

XplainCrypto MindsDB Troubleshooting Guide

Common Issues and Solutions

1. Database Connection Issues

Issue: PostgreSQL Connection Failed

Error: Connection to crypto_data_db failed

Symptoms:

- Database not appearing in `SHOW DATABASES`
- Connection timeout errors
- Authentication failures

Solutions:

```
-- Test PostgreSQL connectivity
SELECT * FROM information_schema.databases WHERE name = 'crypto_data_db';

-- If missing, recreate connection:
DROP DATABASE IF EXISTS crypto_data_db;
CREATE DATABASE crypto_data_db
WITH ENGINE = 'postgres',
PARAMETERS = {
  "host": "localhost",
  "port": 5432,
  "database": "crypto_data",
  "user": "mindsdb",
  "password": "your_actual_password"
};
```

Checklist:

- [] PostgreSQL service is running
- [] Database `crypto_data` exists
- [] User `mindsdb` has proper permissions
- [] Password is correct
- [] Network connectivity to PostgreSQL

Issue: API Connection Failed (CoinMarketCap, Dune, etc.)

Error: API authentication failed or Invalid API key

Symptoms:

- API databases not created
- Authentication errors in logs
- Rate limit exceeded messages

Solutions:

```
-- Test API key validity by recreating connection
DROP DATABASE IF EXISTS coinmarketcap_db;
CREATE DATABASE coinmarketcap_db
WITH ENGINE = 'coinmarketcap',
PARAMETERS = {
  "api_key": "your_verified_api_key"
};

-- Test connection
SELECT * FROM information_schema.databases WHERE name = 'coinmarketcap_db';
```

Checklist:

- [] API key is active and valid
- [] Billing is set up (for paid APIs)
- [] Rate limits not exceeded
- [] Service is not experiencing outages
- [] Key has required permissions

2. AI Engine Issues

Issue: OpenAI Engine Creation Failed

Error: OpenAI authentication failed or Insufficient credits

Symptoms:

- Engine not appearing in ML engines list
- API key errors
- Credit/billing issues

Solutions:

```
-- Check if engine exists
SELECT * FROM information_schema.ml_engines WHERE name = 'openai_engine';

-- Recreate engine with verified key
DROP ML_ENGINE IF EXISTS openai_engine;
CREATE ML_ENGINE openai_engine
FROM openai
USING
  api_key = 'sk-your_verified_openai_key';

-- Test engine
CREATE MODEL test_openai
PREDICT response
USING
  engine = 'openai_engine',
  model_name = 'gpt-3.5-turbo',
  prompt_template = 'Say hello';

SELECT response FROM test_openai WHERE text = 'test';
DROP MODEL test_openai;
```

Checklist:

- [] API key starts with `sk-` and is complete
- [] OpenAI account has sufficient credits
- [] Billing method is active

- [] API key has not expired
- [] Rate limits not exceeded

Issue: Anthropic Engine Creation Failed

Error: Anthropic authentication failed

Symptoms:

- Engine creation fails
- Invalid API key messages
- Model access denied

Solutions:

```
-- Recreate Anthropic engine
DROP ML_ENGINE IF EXISTS anthropic_engine;
CREATE ML_ENGINE anthropic_engine
FROM anthropic
USING
    api_key = 'sk-ant-your_verified_anthropic_key';
```

Checklist:

- [] API key starts with `sk-ant-` and is complete
- [] Anthropic account has Claude access
- [] Billing is properly configured
- [] API key permissions are correct

Issue: TimeGPT Engine Creation Failed

Error: TimeGPT authentication failed or Subscription required

Symptoms:

- TimeGPT engine not created
- Subscription errors
- API access denied

Solutions:

```
-- Recreate TimeGPT engine
DROP ML_ENGINE IF EXISTS timegpt_engine;
CREATE ML_ENGINE timegpt_engine
FROM timegpt
USING
    api_key = 'your_verified_timegpt_key';
```

Checklist:

- [] TimeGPT account is active
- [] API key is valid
- [] Subscription plan allows API access
- [] Rate limits not exceeded

3. AI Agent Issues

Issue: Agent Stuck in 'Training' Status

Error: Agent shows `status = 'training'` for extended periods

Symptoms:

- Agents not completing training
- Long wait times
- No progress updates

Solutions:

```
-- Check agent status
SELECT name, status, training_log FROM information_schema.models
WHERE name LIKE '%_agent';

-- If stuck for >5 minutes, recreate agent
DROP MODEL IF EXISTS stuck_agent_name;
-- Then re-run the agent creation script
```

Checklist:

- [] Wait at least 3-5 minutes for complex agents
- [] Check if underlying AI engine is working
- [] Verify sufficient API credits
- [] Monitor MindsDB system resources

Issue: Agent Creation Failed with Errors

Error: Agent shows `status = 'error'`

Symptoms:

- Agent creation fails immediately
- Error messages in training_log
- Engine dependency issues

Solutions:

```
-- Check error details
SELECT name, status, training_log FROM information_schema.models
WHERE name = 'failing_agent_name';

-- Check engine dependency
SELECT m.name, m.engine,
       CASE WHEN e.name IS NOT NULL THEN 'Available' ELSE 'Missing' END as engine_status
FROM information_schema.models m
LEFT JOIN information_schema.ml_engines e ON m.engine = e.name
WHERE m.name = 'failing_agent_name';

-- Recreate with verified engine
DROP MODEL IF EXISTS failing_agent_name;
-- Re-run agent creation script
```

