

FalkorDB - GraphRAG for GenAI Apps - Install and Test Locally



Fahd Mirza
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This video is a step-by-step Tutorial to install and use FalkorDB, which is a Knowledge Graph for LLM (GraphRAG).

The image shows the GitHub repository page for FalkorDB. The main content area features the FalkorDB logo, the name 'FalkorDB', and the tagline 'Ultra-fast, Multi-tenant Graph Database'. Below this, it states 'Powering Generative AI, Agent Memory, Cloud Security, and Fraud Detection'. There are two buttons: 'TRY FREE' and 'FALKORDB CLOUD'. The right sidebar shows a list of contributors, a link to '+ 53 contributors', and a 'Languages' section with a bar chart showing the following distribution: C (56.7%), Python (21.5%), Gherkin (18.8%), C++ (2.1%), Shell (0.5%), and Makefile (0.4%).

The image shows the PyPI page for FalkorDB 1.2.0. At the top, there is a banner for the '2025 Python Packaging Survey' with a 'Take the survey now' button. Below this is a search bar and navigation links: 'Help', 'Docs', 'Sponsors', 'Log in', and 'Register'. The main section displays 'FalkorDB 1.2.0' with a 'pip install FalkorDB' button and a 'Latest version' button. It also shows the release date: 'Released: Jun 30, 2025'. At the bottom, it describes the package as a 'Python client for interacting with FalkorDB database'.

Navigation

Project description

Release history

Download files

Verified details

These details have been verified by PyPI

Maintainers

gkorland

SWilly22

Project description

license MIT release v1.2.0 pypi package 1.2.0 codecov 92% forum falkordb chat 36 online

falkordb-py

TRY FREE FALKORDB CLOUD

FalkorDB Python client

see docs

Installation

```
pip install FalkorDB
```

```
Ubuntu@0127-dsm2-ty6k-prxmx70113: ~  
(ai) Ubuntu@0127-dsm2-ty6k-prxmx70113:~$ docker --version  
Docker version 28.1.1, build 4eba377  
(ai) Ubuntu@0127-dsm2-ty6k-prxmx70113:~$
```

```

Ubuntu@0127-dsm2-ty6k-prxm70113: ~
(ai) Ubuntu@0127-dsm2-ty6k-prxm70113:~$ docker run -p 6379:6379 -p 3000:3000 -it --rm falkordb/falkordb:latest
test
Unable to find image 'falkordb/falkordb:latest' locally
latest: Pulling from falkordb/falkordb
4a679ac3b09f: Pull complete
3ff860482ac5: Pull complete
811af041d785: Pull complete
a7e27cf18de4: Pull complete
8ae1ad8ce35e: Pull complete
759939a29cb5: Pull complete
4f4fb700ef54: Pull complete
cbb99c664e48: Pull complete
a904ad827c78: Pull complete
65f44c8505d1: Pull complete
366c36acdab4: Downloading 34.7MB/78.22MB
848c75cc8304: Download complete
441f4cf34142: Download complete
91a177bdb087: Download complete
b6968759803d: Downloading 5.763MB/12.29MB
29c23578f1ef: Downloading 8.876MB/23.98MB

```

```

a904ad827c78: Pull complete
65f44c8505d1: Pull complete
366c36acdab4: Pull complete
848c75cc8304: Pull complete
441f4cf34142: Pull complete
91a177bdb087: Pull complete
b6968759803d: Pull complete
29c23578f1ef: Pull complete
Digest: sha256:02284d965ecb8d51aa11685602bf51118c1ca5675ba1dfd71ef4f712e57326b4
Status: Downloaded newer image for falkordb/falkordb:latest
1:C 14 Aug 2025 21:56:11.957 # WARNING Memory overcommit must be enabled! Without it, a background save or
replication may fail under low memory condition. Being disabled, it can also cause failures without low mem
ory condition, see https://github.com/jemalloc/jemalloc/issues/1328. To fix this issue add 'vm.overcommit_m
emory = 1' to /etc/sysctl.conf and then reboot or run the command 'sysctl vm.overcommit_memory=1' for this
to take effect.
1:C 14 Aug 2025 21:56:11.957 * o000o000o000o Redis is starting o000o000o000o
1:C 14 Aug 2025 21:56:11.957 * Redis version=7.4.2, bits=64, commit=00000000, modified=0, pid=1, just start
ed
1:C 14 Aug 2025 21:56:11.957 * Configuration loaded
1:M 14 Aug 2025 21:56:11.957 * monotonic clock: POSIX clock_gettime

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Redis Community Edition
7.4.2 (00000000/0) 64 bit
Running in standalone mode

