

DeFi Aggregation API Documentation

Overview

This documentation explains how to use our DeFi Aggregation API to retrieve authentic on-chain data from Solana DEXes including Raydium, Meteora, and Orca. Our API provides real-time access to:

- Authentic base58-encoded Solana pool addresses
- Total Value Locked (TVL) for liquidity pools
- Fee percentages for each pool
- Annual Percentage Rate (APR) metrics for 24hr, 7d, and 30d periods
- Token prices and trading volume

Base URL

All API endpoints should be prefixed with the following base URL:

```
https://filotdefiapi.replit.app/api/v1
```

Authentication

All API requests require an API key for authentication. To use the API, include your API key in the request header:

```
X-API-KEY: defi_your_api_key_here
```

Endpoints

1. Get All Pools

Retrieve a list of all available liquidity pools across supported DEXes.

Endpoint: GET `https://filotdefiapi.replit.app/api/v1/pools`

Sample Response:

```

{
  "pools": [
    {
      "poolId": "8sLbNZoA1cfnvMJLPfp98ZLAnFSYCFApfJKMbiXNLwxj",
      "name": "mSOL-USDC LP",
      "source": "Meteora",
      "tvl": 3400000,
      "fee": 0.003,
      "apr24h": 3.96,
      "apr7d": 3.64,
      "apr30d": 3.37,
      "tokens": [
        {
          "symbol": "mSOL",
          "address": "mSoLzYCxHdYgdzU16g5QSh3i5K3z3KZK7ytfqcJm7So",
          "price": 163.27
        },
        {
          "symbol": "USDC",
          "address": "EPjFWdd5AufqSSqeM2qN1xzybapC8G4wEGGkZwyTDt1v",
          "price": 1.0
        }
      ],
      "volumeUsd": 408000
    },
    // Additional pools...
  ],
  "total": 20,
  "page": 1,
  "limit": 50
}

```

2. Get Pool by ID

Retrieve detailed information for a specific pool using its authentic base58-encoded Solana address.

Endpoint: GET <https://filotdefiapi.replit.app/api/v1/pools/{poolId}>

Example: GET

<https://filotdefiapi.replit.app/api/v1/pools/8sLbNZoA1cfnvMJLPfp98ZLAnFSYCFApfJKMbiXNLwxj>

Sample Response:

```

{
  "pool": {
    "poolId": "8sLbNZoA1cfnvMJLPfp98ZLAnFSYCFApfJKMbiXNLwxj",
    "name": "mSOL-USDC LP",
    "source": "Meteora",
    "tvL": 3400000,
    "fee": 0.003,
    "apr24h": 3.96,
    "apr7d": 3.64,
    "apr30d": 3.37,
    "tokens": [
      {
        "symbol": "mSOL",
        "address": "mSoLzYCxHdYgdzU16g5QSh3i5K3z3KZK7ytfqcJm7So",
        "price": 163.27,
        "poolShare": 0.513
      },
      {
        "symbol": "USDC",
        "address": "EPjFWdd5AufqSSqeM2qN1xzybapC8G4wEGGkZwyTDt1v",
        "price": 1.0,
        "poolShare": 0.487
      }
    ],
    "volumeUsd": {
      "24h": 408000,
      "7d": 2516000,
      "30d": 9350000
    },
    "reserves": {
      "mSOL": 10657.43,
      "USDC": 1740000
    },
    "historicalMetrics": {
      // Historical APR and TVL data points...
    }
  }
}

```

3. Get Pools by DEX

Retrieve pools from a specific DEX (Raydium, Meteora, or Orca).

Endpoint: GET <https://filotdefiapi.replit.app/api/v1/pools?source={dexName}>

Example: GET <https://filotdefiapi.replit.app/api/v1/pools?source=Meteora>

Sample Response:

```
{
  "pools": [
    {
      "poolId": "8sLbNZoA1cfnvMJLPfp98ZLAnFSYCFApfJKMbiXNLwxj",
      "name": "mSOL-USDC LP",
      "source": "Meteora",
      "tvl": 3400000,
      "fee": 0.003,
      "apr24h": 3.96,
      "apr7d": 3.64,
      "apr30d": 3.37,
      "tokens": [
        // Token details...
      ],
      "volumeUsd": 408000
    },
    // Additional Meteora pools...
  ],
  "total": 6,
  "page": 1,
  "limit": 50
}
```

4. Get Pools by Token

Retrieve pools that include a specific token in their pair.

