

CORSO DI LABORATORIO DI PROGRAMMAZIONE I

ESERCITAZIONE 1

PROF. MONICA NESI – DR. FRANCESCO GALLO

Blocco 0 - francesco.gallo@univaq.it www.di.univaq.it/francesco.gallo

OUTLINE

- ▶ Java - Introduzione
- ▶ Java - Installazione

► Java - Un pò di storia (contemporanea)

Oct 2018	Oct 2017	Change	Programming Language	Ratings	Change
1	1		Java	17.801%	+5.37%
2	2		C	15.376%	+7.00%
3	3		C++	7.593%	+2.59%
4	5	⬆	Python	7.156%	+3.35%
5	8	⬆	Visual Basic .NET	5.884%	+3.15%
6	4	⬇	C#	3.485%	-0.37%
7	7		PHP	2.794%	+0.00%
8	6	⬇	JavaScript	2.280%	-0.73%
9	-	⬆	SQL	2.038%	+2.04%
10	16	⬆	Swift	1.500%	-0.17%

source: <https://www.tiobe.com/tiobe-index/> - Il TIOBE Programming Community Index (TPC Index), è un indicatore della popolarità dei linguaggi di programmazione; la classifica è compilata grazie ai dati ricavati dai vari motori di ricerca Google, Google Blogs, MSN, Yahoo!, Baidu, Wikipedia and YouTube

JAVA - INTRODUZIONE

Oct 2018	Oct 2017	Change	Programming Language	Ratings	Change
1	1		Java	17.801%	+5.37%
2	2		C	15.376%	+7.00%
3	3		C++	7.593%	+2.59%
4	5	▲	Python	7.156%	+3.35%
5	8	▲	Visual Basic .NET	5.884%	+3.15%
6	4	▼	C#	3.485%	-0.37%
7	7		PHP	2.794%	+0.00%
8	6	▼	JavaScript	2.280%	-0.73%
9	-	▲	SQL	2.038%	+2.04%
10	16	▲	Swift	1.500%	-0.17%

► Java - Un pò di storia (contemporanea)

Very Long Term History

To see the bigger picture, please find below the positions of the top 10 programming languages of many years back. Please note that these are *average* positions for a period of 12 months.

Programming Language	2018	2013	2008	2003	1998	1993	1988
Java	1	2	1	1	17	-	-
C	2	1	2	2	1	1	1
C++	3	4	3	3	2	2	4
Python	4	7	6	11	24	13	-
C#	5	5	7	8	-	-	-
Visual Basic .NET	6	11	-	-	-	-	-
PHP	7	6	4	5	-	-	-
JavaScript	8	9	8	7	21	-	-
Ruby	9	10	9	18	-	-	-
R	10	23	48	-	-	-	-
Objective-C	14	3	40	50	-	-	-
Perl	16	8	5	4	3	9	22
Ada	29	19	18	15	12	5	3
Lisp	30	12	16	13	8	6	2
Fortran	31	24	21	12	6	3	15

source: <https://www.tiobe.com/tiobe-index/>

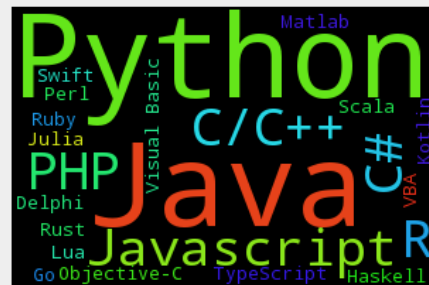
► Java - Un pò di storia (contemporanea)

PYPL Popularity of Programming Language

The PYPL Popularity of Programming Language Index is created by analyzing how often language tutorials are searched on Google.

The more a language tutorial is searched, the more popular the language is assumed to be. It is a leading indicator. The raw data comes from Google Trends.

If you believe in collective wisdom, the PYPL Popularity of Programming Language Index can help you decide which language to study, or which one to use in a new software project.

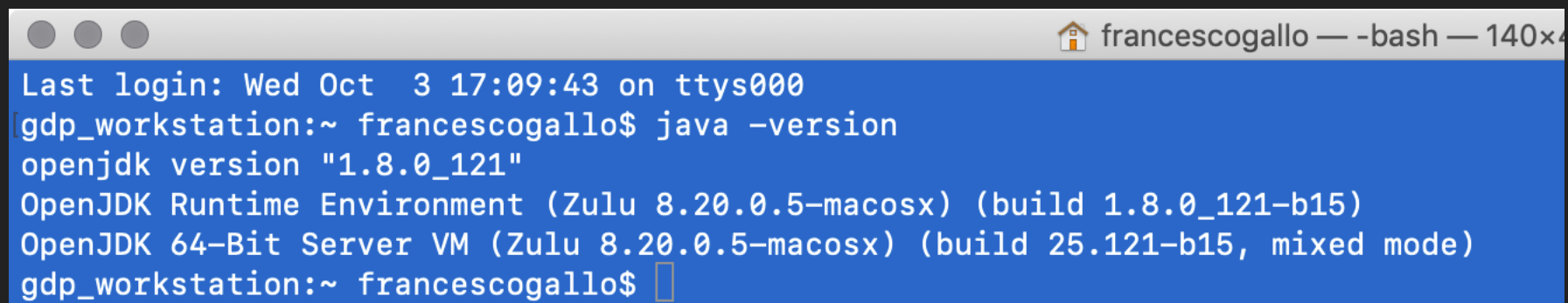


Worldwide, Oct 2018 compared to a year ago:

Rank	Change	Language	Share	Trend
1	↑	Python	24.72 %	+5.4 %
2	↓	Java	22.01 %	-0.7 %
3	↑	Javascript	8.4 %	+0.1 %
4	↑	C#	7.71 %	-0.4 %
5	↓↓	PHP	7.42 %	-1.6 %
6		C/C++	6.32 %	-0.5 %
7		R	4.11 %	-0.1 %
8		Objective-C	3.29 %	-0.9 %
9		Swift	2.69 %	-0.8 %
10		Matlab	2.08 %	-0.3 %
11		Ruby	1.63 %	-0.4 %
12	↑	TypeScript	1.54 %	+0.1 %
13	↓	VBA	1.48 %	-0.0 %
14		Scala	1.22 %	-0.2 %
15		Visual Basic	1.14 %	-0.2 %
16	↑	Kotlin	1.04 %	+0.3 %
17	↑	Go	0.96 %	+0.3 %

source: <https://pypl.github.io/PYPL.html> - Il PYPL index è stato creato per analizzare quanto spesso vengono cercati tutorial (su google) di un particolare linguaggio di programmazione

▶ Java - Quale versione?

A terminal window with a title bar showing three window control buttons and the text 'francescogallo — -bash — 140x4'. The terminal content shows the output of the 'java -version' command.

```
Last login: Wed Oct  3 17:09:43 on ttys000
[gdp_workstation:~ francescogallo$ java -version
openjdk version "1.8.0_121"
OpenJDK Runtime Environment (Zulu 8.20.0.5-macosx) (build 1.8.0_121-b15)
OpenJDK 64-Bit Server VM (Zulu 8.20.0.5-macosx) (build 25.121-b15, mixed mode)
gdp_workstation:~ francescogallo$
```

▶ Link utili:

▶ [Java - Attenzione!!!!](#)

▶ [Documentation](#)

