

InnoCentive Challenge Types

Ideation Challenge

The ideation challenge is a global brainstorming approach, a search looking for new concepts to approach a problem, which supports the identification of new/novel idea. This could include ideas for a new product line, a new commercial application for a current product, or even a viral marketing idea.

- Deliverables are short descriptions and written explanations of the Solvers creative idea.
- Seekers obtain a non-exclusive, perpetual license to use ANY of the submissions that are submitted by Solvers

Theoretical Challenge

A theoretical challenge addresses design problems that require an idea that is implementable through theoretical evidence but is not yet a proof of concept. A solution to a theoretical challenge will provide a concept with detailed descriptions, specifications and requirements necessary to bringing a good idea closer to becoming an actual product or service

- Provides the challenge owner the opportunity to ask a question with detailed performance requirements and success criteria
- Provides greater detail (e.g. engineering calculations and reference documents) than an ideation challenge
- Intellectual Property Rights are transferred if challenge is awarded

Reduction To Practice Challenge

A Reduction To Practice (RTP) challenge delivers solutions in which you can test or verify during evaluation. Depending on how you formulate the Challenge, the deliverables can be experimental data, prototypes algorithms, code or models regarding a particular solution.

- Well-defined success criteria and deliverables may require lab work along with right to validate solution.
- Deliverables typically include a validated solution in the form of either original data or physical evidence.
- Full IP rights are transferred if an Award is paid

eRFP

A request for partner challenge serves to identify a candidate that could provide materials or expertise to help solve an organizational challenge. Through this channel you would be utilizing the InnoCentive network to find businesses or consultants that have already developed the technology you need or have the experience to help you develop it yourself.

- Deliverables are proposals from solvers with specific credentials and capabilities
- The identities of the solvers are released to the seeker when the submissions are distributed

TopCoder Challenge Types

Open and Directed Innovation

Idea Generation

Idea Generation contests ask the Community to provide ideas for solutions, applications, games, advice, analysis, etc in response to a given question. These are “open” innovation contests that are entirely subjective.

Conceptualization

Conceptualization is “Directed” innovation. In Conceptualization contests, competitors collaborate with clients in the project forums to help identify, organize, and document their needs and ideas, and produce a high-level Business Requirements Document. The Business Requirements Document identifies and describes the workflows and business rules an application should follow to accomplish one or more business goals. Submissions are reviewed by the TopCoder Member Review Board and rated for accuracy, clarity, and attention to detail, then presented to project stakeholders for feedback.

Big Data: Marathon Matches

A Marathon Matches take on problems in Big Data. Normally lasting two weeks, Marathon competitors test their submissions constantly against hidden system tests for provisional scores, and compete to rise to the top of an ever changing leader board. Marathon contests feature problems that require creative (and unknown) solutions in algorithms, statistics and probability. Marathon contests have addressed challenges in language processing, image analysis, machine learning, data compression, genomics, routing, logistics, crop breeding and more (one contest even “cracked” the Enigma machine). A Marathon challenge may be followed by Software contests to integrate a core algorithm into software applications and frameworks, for general use.

Logo

In Logo design contests, competitors are asked to design a professional logo for the client. The client first provides the information like colors preferred and concepts to be conveyed to the competitors. At the end of the contest client will choose the winning logo, and receive both .jpg/.png file and the source file(s).

Wireframes

Wireframe Competitions are designed to take the requirement document inputs and create a “roadmap” of the working application. They do not demonstrate the look and feel of the website or application. The end result of a Wireframe competition is a fully navigable



representation of all of the pages and interactions for the entire website or application as well as a visual sitemap. At the end of the contest, the project stakeholder will review and select the winning submissions.

Storyboards

Storyboard contests are launched to design the visual look and feel of the application or website that is to be developed. Wireframes are usually used as reference for designing storyboards. At the end of the contest, the project stakeholder will review and select the winning submissions.

Mobile Screen

Mobile screen designs tend to have specific development requirements and restrictions that make the UI design unique. Mobile contests may focus on the best use of small space, specific source file requirements, and unique layout considerations (vertical and horizontal smart phone layouts, for example). At the end of the contest, the project stakeholder will review and select the winning submissions.

Software Contests – How they Work on TopCoder

In the TopCoder methodology, applications are developed in a piecemeal fashion (not delivered in a big bang). Features and functionality are specified, designed and delivered continuously in components modules. Every contest receives multiple submissions in pursuit of a fixed first place prize. Every contest submission is evaluated and scored by a panel of up to three TopCoder Member Review Board members. First and second place results are provided to project stakeholders and to downstream contests.

Description of Software contest types are listed below.

Software Specification

A Software Requirements Specification (SRS) is a complete description of the behavior of the system to be developed. In Specification contests, competitors collaborate with TopCoder clients in the project forums to enumerate the precise Application Requirement Specification for the new system. This includes data, user activities, and their relationship to any User Interface. To do this, Competitors will create Use Case diagrams to define scope and Activity diagrams to illustrate actions.

System Architecture

Architecture contests are launched to obtain the high-level of design for the system. The competitors take requirements (both written and visual), existing designs and code, as well as components from the software catalog in TopCoder to design systems or subsystems. After the contest, the high-level design documents will be presented to client for feedback and revision.

Module Architecture

Module-Level Architecture defines the lower-level technical design of an independent module of a larger application. As an example, "Checkout", "Shopping Cart", "Registration", and "Inventory Management" might each be a module of a retail commerce web application. The [System Level Architecture](#) is responsible for identifying and scoping these modules and will provide the common infrastructure shared between them. The Module-Level Architecture is responsible for defining the components and their interactions that will implement the requirements for the module.

Component Design & Development

TopCoder designs components for Java, .NET and other technologies as needed. In these Competition competitors the Component Contest Specification output of an Architecture contest, and detail its design for low level requirements and interfaces. The output of the Design contest is used as input to Component Development contests which then convert a component design into a functional component.

User Interface Prototype

UI Prototype Competitions are designed to take the graphics (UI storyboards) and information architecture (IA wireframes) of a web site or application and create a demonstration of the working application. Prototypes in this type of competition are created in HTML/CSS and are generally used as the input of the next phase of development, although some prototypes move directly into production (simple web sites, for example). Output may include a web site with CSS, Java Script, and HTML.

Assembly

Assembly contests create high quality applications using completed components, or create applications directly from requirements or architecture documents. The expected output of the kind of contest is the source code and deployment guide of the application. Multiple Assembly contests are typically required to complete a large application.

Test Scenarios

Test Scenario competitions use Requirements Specifications (includes Use Cases), Activity diagrams, and a QA Test Plan as input to create one or more written test scenarios for each QA Test Plan Item. Each scenario is written text describing: setup needed, pre-conditions, detailed scenario steps to complete the test, the expected result and post-conditions. Each scenario is also marked whether it can be automated or not.

Bug Hunts

Bug hunts contests are to discover as many bugs as possible in recently developed or updated application. Competitors are encouraged to find bugs during the bug hunts contest. Whenever they find an issue, they will enter the bug description to a system naming JIRA. The first issue will be counted while the others are marked duplicates. At the end of the contest the member who submitted the most valid bugs will win. The client will expect a list of bugs as well as the descriptions after the competition.



Content Creation

Content contests are used to produce virtually any type of content. Unlike software contests such as Architecture, Component Development, etc., these contests are often non-technical in nature. The output varies depending on the requirements. For example, a contest may ask competitors to produce help documentation for a web site, write tutorials, write articles, create videos, translate content to other languages, improve merchandise descriptions in a product catalog, etc. The output of Content Creation contests is presented to project stakeholders for review and selection.