
Repository Information

1. What is the name of the repository created by a specific author?

```
PREFIX codereuse: <http://codereuse.org/>
SELECT ?repo
WHERE {
    ?repo codereuse:hasAuthor <http://codereuse.org/person/faceto> .
}
```

2. Which repositories have the topic 'java'?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo

WHERE {

    ?repo DC:subject <http://codereuse.org/topic/java> .

}
```

3. What is the main programming language in a given repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?language ?usagePercentage

WHERE {

    <http://codereuse.org/repository/DeepPavlov> DC:language ?languageInfo .

    ?languageInfo codereuse:hasLanguage ?language .

    ?languageInfo codereuse:hasLanguageUsagePercentage ?usagePercentage .

}ORDER BY DESC(?usagePercentage)

LIMIT 1
```

4. How many stars does a repository have, and who are the users that starred it?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT (COUNT(?starer) AS ?starerCount)

WHERE {

    <http://codereuse.org/repository/cirneco> codereuse:hasStargazer ?starer
}
```

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?starer

WHERE {

    <http://codereuse.org/repository/cirneco> codereuse:hasStargazer ?starer
}
```

5. What is the description ('about') of a given repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?about

WHERE {

    <http://codereuse.org/repository/cirneco> DC:description ?about
}
```

6. Which repositories have the highest number of stars?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>
```

```

SELECT ?repo ?count

WHERE {

    ?repo codereuse:hasStarCount ?count.

}

ORDER BY DESC(?count)

LIMIT 1

```

7. Which repositories have the least number of stars?

```

PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?count

WHERE {

    ?repo codereuse:hasStarCount ?count.

}

ORDER BY ASC(?count)

LIMIT 1

```

8. Which repositories have multiple topics assigned?

```

PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo

WHERE {

    ?repo DC:subject <http://codereuse.org/topic/python> .

    ?repo DC:subject <http://codereuse.org/topic/machine-learning> .

}

```

9. What repositories are created within the last month?

10. Which repositories have been updated recently?

Contributor Information

1. Who are the contributors to a specific repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?contributors

WHERE {

    <http://codereuse.org/repository/telepot> codereuse:hasContributer
?contributors

}
```

2. How many commits has a specific user made to a repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?commits

WHERE {

    <http://codereuse.org/person/nickoala> codereuse:ContributesTo
<http://codereuse.org/repository/telepot>.

    <http://codereuse.org/person/nickoala> codereuse:hasContributedCommits
?commits.

}
```

3. Which contributors have made more than 10 commits in a repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>
```

```

SELECT ?contributor ?commits

WHERE {

    ?contributor codereuse:ContributesTo
<http://codereuse.org/repository/telepot>.

    ?contributor codereuse:hasContributedCommits ?commits.

    FILTER(?commits > 10)

}

```

4. What is the contribution history of a specific user across repositories?

```

PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?commits

WHERE {

    <http://codereuse.org/person/nickoala> codereuse:ContributesTo
<http://codereuse.org/repository/telepot>.

    <http://codereuse.org/person/nickoala> codereuse:hasContributedCommits ?commits.

}

```

5. Which contributors have made the most number of commits across repositories?

```

PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?user ?maxCount

WHERE {

    {

        SELECT ?repo (MAX(?count) AS ?maxCount)

        WHERE {

```

```

    ?repo codereuse:hasContributer ?user.

    ?user codereuse:hasContributedCommits ?count.

}

GROUP BY ?repo

}

?repo codereuse:hasContributer ?user.

?user codereuse:hasContributedCommits ?count.

FILTER(?count = ?maxCount)

}

ORDER BY DESC(?maxCount)

```

6. What is the total number of contributions by a specific user?

```

PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?user (SUM(?count) AS ?totalContributions)

WHERE {

    ?user codereuse:hasContributedCommits ?count.

}

GROUP BY ?user

Order by DESC(?totalContributions)

```

7. Which users have contributed to repositories that have the most stars?

```

PREFIX codereuse: <http://codereuse.org/>

SELECT ?repo

WHERE {

    ?repo codereuse:hasStarCount ?count.

}

```

```
ORDER BY DESC (?count)

LIMIT 1
```

```
PREFIX codereuse: <http://codereuse.org/>

SELECT ?user

WHERE {

    <http://codereuse.org/repository/jenkins> codereuse:hasContributer ?user

}
```

Forks and Collaboration

1. Which repositories have been forked by a specific user?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo

WHERE {

    ?repo codereuse:forkedBy <http://codereuse.org/person/pesaventofilippo>

}
```

2. What is the status of a forked repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?status

WHERE {

    <http://codereuse.org/repository/moa/forkedBy/raniaabid>
codereuse:hasStatus ?status

}
```

3. What repositories have been forked by multiple users?

```
PREFIX codereuse: <http://codereuse.org/>

SELECT ?repo

WHERE {

    ?repo codereuse:hasTotalForkCount ?count.

    FILTER (?count > 1)

}
```

4. Which repositories have been forked the most times?

```
PREFIX codereuse: <http://codereuse.org/>

SELECT ?repo ?count

WHERE {

    ?repo codereuse:hasTotalForkCount ?count.

}

ORDER BY DESC(?count)

LIMIT 1
```

5. Which repositories have been forked by contributors from different countries?

6. Which users fork the most repositories?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?user (COUNT(?repo) AS ?forkCount)

WHERE {

    ?repo codereuse:forkedBy ?user .

}

GROUP BY ?user

ORDER BY DESC(?forkCount)
```



```
LIMIT 10
```

Issue Information

1. What are the open issues in a given repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?titles

WHERE {

    <http://codereuse.org/repository/telepot> codereuse:hasIssue ?issue.

    ?issue codereuse:hasStatus <http://codereuse.org/status/open>.