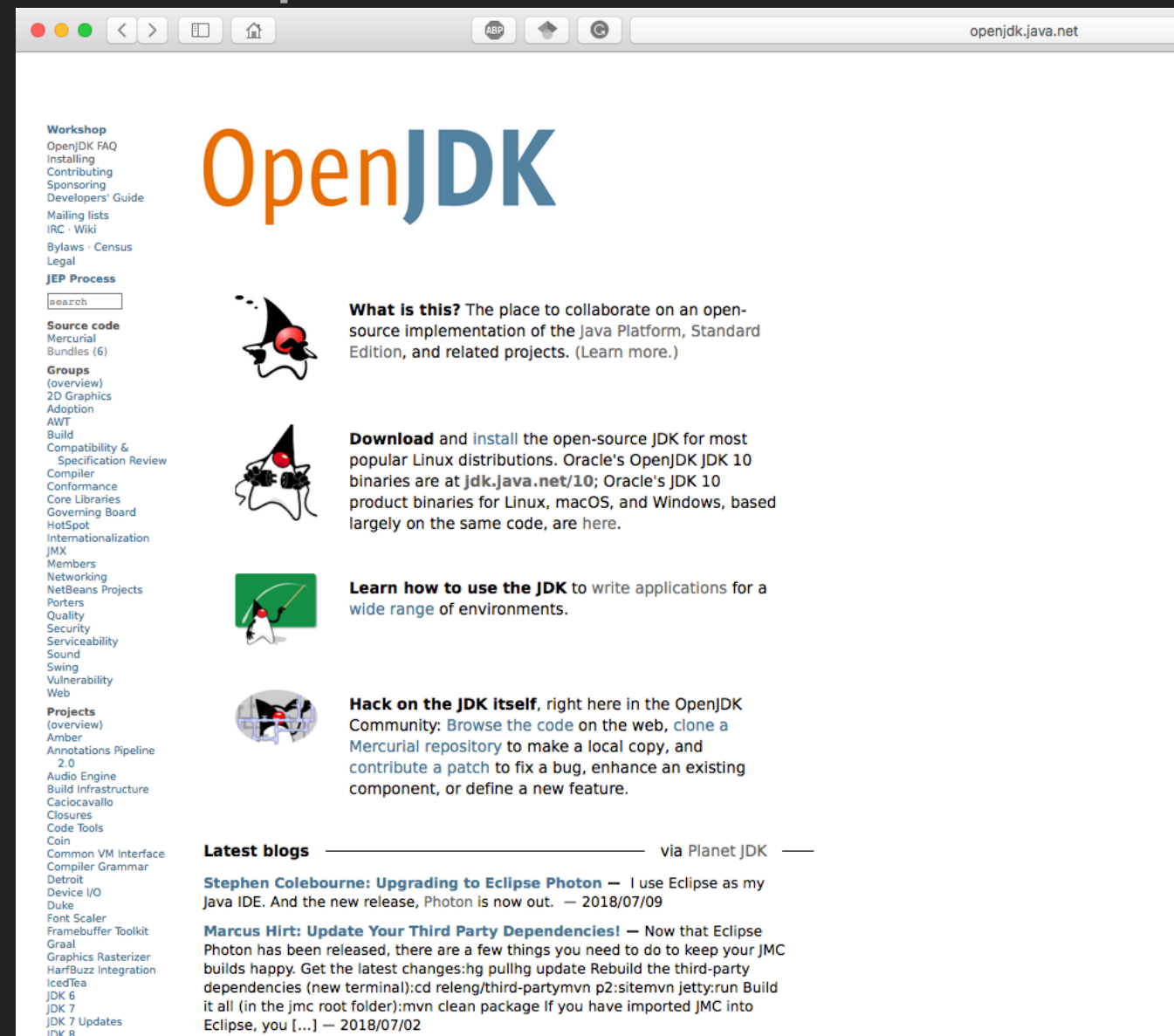
JAVA - INSTALLAZIONE

► Java - Quale sistema operativo?

► Linux

► Windows

► Mac



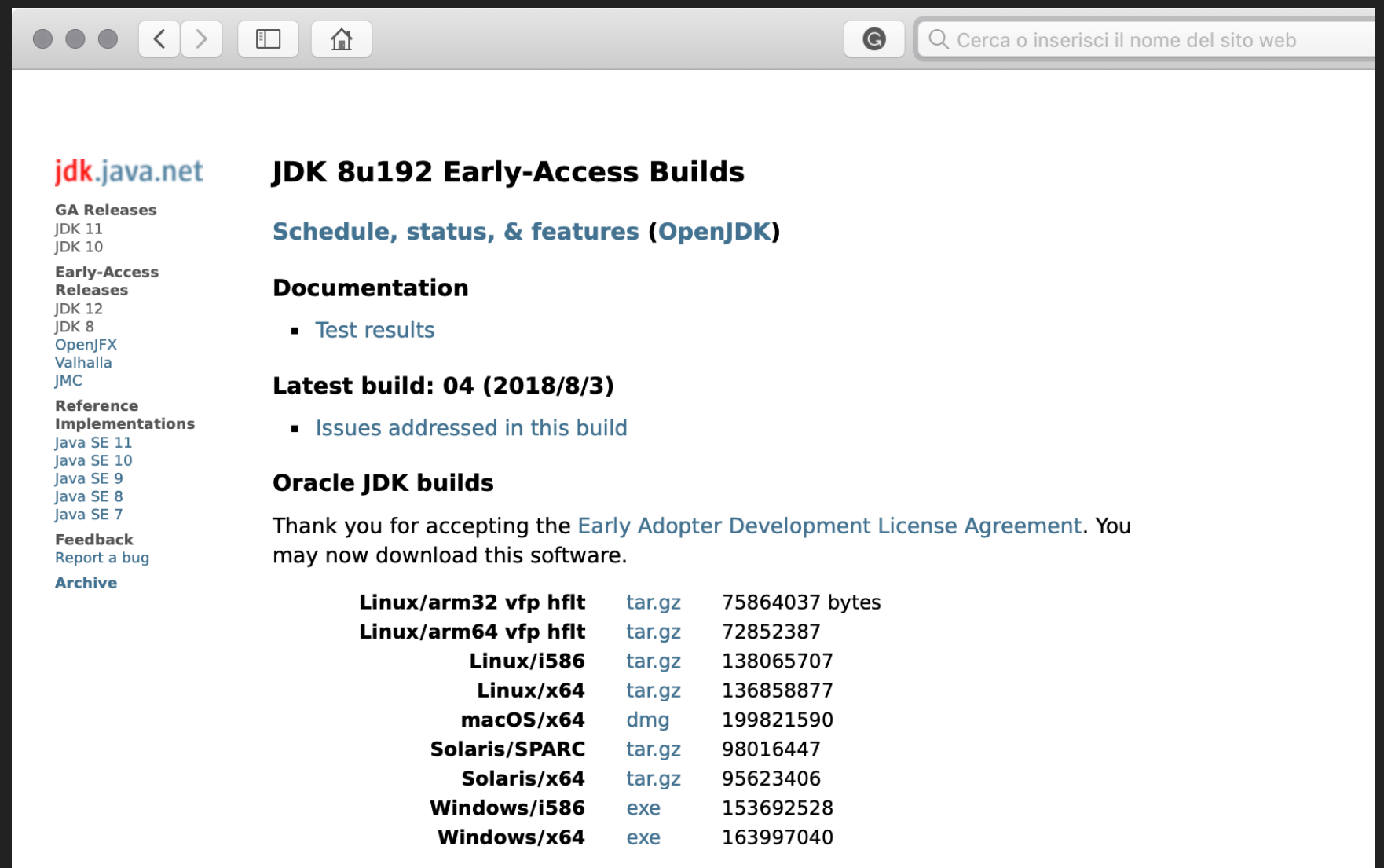
Java

► Java - Quale sistema operativo?

► **Linux**

► **Windows**

► **Mac**



The screenshot shows the Oracle JDK 8u192 Early-Access Builds page. The page layout includes a sidebar with navigation links, a main content area with a title and sub-header, a list of links, and a table of download links for various operating systems and architectures.

jdk.java.net

- GA Releases
 - JDK 11
 - JDK 10
- Early-Access Releases
 - JDK 12
 - JDK 8
 - OpenJFX
 - Valhalla
 - JMC
- Reference Implementations
 - Java SE 11
 - Java SE 10
 - Java SE 9
 - Java SE 8
 - Java SE 7
- Feedback
 - Report a bug
- Archive

JDK 8u192 Early-Access Builds

[Schedule, status, & features \(OpenJDK\)](#)

Documentation

- [Test results](#)

Latest build: 04 (2018/8/3)

- [Issues addressed in this build](#)

Oracle JDK builds

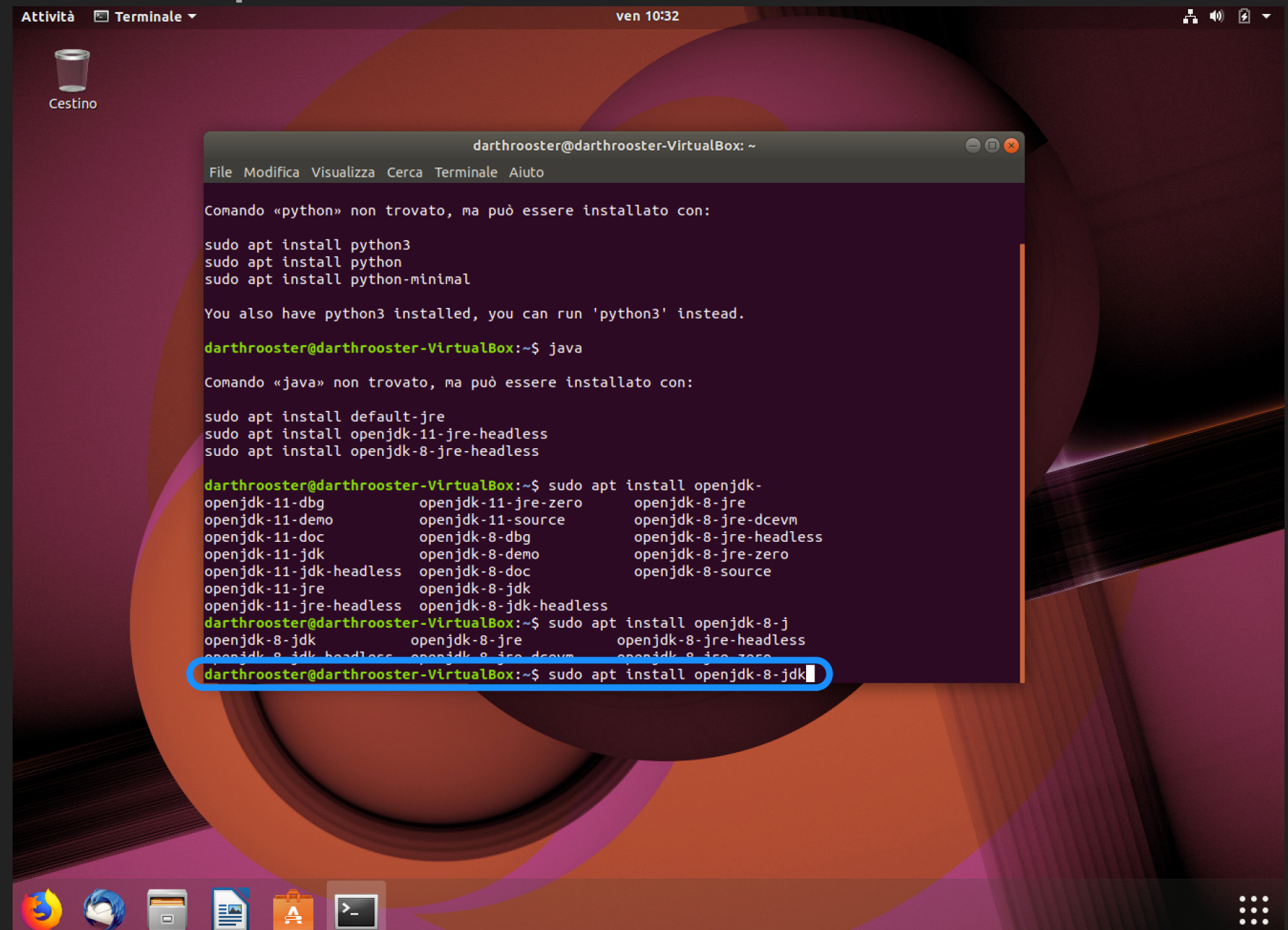
Thank you for accepting the [Early Adopter Development License Agreement](#). You may now download this software.

