⋈ NEΛR

What is NEAR?
NEAR is ...

- A collective *(NEAR Collective)*
Consisting of an ever expanding network of thousands of community members around the world.
- A foundation *(NEAR Foundation)*
Existing for the purpose of fostering ecosystem development through grant funding.
- A company *(NEAR, Inc.)*
Composed of a world class team who develop and maintain the protocol.
- A sharded, proof-of-stake, layer-one blockchain built for usability and scalability.

Why build on NEAR?
NEAR is ...

- Fast. 1000 TPS benchmarked on a single shard for token transfers (contract ops are slower).
- Sustainable. 1000x lower transaction fees for users and developers earn 30% of transaction fees.
- Secure. A thriving ecosystem of validators maintains network integrity.
- Friendly. Human-readable account names follow a scoped DNS naming pattern.
- Harmonious. EVM and Bridge were developed for interoperability among chains.
- Pragmatic. Contracts are written using expressive community-supported, general purpose languages: Rust and AssemblyScript.
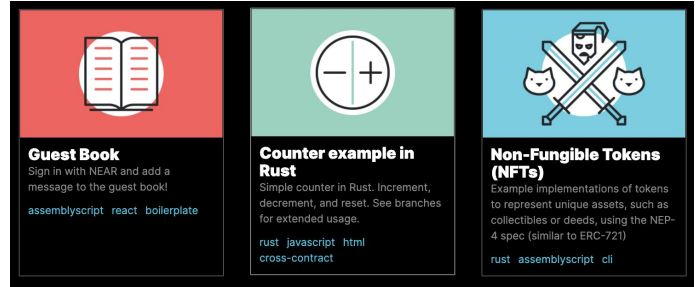
How do I build on NEAR?
NEAR has ...

- JavaScript SDK. Connect, sign, transact and deploy to any NEAR network from any JS context.
- Rust Contract SDK. Build safe, secure contracts that manage high value assets.
- AssemblyScript Contract SDK. Learn and prototype with zero friction using JS syntax.
- JSON RPC API. All communications with the platform pass through this API including ours.
- Command Line Interface. Full featured command line toolkit for developers and validators.
- NEAR Explorer. A blockchain search tool allowing developers to view transaction details, accounts, block details and more.
- NEAR Wallet. Create accounts, manage access keys, and more with our user friendly UI.
- nearup. Manage deployments locally and join any public or private network.
- Bridge. Fast, secure interoperability. (l*aunches end of 2020*)
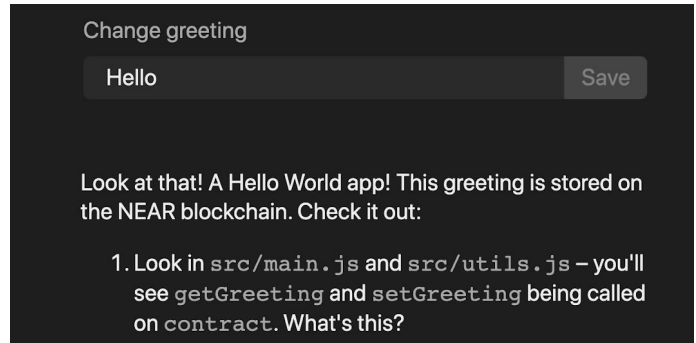EVM. Ethereum-compatible virtual machine. (*Q1 2021*)
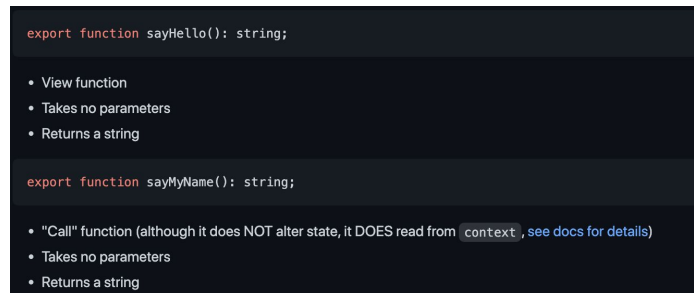
Try
a sample dApp ...

near.dev

Guest Book
Sign in with NEAR and add a message to the guest book!
assemblyscript   react   boilerplate

Counter example in Rust
Simple counter in Rust. Increment, decrement, and reset. See branches for extended usage.
rust   javascript   html
cross-contract

Non-Fungible Tokens (NFTs)
Example implementations of tokens to represent unique assets, such as collectibles or deeds, using the NEP-4 spec (similar to ERC-721).
rust   assemblyscript   cli

Build
a simple dApp ...

create-near-app

Change greeting

Hello   Save

Look at that! A Hello World app! This greeting is stored on the NEAR blockchain. Check it out:

1. Look in `src/main.js` and `src/utils.js` – you'll see `getGreeting` and `setGreeting` being called on `contract`. What's this?

Deploy
a contract from scratch ...

workshop / contracts


```
export function sayHello(): string;
```
- View function
- Takes no parameters
- Returns a string

```
export function sayMyName(): string;
```
- "Call" function (although it does NOT alter state, it DOES read from `context`, see docs for details)
- Takes no parameters
- Returns a string

Learn
more ...

near.org / learn

NEAR UNIVERSITY