What are the goals of the HL7 FHIR Connectathon?

A couple of key goals of FHIR Connectathons are:

1. Advance and improve the FHIR specification and associated technologies, chiefly by building and testing software
2. Participate, contribute and learn - to the level of your own satisfaction

There is no hard rule for what makes an individual’s time and contribution worthwhile. You may have your own goals, and your own satisfaction is the most important thing. You may not write code, for instance, and may miss out on that aspect - but that may be fine for you. You may be a total beginner and feel you’ve come a long way, or a guru proving working software for others to test out.

For key facts about the Connectathon (logistics, tracks etc.) start with Confluence https://confluence.hl7.org/display/FHIR/Connectathons

What is the purpose of the Connectathon?

The overall aim of the Connectathon is to improve the quality of the FHIR specification by implementing it and testing it out by connecting to other people’s software. We discover what works and what does not, and the specification is either updated or affirmed. The different Connectathon tracks focus on different areas. Draft FHIR resources need to be implemented in order to advance their level of maturity and move to being a completed part of the FHIR standard. Connectathons that exercise these resources are a key way to get them further along in their approval cycle.

The Connectathons are also a great way to network and connect to others in the non-technical sense and are a foundation of the community that makes FHIR so great.

What is the aim for an individual participant?

Participants join tracks and work with others to test out and improve the FHIR specification.

Each track will have certain aims it wants to achieve. For individuals, everyone will judge success themselves. It may be proving your software works against another vendor in a semi-formal manner or adding a new enhancement to your working code. It may be testing a new FHIR resource that is relevant to you to help move it along in published maturity - which may be important for your stakeholders. Or it may be the case of showing up as a beginner and getting your very first lines of FHIR code working.
What’s the difference between a participant and an observer?

A Connectathon is a working meet-up to test out the FHIR specification by implementing it. So, the aim is to write and test working software, or to work on the standards in a technical review capacity. If you are a non-coding project manager or team leader, and won’t be working on reviews, you would probably be an observer.

How should I prepare for the Connectathon?

You will get more out of it the more prepared you are. But you will learn things even if you are almost a complete novice. The learning curve is steeper for beginners, so you may learn a lot, or you may get stuck on things that a bit of self-study would help with. Connectathons are short (compared to all the time in the weeks before), so it’s better not to spend them reading the basics or installing the compiler. But some do that, and though it may not be optimal, it’s still fun and good to be doing it with some other newcomers (perhaps you never get time in normal work hours).

Make sure to find the Confluence and Zulip (chat.fhir.org) resources for the Connectathon (see “key resources” below).

There is usually a pre-Connectathon web-based survey that registered participants will be emailed a few days prior to the event. This asks some basic questions that help the organizers and is also where you can select your Connectathon track. If for some reason you miss this, you can always join a track later. It’s preferable to pre-register for a track, but you can always just show up and introduce yourself.

A pre-Connectathon webinar may be hosted with some key orientation facts in the days leading up to the event. That session will be recorded in case you cannot get to see it live.

What should I bring?

No hardware or software is provided - just tables, wi-fi and power - so bring everything you need. Bring along any devices or servers that you need or ensure that they can be accessed remotely.

Bear in mind that you will be on a hotel network, possibly with less bandwidth than usual and a different firewall situation. Also, see “What networks are available?” below.

What are “tracks”?

These are the subject oriented work streams that divide up the different activities happening during the sessions. Connectathon tracks are the “working groups” that take on a specific part of FHIR and examine it, write code for it and so on. There is a Track Lead who facilitates the tracks and sets goals for the track, which may be decided on the day or published in advance.

All the work at a Connectathon happens on one of the tracks. At the end of the Connectathon, the tracks do a report back to the group to say what they have achieved. This is part of a shared document, and there may also be a short presentation back to the whole audience at some stage during the event.

Tracks are quite informal. They usually correspond to a table or two in the room. You can sit at the table (or nearby) and do your work for it, or stop by and see what the track is doing. No one will mind if you don’t achieve what you aim for or want to change to another track. However, the group may be planning to achieve certain things, and it’s good for people to commit and help those goals be hit.

Do I need to pick a track? In advance? How?