Linux/arm32 vfp hflt	tar.gz	75864037 bytes
Linux/arm64 vfp hflt	tar.gz	72852387
Linux/i586	tar.gz	138065707
Linux/x64	tar.gz	136858877
macOS/x64	dmg	199821590
Solaris/SPARC	tar.gz	98016447
Solaris/x64	tar.gz	95623406
Windows/i586	exe	153692528
Windows/x64	exe	163997040

JAVA - INSTALLAZIONE

► Java - Quale sistema operativo?

- Linux
- Windows
- Mac



The screenshot shows a Linux desktop with a terminal window open. The terminal displays the following text:

```
darthrooster@darthrooster-VirtualBox: ~  
File Modifica Visualizza Cerca Terminale Aiuto  
  
Comando «python» non trovato, ma può essere installato con:  
sudo apt install python3  
sudo apt install python  
sudo apt install python-minimal  
  
You also have python3 installed, you can run 'python3' instead.  
  
darthrooster@darthrooster-VirtualBox:~$ java  
  
Comando «java» non trovato, ma può essere installato con:  
  
sudo apt install default-jre  
sudo apt install openjdk-11-jre-headless  
sudo apt install openjdk-8-jre-headless  
  
darthrooster@darthrooster-VirtualBox:~$ sudo apt install openjdk-  
openjdk-11-dbg          openjdk-11-jre-zero      openjdk-8-jre  
openjdk-11-demo         openjdk-11-source        openjdk-8-jre-dcevm  
openjdk-11-doc           openjdk-8-dbg            openjdk-8-jre-headless  
openjdk-11-jdk           openjdk-8-demo           openjdk-8-jre-zero  
openjdk-11-jdk-headless  openjdk-8-doc            openjdk-8-source  
openjdk-11-jre           openjdk-8-jdk            openjdk-8-jre-headless  
openjdk-11-jre-headless  openjdk-8-jdk-headless  
darthrooster@darthrooster-VirtualBox:~$ sudo apt install openjdk-8-j  
openjdk-8-jdk           openjdk-8-jre            openjdk-8-jre-headless  
openjdk-8-jdk-headless  openjdk-8-jre-dcevm      openjdk-8-jre-zero  
darthrooster@darthrooster-VirtualBox:~$ sudo apt install openjdk-8-jdk
```

The terminal window is titled "darthrooster@darthrooster-VirtualBox: ~". The desktop background is a dark purple and orange abstract design. The top bar shows "Attività", "Terminale", and the time "ven 10:32". The bottom bar contains icons for Firefox, a mail client, a file manager, a document, a shopping cart, and a terminal icon.

- ▶ Java - Quale sistema operativo?

- ▶ **Linux**

Download: `jdk-8u192-ea-bin-b04-linux-x64-01_aug_2018.tar.gz`

- ▶ Windows

- ▶ Mac

JAVA - INSTALLAZIONE

► Java - Quale sistema operativo?

► Linux

► Windows

► Mac

The screenshot shows the Oracle JDK 8u192 Early-Access Builds page. The page includes a sidebar with navigation links, a main content area with download instructions, and a table of download links for various operating systems. The 'Linux/x64' link is circled in blue.

JDK 8u192 Early-Access Builds

[Schedule, status, & features \(OpenJDK\)](#)

Documentation

- Test results

Latest build: 04 (2018/8/3)

- Issues addressed in this build

Oracle JDK builds

You must accept the [Early Adopter Development License Agreement](#) in order to download this software.

☐ Accept License Agreement
☐ Decline License Agreement

Linux/arm32 vfp hflt	tar.gz	75864037 bytes
Linux/arm64 vfp hflt	tar.gz	72852387
Linux/i586	tar.gz	138065707
Linux/x64	tar.gz	136858877
macOS/x64	dmg	199821590
Solaris/SPARC	tar.gz	98016447
Solaris/x64	tar.gz	95623406
Windows/i586	exe	153692528
Windows/x64	exe	163997040

Oracle JRE builds

You must accept the [Early Adopter Development License Agreement](#) in order to download this software.

☐ Accept License Agreement
☐ Decline License Agreement

Linux/i586	tar.gz	85373093 bytes
Linux/x64	tar.gz	84082552
macOS/x64	dmg	79335500
Solaris/SPARC	tar.gz	53944727
Solaris/x64	tar.gz	51586774
Windows/i586	exe	66337656

Java

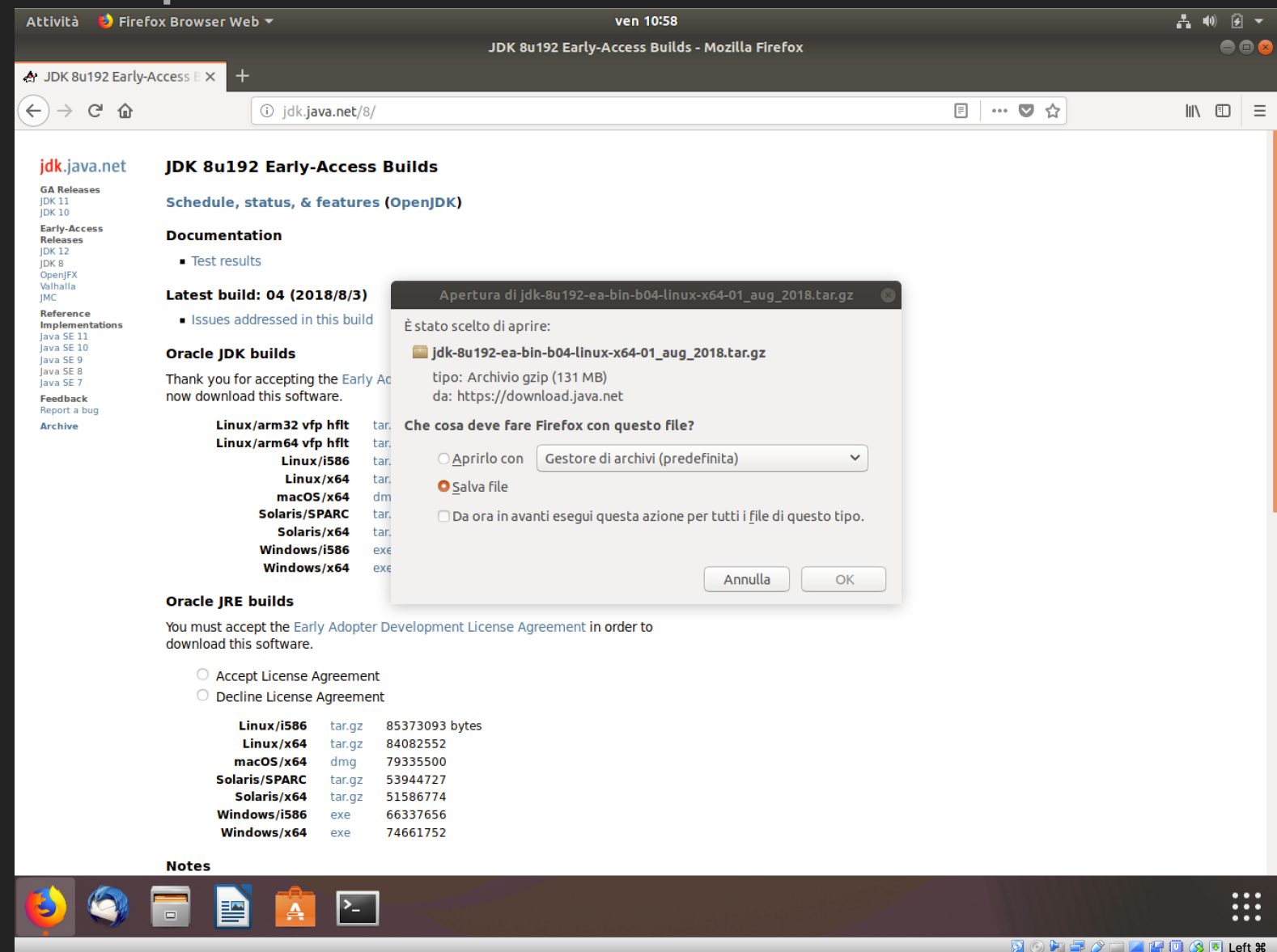
JAVA - INSTALLAZIONE

► Java - Quale sistema operativo?

