






03. The Dune Platform: A Gateway to Onchain Transparency

If blockchains are transparent databases, Dune is the tool that turns them into dashboards. It's where raw transaction logs become insights, charts, and shared understanding.

In this article, we'll break down how Dune works, how to build your first dashboard, and why it's the most powerful sandbox for onchain data analysts.

What Is Dune?

Dune is an open data analytics platform purpose-built for blockchains. It gives anyone the ability to write SQL queries on decoded onchain data, visualize the results, and publish them to a public (or private) dashboard.

-  Free access to structured onchain data
-  SQL-based querying language
-  Visualization builder (charts, tables, counters, etc.)
-  Community-powered knowledge (you can fork anyone's query or dashboard)
-  Supports multichain data: Ethereum, Optimism, Arbitrum, Polygon, Base, BNB Chain, and more

Dune is not a blockchain explorer like Etherscan. It's a real analytics tool—backed by cloud-scale infrastructure and used by leading protocols, VCs, DAO treasuries, and researchers.

Why It Matters for Analysts

- Onchain data is public—but not easy to read.
- You can't query Ethereum by default. It's a giant Merkle tree, not a relational database.
- Dune bridges that gap. It decodes contract logs and normalizes transactions into SQL tables.

Think of it as **BigQuery for blockchains**, with thousands of pre-written queries and a vibrant open-source community.

What You Can Do with Dune

- Monitor protocol activity in real time (trading volume, active wallets, new users)
- Track wallet behavior: whales, dev teams, insiders
- Detect anomalies: exploits, rug pulls, sudden flows
- Visualize liquidity, token emissions, or staking activity
- Build research-grade dashboards to inform product, governance, or trading decisions

Whether you're analyzing DeFi, NFTs, DAOs, or tokenomics—Dune lets you quantify what's really happening onchain.

Supported Chains

Dune supports dozens of EVM-compatible chains, including:

- Ethereum
- Optimism
- Arbitrum
- Polygon

- Base
- BNB Chain
- Gnosis
- Avalanche
- Fantom
- Zora
- And more...

Each chain has its own schema of decoded tables. You can query each chain individually or write **multichain dashboards** using unified Spellbook models (we'll get there soon).

Building Your First Query

Let's walk through a basic example.

Say you want to know how many transactions occurred on Ethereum each day for the last 30 days.

Here's a simple SQL query using DuneSQL:

```
SELECT
  DATE_TRUNC('day', block_time) AS day,
  COUNT(*) AS tx_count
FROM ethereum.transactions
WHERE block_time > NOW() - INTERVAL '30 days'
GROUP BY 1
ORDER BY 1;
```

Click **Run**, and you'll see a time series of transaction counts. Add a line chart, give it a title, and you've just built your first visualization.

Forking and Iterating

Dune is collaborative by design.

- Found a cool dashboard? **Fork it**, and customize it for your use case.
- Need a metric that doesn't exist? **Build it**, publish it, and help others.

Each query is a learning opportunity. Reading, editing, and reverse-engineering community dashboards is one of the fastest ways to learn.

DuneSQL vs Legacy Engine





Dune is currently transitioning from the legacy engine to **DuneSQL**, a modular and more scalable engine based on **Databricks** and **dbt**.


We'll explore this in-depth later, but know that:

- **DuneSQL uses a separate editor and schema**
- **Spellbook models are written for DuneSQL only**
- **Long-term support and future features will prioritize DuneSQL**







If you're just getting started, **build in DuneSQL**.

Best Practices

-  Use `date_trunc` to group time series cleanly
-  Add `WHERE block_time >` to filter large tables
-  Join with `prices.usd` for consistent USD metrics
-  Document your queries—future you (and others) will thank you

-  Use `LIMIT` when exploring new tables to avoid timeouts
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What You Can Build

-  DAO treasury trackers
-  DEX volume and LP revenue dashboards
-  NFT minting + secondary market trend boards
-  MEV activity heatmaps
-  Whales and wallet label explorers
-  Protocol-specific analytics: Compound, Aave, Lido, etc.

You're limited only by your creativity—and your understanding of the underlying data.

Ready to Query the Chain?

The Dune platform gives you a real-time lens into the most transparent data system ever created. It's free, powerful, and open.

But like any tool, it's only as good as the person using it.

Next: 04. Understanding Tables — Ethereum, Bitcoin, NFTs, ERC4337, and More