1. 列出 Johnny Lim 在 2017 年 5 月 1 日前做的所有提交

考察知识点：条件过滤

选项	说明
-(n)	仅显示最近的 n 条提交
--since, --after	仅显示指定时间之后的提交。
--until, --before	仅显示指定时间之前的提交。
--author	仅显示指定作者相关的提交。
--committer	仅显示指定提交者相关的提交。

$ git log --since="2017-5-1"

```
$ git log --since="2017-5-1"
commit 0395ad06cb39b64243707e0043fbdab2de1c8c21 (HEAD -> master, origin/master,
origin/HEAD)
Author: Mark Paluch <mpaluch@paluch.biz>
Date:   Wed Aug 1 19:46:21 2018 +0200

    Omit secret backend URL encoding for Vault. (#1098)

    We now construct the URL template from the base URL, API version prefix and
secret backend upfront and apply templating only for the secret key. This bypass
es URL encoding for the secret backend which allows for special characters such
as slashes to be passed thru directly.

    Fixes gh-1094.

commit 53b22b6ec30387027555aaa6b842b495d07a567a
Author: buildmaster <buildmaster@springframework.org>
Date:   Tue Jul 31 18:43:22 2018 +0000

    Bumping versions to 2.0.2.BUILD-SNAPSHOT after release

commit 602c786639bf5f35be16fa0fea6e848eb597d289
Author: buildmaster <buildmaster@springframework.org>
Date:   Tue Jul 31 18:43:21 2018 +0000

    Going back to snapshots
```

2. 统计在当前 HEAD 中，出现 environmentRepositories 这个词次数和出现在哪个文件

Git grep -c <pattern>(只显示每个文件有多少个匹配)

$ git grep -c environmentRepositories HEAD

```
$ git grep -c environmentRepositories HEAD
HEAD:spring-cloud-config-server/src/main/java/org/springframework/cloud/config/s
erver/config/EnvironmentRepositoryConfiguration.java:4
HEAD:spring-cloud-config-server/src/main/java/org/springframework/cloud/config/s
erver/environment/CompositeEnvironmentRepository.java:8
HEAD:spring-cloud-config-server/src/main/java/org/springframework/cloud/config/s
erver/environment/SearchPathCompositeEnvironmentRepository.java:4
```

3. 列出 commit msg 中包含 AwsCodeCommitCredentialsProvider 的提交

Git log --grep=<pattern>(列出 message 包含指定模式的 commit)

$ git log --grep=AwsCodeCommitCredentialsProvider

```
$ git log --grep=AwsCodeCommitCredentialsProvider
commit b7ce3185968b22bdef3f52ccf92cc0e3e6765730
Author: tapvirvirk <tapvirvirk@gmail.com>
Date:   Tue May 30 19:05:37 2017 -0400

    Update AwsCodeCommitCredentialsProviderTests.java

    Fixed the spaces

commit 2611b0a229a69e4ce94da022a8240de4d83cd482
Author: tapvirvirk <tapvirvirk@gmail.com>
Date:   Fri May 26 16:53:58 2017 -0400

    Update AwsCodeCommitCredentialsProviderTests.java

commit 389da6b20ffe66e3688d5aee4915c13dc48b52cb
Author: tapvirvirk <tapvirvirk@gmail.com>
Date:   Fri May 26 16:51:14 2017 -0400

    Update AwsCodeCommitCredentialsProviderTests.java
```

4. 找出 testNotSupportsOther()函数是在哪个提交中加入的

Git log -S (搜索改动的内容)

$ git log -S testNotSupportsOther\(\)

```
$ git log -S testNotSupportsOther\(\)
commit ae0adc93223c307a1dba0af65ee72ae7200bd3bd
Author: Don Laidlaw <don.laidlaw@infor.com>
Date:   Fri Jan 27 00:57:08 2017 +0000

    Add AWS CodeCommit authentication support (#548)

    The jgit library does not support the credential helpers defined in
    git configuration files. Since AWS CodeCommit requires a signature
    used as the password part of authentication, jgit is not able to
    authenticate to AWS Code Commit without help. These changes calculate
    the required AWS Code Commit signature value and provide a jgit
    compatible CredentialsProvider class.

    Fixes gh-334
```