All Connectathon work takes place on a track, so you should choose one to take part in and contribute to. In theory you could just do your own FHIR work, but the idea is to collaborate and that happens on the tracks.

The list of tracks is published on the HL7 Confluence site in the weeks leading up to the Connectathon, see https://confluence.hl7.org/display/FHIR /Connectathons then the link for the upcoming meeting. There is also likely to be discussion on Zulip (chat.fhir.org). For both, see “What are the key online resources” below.

Find the list of tracks and chose one that you are interested in and can help out with. You don’t need to be an expert in that area, just willing to learn and be useful. The actual track registration is done via the pre-Connectathon survey that is circulated, but you can always get in touch with the Track Lead or just show up. Choosing a track does not commit you to staying with it for the entire event. While it is preferable to focus on one track, there is nothing to stop you from finding another that suits you better.

What happens on the day of the event?

Participants arrive, grab a beverage and assemble in the Connectathon room to set up their laptops. Each track has one or more tables where it is preferable to gather. The day starts with some short introductory words from the organizers, then it is down to coding under the supervision of your Track Lead - perhaps after some introductions and goal setting. Work progresses and people collaborate face to face or with servers hosted externally and exchange results and feedback.
There are usually one or two optional tutorial sessions (often “Intro to FHIR” and some topical tooling presentations). These happen in other rooms which also host some “breakouts” where hot topics of special interest are discussed. Throughout the day, there will generally be a few short presentations in the main room where groups can show what they are doing or key announcements are made.

Towards the end of the second day, Track Leads supervise making a list of their group’s achievements. The session usually closes with an address from the FHIR Product Director.

**Do I have to write code?**

The Connectathon is all about testing out the FHIR specification in actual use. That means coding, running and testing FHIR applications. Writing software is key to this and is one of the main activities of the Connectathon. Coding is not mandatory but is usual and is encouraged. Some people bring existing code, and some start from scratch. But, there are also non-coding software integration tasks such as testing and configuration (and to a lesser extent analysis). People also contribute to FHIR at Connectathons by spending time reviewing, learning and commenting on the FHIR specification - this is welcome and appreciated. If you don’t wish to write code or work on related technical activities, consider attending as an observer.

**How experienced with code should I be (I’m a code beginner / It’s been years since I coded, etc.)?**

You will want to make progress with coding FHIR at the event and don’t want to spend too much time learning foundation skills such as basic coding. However, it is fairly common for “ex-” programmers to return to some recreational coding at a Connectathon or to try a new language or tool set. The Connectathon is all about trying things, learning and expanding your ideas. If you want to code, you should ideally not be a total beginner (but maybe you are a fast learner!). Being a FHIR beginner is fine. It is also OK to not code but to find other ways to contribute to the work.

**Do I have to bring code along, or can I start on the day?**

Either is fine. People do start from scratch or take a look at a new area for them. Others bring working software that they have been writing for months or years. The most important thing is to set your own goals for your code.

**Will I be taught to code?**

No. This is not a coding tutorial (and not primarily any sort of tutorial, but there is generally a short “Introduction to FHIR” presentation). There is nothing to stop you doing your own learning, but it is not realistic to start with zero coding experience and get far with FHIR in two days (although this is in no way forbidden). Other participants will be happy to help, but it’s not a programming lesson.

**Will I be taught about FHIR?**

In the main, no, though there is usually a 45 minute “Introduction to FHIR” tutorial early on the first day. This is a shorter version of the Introduction to FHIR courses that are also available at HL7 Working Group Meetings (usually in the following days at the same venue). But, this is not a two-day tutorial. It is a working session for all levels of experience.

Ideally, you should have some prior knowledge of FHIR to maximize your Connectathon time, but there are no knowledge prerequisites. The aim of the Connectathon is to test out and improve the FHIR standard, so it is good to have the knowledge to be able to contribute to that. But it is also about learning. Having related domain knowledge (health care informatics) is of course beneficial.

**Does it matter what tools, systems, languages I use?**

You can use whatever tools and software frameworks you wish. FHIR can be implemented in many ways.

