

Spark: Trying to run spark-shell, but get 'cmd' is not recognized as an internal or

Asked 7 years, 4 months ago Modified 4 months ago Viewed 48k times



10



I'm trying to install Spark on my Windows desktop. Everything should work fine, but I get an error "'cmd' is not recognized as an internal or external command..."

I installed Scala, Java JDK and unzipped Spark tgz in C:\, but for some reason can't get Spark to start in cmd. Any ideas?

```
Administrator: C:\WINDOWS\system32\cmd.exe

C:\> scala -version
Scala code runner version 2.10.4 -- Copyright 2002-2013, LAMP/EPFL

C:\> java -version
java version "1.8.0_45"
Java(TM) SE Runtime Environment (build 1.8.0_45-b15)
Java HotSpot(TM) 64-Bit Server VM (build 25.45-b02, mixed mode)

C:\> cd C:\spark-1.4.0-bin-hadoop2.6\spark-1.4.0-bin-hadoop2.6\bin


C:\spark-1.4.0-bin-hadoop2.6\spark-1.4.0-bin-hadoop2.6\bin>spark-shell
'cmd' is not recognized as an internal or external command,
operable program or batch file.

C:\spark-1.4.0-bin-hadoop2.6\spark-1.4.0-bin-hadoop2.6\bin>
```

[apache-spark](#)

Join Stack Overflow to find the best answer to your technical question, help others answer theirs.

[Sign up with email](#)

 [Sign up with Google](#)

[Sign up with GitHub](#)

[Sign up with Facebook](#)





ElinaJ

791 1 6 18

13 Answers

Sorted by: Highest score (default)



16



My colleague solved the problem. Although Java seemed to work ok (ref. picture), the Java path Spark was trying to read was incorrect with an extra \bin at the end. When that was removed, Spark started working! @gonbe, thank you so much for your efforts to help!

Share Improve this answer Follow

answered Jun 22, 2015 at 7:41



ElinaJ

791 1 6 18

1 Same here: JAVA_HOME had /bin on the end, Spark didn't like that – [Spork](#) Mar 10, 2016 at 0:35

I got the issue when missing the final semicolon(;) in the PATH. – [Hareen Laks](#) Jun 16, 2021 at 3:23



7



I had the similar error. I fixed it after following changes:

1. There were multiple Java/bin path in the System Path. So I corrected them to reflect single Java/Bin, which is in sync with JAVA_HOME
2. Added C:Windows\system32 to System Path Variable.
3. My Java_Home and java.exe was pointing different places. I fixed them.

Now it works.

Join Stack Overflow to find the best answer to your technical question, help others answer theirs.

[Sign up with email](#)[Sign up with Google](#)[Sign up with GitHub](#)[Sign up with Facebook](#)



Saravanan Subramanian

423 4 4

▲ (I'm not Windows Spark user) The spark-shell.cmd for Windows source code expects "cmd" command is available in PATH.

5 <https://github.com/apache/spark/blob/master/bin/spark-shell.cmd>

▼ Would you try adding the directory that contains "cmd.exe" in PATH environment variable? The directory location is shown title bar in your screenshot, and environment variable setting can be done via control panel.



Share Improve this answer Follow

answered Jun 21, 2015 at 16:42



suztomo

5,005 1 20 21

2 I added the path C:\Windows\System32, to the beginning of the PATH and it looks like this now:
C:\Windows\System32;%SCALA_HOME%\bin;C:\Anaconda;C:\dev\Java\jdk1.8.0_45\bin;C:\Program Files\R\R-3.1.1\library\bin\x64... etc. But it is still giving an error message, now its: "The system cannot find the path specified". I tried to change PATH, loaded Java again and so on, but no help.
– ElinaJ Jun 21, 2015 at 20:32

Can you paste entire error message? (especially the path the system cannot find) – suztomo Jun 21, 2015 at 20:35 ✎

I'm afraid that's the only message there is, or is there a way to see more? I've been testing by taking objects away from the PATH, but nothing helps...
– ElinaJ Jun 21, 2015 at 20:40


I wanted to see what the error is complaining about. How about double-clicking spark-shell.cmd via Explorer? Or run the program specified in spark-shell.cmd. – suztomo Jun 21, 2015 at 20:45

The cmd just flashes once open and closes immediately... I tried "Run as Administrator, but the same flash happens... – ElinaJ Jun 21, 2015 at 21:05

▲ Check values in JAVA_HOME and make sure it is pointing to correct value. Add %JAVA_HOME%\bin in path value. After modification close command prompt and restart it. Write spark-shell and it will run.