```

```

1:C 14 Aug 2025 21:56:11.957 * o000o000o000o Redis is starting o000o000o000o
1:C 14 Aug 2025 21:56:11.957 * Redis version=7.4.2, bits=64, commit=00000000, modified=0, pid=1, just start
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1:C 14 Aug 2025 21:56:11.957 * Configuration loaded
1:M 14 Aug 2025 21:56:11.957 * monotonic clock: POSIX clock_gettime

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Redis Community Edition
7.4.2 (00000000/0) 64 bit
Running in standalone mode
Port: 6379
PID: 1

https://redis.io

1:M 14 Aug 2025 21:56:11.963 * <graph> Enabled role change notification
1:M 14 Aug 2025 21:56:11.963 * <graph> Starting up FalkorDB version 4.12.2.

```

```
Ubuntu@0127-dsm2-tydk-prxm70113: ~
https://redis.io

1:M 14 Aug 2025 21:56:11.963 * <graph> Enabled role change notification
1:M 14 Aug 2025 21:56:11.963 * <graph> Starting up FalkorDB version 4.12.2.
1:M 14 Aug 2025 21:56:11.963 * <graph> Thread pool created, using 12 threads.
1:M 14 Aug 2025 21:56:11.963 * <graph> Maximum number of OpenMP threads set to 12
1:M 14 Aug 2025 21:56:11.963 * <graph> Query backlog size: 1000
1:M 14 Aug 2025 21:56:11.963 * Module 'graph' loaded from /var/lib/falkordb/bin/falkordb.so
1:M 14 Aug 2025 21:56:11.964 * Server initialized
1:M 14 Aug 2025 21:56:11.964 * Ready to accept connections tcp
  ▲ Next.js 15.2.4
  - Local:      http://localhost:3000
  - Network:    http://0.0.0.0:3000

✓ Starting...
✓ Ready in 70ms
```

```
EXPLORER
  FALK
    app.py
  app.py
  1 from falkordb import FalkorDB
  2 import json
  3
  4 # Connect to FalkorDB
  5 db = FalkorDB(host='localhost', port=6379)
  6
  7 # Create a knowledge graph for a tech company
  8 company_graph = db.select_graph('TechCompanyKB')
  9
  10 # Clear existing data
  11 company_graph.delete()
  12
  13 # Create a more complex graph with employees, projects, skills, and departments
  14 company_graph.query("""
  15 CREATE
  16 // Departments
  17 (ai:Department {name: 'AI Research', budget: 500000}),
  18 (eng:Department {name: 'Engineering', budget: 1000000}),
  19 (data:Department {name: 'Data Science', budget: 750000}),
  20
  21 // Employees
  22 (alice:Employee {name: 'Alice Johnson', role: 'Senior ML Engineer', experience: 5}),
  23 (bob:Employee {name: 'Bob Smith', role: 'Data Scientist', experience: 3}),
  24 (carol:Employee {name: 'Carol Davis', role: 'Backend Engineer', experience: 7}),
  25 (david:Employee {name: 'David Wilson', role: 'AI Researcher', experience: 8}),
  26
  27 // Skills
  28 (python:Skill {name: 'Python', category: 'Programming'}),
  29 (tensorflow:Skill {name: 'TensorFlow', category: 'ML Framework'}),
  30 (postgres:Skill {name: 'PostgreSQL', category: 'Database'}),
  31
```

