**(Optional) Resources: Linux's Hyperledger**

A view of a city from space

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**Week 1, Lesson 1 Resources: Linux's Hyperledger**

The following resources were selected to provide an overview of the topic of Linux’s Hyperledger. We would like to acknowledge the authors of the various web articles, videos, and papers for their insightful discussions and analytics which help formed the basis for some sections of the lessons and modules.

**Title of Resource:** [**About Hyperledger**](https://www.hyperledger.org/about)

Resource Type: Website

Description: Hyperledger is an open source collaborative effort created to advance cross-industry blockchain technologies. It is a global collaboration, hosted by The Linux Foundation, including leaders in finance, banking, Internet of Things, supply chains, manufacturing and Technology.

**Title of resource:** [**Hyperledger tutorial**](https://hyperledger.github.io/composer/latest/tutorials/tutorials.html)

Resource type: Website

Description: Hyperledger Composer is an extensive, open development toolset and framework to make developing blockchain applications easier.

**Title of Resource:** [**What is Hyperledger? Brian Behlendorf Explains the Linux Foundation's Blockchain Initiative**](https://www.youtube.com/watch?v=6rUsARjV4To)

Resource Type: Video (2:15)

Description: As the executive director of Hyperledger, a distributed ledger initiative from The Linux Foundation, Brian Behlendorf leads a blockchain collaboration between leaders in finance, banking, supply chain, manufacturing and technology. Its membership includes IBM, JPMorgan Chase and American Express, among others.

**Title of Resource:** [**Hyperledger Fabric**](https://hyperledger-fabric.readthedocs.io/en/release-1.1/)

Resource type: Website

Description: Hyperledger Fabric delivers a uniquely elastic and extensible architecture, distinguishing it from alternative blockchain solutions.

**Title of Resource:** [**An introduction to Hyperledger Fabric from The Linux Foundation**](https://www.youtube.com/watch?v=irCIDxA5asc)

Resource Type: Video (2:23)

Description: IBM is a contributor to the Hyperledger Fabric project owned by the Linux Foundation. It is the first project in Hyperledger to be given 'Active' status meaning it has followed certain requirements and been tested in the real world.

**Title of Resource:** [**Microsoft And The Blockchain: MSFT's Big Projects**](https://www.nasdaq.com/article/microsoft-and-the-blockchain-msfts-big-projects-cm906244)

Resource type: Website

Description: Microsoft’s offering of “[Blockchain as a Service (BaaS)](https://www.nasdaq.com/article/microsofts-azure-blockchain-as-a-service-program-gains-momentum-cm562389)” on Microsoft Azure was started to enable enterprise clients and developers have a single-click cloud-based blockchain developer environment.

**(Optional) Resources: Fabric Services**

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**Week 1, Lesson 2 Resources: Fabric Services**

The following resources were selected to provide an overview of the topic of Fabric Services. We would like to acknowledge the authors of the various web articles, videos, and papers for their insightful discussions and analytics which help formed the basis for some sections of the lessons and modules.

**Title of Resource:** [**Main three components of Hyperledger Fabric**](https://www.youtube.com/watch?v=CsauV-9zHAk)

Resource type: Video (16:49)

Description: The three main components of Hyperledger Fabric are Fabric CA, Pear and Ordering Service. Understand how they exactly work and the way to collect them.

**Title of Resource:** [**Peer channel-based event services**](http://hyperledger-fabric.readthedocs.io/en/release-1.1/peer_event_services.html)

Resource type: Website

Description: In previous versions of Fabric, the peer event service was known as the event hub. This service sent events any time a new block was added to the peer’s ledger, regardless of the channel to which that block pertained, and it was only accessible to members of the organization running the eventing peer (i.e., the one being connected to for events).

**Title of resource:** [**Architecture Explained**](http://hyperledger-fabric.readthedocs.io/en/release-1.1/arch-deep-dive.html)

Resource type: Website

Description: The blockchain is a distributed system consisting of many nodes that communicate with each other. The blockchain runs programs called chaincode, holds state and ledger data, and executes transactions.

**Title of resource:** [**APIs - CLI, REST, and Node.js**](https://openblockchain.readthedocs.io/en/latest/API/CoreAPI/)

Resource type: Website

Description: This document covers the available APIs for interacting with a peer node.

**Title of resource:** [**Blockchain Development on Hyperledger Fabric using Composer : What is Hyperledger?**](https://www.youtube.com/watch?v=oGbcdToJa7w)

Resource type: Video (5:50)

Description: An overview of Hyperledger.

