CSAW'20 Capture the Flag Registration Guidelines & Competition Rules

CSAW CTF Overview

CSAW CTF is an entry-level, jeopardy style CTF, designed for university-level students who are interested in the field of security. Challenges are meant to exhibit fundamental concepts and help students develop their skills.

Our competition occurs over two rounds: an online Qualifying Round in September and, for 2020, an online Final Round in November. Please see our <u>messaging regarding COVID-19</u> for additional details on why CSAW will run virtually in 2020.

Qualification Round Dates & Times

11 - 13 September 2020

48-hour Competition

Start Time: 20:00 UTC Time, 11 September 2020

End Time: 20:00 UTC Time, 13 September 2020

Rules for the Qualifying Round

To assist in clarifying the rules, this section is organized in a Frequently Asked Question format.

Who is eligible to play CSAW CTF?

Everyone is welcome to play in the Qualification Round of Capture the Flag. Our game is open to players from around the world.

For teams that are trying to qualify for Finals, CSAW CTF has different eligibility requirements based on country affiliation and education level.

Please review this entire document before registering.

Where does the competition happen?

The qualification round of CTF is played on an online CTFd platform: ctf.csaw.io. To access challenges, players must register a team name.

Only registered teams will be given access to challenges at the "Start Time."

How many problems are included in the Qualification Round?

We expect approximately 30 challenges with points ranging from 1 - 500.

Can I compete individually?

Players can compete individually as a 1-player team or with a group (a multi-player team), but not both.

Every team needs to register in order to access the challenges.

Where do teams register?

Registration is embedded in the CTF platform: ctf.csaw.io. Registration will remain open through the Qualification Round.

Can I compete under multiple team names?

No.

All players, regardless of bracket or intention to qualify for Finals, must compete under only 1 team name; playing for multiple teams, including sub teams or alias teams, constitutes cheating and will result in team disqualification.

Furthermore, teams should work independently. Sharing answers privately or publicly, or collaborating with another team constitutes cheating.

How many players can form a team during the Qualifying Round?

There is no limit to the number of players on a team during the Qualifying Round. However, team members playing in the qualification round should be of the same education level or lower as the bracket of the team.

Additionally, teams should be aware that only 4 members of a qualifying team will be allowed to play during Finals. These 4 members must be listed on the team's Profile page on the CTF platform prior to the end of the Qualification Round. Please make your best estimation of who would participate in Finals. Finalist team members will be confirmed during the enrollment verification process, whereby regional organizers ask students to submit enrollment documentation to confirm their student status.

Why do teams have to indicate who will be playing in Finals before the end of the Qualification Round?

The process for verifying enrollment is multi-stepped and time sensitive and so having this data upfront creates efficiency.

Teams who intend to qualify for Finals should make their best estimate about who will play in Finals. For teams of 4 or less, this is relatively simple: list everyone on your team. For larger teams, the decision as to which players advance to Finals may be more complicated and so we recommend that you give this your best estimate.

Can a group of undergraduate players form a team with high school students? It depends on the team's bracket.

A team that forms under the Undergraduate Bracket can play with students of a lower educational level (ie, high school students) during the Qualification Round. However, please be aware that for Finals, high school students will not be invited to compete.

A team that forms under the High School Bracket can play with students in high school plus students in a lower level of education. However, high school students are not eligible for CTF Finals.

Why are high / secondary school students not eligible for CTF Finals?

CSAW runs a high school-level competition, RED, and we want to encourage students to participate in this event, while reserving final slots of CTF for university-level students. During the CTF Qualification round, anyone is welcome and encouraged to participate.

Can a group of undergraduate students form a team with graduate students?

It depends on the region where you are competing. If you are in a region that allows Stacked teams, then yes. If you are in a region that does not allow Stacked teams, then no.

How are the brackets defined?

- High School Bracket = team members are in high school
- Undergraduate Bracket = team members are undergraduate students
- Stacked Bracket = team members are a mix of undergraduate and graduate students
- Graduate Bracket = team members are graduate or post-graduate students

I am still confused. Who can I contact to answer my question regarding team eligibility? Questions regarding eligibility can be directed to Stef at smd8@nyu.edu. Please include the country where you are participating in your email.

What constitutes cheating?

• Playing for multiple teams, including sub teams or alias teams

- Sharing answers privately or publicly, and/or collaborating with another team
- Attacking the CTF infrastructure. Unless a challenge explicitly calls for such an attack, it
 is strictly forbidden to perform any kind of Denial of Service Attack (DoS/DDoS) against
 the servers or the competition's infrastructure.
- Brute forcing flags is not tolerated or recommended.
- Automatic vulnerability scanners such as SQLmap are prohibited.

Is flag hoarding permitted?

No. Flags should be submitted as they are found rather than hoarding flags and submitting them all at once. Teams that submit flags in quick succession may be asked to provide write-ups.

