are held worldwide to enhance security techniques, with some even featuring global rankings to compete for the title of the best in the world.

"HKCERT Capture The Flag 2024," organised by the Hong Kong Computer Emergency Response Team Coordination Centre (HKCERT) and the Hong Kong Productivity Council (HKPC), is now in its fifth edition. It is one of the largest cybersecurity competitions in Hong Kong, featuring four categories: Secondary School, Tertiary, Open, and International.

In addition to the competition, the event includes various workshops and sharing sessions. Through these TechEd (technology education) activities, students can learn skills such as programming, cryptography, and digital forensics, fostering creative thinking and preparing them for the future. Industry professionals can also use this opportunity to test their skills, train their cybersecurity teams and connect with ethical hacker communities worldwide, delving deeper into cybersecurity to become experts in the field.

Last year, the competition attracted over a thousand participants and received widespread acclaim. This year, new challenge categories and formats have been introduced, promising an even more exciting and intense experience.

**Sign up now, and get ready for the challenge!**

## Eligibility

The Contest is divided into 4 categories

### 1. Secondary School - Secondary School Students in Hong Kong

\* All members of the participating team must come from the same school and must be registered by a teacher from their school.

Examples	
Scenario	Eligible to join
Members are studying in the <u>same</u> secondary school of Hong Kong	<ul style="list-style-type: none"> <li>Secondary school, or</li> </ul>

\* Schools which sent **more than 50 students** (Only count for students from participated team<sup>(Note 1)</sup>) will receive the “**Supportive School Award**” (The School can send an unlimited number of teams to join.)

\* The school which achieved the **most outstanding result** will receive the “**Best School Award**” (Note 2)

(Note 1) Participated Team means Teams with score **greater than or equal to 20**.

(Note 2) The organiser will sum the score of the **top 30 teams** on the scoreboard by schools.

### 2. Tertiary Institution - Full-time students studying Diploma, Higher Diploma, Associate Degree or Bachelor’s Degree in Hong Kong universities or colleges

\* Participants who are **under the age of 18 as of the registration deadline** must obtain consent from their parents or guardians to register and agree to all the terms and conditions of the competition.

\* Students who are studying other degrees not specified above ( **e.g. master’s degree, doctoral degree, etc. )** are not eligible to join this category. They can consider joining the **Open category**.

Examples	
Scenario	Eligible to join
All members are studying Diploma, Higher Diploma, Associate Degree or Bachelor’s Degree in Hong Kong universities or colleges	<ul style="list-style-type: none"> <li>Tertiary institution, or</li> <li>Open Category</li> </ul>
One or above of the members is studying for a master’s or doctoral degree at Hong Kong universities or colleges	<ul style="list-style-type: none"> <li>Open Category</li> </ul>

### 3. Open Category - Hong Kong residents or holders of valid Hong Kong working or study visa is on the team

\* Participants who are **under the age of 18 as of the registration deadline** must obtain consent from their parents or guardians to register and agree to all the terms and conditions of the competition.

Examples	
Scenario	Eligible to join
All members are Hong Kong residents or holding valid Hong Kong working or study visas	<ul style="list-style-type: none"> <li>Open Category</li> </ul>
One or above of the members are not Hong Kong residents and not holding valid Hong Kong working or study visas	<ul style="list-style-type: none"> <li>International Category</li> </ul>

#### 4. International Category

\* Participants must be **at least 21 years old** by the registration deadline.

Examples	
Scenario	Eligible to join
One or above of the members are not Hong Kong residents and not holding valid Hong Kong working or study visas	<ul style="list-style-type: none"> <li>International Category</li> </ul>

The Contest is conducted in a team format, with each team consisting of **one to four members**. Each participant can only enrol to **one team** and submit one application and **agree to and comply with** all the terms and conditions as well as the rules of the competition. Any dispute regarding eligibility, the organiser reserves the right to make the **final decision**.

## Contest Format

The competition is divided into **qualifying round** and **final round** with different gameplay, assessing the capabilities of participants' offence and defence in cybersecurity.

**Qualifying Round:** This is a 48-hour **Jeopardy-style** online CTF Contest. Participants need to use cybersecurity techniques to exploit vulnerabilities and find hidden "flags" to earn points.

- **Type of Challenges and Samples**

- Binary Exploitation
- Cryptography
- Forensics
- Reverse Engineering
- Web Exploitation
- Miscellaneous

\* All the challenges in this contest are bilingual (i.e. Trad. Chinese and English).

- **Arrangement**

The participating teams will receive an email from the **organiser one day before the qualifying round**, containing the login account for the platform and the platform link.

\* Each participating teams will **share one account** to participate.

- **Qualification to Final Round**

The **top 5 teams with the highest scores** in each category of the qualifying round, after

reviewed by the organiser ( **including identity verification, submission of a proof of answer (write-up) for three of the solved challenges selected by the organisers and etc.** ), will be automatically qualify for the finals.