This code demonstrates the use of **FalkorDB** on a real-world use case, this is a complete knowledge graph that models workplace relationships.

```
EXPLORER
  FALK
    app.py
  app.py
  15 CREATE
  26
  27 // Skills
  28 (python:Skill {name: 'Python', category: 'Programming'}),
  29 (tensorflow:Skill {name: 'TensorFlow', category: 'ML Framework'}),
  30 (postgres:Skill {name: 'PostgreSQL', category: 'Database'}),
  31 (nlp:Skill {name: 'NLP', category: 'AI Domain'}),
  32 (java:Skill {name: 'Java', category: 'Programming'}),
  33
  34 // Projects
  35 (chatbot:Project {name: 'Customer Chatbot', status: 'Active', priority: 'High'}),
  36 (analytics:Project {name: 'Sales Analytics', status: 'Completed', priority: 'Medium'}),
  37 (recommendation:Project {name: 'Product Recommendations', status: 'Planning', priority: 'High'}),
  38
  39 // Department relationships
  40 (alice)-[:WORKS_IN]->(ai),
  41 (bob)-[:WORKS_IN]->(data),
  42 (carol)-[:WORKS_IN]->(eng),
  43 (david)-[:WORKS_IN]->(ai),
  44
  45 // Employee skills with proficiency levels
  46 (alice)-[:HAS_SKILL {proficiency: 'Expert', years: 4}]->(python),
  47 (alice)-[:HAS_SKILL {proficiency: 'Advanced', years: 3}]->(tensorflow),
  48 (alice)-[:HAS_SKILL {proficiency: 'Intermediate', years: 2}]->(nlp),
  49 (bob)-[:HAS_SKILL {proficiency: 'Expert', years: 3}]->(python),
  50 (bob)-[:HAS_SKILL {proficiency: 'Advanced', years: 2}]->(postgres),
  51 (carol)-[:HAS_SKILL {proficiency: 'Expert', years: 6}]->(java),
  52 (carol)-[:HAS_SKILL {proficiency: 'Advanced', years: 4}]->(postgres),
  53 (david)-[:HAS_SKILL {proficiency: 'Expert', years: 5}]->(python),
  54 (david)-[:HAS_SKILL {proficiency: 'Expert', years: 6}]->(nlp),
```



```
EXPLORER  ...  app.py x
FALK
  app.py
    15 CREATE
    52 (carol)-[:HAS_SKILL {proficiency: 'Advanced', years: 4}]->(postgres),
    53 (david)-[:HAS_SKILL {proficiency: 'Expert', years: 5}]->(python),
    54 (david)-[:HAS_SKILL {proficiency: 'Expert', years: 6}]->(nlp),
    55 (david)-[:HAS_SKILL {proficiency: 'Advanced', years: 4}]->(tensorflow),
    56
    57 // Project assignments
    58 (alice)-[:ASSIGNED_TO {role: 'Lead', startDate: '2024-01-15'}]->(chatbot),
    59 (david)-[:ASSIGNED_TO {role: 'Researcher', startDate: '2024-01-20'}]->(chatbot),
    60 (bob)-[:ASSIGNED_TO {role: 'Lead', startDate: '2023-08-01'}]->(analytics),
    61 (carol)-[:ASSIGNED_TO {role: 'Backend Dev', startDate: '2023-08-15'}]->(analytics),
    62 (alice)-[:ASSIGNED_TO {role: 'ML Lead', startDate: '2024-03-01'}]->(recommendation),
    63
    64 // Employee collaborations
    65 (alice)-[:COLLABORATES_WITH {project: 'Customer Chatbot', frequency: 'Daily'}]->(david),
    66 (david)-[:COLLABORATES_WITH {project: 'Customer Chatbot', frequency: 'Daily'}]->(alice),
    67 (bob)-[:COLLABORATES_WITH {project: 'Sales Analytics', frequency: 'Weekly'}]->(carol),
    68 (carol)-[:COLLABORATES_WITH {project: 'Sales Analytics', frequency: 'Weekly'}]->(bob)
    69 """
    70
    71 print("✅ Company knowledge graph created successfully!\n")
    72
    73 # Query 1: Find employees with specific skills for project planning
    74 print("🔍 Query 1: Who has Python AND TensorFlow skills?")
    75 result = company_graph.query("""
    76     MATCH (e:Employee)-[:HAS_SKILL]->(s1:Skill {name: 'Python'}),
    77           (e)-[:HAS_SKILL]->(s2:Skill {name: 'TensorFlow'})
    78     RETURN e.name, e.role, e.experience
    79     ORDER BY e.experience DESC
    80 """)
    81
    82 for row in result.result_set:
    83     print(f"👤 {row[0]} - {row[1]} ({row[2]} years experience)")
    84
    85 # Query 2: Department analysis - which department has the most skilled employees?
    86 print("\n🔍 Query 2: Skills distribution by department:")
    87 result = company_graph.query("""
    88     MATCH (e:Employee)-[:WORKS_IN]->(d:Department)
    89     MATCH (e)-[:HAS_SKILL]->(s:Skill)
    90     RETURN d.name, count(s) as total_skills, collect(DISTINCT s.name) as skills
    91     ORDER BY total_skills DESC
    92 """)
    93
    94 for row in result.result_set:
    95     skills_list = ', '.join(row[2])
    96     print(f"🏢 {row[0]}: {row[1]} total skills ({skills_list})")
    97
    98 # Query 3: Find potential collaborators for a new AI project
    99 print("\n🔍 Query 3: Best team for a new NLP project:")
100 result = company_graph.query("""
101     MATCH (e:Employee)-[:HAS_SKILL {proficiency: 'Expert'}]->(s:Skill)
102     WHERE s.name IN ['Python', 'NLP', 'TensorFlow']
103     RETURN e.name, e.role, s.name as expertise, e.experience
104     ORDER BY e.experience DESC
105 """)
106