5. 列出 1.0.0.M2 分支包含的文件（列出第一层即可）无需 checkout 到 1.0.0.M2 分支
   列出所有分支
   $ git branch -a

```
$ git branch -a
* master
  remotes/origin/1.0.0.M2
  remotes/origin/1.0.0.M3
  remotes/origin/1.0.0.M4
  remotes/origin/1.0.0.RC1
  remotes/origin/1.0.0.RELEASE
  remotes/origin/1.0.1.RELEASE
  remotes/origin/1.0.2.RELEASE
  remotes/origin/1.0.x
  remotes/origin/1.1.x
  remotes/origin/1.2.x
  remotes/origin/1.3.x
  remotes/origin/1.4.x
  remotes/origin/HEAD -> origin/master
  remotes/origin/client-cache-health
  remotes/origin/gh-pages
  remotes/origin/master
  remotes/origin/origin-track
  remotes/origin/vault
```

git grep 从提交历史或者工作目录中查找一个字符串或者正则表达式

```
$ git grep --name-only . remotes/origin/1.0.0.M2
```



```
$ git grep --name-only . remotes/origin/1.0.0.M2
remotes/origin/1.0.0.M2:.gitignore
remotes/origin/1.0.0.M2:.settings.xml
remotes/origin/1.0.0.M2:.travis.yml
remotes/origin/1.0.0.M2:Guardfile
remotes/origin/1.0.0.M2:README.adoc
remotes/origin/1.0.0.M2:docs/README.adoc
remotes/origin/1.0.0.M2:docs/pom.xml
remotes/origin/1.0.0.M2:docs/src/main/asciidoc/README.adoc
remotes/origin/1.0.0.M2:docs/src/main/asciidoc/ghpages.sh
remotes/origin/1.0.0.M2:docs/src/main/asciidoc/intro.adoc
remotes/origin/1.0.0.M2:docs/src/main/asciidoc/quickstart.adoc
remotes/origin/1.0.0.M2:docs/src/main/asciidoc/spring-cloud-config.adoc
remotes/origin/1.0.0.M2:docs/src/main/ruby/generate_readme.sh
remotes/origin/1.0.0.M2:pom.xml
remotes/origin/1.0.0.M2:sample.groovy
remotes/origin/1.0.0.M2:spring-cloud-config-client/pom.xml
remotes/origin/1.0.0.M2:spring-cloud-config-client/src/main/java/org/springframe
work/cloud/autoconfigure/ConfigClientAutoConfiguration.java
remotes/origin/1.0.0.M2:spring-cloud-config-client/src/main/java/org/springframe
work/cloud/autoconfigure/RefreshAutoConfiguration.java
remotes/origin/1.0.0.M2:spring-cloud-config-client/src/main/java/org/springframe
work/cloud/bootstrap/BootstrapApplicationListener.java
remotes/origin/1.0.0.M2:spring-cloud-config-client/src/main/java/org/springframe
work/cloud/bootstrap/BootstrapConfiguration.java
remotes/origin/1.0.0.M2:spring-cloud-config-client/src/main/java/org/springframe
work/cloud/bootstrap/config/PropertySourceBootstrapConfiguration.java
remotes/origin/1.0.0.M2:spring-cloud-config-client/src/main/java/org/springframe
work/cloud/bootstrap/encrypt/EncryptionBootstrapConfiguration.java
remotes/origin/1.0.0.M2:spring-cloud-config-client/src/main/java/org/springframe
work/cloud/bootstrap/encrypt/EnvironmentDecryptApplicationListener.java
remotes/origin/1.0.0.M2:spring-cloud-config-client/src/main/java/org/springframe
work/cloud/bootstrap/encrypt/KeyProperties.java
```

6. 显示 1.0.0.M2 分支下 pom.xml 的文件内容（无需切换到 1.0.0.M2 分支）

git show 显示任意分支上面的任意文件的内容

```
$ git show remotes/origin/1.0.0.M2:pom.xml
```

```
$ git show remotes/origin/1.0.0.M2:pom.xml
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/
2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 h
ttp://maven.apache.org/xsd/maven-4.0.0.xsd">
        <modelVersion>4.0.0</modelVersion>
        <groupId>org.springframework.cloud</groupId>
        <artifactId>spring-cloud-config</artifactId>
        <version>1.0.0.M2</version>
        <packaging>pom</packaging>
        <name>Spring Cloud Config</name>
        <description>Spring Cloud Config</description>
        <url>http://projects.spring.io/spring-cloud/</url>
        <parent>
                <groupId>org.springframework.cloud</groupId>
                <artifactId>spring-cloud-build</artifactId>
                <version>1.0.0.M2</version>
                <relativePath /> <!-- lookup parent from repository -->
        </parent>
        <scm>
                <url>https://github.com/spring-cloud/spring-cloud-config</url>
                <connection>scm:git:git://github.com/spring-cloud/spring-cloud-c
onfig.git</connection>
                <developerConnection>scm:git:ssh://git@github.com/spring-cloud/s
pring-cloud-config.git</developerConnection>
                <tag>HEAD</tag>
        </scm>
        <modules>
            <module>spring-cloud-config-client</module>
            <module>spring-cloud-config-server</module>
            <module>spring-cloud-config-sample</module>
            <module>docs</module>
        </modules>
```