\* If a team **waives their qualification for the finals, fails to pass the review or is disqualified for any other reason**, the qualification for the finals will be passed on to the next highest-scoring team in the qualifying round of that group.

\* In the event of a **tie in scores**, the qualification for advancement will be determined by **the time the teams earned their last score in the qualifying round, with the team that scored earlier being given priority**. For example, if team A and team B both scored 3000 points in the qualifying round, and the last scoring times for team A and team B were 15:30 and 16:30 respectively. Team A would qualify for the finals.

**Final Round:** This is a 1.5-day daytime physical competition with **King of Hill style**. Combining offence, defence and real-world scenario challenges in a turn-based format, participants are scored based on who provides the better solution.

- **Type of Challenges and Samples**

Participants are required to utilise any information technology and cybersecurity knowledge.

\* All the challenges in this contest are bilingual (i.e. Trad. Chinese and English).

- **Arrangement**

Physical competition, the venue is Hong Kong Productivity Council building

\* Each participating teams will **share one account** to participate.

1. **Secondary School**

\* Each participating team must **designate a teacher** from their school to accompany them to the finals.

2. **Tertiary Institution / Open Category**

\* Participants who are **under the age of 18 on the day of the finals** must be accompanied by a parent or guardian to attend the finals.

3. **International Category**

\* The organiser will provide each participant **accommodation at a designated hotel and round-trip airfare from Hong Kong to their point of departure**.

\* **During the advancement review, if participants submit Hong Kong identification proof or a local work or study visa**, they will not be eligible for hotel accommodation and round-trip airfare.

\* Apart from the hotel accommodation and airfare expenses pre-paid by the organiser, all **other expenses** must be borne by the participants themselves.

\* The organiser reserves the **final right of interpretation and decision** regarding hotel accommodation and airfare arrangements.

\* All participants must **bring their own laptops, install the necessary software and bring power cords** to the competition. The organiser will not provide any additional equipment or software.

\* The organiser will provide **power (British Style, 220V) and internet services**.

\* All participants must **arrange their own transportation and their own meals**.

**Award Ceremony:** Following the finals, the winners of each category will be announced.

## Prizes

---

### Secondary School will receive

- **Gold:** HKD 10,000 Shopping Voucher ( Per Team )
  - **Silver:** HKD 8,000 Shopping Voucher ( Per Team )
  - **Bronze:** HKD 6,000 Shopping Voucher ( Per Team )
- \* In circumstances beyond the control of the organiser where shopping vouchers cannot be provided, the organiser **reserves the right to substitute the shopping vouchers with gifts of no less than equivalent value** without further explanation or notice.
- \* **Each winning school** will receive a **trophy** (i.e. the school of Gold, Silver and Bronze winners, and the winning school of the “**Supportive School Award**” and “**Best School Award**”)

### Each Category of Tertiary Institution/ Open Category/ International Category will receive

- **Gold:** HKD 15,000 ( Per Team )
- **Silver:** HKD 12,500 ( Per Team )
- **Bronze:** HKD 10,000 (Per Team )

\* In circumstances beyond the control of the organiser where cash prizes cannot be provided, the organizer **reserves the right to substitute the cash prizes with gifts of no less than equivalent value** without further explanation or notice.

\* In addition to the above prizes, all the winners will receive an **award certificate**. Other participants from the participating team will receive electronic certificates.

## Important Dates

---

### Online Registration

From now until November 4, 2024 ( Monday )

### 1<sup>st</sup> Qualifying Round Workshops ( Registration Required )

September 28, 2024 ( Saturday )

Agenda: Web, Crypto and Misc / Forensic with a hands-on session in the afternoon

<https://form.jotform.com/hkcert/CTF-2024-Workshop1>

### 2<sup>nd</sup> Qualifying Round Workshops ( Registration Required )

October 19, 2024 ( Saturday ) – Tentative

Agenda: Reverse Engineering and Pwn with a hands-on session in the afternoon

<https://form.jotform.com/hkcert/CTF-2024-Workshop2>

### Qualifying Round



November 8-10, 2024 ( 48 hours )

**Announcement of Advancement**

November 18, 2024 ( Monday )

**Final Round Workshop ( Registration Required )**

December 14, 2024 ( Saturday ) - Tentative

**Final Round ( 1.5 days during daytime )**

January 20, 2025 from 0930 to 1730

January 21, 2025 from 0930 to 1230

**Award Ceremony**

January 21, 2025 ( Following the final round )

**Registration**

---

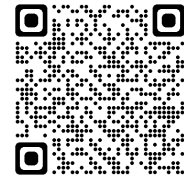
<https://form.jotform.com/hkcert/capture-the-flag-challenge-2024-reg>

**Terms and Conditions and Rules**

---

The competition terms and conditions, as well as the competition rules, can be reviewed in detail on the competition's official website.

<https://ctf.hkcert.org>





## Fully Supported By (In arbitrary Order)



## Supporting Organisations (In arbitrary Order)

教育局  
Education Bureau