Join Stack Overflow to find the best answer to your technical question, help others answer theirs.

Sign up with email

 Sign up with Google

Sign up with GitHub

Sign up with Facebook





This worked for me. Added %JAVA_HOME%/bin in User Variable. – [Anupam Kumar](#) May 17, 2020 at 12:43



I was the getting the same error while executing Spark-shell in the command prompt.

3

I tried everything mentioned above but not able to resolve the issue.



So, at last I added "C:\Windows\System32" in 'PATH' variable of System Variable and it worked.



[Share](#) [Improve this answer](#) [Follow](#)

answered May 27, 2018 at 10:37



[Rishav Sharma](#)

51 3



All my variables were OK, so I decided to debug the scripts and I found in "spark-class2.cmd" and put another pair of quotation marks in "%RUNNERS%". BEFORE "%RUNNER%" -Xmx128m -cp "%LAUNCH_CLASSPATH%" AFTER ""%RUNNER%"" -Xmx128m -cp "%LAUNCH_CLASSPATH%"

1



[Share](#) [Improve this answer](#) [Follow](#)

answered Jun 23, 2017 at 20:43



[Augusto](#)

89 1 1 8



For my case I had similar issue. I had to fix a couple of things.

1

1- Check **JAVA_HOME** is correct on both places;



Join Stack Overflow to find the best answer to your technical question, help others answer theirs.

[Sign up with email](#)

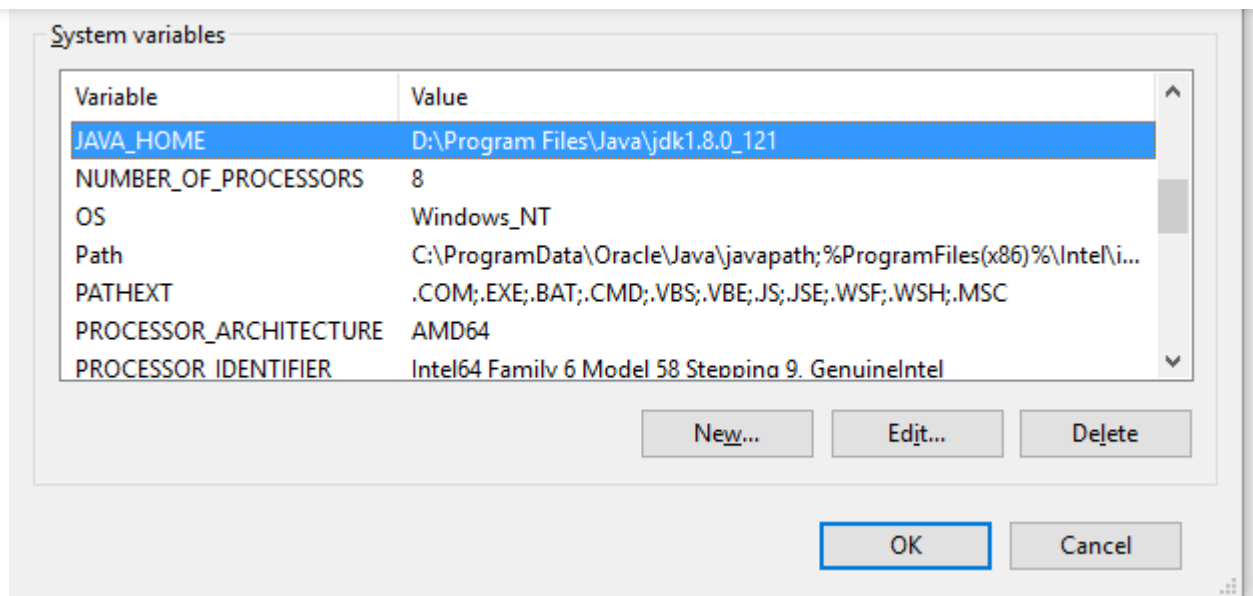


[Sign up with Google](#)

[Sign up with GitHub](#)

[Sign up with Facebook](#)





Join Stack Overflow to find the best answer to your technical question, help others answer theirs.