**(Optional) Resources: Fabric Model & Functions**

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**Week 1, Lesson 3 Resources: Fabric Model & Functions**

The following resources were selected to provide an overview of the topic of Fabric Model & Functions. We would like to acknowledge the authors of the various web articles, videos, and papers for their insightful discussions and analytics which help formed the basis for some sections of the lessons and modules.

**Title of resource:** [**Hyperledger Fabric Model**](http://hyperledger-fabric.readthedocs.io/en/release-1.1/fabric_model.html)

Resource Type: Website

Description: This website outlines the key design features woven into Hyperledger Fabric that fulfill its promise of a comprehensive, yet customizable, enterprise blockchain solution.

**Title of resource:** [**Hyperledger Fabricdocs Documentation**](https://media.readthedocs.org/pdf/hyperledger-fabric/latest/hyperledger-fabric.pdf)

Resource type: Article

Description: While many early blockchain platforms are currently being adapted for enterprise use, Hyperledger Fabric has been designed for enterprise use from the outset. This article describes how Hyperledger Fabric (Fabric) differentiates itself from other blockchain platforms and describes some of the motivation for its architectural decisions.

**Title of resource:** [**Hyperledger Architecture, Volume 1**](https://www.hyperledger.org/wp-content/uploads/2017/08/Hyperledger_Arch_WG_Paper_1_Consensus.pdf)

Resource type: Article

Description: This is the first in a series of papers from the Hyperledger Architecture Working Group (WG). These papers describe a generalized reference architecture for permissioned blockchain networks and share the recommendations of the Hyperledger Architecture WG with the end goal of guiding all Hyperledger projects towards modular designs.

**(Optional) Resources: Composer**

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**Week 1, Lesson 4 Resources: Composer**

The following resources were selected to provide an overview of the topic of Composer. We would like to acknowledge the authors of the various web articles, videos, and papers for their insightful discussions and analytics which help formed the basis for some sections of the lessons and modules.

**Title of resource:** [**Hyperledger Composer**](https://www.hyperledger.org/projects/composer)

Resource type: Website and Video (4:22)

Description: Hyperledger Composer is a set of collaboration tools for building blockchain business networks that make it simple and fast for business owners and developers to create smart contracts and blockchain applications to solve business problems.

**Title of resource:** [**What is Hyperledger Composer from The Linux Foundation with Dan Selman**](https://www.youtube.com/watch?v=PvrLJTGfje0)

Resource type: Video (6:08)

Description: What is Hyperledger Composer? It’s a suite of high level abstractions for business networks. It helps build a blockchain with an emphasis on business-centric vocabulary quickly and easily.

**Title of resource:** [**Hyperledger Composer Modeling Language**](https://hyperledger.github.io/composer/latest/reference/cto_language)

Resource type: Website

Description: Hyperledger Composer includes an object-oriented modeling language that is used to define the domain model for a business network definition.

**Title of resource:** [**Model and test your blockchain network**](https://www.ibm.com/developerworks/cloud/library/cl-model-test-your-blockchain-network-with-hyperledger-composer-playground/index.html)

Resource type: Article

Description: This tutorial gets you started developing a blockchain network.

**(Optional) Resources: Microsoft Azure**



**Week 1, Lesson 5 Resources: Microsoft Azure**

The following resources were selected to provide an overview of the topic of Microsoft Azure. We would like to acknowledge the authors of the various web articles, videos, and papers for their insightful discussions and analytics which help formed the basis for some sections of the lessons and modules.

**Title of resource:** [**What is Microsoft Azure, Anyway?**](https://www.howtogeek.com/337961/what-is-microsoft-azure/)

Resource type: Website

Description: If you’ve followed Microsoft news, there’s a good chance you’ve heard of Microsoft Azure, formerly known as Windows Azure. This cloud computing service is a big part of Microsoft’s business, and it competes with similar services from Amazon and Google.

**Title of resource:** [**Tour of Microsoft Azure**](https://azure.microsoft.com/en-us/resources/videos/tour-of-microsoft-azure/)

Resource type: Video (3:09)

Description: An overview video of Microsoft Azure and what you can do.

**Title of resource:** [**Simplifying blockchain app development with Azure Blockchain Workbench**](https://azure.microsoft.com/en-us/blog/simplifying-blockchain-app-development-with-azure-blockchain-workbench/)

Resource type: Website

Description: This week, developers from around the world join us at our annual Microsoft Build conference to hear about the latest in technology innovation. Blockchain remains a key topic of interest.