► Linux

► Windows

► Mac



Java

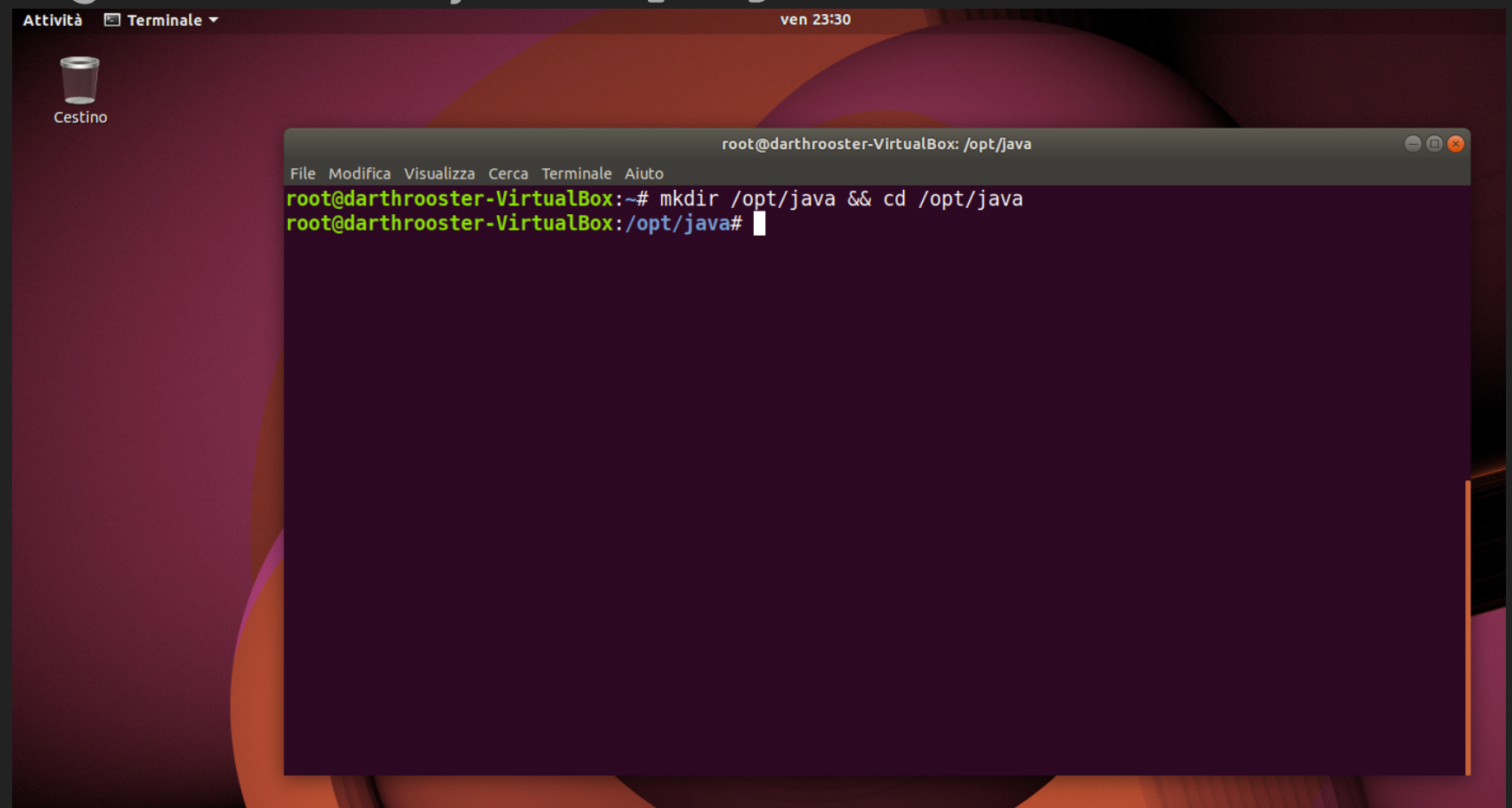
▶ Java - Quale sistema operativo?

▶ **Linux**

▶ Windows

▶ Mac

- Creiamo una cartella dove installare Java. Per un accesso globale (cioè per tutti gli utenti) è preferibile scegliere la seguente directory: `/opt/java`



The screenshot shows a Linux desktop with a dark theme. A terminal window is open, displaying the following commands and output:

```
root@darthrooster-VirtualBox: /opt/java
File Modifica Visualizza Cerca Terminale Aiuto
root@darthrooster-VirtualBox:~# mkdir /opt/java && cd /opt/java
root@darthrooster-VirtualBox:/opt/java#
```

The terminal window title is "root@darthrooster-VirtualBox: /opt/java". The desktop background features a large, abstract orange and red circular pattern. A "Cestino" (Trash) icon is visible on the left side of the desktop.

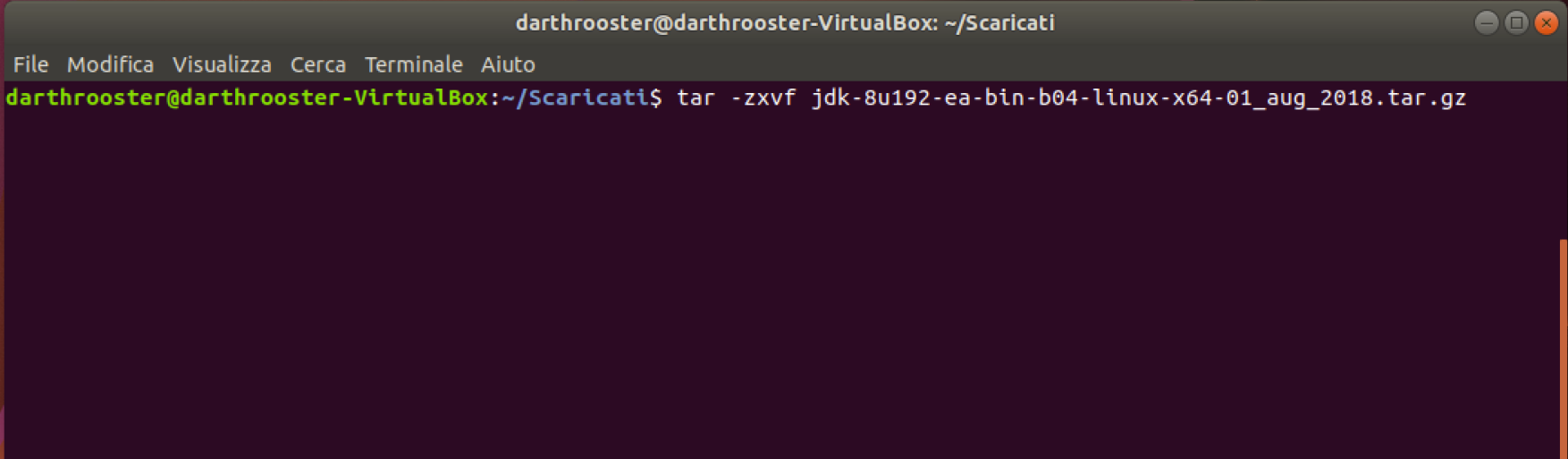
▶ Java - Quale sistema operativo?

▶ **Linux**

- Estraiamo la cartella dal file tar usando il `tar` command come mostrato sotto:

▶ Windows

▶ Mac



The screenshot shows a terminal window titled "darthrooster@darthrooster-VirtualBox: ~/Scaricati". The window has a menu bar with "File", "Modifica", "Visualizza", "Cerca", "Terminale", and "Aiuto". The command prompt shows the user "darthrooster@darthrooster-VirtualBox" in the directory "~/Scaricati" executing the command `tar -zxvf jdk-8u192-ea-bin-b04-linux-x64-01_aug_2018.tar.gz`. The terminal background is dark purple.

► Java - Quale sistema operativo?