How do teams qualify for Finals?

Teams earn points by solving challenges. Finals eligibility and the type of teams invited to participate in Finals varies by region as defined in the next section, "Final Round Eligibility."

Teams must earn 2 or more points to be initially considered for Finals.

Qualifying round points are reported to CTFTime.

General Recommendations for the Qualification Round

- Teams will need regular access to a computer and an Internet connection.
- Teams should have unfiltered Internet access and the ability to install software.
- Teams should join the CSAW CTF Discord channel and keep this open during the competition to be alerted of any updates.
- Teams/players may play as much or as little as they want through the Qualification Round. We recommend dedicating as much time as you have to working through the challenges while still maintaining healthy habits.

Final Round Dates

05 06 - 08 November 2020*

36-hour Competition

*Exact start and end times vary by region, to be announced. We anticipate that Start Times will range from Friday evening through early Saturday morning.

Final Round Status & Locations

Where are Finals held?

CSAW'20 Finals will be hosted virtually by five global academic centers with remote final competitions.

- CSAW Europe, hosted by Grenoble INP-Esisar (Valence, France)
- CSAW India, hosted by Indian Institute of Technology Kanpur (Kanpur, India)
- CSAW MENA, hosted by NYU Abu Dhabi (Abu Dhabi, UAE)
- CSAW México, hosted by University Iberoamericana Mexico City (IBERO, Mexico City, Mexico)
- CSAW US-Canada, hosted by NYU Tandon School of Engineering (Brooklyn, New York, USA)

Final Round Eligibility

Virtual participation in CSAW Finals is contingent upon finalists' ability to adhere to the remote participation guidelines. These details will be provided to finalists at the point of finalist notification.

Eligibility requirements for Finals vary by region, defined below.

Europe - organized by Grenoble INP - Esisar (Valence, France)

- Eligibility rules for CTF Europe Finals are pending as of 29 June 2020. Please wait to register until the rules are posted.
- The top 15 eligible European teams with the most points will be invited to participate in CSAW Finals
 - Virtual participation will allow players to participate from their place of residence
 - Technical requirements and setup details will be provided when teams are invited to Finals
- Teams may have up to 4 players total during Finals.
- All team members must be enrolled in an undergraduate or graduate program within Armenia, the European Union, Norway, Switzerland, or the United Kingdom. On the CTF platform, the brackets that correspond to an undergraduate or graduate program are Undergraduate, Stacked, or Graduate.
- Only one "school team" per university will be allowed to qualify for Finals. A "school team" is defined as a team with members who all attend the same university/college.
- For 2020, mixed teams -- or teams with students from different universities/colleges -- are permitted.

- A mixed team can have a maximum of 2 students from the same university/college, with up to 4 teammates total. For example:
 - 2 students from University A can team up with 2 students from University B.
 - Or, 2 students from University A can team up with 1 student from University B and 1 student from University C.
 - Or, a mixed team could comprise 4 students all from different universities/colleges
- A maximum of 10 students from the same university and across multiple teams are eligible to qualify for Finals.
- Teams that qualify for Finals will be asked to verify their enrollment status before being invited to Finals.

India - hosted by Indian Institute of Technology Kanpur (Kanpur, India)

- The top 15 eligible Indian teams with the most points will be invited to participate in CSAW Finals
 - Virtual participation will allow players to participate from their place of residence
 - Technical requirements and setup details will be provided when teams are invited to Finals
- Teams may have up to 4 players total during Finals.
- All team members must be students enrolled in an undergraduate (UG) or post-graduate (PG) program and attend the same university in India. On the CTF platform, the brackets that correspond to an undergraduate or graduate program are Undergraduate, Stacked, or Graduate.
- Up to two (2) teams from any given university in India may qualify for Finals. If multiple teams from the same university qualify, only the two highest ranked teams will be invited to compete in CSAW India Finals.
- Student Teams that qualify for Finals will be asked to verify their enrollment status before being offered an invitation to Finals.

MENA - hosted virtually by NYU Abu Dhabi (Abu Dhabi, UAE)

- Up to 15 eligible MENA teams with the most points will be invited to participate in CSAW
 - Virtual participation will allow players to participate from their place of residence
 - Technical requirements and setup details will be provided when teams are invited to Finals
- Teams may have up to 4 players total during Finals.
- All team members must be enrolled in an undergraduate or graduate program and attend the same university within the following countries: Algeria, Azerbaijan, Bahrain, Chad, Djibouti, Egypt, Eritrea, Georgia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, South Sudan, Sudan, Syria, Tunisia, Turkey, United Arab Emirates, and Yemen. On the CTF platform, the brackets that correspond to an undergraduate or graduate program are Undergraduate, Stacked, or Graduate.

