

# Return objects

## User

Represents a Codeforces user.

Field	Description
handle	String. Codeforces user handle.
email	String. Shown only if user allowed to share his contact info.
vkId	String. User id for VK social network. Shown only if user allowed to share his contact info.
openId	String. Shown only if user allowed to share his contact info.
firstName	String. Localized. Can be absent.
lastName	String. Localized. Can be absent.
country	String. Localized. Can be absent.
city	String. Localized. Can be absent.
organization	String. Localized. Can be absent.
contribution	Integer. User contribution.
rank	String. Localized.
rating	Integer.
maxRank	String. Localized.
maxRating	Integer.

lastOnlineTimeSeconds	Integer. Time, when user was last seen online, in unix format.
registrationTimeSeconds	Integer. Time, when user was registered, in unix format.

## RatingChange

Represents a participation of user in rated contest.

Field	Description
contestId	Integer.
contestName	String. Localized.
rank	Integer. Place of the user in the contest. This field contains user rank on the moment of rating update. If afterwards rank changes (e.g. someone get disqualified), this field will not be update and will contain old rank.
ratingUpdateTimeSeconds	Integer. Time, when rating for the contest was update, in unix-format.
oldRating	Integer. User rating before the contest.
newRating	Integer. User rating after the contest.

## Contest

Represents a contest on Codeforces.

Field	Description
id	Integer.
name	String. Localized.
type	Enum: CF, IOI, ICPC. Scoring system used for the contest.

phase	Enum: BEFORE, CODING, PENDING_SYSTEM_TEST, SYSTEM_TEST, FINISHED.
frozen	Boolean. If true, then the ranklist for the contest is frozen and shows only submissions, created before freeze.
durationSeconds	Integer. Duration of the contest in seconds.
startTimeSeconds	Integer. Can be absent. Contest start time in unix format.
relativeTimeSeconds	Integer. Can be absent. Number of seconds, passed after the start of the contest. Can be negative.
preparedBy	String. Can be absent. Handle of the user, how created the contest.
websiteUrl	String. Can be absent. URL for contest-related website.
description	String. Localized. Can be absent.
difficulty	Integer. Can be absent. From 1 to 5. Larger number means more difficult problems.
kind	String. Localized. Can be absent. Human-readable type of the contest from the following categories: Official ACM-ICPC Contest, Official School Contest, Opencup Contest, School/University/City/Region Championship, Training Camp Contest, Official International Personal Contest, Training Contest.
icpcRegion	String. Localized. Can be absent. Name of the ICPC Region for official ACM-ICPC contests.
country	String. Localized. Can be absent.
city	String. Localized. Can be absent.
season	String. Can be absent.

# Party

Represents a party, participating in a contest.

Field	Description
contestId	Integer. Id of the contest, in which party is participating.
members	List of <a href="#">Member</a> objects. Members of the party.
participantType	Enum: CONTESTANT, PRACTICE, VIRTUAL, MANAGER, OUT_OF_COMPETITION.
teamId	Integer. Can be absent. If party is a team, then it is a unique team id. Otherwise, this field is absent.
teamName	String. Localized. Can be absent. If party is a team or ghost, then it is a localized name of the team. Otherwise, it is absent.
ghost	Boolean. If true then this party is a ghost. It participated in the contest, but not on Codeforces. For example, Andrew Stankevich Contests in Gym has ghosts of the participants from Petrozavodsk Training Camp.
room	Integer. Can be absent. Room of the party. If absent, then the party has no room.
startTimeSeconds	Integer. Can be absent. Time, when this party started a contest.

## Member

Represents a member of a party.

Field	Description
handle	String. Codeforces user handle.

## Problem

Represents a problem.

Field	Description
contestId	Integer. Id of the contest, containing the problem.
index	String. Usually a letter of a letter, followed by a digit, that represent a problem index in a contest.
name	String. Localized.
type	Enum: PROGRAMMING, QUESTION.
points	Floating point number. Can be absent. Maximum ammount of points for the problem.
tags	String list. Problem tags.

## ProblemStatistics

Represents a statistic data about a problem.

Field	Description
contestId	Integer. Id of the contest, containing the problem.
index	String. Usually a letter of a letter, followed by a digit, that represent a problem index in a contest.
solvedCount	Integer. Number of users, who solved the problem.

## Submission

Represents a submission.

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Field	Description
id	Integer.
contestId	Integer.
creationTimeSeconds	Integer. Time, when submission was created, in unix-format.
relativeTimeSeconds	Integer. Number of seconds, passed after the start of the contest (or a virtual start for virtual parties), before the submission.
problem	<a href="#">Problem</a> object.
author	<a href="#">Party</a> object.
programmingLanguage	String.
verdict	Enum: FAILED, OK, PARTIAL, COMPILATION_ERROR, RUNTIME_ERROR, WRONG_ANSWER, PRESENTATION_ERROR, TIME_LIMIT_EXCEEDED, MEMORY_LIMIT_EXCEEDED, IDLENESS_LIMIT_EXCEEDED, SECURITY_VIOLATED, CRASHED, INPUT_PREPARATION_CRASHED, CHALLENGED, SKIPPED, TESTING, REJECTED. Can be absent.
testset	Enum: SAMPLES, PRETESTS, TESTS, CHALLENGES, TESTS1, ..., TESTS10. Testset used for judging the submission.
passedTestCount	Integer. Number of passed tests.
timeConsumedMillis	Integer. Maximum time in milliseconds, consumed by solution for one test.
memoryConsumedBytes	Integer. Maximum memory in bytes, consumed by solution for one test.

# Hack

Represents a hack, made during Codeforces Round.

Field	Description
id	Integer.
creationTimeSeconds	Integer. Hack creation time in unix format.
hacker	<a href="#">Party</a> object.
defender	<a href="#">Party</a> object.
verdict	Enum: HACK_SUCCESSFUL, HACK_UNSUCCESSFUL, INVALID_INPUT, GENERATOR_INCOMPILABLE, GENERATOR_CRASHED, IGNORED, TESTING, OTHER. Can be absent.
problem	<a href="#">Problem</a> object. Hacked problem.
test	String. Can be absent.
judgeProtocol	Object with three fields: "manual", "protocol" and "verdict". Field manual can have values "true" and "false". If manual is "true" then test for the hack was entered manually. Fields "protocol" and "verdict" contain human-readable description of judge protocol and hack verdict. Localized. Can be absent.

## RanklistRow

Represents a ranklist row.

Field	Description
party	<a href="#">Party</a> object. Party that took a corresponding place in the contest.

rank	Integer. Party place in the contest.
points	Floating point number. Total ammount of points, scored by the party.
penalty	Integer. Total penalty (in ICPC meaning) of the party.
successfulHackCount	Integer.
unsuccessfulHackCount	Integer.
problemResults	List of <a href="#">ProblemResult</a> objects. Party results for each problem. Order of the problems is the same as in "problems" field of the returned object.
lastSubmissionTimeSeconds	Integer. For IOI contests only. Time in seconds from the start of the contest to the last submission that added some points to the total score of the party.

## ProblemResult

Represents a submissions results of a party for a problem.

Field	Description
points	Floating point number.
penalty	Integer. Penalty (in ICPC meaning) of the party for this problem.
rejectedAttemptCount	Integer. Number of incorrect submissions.
type	Enum: PRELIMINARY, FINAL. If type is PRELIMINARY then points can decrease (if, for example, solution will fail during system test). Otherwise, party can only increase points for this problem by submitting better solutions.



bestSubmissionTimeSeconds	Integer. Number of seconds after the start of the contest before the submission, that brought maximal amount of points for this problem.
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