107 for row in result.result_set:
108     print(f"👤 {row[0]} ({row[1]}) - Expertise: {row[2]}, Experience: {row[3]}")
109
110 # Summary
111 print("\n📊 Summary: Knowledge graph created and queries executed successfully!")
112 """
```

```
EXPLORER  ...  app.py x
FALK
  app.py
    15 CREATE
    67 (bob)-[:COLLABORATES_WITH {project: 'Sales Analytics', frequency: 'Weekly'}]->(carol),
    68 (carol)-[:COLLABORATES_WITH {project: 'Sales Analytics', frequency: 'Weekly'}]->(bob)
    69 """
    70
    71 print("✅ Company knowledge graph created successfully!\n")
    72
    73 # Query 1: Find employees with specific skills for project planning
    74 print("🔍 Query 1: Who has Python AND TensorFlow skills?")
    75 result = company_graph.query("""
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    77           (e)-[:HAS_SKILL]->(s2:Skill {name: 'TensorFlow'})
    78     RETURN e.name, e.role, e.experience
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109
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```
EXPLORER  ...  app.py x
FALK
  app.py
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    78     ORDER BY e.experience DESC
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    89     RETURN d.name, count(s) as total_skills, collect(DISTINCT s.name) as skills
    90     ORDER BY total_skills DESC
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```
EXPLORER  ...  app.py  X
FALK
app.py
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101     MATCH (e:Employee)-[:HAS_SKILL {proficiency: 'Expert'}]->(s:Skill)
102     WHERE s.name IN ['Python', 'NLP', 'TensorFlow']
103     RETURN e.name, e.role, s.name as expertise, e.experience
104     ORDER BY e.experience DESC
105 """)
106
107 current_employee = None
108 skills = []
109 for row in result.result_set:
110     if current_employee != row[0]:
111         if current_employee:
112             print(f"👤 {current_employee} - {role} | Expert in: {' | '.join(skills)}")
113             current_employee = row[0]
114             role = row[1]
115             skills = [row[2]]
116         else:
117             skills.append(row[2])
118
119 if current_employee: # Print the last employee
120     print(f"👤 {current_employee} - {role} | Expert in: {' | '.join(skills)}")
121
122 # Query 4: Project status and team composition
123 print("\n🔍 Query 4: Active projects and their teams:")
124 result = company_graph.query("""
125     MATCH (p:Project {status: 'Active'})<-[ASSIGNED_TO]-(e:Employee)
126     RETURN p.name, p.priority, collect(e.name) as team_members
127 """)
128
```

```
EXPLORER  ...  app.py  X
FALK
app.py
108 skills = []
109 for row in result.result_set:
110     if current_employee != row[0]:
111         if current_employee:
112             print(f"👤 {current_employee} - {role} | Expert in: {' | '.join(skills)}")
113             current_employee = row[0]
114             role = row[1]
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125     MATCH (p:Project {status: 'Active'})<-[ASSIGNED_TO]-(e:Employee)
126     RETURN p.name, p.priority, collect(e.name) as team_members
127 """)
128
129 for row in result.result_set:
130     team = ', '.join(row[2])
131     print(f"📁 {row[0]} ({row[1]} priority) - Team: {team}")
132
133 # Query 5: Complex path finding - collaboration networks
134 print("\n🔍 Query 5: Who collaborates most frequently?")
135 result = company_graph.query("""
136     MATCH (e1:Employee)-[c:COLLABORATES_WITH]-(e2:Employee)
137     RETURN e1.name, e2.name, c.project, c.frequency
138
```

```
EXPLORER  ...  app.py  X
FALK
app.py
109 for row in result.result_set:
110     else:
111         skills.append(row[2])
112
113 if current_employee: # Print the last employee
114     print(f"👤 {current_employee} - {role} | Expert in: {' | '.join(skills)}")
115
116 # Query 4: Project status and team composition
117 print("\n🔍 Query 4: Active projects and their teams:")
118 result = company_graph.query("""
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123 for row in result.result_set:
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125     print(f"📁 {row[0]} ({row[1]} priority) - Team: {team}")
126
127 # Query 5: Complex path finding - collaboration networks
128 print("\n🔍 Query 5: Who collaborates most frequently?")
129 result = company_graph.query("""
130     MATCH (e1:Employee)-[c:COLLABORATES_WITH]-(e2:Employee)
131     RETURN e1.name, e2.name, c.project, c.frequency
132     ORDER BY
133         CASE c.frequency
134             WHEN 'Daily' THEN 3
135             WHEN 'Weekly' THEN 2
136             WHEN 'Monthly' THEN 1
137         END DESC
138 """)
139
```