- Only one team from any given university may qualify for Finals. If multiple teams from the same university qualify, only the highest ranked team will be invited to compete in CSAW MENA Finals.
- Teams that qualify for Finals will be asked to verify their enrollment before being offered an invitation to participate in Finals.

México - hosted by University Iberoamericana Mexico City (IBERO, Mexico City, Mexico)

- Up to 15 eligible Mexican teams with the most points will be invited to CSAW Finals (event status pending).
 - Teams need to have at least 300 points to be invited to Finals. Teams must earn at least 300 points during the final round to be considered for the award ceremony
 - Virtual participation will allow players to participate from their place of residence
 - Technical requirements and setup details will be provided when teams are invited to Finals
- Teams may have up to 4 players total during Finals.
- All team members must be enrolled in an undergraduate (UG) or post-graduate (PG)
 program and attend the same university campus in Mexico. On the CTF platform, the
 brackets that correspond to an undergraduate or graduate program are Undergraduate,
 Stacked, or Graduate.
- Up to two (2) Student Teams from any given university in Mexico may qualify for Finals.
 If multiple teams from the same university qualify, only the two highest ranked teams will be invited to compete at CSAW Mexico Finals.
- Teams that qualify for Finals will be asked to verify their student enrollment before being offered an invitation to Finals.

US-Canada - hosted by NYU Tandon School of Engineering (Brooklyn, NY, USA)

- The top 15 eligible US-Canadian teams with the most points will be invited to participate in CSAW Finals
 - Virtual participation will allow players to participate from their place of residence
 - Technical requirements and setup details will be provided when teams are invited to Finals
- Only undergraduate level students enrolled in an accredited degree program at a
 university or college in the United States (including US Territories) or Canada are eligible
 to qualify for Finals. The corresponding bracket on the CTF platform is Undergraduate.
- Teams may have up to 4 players total during Finals.
- Only one "school team" per university will be allowed to qualify for Finals. A "school team" is defined as a team with 4 members who all attend the same university/college.
- Mixed teams -- or teams with students from different universities/colleges -- are permitted. A mixed team can have a maximum of 2 students from the same university/college, with up to 4 teammates total. For example:
 - 2 students from University A can team up with 2 students from University B.

- Or, 2 students from University A can team up with 1 student from University B and 1 student from University C.
- Or, a mixed team could comprise 4 students all from different universities/colleges
- Questions about mixed teams? Please email Stef at smd8@nyu.edu.
- A maximum of 10 students from the same university and across multiple teams are eligible to qualify for Finals.
- Teams that qualify for Finals will be asked to verify their enrollment status before being offered an invitation to Finals.

When will teams be notified of their finalist status?

Finalists will be notified of their status between 16 and 25 September 2020. Teams will receive notification directly from regional organizers via the team email that is registered on ctf.csaw.io.

Teams that qualify for Finals will be asked to verify their enrollment status before being offered an invitation to participate in Finals.

What is the format of Finals?

The Final Round follows a similar format to the Qualification Round. The Final Round of CTF is played on an online CTFd platform: ctf.csaw.io. The scoreboard will be public through most of the competition, but will be taken offline nearing the end of the competition. The competition lasts 36 hours. We expect approximately 30 challenges, with points ranging from 1 - 500.

What are the rules for the Final Round?

- Players must compete only with their designated teammates who were approved via the enrollment verification process.
- Finalist teams should work independently. Receiving assistance from non-team members, sharing answers privately or publicly, or collaborating with friends/colleagues (for example, getting help from anyone other than your in-person Finalist team members) constitutes cheating. Cheating during finals will result in an immediate disqualification and team-wide CSAW ban.
- Players must not share any information pertaining to CTF, including write-ups, until Monday, November 9.
- Attacking the infrastructure will result in disqualification and a team-wide CSAW ban
- Attempting to brute force flags or guess answers on the submission platform is prohibited
- Use of automated vulnerability scanners, such as SQLMap, are not allowed

Are there prizes?

A 1st, 2nd, and 3rd place winning team is identified for each region based on total points scored. Prizes vary by region. Please check the regional webpages for details.

How is my personal data used?

Personal data (ie, name, school, email) that is collected through the registration process is accessible only by the competition organizers and is used for the following purposes:

- Reminding registrants of competition timelines, rules, and updates
- Sending occasional updates regarding future CSAW events
- Determining and contacting finalist teams and team members
- Examining multi-year participation of teams and individual player
- Determining and reporting total number of teams and total estimated individual participation
- Determining and reporting demographic trends related to participation, such as what countries have the highest number of teams participating

CSAW will not rent, sell, or share personal data with anyone other than the competition organizers.

How should I prepare for CSAW CTF?

The best way to prepare for CSAW CTF is to play CTFs. A calendar of competitions can be found here: CTFTime

Contact

Please direct your inquiries to the CTF Global Leads as follows: csawctf@osiris.cyber.nyu.edu