► Linux

► Windows

► Mac

- Spostiamo la cartella estratta in /opt/java e diciamo al sistema dove java e i suoi eseguibili saranno installati

```
darthrooster@darthrooster-VirtualBox: ~/Scaricati
```

```
File Modifica Visualizza Cerca Terminale Aiuto
```

```
darthrooster@darthrooster-VirtualBox:~/Scaricati$ ls  
jdk1.8.0_192  jdk-8u192-ea-bin-b04-linux-x64-01_aug_2018.tar.gz  
darthrooster@darthrooster-VirtualBox:~/Scaricati$ mv jdk1.8.0_192/ /opt/java/  
darthrooster@darthrooster-VirtualBox: /opt/java/jdk1.8.0_192
```

```
File Modifica Visualizza Cerca Terminale Aiuto
```

```
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$ sudo update-alternatives --install /usr/bin/java java /opt/java/jdk1.8.0_192/bin/java 100  
[sudo] password di darthrooster:  
update-alternatives: viene usato /opt/java/jdk1.8.0_192/bin/java per fornire /usr/bin/java (java) in modalità automatica  
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$
```

```
darthrooster@darthrooster-VirtualBox: /opt/java/jdk1.8.0_192
```

```
File Modifica Visualizza Cerca Terminale Aiuto
```

```
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$ sudo update-alternatives --install /usr/bin/javac javac /opt/java/jdk1.8.0_192/bin/javac 100  
update-alternatives: viene usato /opt/java/jdk1.8.0_192/bin/javac per fornire /usr/bin/javac (javac) in modalità automatica  
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$
```

```
darthrooster@darthrooster-VirtualBox: /opt/java/jdk1.8.0_192
```

```
File Modifica Visualizza Cerca Terminale Aiuto
```

```
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$ sudo update-alternatives --install /usr/bin/jar jar /opt/java/jdk1.8.0_192/bin/jar 100  
update-alternatives: viene usato /opt/java/jdk1.8.0_192/bin/jar per fornire /usr/bin/jar (jar) in modalità automatica  
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$
```

▶ Java - Quale sistema operativo?

▶ **Linux**

- A questo punto è necessario popolare le variabili di ambiente e verificare la corretta installazione:

▶ Windows

▶ Mac

darthrooster@darthrooster-VirtualBox: /opt/java/jdk1.8.0_192

File Modifica Visualizza Cerca Terminale Aiuto

```
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$ export JAVA_HOME=/opt/java/jdk1.8.0_192/
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$ export PATH=$PATH:/opt/java/jdk1.8.0_192/bin
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$ java -version
java version "1.8.0_192-ea"
Java(TM) SE Runtime Environment (build 1.8.0_192-ea-b04)
Java HotSpot(TM) 64-Bit Server VM (build 25.192-b04, mixed mode)
darthrooster@darthrooster-VirtualBox:/opt/java/jdk1.8.0_192$
```

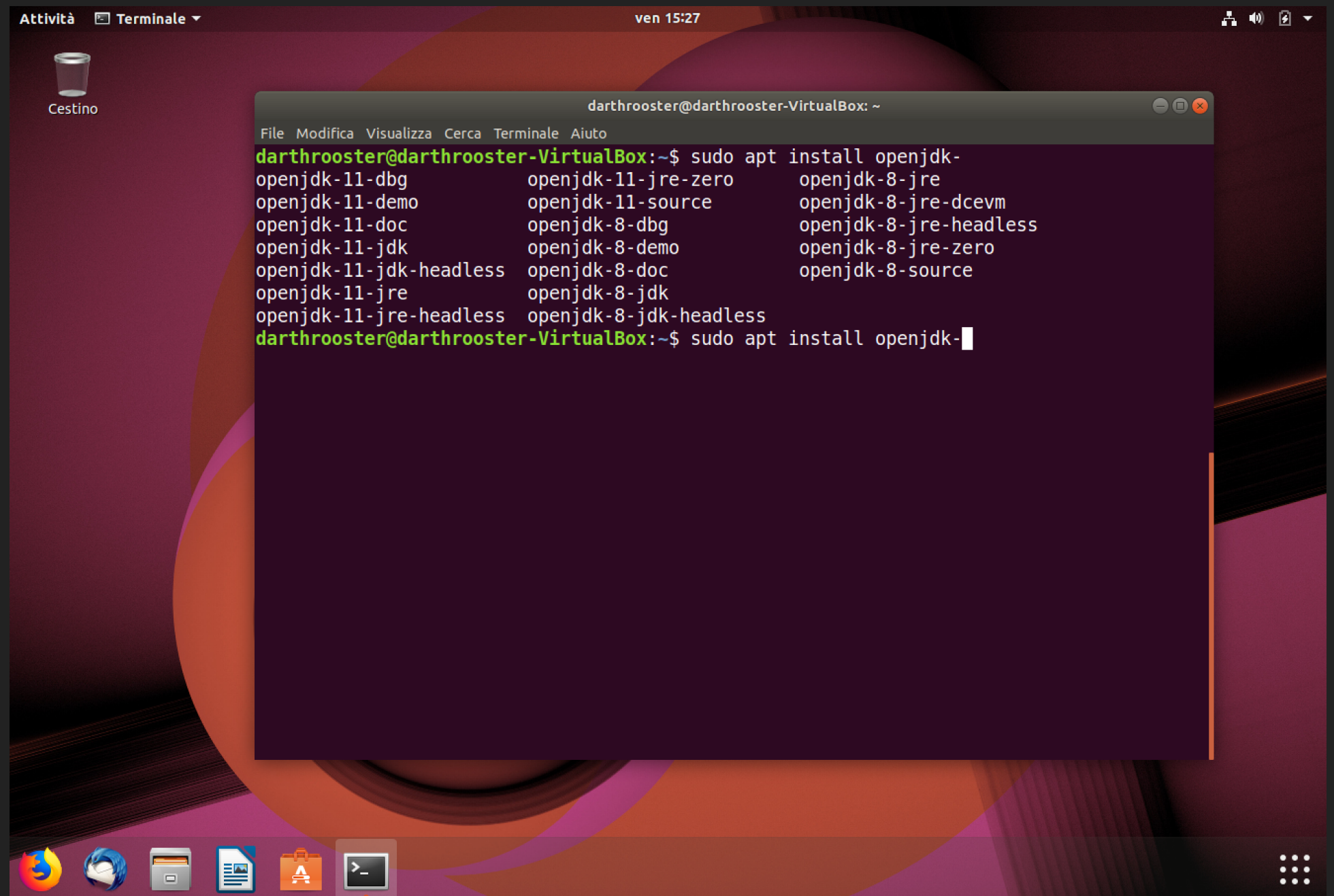
JAVA - INSTALLAZIONE

▶ Java - Quale sistema operativo?

▶ **Linux**

▶ **Windows**

▶ **Mac**

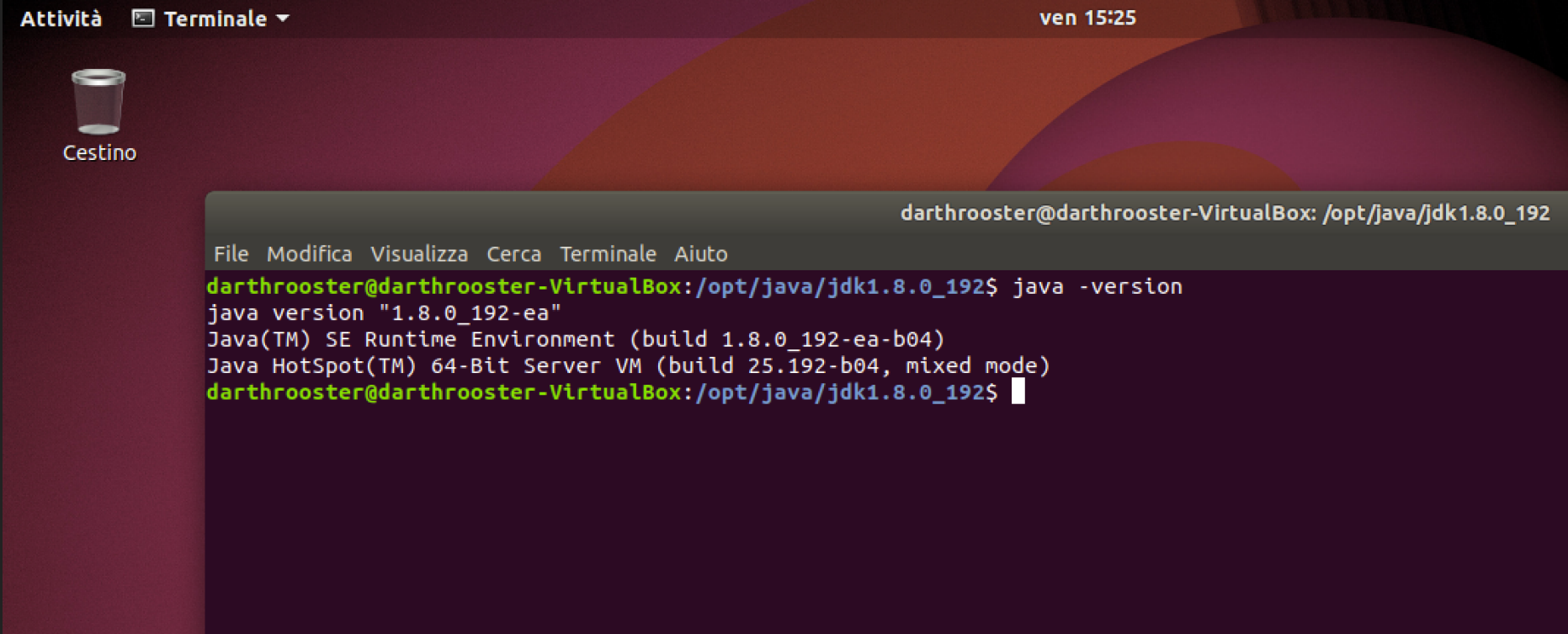


▶ Java - Quale sistema operativo?