    ?issue DC:title ?titles

}
```

2. What is the title and status of a specific issue in a repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?title ?Status

WHERE {

    <http://codereuse.org/repository/boon/issue/73> DC:title ?title.

    <http://codereuse.org/repository/boon/issue/73> codereuse:hasStatus ?Status.

}s
```

3. Who is the author of a specific issue in a repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?user
```

```
WHERE {  
  
  <http://codereuse.org/repository/boon/issue/73> codereuse:createdBy ?user.  
  
}
```

4. Which repositories have the most open issues?

```
PREFIX codereuse: <http://codereuse.org/>  
  
PREFIX DC: <http://purl.org/dc/terms/>  
  
SELECT ?repo ?count  
  
WHERE {  
  
  ?repo codereuse:hasOpenIssueCount ?count.  
  
}  
  
ORDER BY DESC(?count)  
  
LIMIT 1
```

5. What is the distribution of issue statuses in a repository?

```
PREFIX codereuse: <http://codereuse.org/>  
  
PREFIX DC: <http://purl.org/dc/terms/>  
  
SELECT ?count1 ?count2  
  
WHERE {  
  
  <http://codereuse.org/repository/telepot> codereuse:hasOpenIssueCount ?count1.  
  
  <http://codereuse.org/repository/telepot> codereuse:hasClosedIssueCount ?count2.  
  
}
```

Watcher and Star Information

1. Who are the watchers of a specific repository?

```
PREFIX codereuse: <http://codereuse.org/>
```

```
PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?user

WHERE {

  <http://codereuse.org/repository/telepot> codereuse:haswatcher ?user.

}
```

2. Which users are both watchers and contributors to a repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?user

WHERE {

  ?repo codereuse:haswatcher ?user.

  ?repo codereuse:hasContributer ?user.

}
```

3. Which repositories have the most watchers?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?count

WHERE {

  ?repo codereuse:hasWatcherCount ?count.

}

ORDER BY DESC(?count)

Limit 1
```

4. Who are the watchers that are also stargazers?

```
PREFIX codereuse: <http://codereuse.org/>
```

```
PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?user

WHERE {

    ?repo1 codereuse:haswatcher ?user.

    ?repo2 codereuse:hasStargazer ?user.

}
```

5. How many watchers does the 'ukase' repository have?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?count

WHERE {

    <http://codereuse.org/repository/telepot> codereuse:hasWatcherCount ?count.

}
```

Repository Statistics

1. What is the percentage distribution of programming languages in a repository?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?usedlanguage ?usedlanguagepercentage

WHERE {

    <http://codereuse.org/repository/pandas> DC:language ?language.

    ?language codereuse:hasLanguage ?usedlanguage.

    ?language codereuse:hasLanguageUsagePercentage ?usedlanguagepercentage.

}
```

2. Which repository has the highest number of stars in a specific domain (e.g., 'java')?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?Scount

WHERE {

    ?repo codereuse:hasStarCount ?Scount.

    ?repo DC:subject <http://codereuse.org/topic/java>.

}

ORDER BY DESC(?Scount)

LIMIT 1
```

3. How many forks does a repository have?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?AFcount

WHERE {

    <http://codereuse.org/repository/pandas> codereuse:hasActiveForkCount ?AFcount.

}
```

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?IFcount

WHERE {

    <http://codereuse.org/repository/pandas> codereuse:hasInActiveForkCount ?IFcount.

}
```

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?TFcount

WHERE {

    <http://codereuse.org/repository/pandas> codereuse:hasTotalForkCount ?TFcount.

}
```

4. What repositories have more than 5 contributors?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?Ccount

WHERE {

    ?repo codereuse:hasContributorCount ?Ccount.

    FILTER (?Ccount > 5)

}
```

5. What is the average number of forks for repositories in the 'data science' domain?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT (AVG(?TFcount) AS ?AverageForkCount)

WHERE {

    ?repo DC:subject <http://codereuse.org/topic/data-science>.

    ?repo codereuse:hasTotalForkCount ?TFcount.

}
```

6. Which repositories have the highest ratio of forks to stars?

```
PREFIX codereuse: <http://codereuse.org/>
```

```
PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?ForkStarRatio

WHERE {

    ?repo codereuse:hasTotalForkCount ?forks.

    ?repo codereuse:hasStarCount ?stars.

    BIND((?forks / ?stars) AS ?ForkStarRatio)

}

ORDER BY DESC(?ForkStarRatio)

LIMIT 1
```

Advanced Queries

1. Which repositories are related by common contributors?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo1 ?repo2 ?user

WHERE {

    ?repo1 codereuse:hasContributer ?user.

    ?repo2 codereuse:hasContributer ?user.

    FILTER(?repo1 != ?repo2)

}
```

2. Which repositories have the same topic and language combination?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?languageName

WHERE {
```

```
?repo DC:subject <http://codereuse.org/topic/wicket>.

?repo DC:language ?languageInfo.

?languageInfo codereuse:hasLanguage <http://codereuse.org/language/Java>

}
```

3. Which contributors are active in multiple repositories?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?user (COUNT(DISTINCT ?repo) AS ?repoCount)

WHERE {

    ?repo codereuse:hasContributer ?user.

}

GROUP BY ?user

HAVING (COUNT(DISTINCT ?repo) > 1)
```

4. What repositories have been forked and then later contributed to by the same user?

```
PREFIX codereuse: <http://codereuse.org/>

PREFIX DC: <http://purl.org/dc/terms/>

SELECT ?repo ?user

WHERE {

    ?forkedInfoRepo codereuse:forkedBy ?user.

    ?forkedInfoRepo codereuse:repoForkedFrom ?repo.

    ?repo codereuse:hasContributer ?user.

}
```

5. Which repositories are most frequently forked by new users?