Ln 11, Col 9 (14 selected) Spaces: 4 UTF-8 LF {} Python

```
EXPLORER  ...  app.py x
FALK
app.py
132
133 # Query 5: Complex path finding - collaboration networks
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138     ORDER BY
139         CASE c.frequency
140             WHEN 'Daily' THEN 3
141             WHEN 'Weekly' THEN 2
142             WHEN 'Monthly' THEN 1
143         END DESC
144 """)
145
146 for row in result.result_set:
147     print(f" 🏡 {row[0]} ↔ {row[1]} | {row[2]} ({row[3]})")
148
149 # Query 6: Advanced analytics - skill gaps analysis
150 print("\n🔍 Query 6: Departments that might need more AI expertise:")
151 result = company_graph.query("""
152     MATCH (d:Department)-[:WORKS_IN]-(e:Employee)
153     OPTIONAL MATCH (e)-[:HAS_SKILL]->(ai_skill:Skill)
154     WHERE ai_skill.category IN ['ML Framework', 'AI Domain']
155     WITH d, count(DISTINCT e) as total_employees, count(DISTINCT ai_skill) as ai_skills
156     RETURN d.name, total_employees, ai_skills,
157         round(toFloat(ai_skills) / toFloat(total_employees) * 100) as ai_skill_percentage
158     ORDER BY ai_skill_percentage ASC
159 """)
160
161 for row in result.result_set:
```

```
EXPLORER  ...  app.py x
FALK
app.py
135 result = company_graph.query("""
138     ORDER BY
139         CASE c.frequency
142             WHEN 'Monthly' THEN 1
143         END DESC
144 """)
145
146 for row in result.result_set:
147     print(f" 🏡 {row[0]} ↔ {row[1]} | {row[2]} ({row[3]})")
148
149 # Query 6: Advanced analytics - skill gaps analysis
150 print("\n🔍 Query 6: Departments that might need more AI expertise:")
151 result = company_graph.query("""
152     MATCH (d:Department)-[:WORKS_IN]-(e:Employee)
153     OPTIONAL MATCH (e)-[:HAS_SKILL]->(ai_skill:Skill)
154     WHERE ai_skill.category IN ['ML Framework', 'AI Domain']
155     WITH d, count(DISTINCT e) as total_employees, count(DISTINCT ai_skill) as ai_skills
156     RETURN d.name, total_employees, ai_skills,
157         round(toFloat(ai_skills) / toFloat(total_employees) * 100) as ai_skill_percentage
158     ORDER BY ai_skill_percentage ASC
159 """)
160
161 for row in result.result_set:
162     print(f" 🏢 {row[0]}: {row[2]} AI skills / {row[1]} employees = {row[3]}% AI coverage")
163
164 print("\n🌟 Graph analysis complete! This demonstrates FalkorDB's power in:")
165 print(" • Complex relationship querying")
166 print(" • Multi-hop path traversals")
167 print(" • Aggregations across connected data")
168 print(" • Real-time analytics on interconnected entities")
```

```
EXPLORER  ...  app.py x
FALK
app.py
135 result = company_graph.query("""
138     ORDER BY
143         END DESC
144 """)
145
146 for row in result.result_set:
147     print(f" 🏡 {row[0]} ↔ {row[1]} | {row[2]} ({row[3]})")
148
149 # Query 6: Advanced analytics - skill gaps analysis
150 print("\n🔍 Query 6: Departments that might need more AI expertise:")
151 result = company_graph.query("""
152     MATCH (d:Department)-[:WORKS_IN]-(e:Employee)
153     OPTIONAL MATCH (e)-[:HAS_SKILL]->(ai_skill:Skill)
154     WHERE ai_skill.category IN ['ML Framework', 'AI Domain']
155     WITH d, count(DISTINCT e) as total_employees, count(DISTINCT ai_skill) as ai_skills
156     RETURN d.name, total_employees, ai_skills,
157         round(toFloat(ai_skills) / toFloat(total_employees) * 100) as ai_skill_percentage
158     ORDER BY ai_skill_percentage ASC
159 """)
160
161 for row in result.result_set:
162     print(f" 🏢 {row[0]}: {row[2]} AI skills / {row[1]} employees = {row[3]}% AI coverage")
163
164 print("\n🌟 Graph analysis complete! This demonstrates FalkorDB's power in:")
165 print(" • Complex relationship querying")
166 print(" • Multi-hop path traversals")
167 print(" • Aggregations across connected data")
168 print(" • Real-time analytics on interconnected entities")
169
```