▶ **Linux**

▶ **Windows**

▶ **Mac**

A screenshot of a Linux desktop environment. The desktop has a dark red background with a large, abstract, curved shape in a lighter shade of red. In the top-left corner, there is a menu bar with 'Attività' and 'Terminale'. Below the menu bar, there is a trash icon labeled 'Cestino'. In the top-right corner, the time 'ven 15:25' is displayed. A terminal window is open in the center-right of the screen. The terminal title bar reads 'darthrooster@darthrooster-VirtualBox: /opt/java/jdk1.8.0_192'. The terminal has a menu bar with 'File', 'Modifica', 'Visualizza', 'Cerca', 'Terminale', and 'Aiuto'. The terminal content shows the command 'java -version' being executed, with the following output: 'java version "1.8.0_192-ea"', 'Java(TM) SE Runtime Environment (build 1.8.0_192-ea-b04)', and 'Java HotSpot(TM) 64-Bit Server VM (build 25.192-b04, mixed mode)'. The prompt 'darthrooster@darthrooster-VirtualBox: /opt/java/jdk1.8.0_192\$' is visible at the bottom of the terminal window.

```
darthrooster@darthrooster-VirtualBox: /opt/java/jdk1.8.0_192$ java -version
java version "1.8.0_192-ea"
Java(TM) SE Runtime Environment (build 1.8.0_192-ea-b04)
Java HotSpot(TM) 64-Bit Server VM (build 25.192-b04, mixed mode)
darthrooster@darthrooster-VirtualBox: /opt/java/jdk1.8.0_192$
```

► Java - Quale sistema operativo?

► Linux

► Windows

► Mac

Overview Downloads Documentation Community Technologies Training

Java SE Development Kit 8 Downloads

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, applets, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

See also:

- [Java Developer Newsletter](#): From your Oracle account, select **Subscriptions**, expand **Technology**, and subscribe to **Java**.
- [Java Developer Day hands-on workshops \(free\) and other events](#)
- [Java Magazine](#)

JDK 8u181 [checksum](#)

Java SE Development Kit 8u181

You must accept the [Oracle Binary Code License Agreement for Java SE](#) to download this software.

Thank you for accepting the Oracle Binary Code License Agreement for Java SE; you may now download this software.

Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	72.95 MB	jdk-8u181-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	69.89 MB	jdk-8u181-linux-arm64-vfp-hflt.tar.gz
Linux x86	165.06 MB	jdk-8u181-linux-i586.rpm
Linux x86	179.87 MB	jdk-8u181-linux-i586.tar.gz
Linux x64	162.15 MB	jdk-8u181-linux-x64.rpm
Linux x64	177.05 MB	jdk-8u181-linux-x64.tar.gz
Mac OS X x64	242.83 MB	jdk-8u181-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	133.17 MB	jdk-8u181-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	94.34 MB	jdk-8u181-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	133.83 MB	jdk-8u181-solaris-x64.tar.Z
Solaris x64	92.11 MB	jdk-8u181-solaris-x64.tar.gz
Windows x86	194.41 MB	jdk-8u181-windows-i586.exe
Windows x64	202.73 MB	jdk-8u181-windows-x64.exe

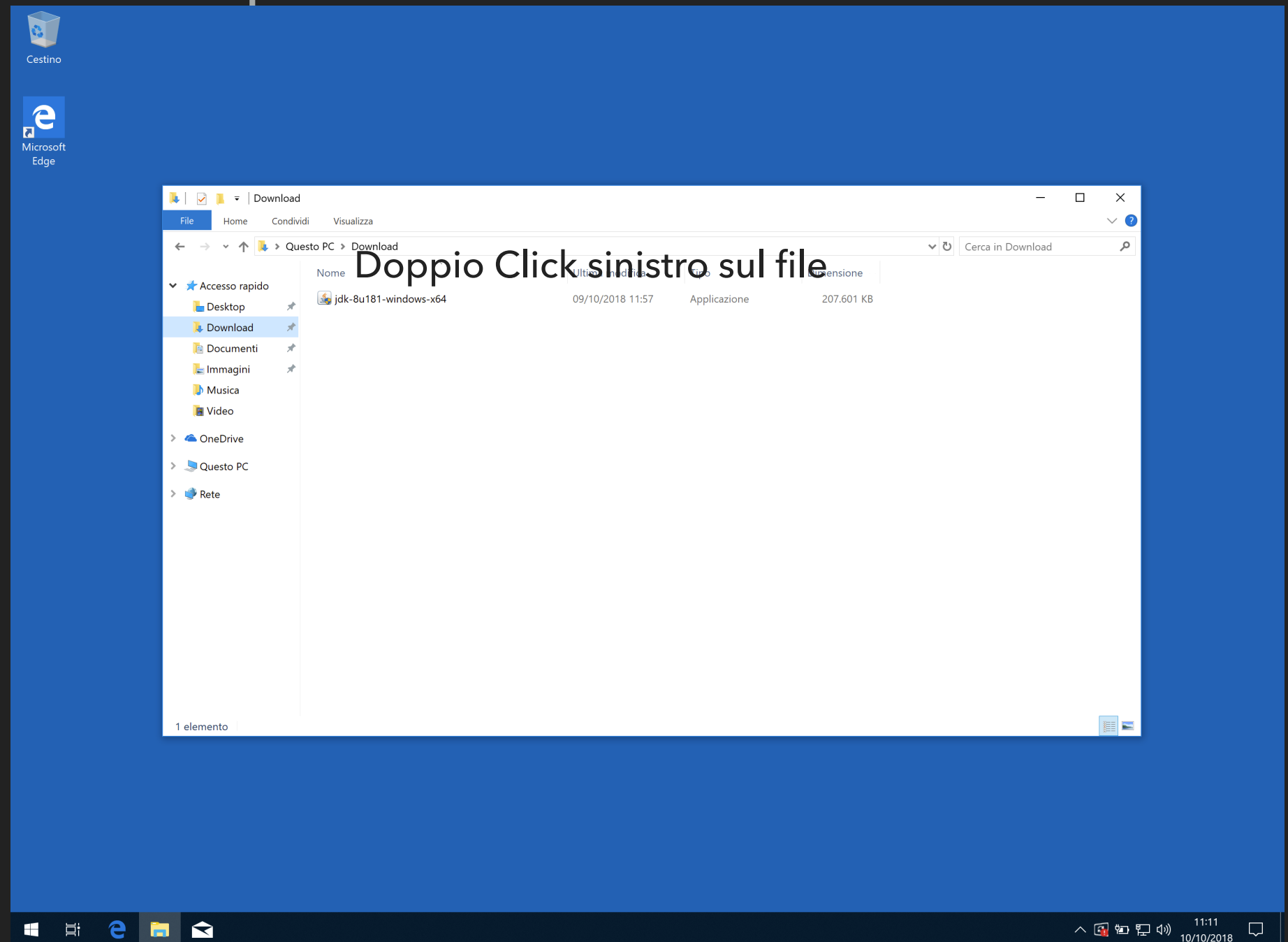
JAVA - INSTALLAZIONE

► Java - Quale sistema operativo?

► Linux

► **Windows**

► Mac



▶ Java - Quale sistema operativo?