[Sign up with email](#)

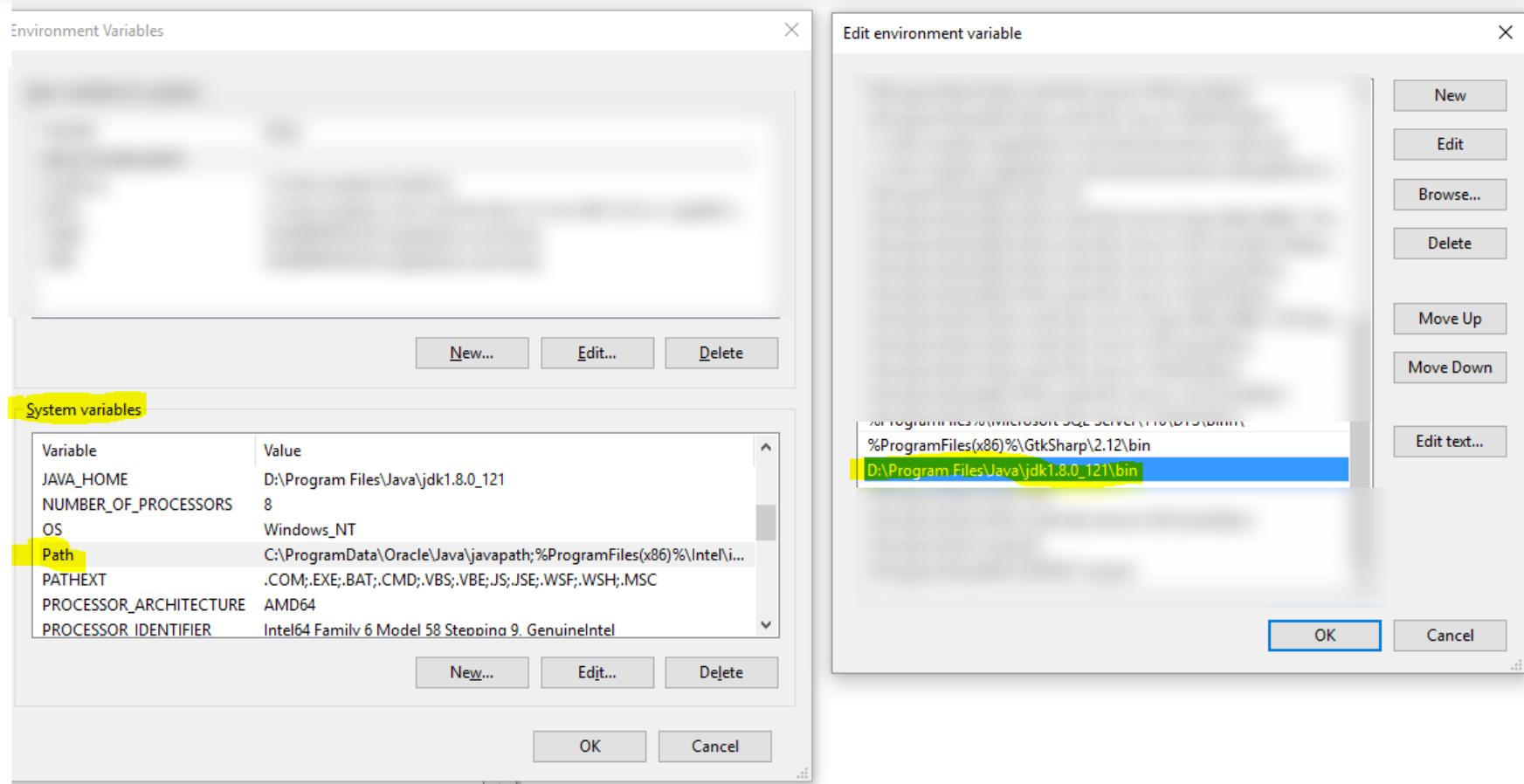


[Sign up with Google](#)

[Sign up with GitHub](#)

[Sign up with Facebook](#)





2- Then I had to change following lines in **spark-2.1.1-bin-hadoop2.7\bin** folder.

Join Stack Overflow to find the best answer to your technical question, help others answer theirs.