Ln 11, Col 9 (14 selected) Spaces: 4 UTF-8 LF {} Python

← → ↻ <https://pypi.org/project/FalkorDB/> 2025 Python Packaging Survey is now live! [Take the survey now!](#)

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FalkorDB 1.2.0

pip install FalkorDB

Released: Jun 30, 2025

Python client for interacting with FalkorDB database

Navigation

- Project description
- Release history
- Download files

Project description

License: MIT Release: v1.2.0 PyPI package: 1.2.0 Codecov: 100% Forum: falkordb Chat: 66 online

falkordb-py

TRY FREE! FALKORDB CLOUD

FalkorDB Python client

see [docs](#)

Installation

```
pip install FalkorDB
```

Verified details

These details have been verified by PyPI

Maintainers

- gkorland
- SWilly22

```
Ubuntu@0127-dsm2-ty6k-prmx70113: ~/mycode/falk$ pip install FalkorDB
Collecting FalkorDB
  Downloading falkordb-1.2.0-py3-none-any.whl.metadata (3.8 kB)
Collecting python-dateutil<3.0.0,>=2.9.0 (from FalkorDB)
  Using cached python-dateutil-2.9.0.post0-py3-none-any.whl.metadata (8.4 kB)
Collecting redis<6.0.0,>=5.0.1 (from FalkorDB)
  Downloading redis-5.3.1-py3-none-any.whl.metadata (9.2 kB)
Collecting six>=1.5 (from python-dateutil<3.0.0,>=2.9.0->FalkorDB)
  Using cached six-1.17.0-py2.py3-none-any.whl.metadata (1.7 kB)
Collecting PyJWT>=2.9.0 (from redis<6.0.0,>=5.0.1->FalkorDB)
  Using cached PyJWT-2.10.1-py3-none-any.whl.metadata (4.0 kB)
Downloading falkordb-1.2.0-py3-none-any.whl (34 kB)
Using cached python-dateutil-2.9.0.post0-py2.py3-none-any.whl (229 kB)
Downloading redis-5.3.1-py3-none-any.whl (272 kB)