▶ Linux

▶ **Windows**

▶ Mac

Tasto Sinistro su **Si**

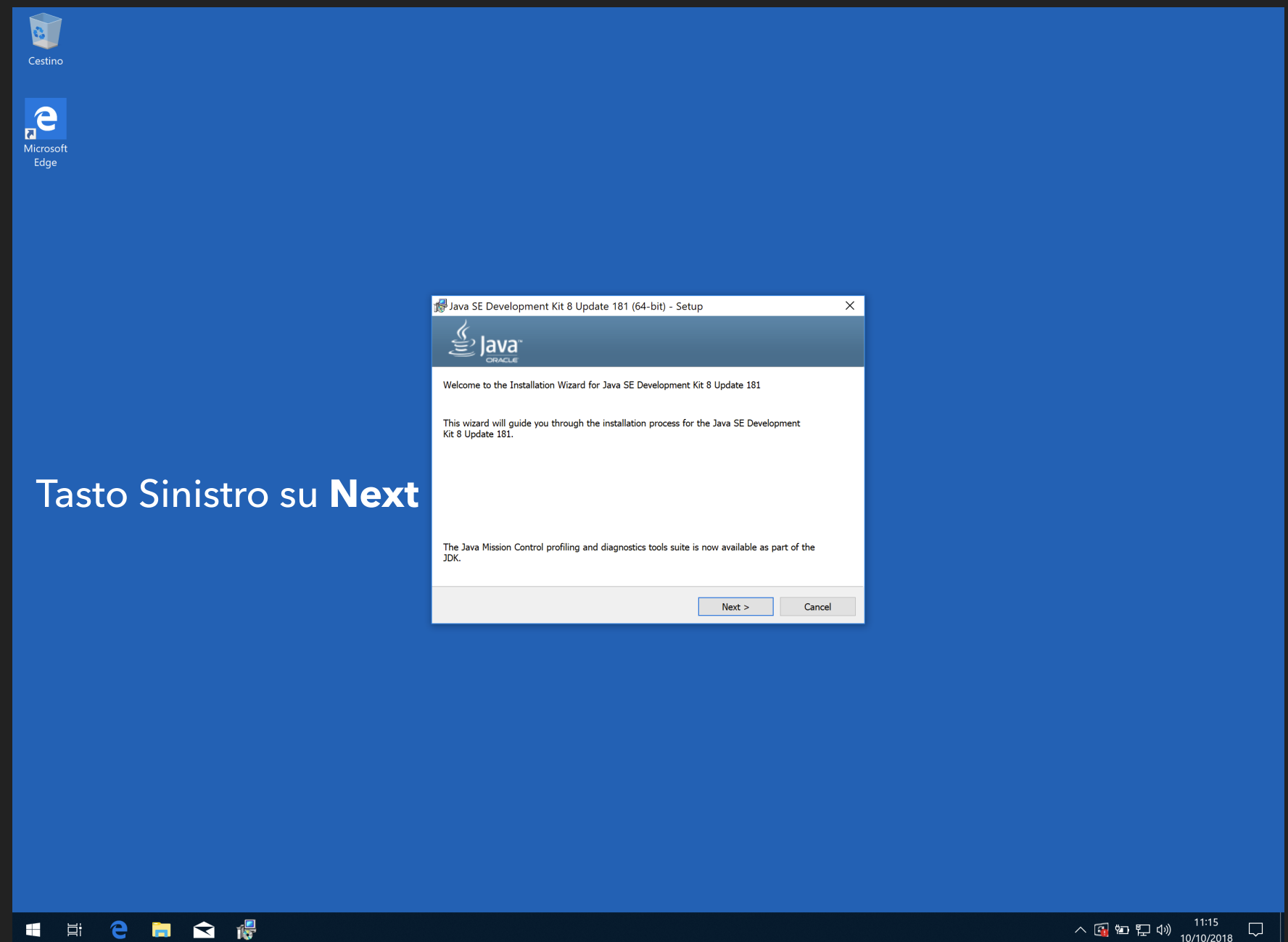


▶ Java - Quale sistema operativo?

▶ Linux

▶ **Windows**

▶ Mac



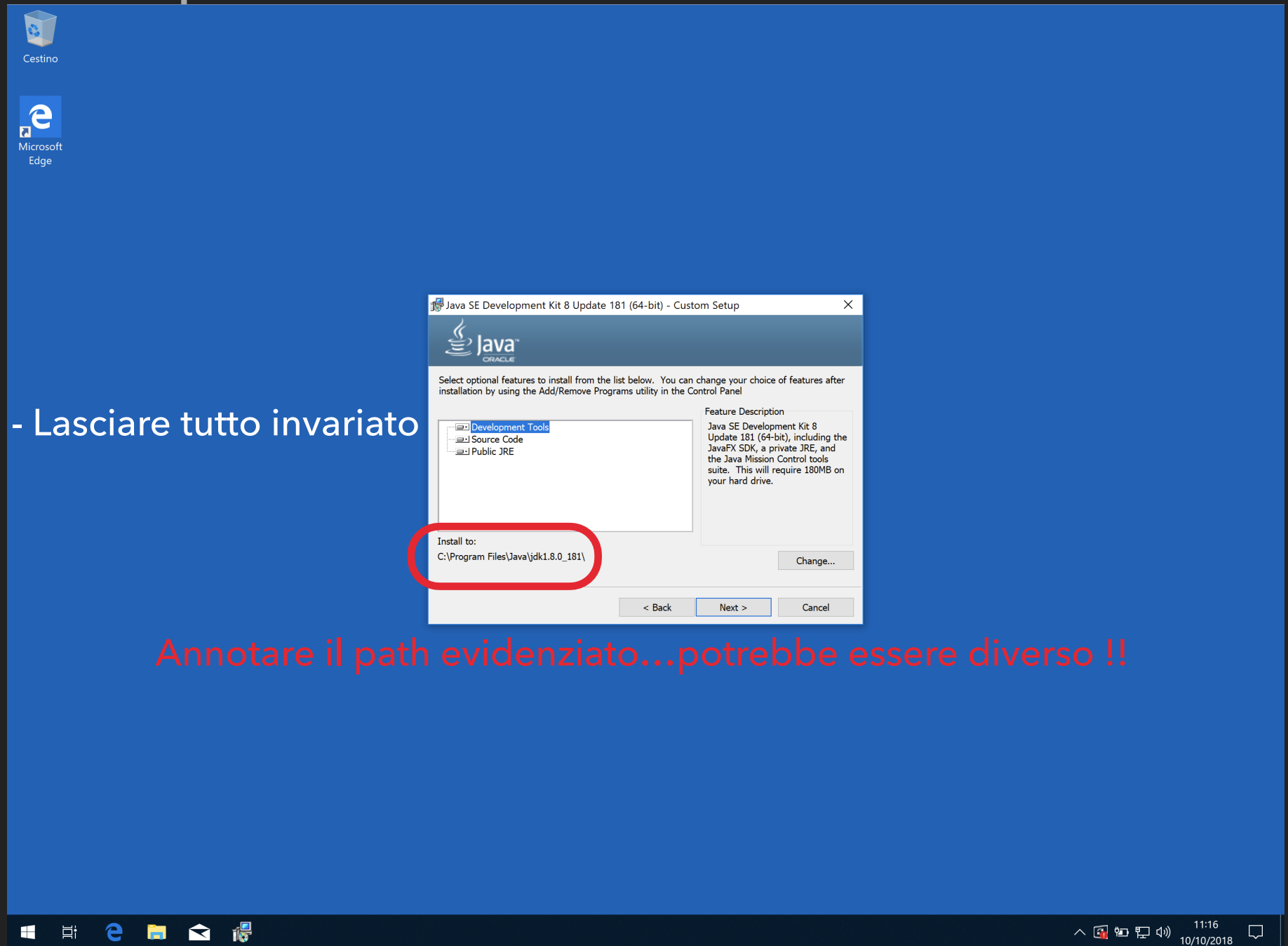
JAVA - INSTALLAZIONE

► Java - Quale sistema operativo?

► Linux

► **Windows**

► Mac

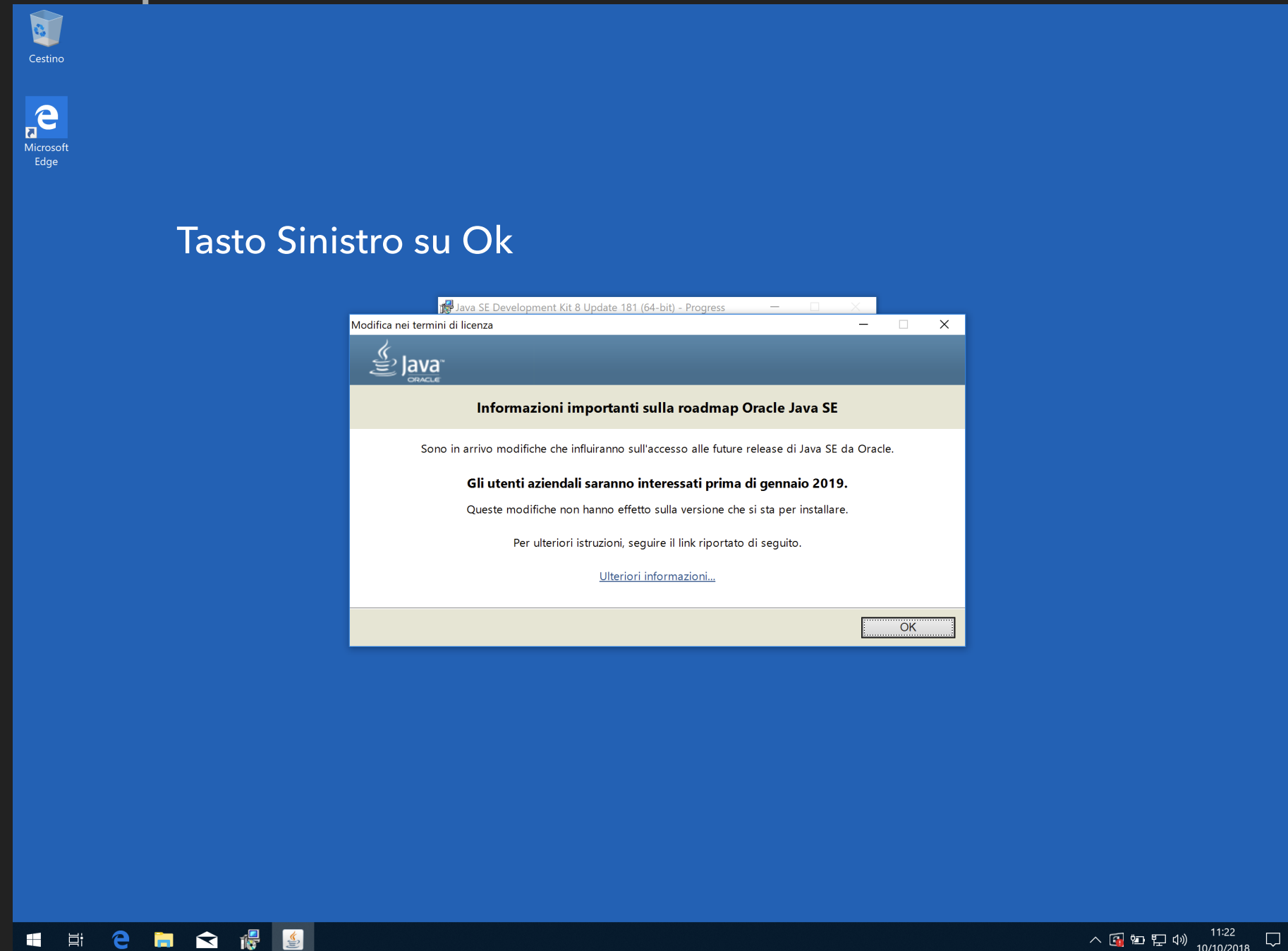


► Java - Quale sistema operativo?