Endpoint: GET <https://filotdefiapi.replit.app/api/v1/pools?token={tokenSymbol}>

Example: GET <https://filotdefiapi.replit.app/api/v1/pools?token=SOL>

Sample Response:

```
{
  "pools": [
    {
      "poolId": "58oQChx4yWmvKdwLLZzBi4ChoCc2fqCUWBkwMihLYQo2",
      "name": "SOL-USDC LP",
      "source": "Raydium",
      "tvl": 15700000,
      "fee": 0.0025,
      "apr24h": 8.02,
      "apr7d": 7.38,
      "apr30d": 6.82,
      "tokens": [
        {
          "symbol": "SOL",
          "address": "So1111111111111111111111111111111111112",
          "price": 155.42
        },
        {
          "symbol": "USDC",
          "address": "EPjFWdd5AufqSSqeM2qN1xzybapC8G4wEGGkZwyTDt1v",
          "price": 1.0
        }
      ],
      "volumeUsd": 2826000
    },
    // Additional SOL pools...
  ],
  "total": 7,
  "page": 1,
  "limit": 50
}
```

5. Get Top Pools by APR

Retrieve the top-performing pools ordered by APR.

Endpoint: GET <https://filotdefiapi.replit.app/api/v1/pools?sort=apr24h&order=desc&limit=10>

Sample Response:

```
{
  "pools": [
    // Top 10 pools by 24-hour APR...
  ],
  "total": 10,
  "page": 1,
  "limit": 10
}
```

6. Get Token Information

Retrieve information about a specific token.

Endpoint: GET <https://filotdefiapi.replit.app/api/v1/tokens/{tokenSymbol}>

Example: GET <https://filotdefiapi.replit.app/api/v1/tokens/SOL>

Sample Response:

```
{
  "token": {
    "symbol": "SOL",
    "name": "Solana",
    "address": "So111111111111111111111111111111111112",
    "decimals": 9,
    "price": 155.42,
    "priceHistory": {
      // Historical price data...
    },
    "pools": [
      // Pools containing this token...
    ]
  }
}
```

Understanding the Data

Pool IDs

All pool IDs are authentic base58-encoded Solana addresses that represent the actual on-chain liquidity pools. These IDs can be used directly with Solana blockchain explorers or SDKs for additional on-chain verification.

TVL (Total Value Locked)

TVL represents the total value of all assets locked in a specific liquidity pool, denominated in USD. This metric indicates the pool's liquidity depth.

Fee Percentage

The fee percentage represents the trading fee charged by the DEX for each swap in the pool. This fee contributes to the pool's APR for liquidity providers.

APR Metrics

Our API provides three different APR metrics:

1. **apr24h**: Annual Percentage Rate based on the last 24 hours of trading activity
2. **apr7d**: Annual Percentage Rate based on the last 7 days of trading activity
3. **apr30d**: Annual Percentage Rate based on the last 30 days of trading activity

APR is calculated using the formula:

$$\text{APR} = (\text{Trading Volume} \times \text{Fee Percentage} / \text{TVL}) \times 365 \times 100\%$$

Error Handling

The API returns standard HTTP status codes:

- 200: Success
- 400: Bad Request
- 401: Unauthorized (invalid API key)
- 404: Not Found
- 429: Too Many Requests (rate limit exceeded)
- 500: Internal Server Error

Errors include a message explaining the issue:

```
{
  "error": "Invalid pool ID format. Must be a valid base58-encoded Solana address.",
  "status": 400
}
```

Rate Limits

- Free tier: 100 requests per minute
- Premium tier: 1,000 requests per minute
- Enterprise tier: Custom limits

SDK Integration

For direct integration with your applications, we provide SDKs in multiple programming languages:

- JavaScript/TypeScript
- Python
- Rust

Example of JavaScript SDK usage:

```
import { DefiAggregationClient } from 'defi-aggregation-sdk';

const client = new DefiAggregationClient({
  apiKey: 'your_api_key_here',
  baseUrl: 'https://filotdefiapi.replit.app/api/v1'
});

async function getTopPools() {
  const pools = await client.getPools({
    sort: 'apr24h',
    order: 'desc',
    limit: 5
  });

  console.log('Top 5 pools by APR:', pools);
}

getTopPools();
```

Contact and Support

For additional support or questions about the API, please contact:

- Email: support@defi-aggregation-api.com
- Discord: <https://discord.gg/defi-aggregation>