Using cached PyJWT-2.10.1-py3-none-any.whl (22 kB)
Using cached six-1.17.0-py2.py3-none-any.whl (11 kB)
Installing collected packages: six, PyJWT, redis, python-dateutil, FalkorDB
Successfully installed FalkorDB-1.2.0 PyJWT-2.10.1 python-dateutil-2.9.0.post0 redis-5.3.1 six-1.17.0
(ai) Ubuntu@0127-dsm2-ty6k-prmx70113:~/mycode/falk$
```

```
Explorer ... add.py x
Ubuntu@0127-dsm2-ty6k-prmx70113: ~/mycode/falk$ python app.py
No existing graph to clear (this is normal for first run)
Company knowledge graph created successfully!

Query 1: Who has Python AND TensorFlow skills?
David Wilson - AI Researcher (8 years experience)
Alice Johnson - Senior ML Engineer (5 years experience)

Query 2: Skills distribution by department:
AI Research: 3 total skills (Python, TensorFlow, NLP)
Engineering: 2 total skills (PostgreSQL, Java)
Data Science: 2 total skills (Python, PostgreSQL)

Query 3: Best team for a new NLP project:
David Wilson - AI Researcher | Expert in: Python, NLP
Alice Johnson - Senior ML Engineer | Expert in: Python
Bob Smith - Data Scientist | Expert in: Python

Query 4: Active projects and their teams:
Customer Chatbot (High priority) - Team: Alice Johnson, David Wilson

Query 5: Who collaborates most frequently?
Alice Johnson ↔ David Wilson | Customer Chatbot (Daily)
David Wilson ↔ Alice Johnson | Customer Chatbot (Daily)
Bob Smith ↔ Carol Davis | Sales Analytics (Weekly)
Carol Davis ↔ Bob Smith | Sales Analytics (Weekly)
```

```
EXPLORER  ...  ADD.DV  X  Ubuntu@0127-dsm2-ty6k-prmx70113: ~/mycode/falk

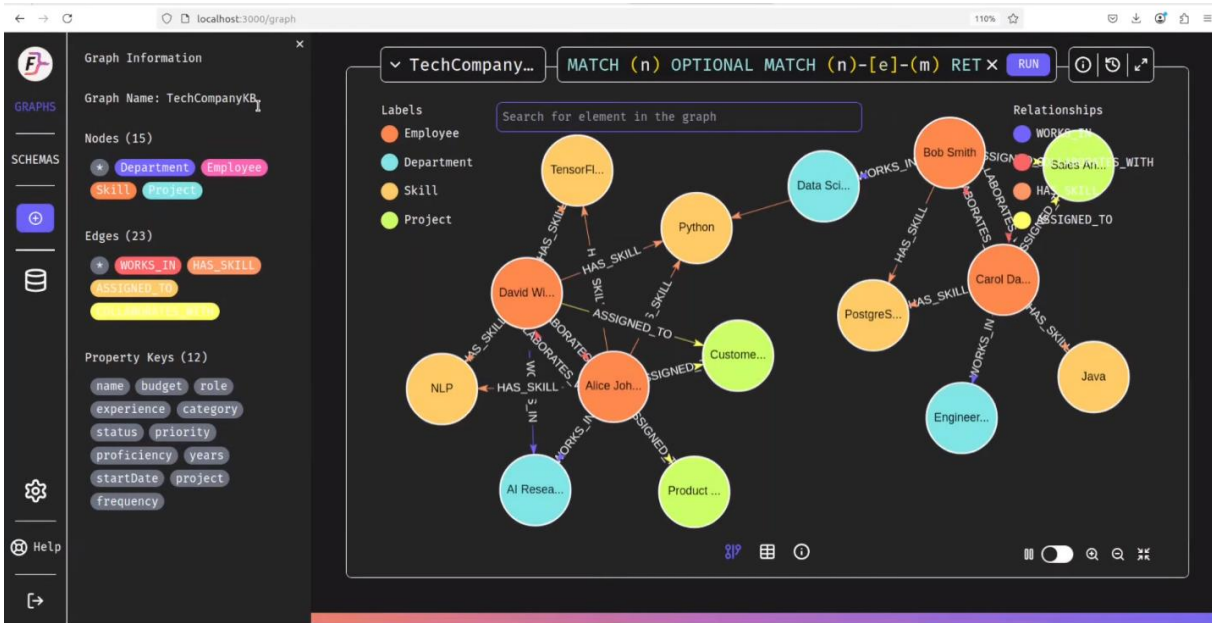
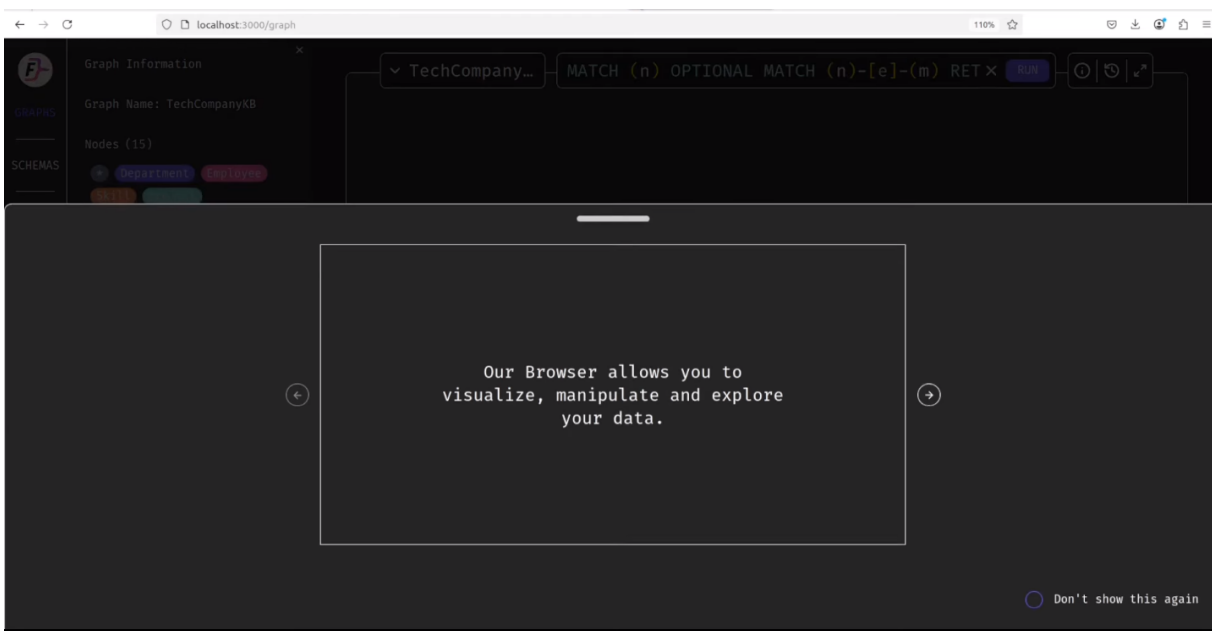