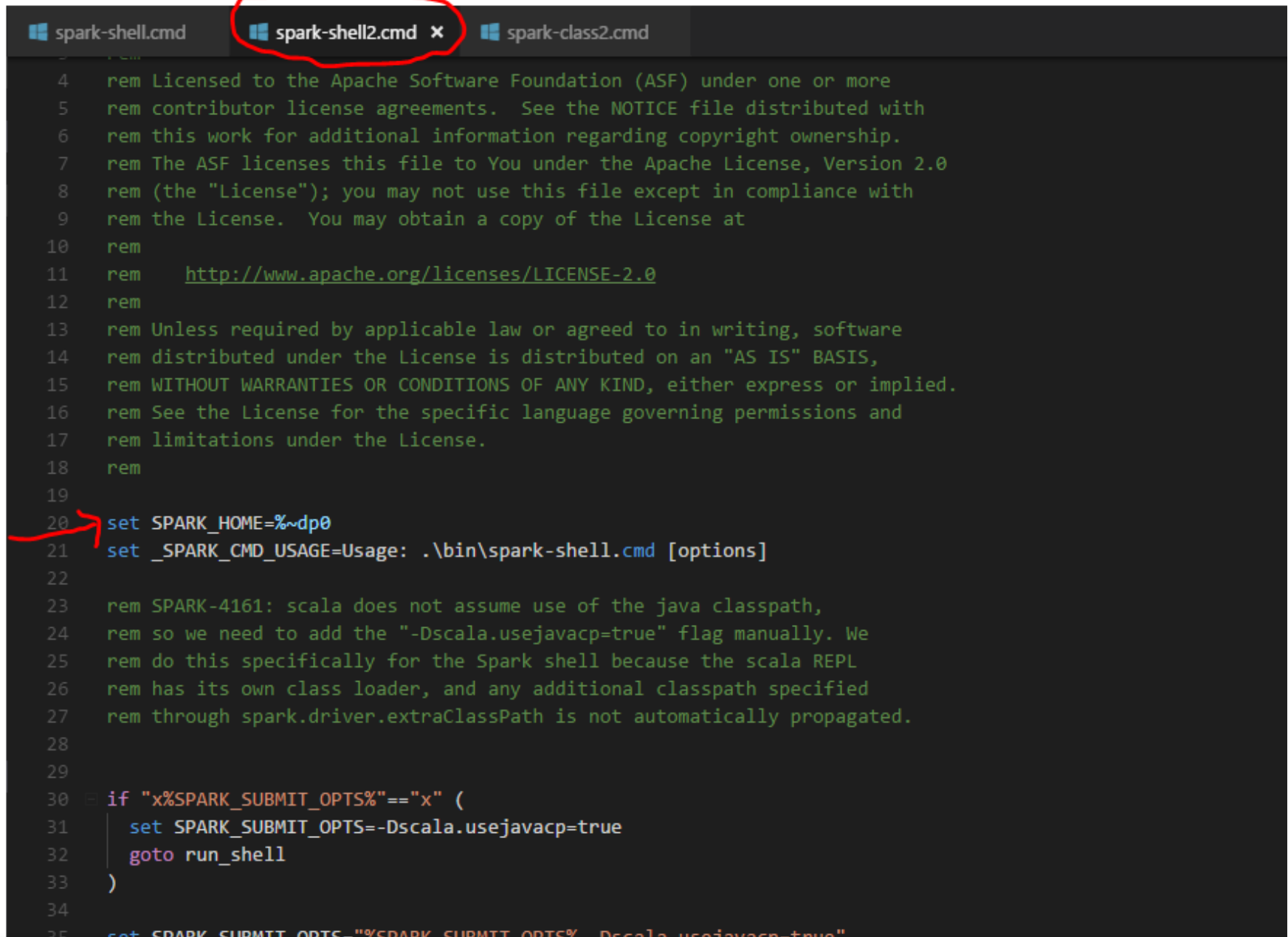
[Sign up with email](#)

[Sign up with Google](#)

[Sign up with GitHub](#)