Checklist:

- [] Required AI engine exists and works
- [] Prompt template is properly formatted
- [] Model parameters are valid
- [] Sufficient API credits available

4. Performance Issues

Issue: Slow Query Performance

Error: Queries taking too long to execute

Symptoms:

- Timeouts on agent queries
- Slow database connections
- High resource usage

Solutions:

```
-- Check active connections
SHOW PROCESSLIST;

-- Optimize queries by limiting results
SELECT analysis FROM market_analysis_agent
WHERE symbol = 'BTC'
LIMIT 1;

-- Check system resources
SELECT * FROM information_schema.jobs;
```

Checklist:

- [] Limit query result sets
- [] Check MindsDB system resources
- [] Monitor API rate limits
- [] Optimize database indexes

Issue: Memory or Resource Errors

Error: Out of memory or Resource exhausted

Symptoms:

- System crashes
- Failed model creation
- Connection timeouts

Solutions:

- Restart MindsDB service
- Reduce concurrent operations
- Increase system resources
- Optimize model parameters

5. Network and Connectivity Issues

Issue: External API Timeouts

Error: Connection timeout or Network unreachable

Symptoms:

- API connections fail intermittently
- Slow response times
- Service unavailable errors

Solutions:

```
-- Test basic connectivity
SELECT version();

-- Check handler availability
SELECT name, import_success FROM information_schema.handlers
WHERE type = 'data';

-- Retry connection creation
-- (Re-run database connection scripts)
```

Checklist:

- [] Internet connectivity is stable
- [] Firewall allows outbound connections
- [] External services are operational
- [] DNS resolution is working

6. Data and Schema Issues

Issue: PostgreSQL Schema Not Created

Error: Tables don't exist in crypto_data database

Symptoms:

- Schema queries fail
- Missing tables
- Permission errors

Solutions:

```
-- Check if schema exists
SELECT schema_name FROM information_schema.schemata
WHERE schema_name = 'crypto_data';

-- Create schema if missing
CREATE SCHEMA IF NOT EXISTS crypto_data;

-- Re-run table creation script
```

Checklist:

- [] PostgreSQL connection is working
- [] User has CREATE privileges
- [] Database has sufficient space
- [] Schema permissions are correct

Emergency Recovery Procedures

Complete System Reset

If multiple components are failing:

```
-- 1. Drop all custom databases
DROP DATABASE IF EXISTS crypto_data_db;
DROP DATABASE IF EXISTS coinmarketcap_db;
DROP DATABASE IF EXISTS defillama_db;
DROP DATABASE IF EXISTS blockchain_db;
DROP DATABASE IF EXISTS dune_db;

-- 2. Drop all ML engines
DROP ML_ENGINE IF EXISTS openai_engine;
DROP ML_ENGINE IF EXISTS anthropic_engine;
DROP ML_ENGINE IF EXISTS timegpt_engine;

-- 3. Drop all agents
DROP MODEL IF EXISTS crypto_prediction_agent;
DROP MODEL IF EXISTS market_analysis_agent;
DROP MODEL IF EXISTS risk_assessment_agent;
DROP MODEL IF EXISTS sentiment_analysis_agent;
DROP MODEL IF EXISTS anomaly_detection_agent;
DROP MODEL IF EXISTS master_intelligence_agent;

-- 4. Restart deployment from step 1
```

Partial Component Reset

For specific component issues:

```
-- Reset specific database connection
DROP DATABASE IF EXISTS problematic_db;
-- Re-run specific database creation script

-- Reset specific AI engine
DROP ML_ENGINE IF EXISTS problematic_engine;
-- Re-run specific engine creation script

-- Reset specific agent
DROP MODEL IF EXISTS problematic_agent;
-- Re-run specific agent creation script
```

Getting Help

MindsDB Resources

- Documentation: <https://docs.mindsdb.com/>
- Community: <https://mindsdb.com/community>
- GitHub Issues: <https://github.com/mindsdb/mindsdb/issues>

Service-Specific Support

- OpenAI: <https://help.openai.com/>
- Anthropic: <https://support.anthropic.com/>
- CoinMarketCap: <https://coinmarketcap.com/api/support/>

Diagnostic Information to Collect

When seeking help, provide:

- MindsDB version: `SELECT version();`

- Error messages from logs
- System configuration details
- Steps to reproduce the issue
- API service status and limits

Prevention Best Practices

Regular Maintenance

- Monitor API usage and costs
- Check system resource usage
- Verify all connections weekly
- Update API keys before expiration
- Monitor external service status

Monitoring Setup

```
-- Create monitoring queries
SELECT 'System Health' as check_type,
       COUNT(*) as total_databases
FROM information_schema.databases;

SELECT 'Engine Health' as check_type,
       COUNT(*) as total_engines
FROM information_schema.ml_engines;

SELECT 'Agent Health' as check_type,
       COUNT(*) as total_agents,
       COUNT(CASE WHEN status = 'complete' THEN 1 END) as ready_agents
FROM information_schema.models
WHERE name LIKE '%_agent';
```

Remember: Most issues are related to API keys, network connectivity, or resource constraints. Always verify these basics first!