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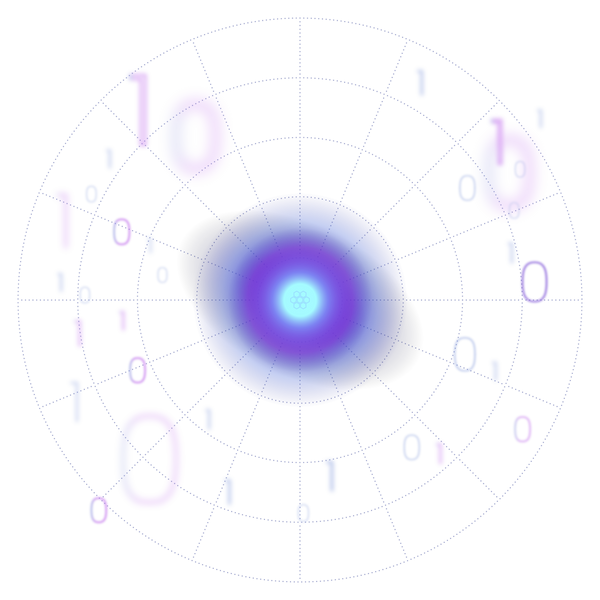
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Deep dive into CosmJS

**CosmJS Advanced**

Continue your work on CosmJS and explore how to use and apply it to your checkers blockchain to create custom objects and messages. Further, you will discover how to give your application-specific blockchain a proper GUI and integrate it with CosmJS and Keplr.

The chapter also deals with backend scripts and demonstrates how to use them for game indexing, so that you are all set to continue developing using CosmJS.



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In this chapter, you will:

* Learn how to create new CosmJS messages, transactions, and methods for your players to interact with your specific checkers module and blockchain.
* Learn how to send many transactions in a batch and into a single block.
* Explore how to introduce CosmJS into an existing checkers GUI TypeScript project, with a Keplr integration.
* Use CosmJS on a backend server to offer an indexing service and improve the user experience.

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Dive into creating [custom objects](https://ida.interchain.io/hands-on-exercise/3-cosmjs-adv/1-cosmjs-objects.html) and [custom messages](https://ida.interchain.io/hands-on-exercise/3-cosmjs-adv/2-cosmjs-messages.html) before [developing a GUI](https://ida.interchain.io/hands-on-exercise/3-cosmjs-adv/3-external-gui.html) and [integrating CosmJS and Keplr into the GUI](https://ida.interchain.io/hands-on-exercise/3-cosmjs-adv/4-cosmjs-gui.html).

Then, you can take a closer look at [backend scripts for game indexing](https://ida.interchain.io/hands-on-exercise/3-cosmjs-adv/5-server-side.html).

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Cosmos SDK

**Cosmos SDK**

A framework to build application-specific blockchains

[Documentation↗](https://docs.cosmos.network/)

CometBFT

**CometBFT**

Blockchain consensus engine and application interface

[Documentation↗](https://docs.cometbft.com/)

Cosmos Hub

**Cosmos Hub**

First interconnected public blockchain in the Interchain network

[Documentation↗](https://hub.cosmos.network/)

IBC

**IBC**

Industry standard protocol for inter-blockchain communication

[Documentation↗](https://ibc.cosmos.network/)

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