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  Alice Johnson ↔ David Wilson | Customer Chatbot (Daily)
  David Wilson ↔ Alice Johnson | Customer Chatbot (Daily)
  Bob Smith ↔ Carol Davis | Sales Analytics (Weekly)
  Carol Davis ↔ Bob Smith | Sales Analytics (Weekly)

Query 6: Departments that might need more AI expertise:
  Data Science: 0 AI skills / 1 employees = 0.0% AI coverage
  Engineering: 0 AI skills / 1 employees = 0.0% AI coverage
  AI Research: 2 AI skills / 2 employees = 100.0% AI coverage

★ Graph analysis complete! This demonstrates FalkorDB's power in:
  • Complex relationship querying
  • Multi-hop path traversals
  • Aggregations across connected data
  • Real-time analytics on interconnected entities
(ai) Ubuntu@0127-dsm2-ty6k-prmx70113:~/mycode/falk$ ^C
(ai) Ubuntu@0127-dsm2-ty6k-prmx70113:~/mycode/falk$
> TIMELINE
```



Graph Information

Graph Name: TechCompanyKB

Nodes (15)

- Department
- Employee
- Skill
- Project

Edges (23)

- WORKS_IN
- HAS_SKILL
- ASSIGNED_TO
- COLLABORATES_WITH

Property Keys (12)

- name
- budget
- role
- experience
- category
- status
- priority
- proficiency
- years
- startDate
- project
- frequency

Labels

- Employee

Relationships

- COLLABORATES_WITH

Query: `MATCH p=()-[:COLLABORATES_WITH]-() RETURN p`

Search for element in the graph

Bob Smith

Alice Joh...

David Wi...

Carol Da...

COLLABORATES_WITH

Create New Graph

Name your Graph:

Create your Graph Cancel

Graph Information

Graph Name: TechCompanyKB

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COLLABORATES_WITH