**Can I do more than one track?**

It is possible to do more than one, but this needs some care. Tracks want to achieve as much as possible in a certain domain area. Usually, there is a lot more work possible than can be done in two days, so it is unlikely that the track will finish all its work, allowing everyone to do something else. Two days goes by very quickly and with some inevitable time for re-work etc., it is hard to truly contribute to more than one track.
Does everyone in my organization need to do the same track?

No, not at all. Divide up your efforts as you wish.

Is there a “beginners” track?

At most Connectathons there is a Patient track. This has pre-listed goals such as "read a patient from a server, make a change and save it back." This is suitable for FHIR beginners who can write code. Since the Patient resource is well established and is less in need of feedback and bug testing, this is in effect just a learning track. Check beforehand to see if this track is occurring. The Confluence pages have the list of tracks - see section “What are the key online resources?”

What if I don’t succeed in finishing my track?

Most tracks have a group goal and individuals can take on a part of it or just try to do as much as they can. The goals are often purposefully not concrete and can be “test out this resource (or part of a resource).” So, there is no hard success or fail, just useful work in that area. Some tracks, such as the Patient track, may have a more detailed list of objectives (e.g. read a resource, update, write, and perform a search by two different methods). How much you achieve is up to you. There is no way to fail - other than to get less done than you had hoped - and it’s a good learning experience.

What if I get stuck?

Other participants are there to help, informally. It is no one's job to fix other people’s problems, but people are usually keen to lend a hand (which is entirely in the spirit of Connectathon). But, it usually is up to you to fix your issue or work through your problems or switch to some other area. Getting a bit stuck is pretty normal!

Will someone be checking or marking my code?

No one will review your code. But the idea of a Connectathon (and FHIR of course) is interoperability. So, it is expected that you will connect the output of your code to that of others and see what works. That is how we check FHIR and how you can test out your (and their) code. One of your main goals will be to check your code’s operation against other systems.

Do I get a certificate?

No, there is no formal certification or accreditation. Some tracks have a way to informally record what you achieved (“connected to at least two other servers and read and stored prescription data”). There is no formal verification.

Can I sell or demo my software?

Please don't directly do this. This is a hacking event and not a sales demo. People may be interested in your product, but that is for outside of the Connectathon. People overtly doing project demonstrations or sale pitches are not welcomed. However, your great product will speak for itself, if it takes part in successful connection tracks!

Also, if you want your product to become well known, consider becoming a sponsor for the event.


There is generally no special planning for an evening event between the first and second days of the connection but there is usually plenty of opportunity to socialize and network with other developers.

Many people will arrive the evening before, and it’s good to look out for like-minded folks around the hotel or bar areas. The Connectathon normally precedes an HL7 Working Group Meeting at the same venue. Many people stay around for that to get involved in creating the next version of FHIR and to have further opportunities for learning.
What meals are provided?
A light buffet breakfast is provided before the sessions, as well as lunch, amid-morning drinks and an afternoon cookie break. Evening food is not provided.

What networks are available?
The network will just be the hotel Wi-Fi, but possibly with a dedicated non-public part, and sometimes with the ability to see other devices within it (unlike a normally locked-down network). But, it is still hotel Wi-Fi, so may be slower or different to back at the office. There is not usually any VPN use or requirement for it.

What are the key online resources?
The Connectathon makes heavy use of the usual FHIR online areas, that you will want to get familiar with:

Confluence
This is the place to start researching the details of the Connectathon: https://confluence.hl7.org/display/FHIR/Connectathons

FHIR Chat
The FHIR Zulip chat at chat.fhir.org. Free registration is required.
The track chats will be on here along with general FHIR questions and answers as usual.
Connectathon chat starts here and the individual tracks will have streams underneath the following: https://chat.fhir.org/#narrow/stream/179207-connectathon-mgmt

There may be other online resources such as google docs (for an updated breakout schedule), presentations or shared areas set up ad-hoc by track leads. Links to these are normally posted on the other channels.

How do I register for the event?
Most of the time, registration to the FHIR Connectathon is within the Working Group Meeting registration. Once in the Working Group Meeting registration, you can select to register only for the FHIR Connectathon event or add some (or all) of the Working Group Meeting to your registration.