[Sign up with Facebook](#)






```
4 rem Licensed to the Apache Software Foundation (ASF) under one or more
5 rem contributor license agreements. See the NOTICE file distributed with
6 rem this work for additional information regarding copyright ownership.
7 rem The ASF licenses this file to You under the Apache License, Version 2.0
8 rem (the "License"); you may not use this file except in compliance with
9 rem the License. You may obtain a copy of the License at
10 rem
11 rem http://www.apache.org/licenses/LICENSE-2.0
12 rem
13 rem Unless required by applicable law or agreed to in writing, software
14 rem distributed under the License is distributed on an "AS IS" BASIS,
15 rem WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
16 rem See the License for the specific language governing permissions and
17 rem limitations under the License.
18 rem
19
20 set SPARK_HOME=%~dp0
21 set _SPARK_CMD_USAGE=Usage: .\bin\spark-shell.cmd [options]
22
23 rem SPARK-4161: scala does not assume use of the java classpath,
24 rem so we need to add the "-Dscala.usejavacp=true" flag manually. We
25 rem do this specifically for the Spark shell because the scala REPL
26 rem has its own class loader, and any additional classpath specified
27 rem through spark.driver.extraClassPath is not automatically propagated.
28
29
30 if "x%SPARK_SUBMIT_OPTS%"=="x" (
31     set SPARK_SUBMIT_OPTS=-Dscala.usejavacp=true
32     goto run_shell
33 )
34
35 set SPARK_SUBMIT_OPTS="%SPARK_SUBMIT_OPTS% -Dscala.usejavacp=true"
```

Join Stack Overflow to find the best answer to your technical question, help others answer theirs.

Sign up with email

 Sign up with Google

Sign up with GitHub

Sign up with Facebook



- ```
spark-shell.cmd spark-shell2.cmd spark-submit2.cmd spark-class2.cmd x
64
65 rem The launcher library prints the command to be executed in a single line suitable for being
66 rem executed by the batch interpreter. So read all the output of the launcher into a variable.
67 set LAUNCHER_OUTPUT=%temp%\spark-class-launcher-output-%RANDOM%.txt
68
69 :::::::::::GGG BEGIN::::::::::::
70 echo.
71 echo Ggg in spark-class2.cmd
72 echo Ggg Runner "%RUNNER%"
73 echo.
74 :::::::::::GGG END::::::::::::
75
76 "%RUNNER%" -Xmx128m -cp "%LAUNCH_CLASSPATH%" org.apache.spark.launcher.Main %* > %LAUNCHER_OUTPUT%
77 for /f "tokens=*" %i in (%LAUNCHER_OUTPUT%) do (
78 | set SPARK_CMD=%i
79)
80
81 del %LAUNCHER_OUTPUT%
82 %SPARK_CMD%
83
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: powershell.exe

```
at org.apache.hadoop.fs.RawLocalFileSystem.mkdirsWithOptionalPermission(RawLocalFileSystem.java:532)
at org.apache.hadoop.fs.RawLocalFileSystem.mkdirs(RawLocalFileSystem.java:509)
at org.apache.hadoop.fs.FilterFileSystem.mkdirs(FilterFileSystem.java:305)
at org.apache.hadoop.hive.ql.exec.Utilities.createDirsWithPermission(Utilities.java:3679)
at org.apache.hadoop.hive.ql.session.SessionState.createRootHDFSDir(SessionState.java:597)
at org.apache.hadoop.hive.ql.session.SessionState.createSessionDirs(SessionState.java:554)
at org.apache.hadoop.hive.ql.session.SessionState.start(SessionState.java:508)
... 85 more
<console>:14: error: not found: value spark
import spark.implicitly._
 ^
<console>:14: error: not found: value spark
import spark.sql
 ^

Welcome to

 ____ _
 / ___|| | | |
| |___| |_| |
|___ _ _/ |
 ||_|_|_|

version 2.1.1

Using Scala version 2.11.8 (Java HotSpot(TM) 64-Bit Server VM, Java 1.8.0_121)
Type in expressions to have them evaluated.
Type :help for more information.

scala> 1+1
```

×





Check the java jdk version and scala version according to the below version compatibility table:

0







# Version compatibility table

This table shows the first Scala release in each series that works with each JVM release.

| JVM version | Minimum Scala versions  |
|-------------|-------------------------|
| 9, 10       | 2.12.4, 2.11.12, 2.10.7 |
| 8           | 2.12.0, 2.11.0, 2.10.2  |
| 7           | 2.11.0, 2.10.0          |
| 6           | 2.11.0, 2.10.0          |


Share Improve this answer Follow

answered Aug 4, 2018 at 12:12



Ankit Kamboj

16916




I had the same issue (launch spark-shell and get the the system cannot find the path). After following the above process (changing the

Join Stack Overflow


to find the best answer to your technical question, help others answer theirs.

Sign up with email

 Sign up with Google

Sign up with GitHub

Sign up with Facebook





lucTiber

381 1 3 18



These are detailed steps to resolve all these issues in Windows

0

## Spark binaries



1. It needs to be in a folder which doesn't have space, if it must be in a folder which has space then you can use something like Unix's symlink. I have kept the Spark binaries inside c:\ directly. Set SPARK\_HOME to e.g. C:\SparkMedia\spark-2.4.2-bin-hadoop2.7. Please note "bin" is not part of the path.
2. Set "path" for the user and system to %SPARK\_HOME%\bin If you decide to keep it outside "program files" (as per point a), then please give permission to the user because Spark keeps temporary files here. If you want to keep Spark inside a directory where user doesn't have access then you need to put a file %SPARK\_HOME%\conf\spark-env.sh with an entry inside it as "SPARK\_LOG\_DIR=a directory where user has access".

## Winutils

1. It can be inside a folder with space like C:\Program Files (x86)\Winutils Your winutils kept at C:\Program Files (x86)\Winutils works fine.
2. Set HADOOP\_HOME to C:\Program Files (x86)\Winutils. Please note "bin" is not part of the path.
3. Set "path" for the user and system to %HADOOP\_HOME%\bin

## Java

4. It can be inside a folder with space like C:\Program Files\AdoptOpenJDK\jdk-8.0.262.10-hotspot Set JAVA\_HOME to C:\Program Files\AdoptOpenJDK\jdk-8.0.262.10-hotspot. Please note "bin" is not part of the path.
5. Set "path" for the user and system to %JAVA\_HOME%\bin

**Join Stack Overflow** to find the best answer to your technical question, help others answer theirs.

[Sign up with email](#)[Sign up with Google](#)[Sign up with GitHub](#)[Sign up with Facebook](#)



2,008 11 13



0



The `spark-shell` command runs the `spark-shell.cmd` file in the spark 'bin' folder. This file contains the following command `cmd /V /E /C ""%~dp0spark-shell2.cmd" %*" .`

The `cmd` command requires the `path` system variable to be set to `%SystemRoot%\system32`

Share Improve this answer Follow

answered Jun 5, 2021 at 21:42



Pranaya Tomar

177 12



0



It should be the issue with your System Variables path. As what have mention in the error message, your command prompt can't recognize 'cmd'. So, you should add the directory contain `cmd.exe` into PATH list under your System variables so that your command prompt know where to find 'cmd'.

Steps


1. Open **Control Panel > System**.
2. Click on "**Advanced system settings**" (Right side under Related settings).
3. Click on "**Environment Variables...**" at the bottom.
4. Under "**System variables**" section look for "**Path**" and click on it, then click "**Edit**" button at the bottom. [System variable setting](#)
5. In the editing tab, add "**C:\Windows\System32**" or "**%SystemRoot%\System32**".

After you added the new Path into System variable,

1. Open Command Prompt
2. `cd %SPARK_HOME%\bin` Or `cd` to the spark directory.

**Join Stack Overflow** to find the best answer to your technical question, help others answer theirs.

Sign up with email

 Sign up with Google

Sign up with GitHub

Sign up with Facebook



If still not working, you should check whether you have added SPARK\_HOME, HADOOP\_HOME, JAVA\_HOME correctly under your User variables.

Share Improve this answer Follow

edited May 24 at 4:02

answered May 24 at 4:00



Gerald Ooi

1 1 3



If you think the SPARK, HADOOP and JAVA and PATH variables are correctly set, Double-check if your User Variables have...  
C:\Windows\System32

0



I dealt with this problem and adding System32 to the user variables worked for me.



Share Improve this answer Follow



answered Jun 23 at 17:31



joshua andres blanco

jerez

35 4

**Join Stack Overflow** to find the best answer to your technical question, help others answer theirs.

Sign up with email



Sign up with Google

Sign up with GitHub

Sign up with Facebook