► Linux

► **Windows**

► Mac



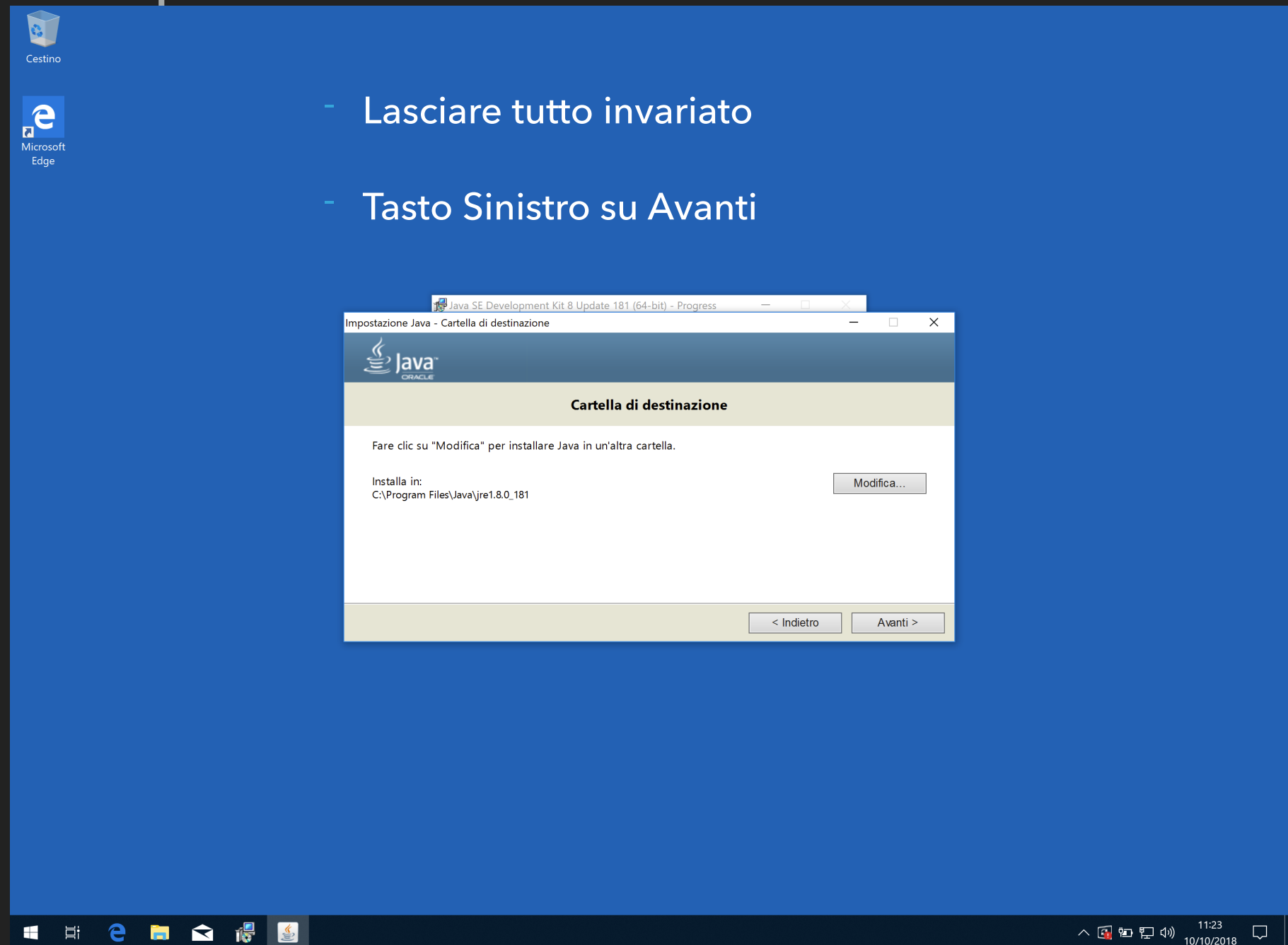
► Java - Quale sistema operativo?

► Linux

► **Windows**

► Mac

- Lasciare tutto invariato
- Tasto Sinistro su Avanti



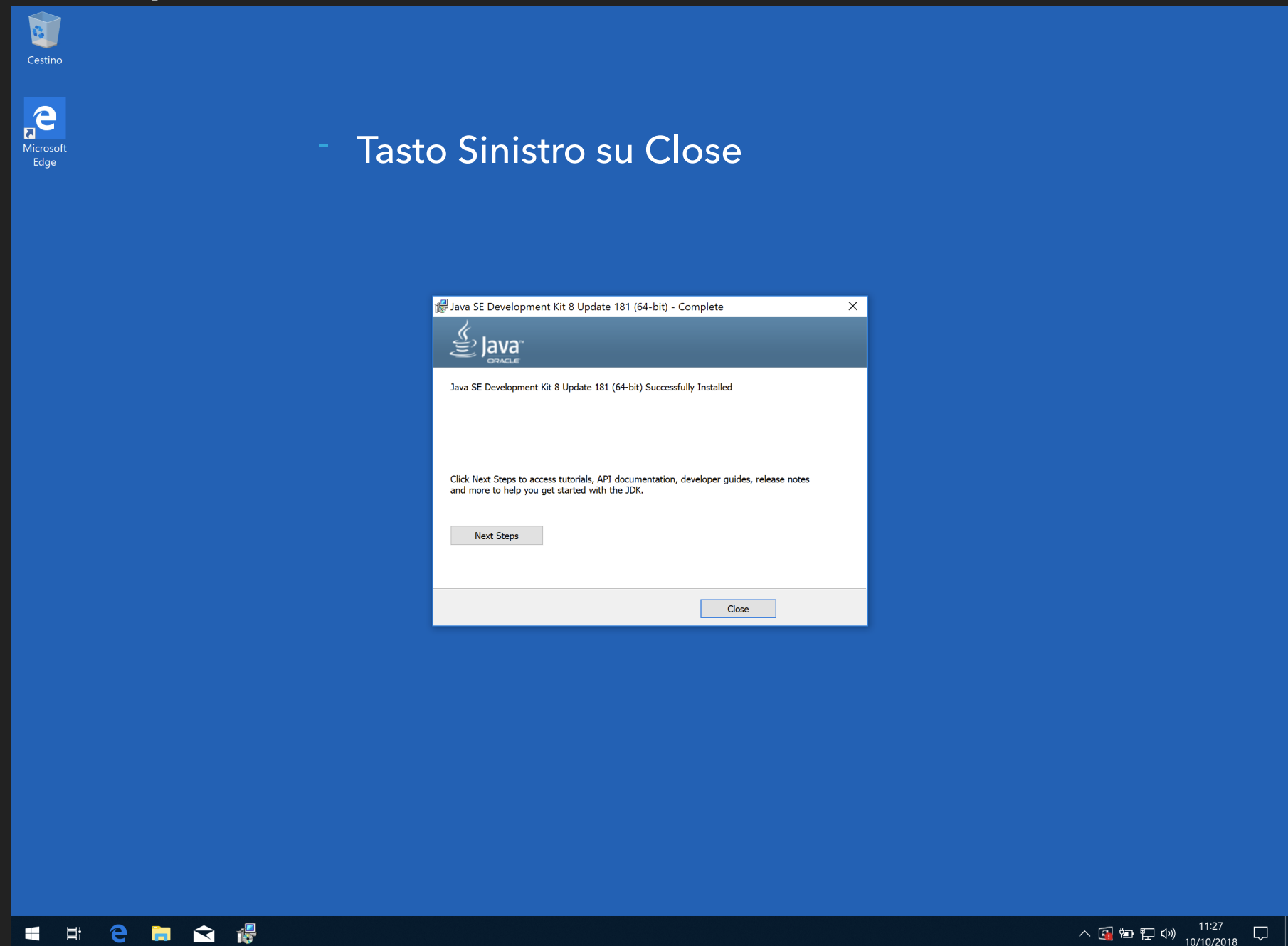
▶ Java - Quale sistema operativo?

▶ Linux

▶ **Windows**

▶ Mac

- Tasto Sinistro su Close



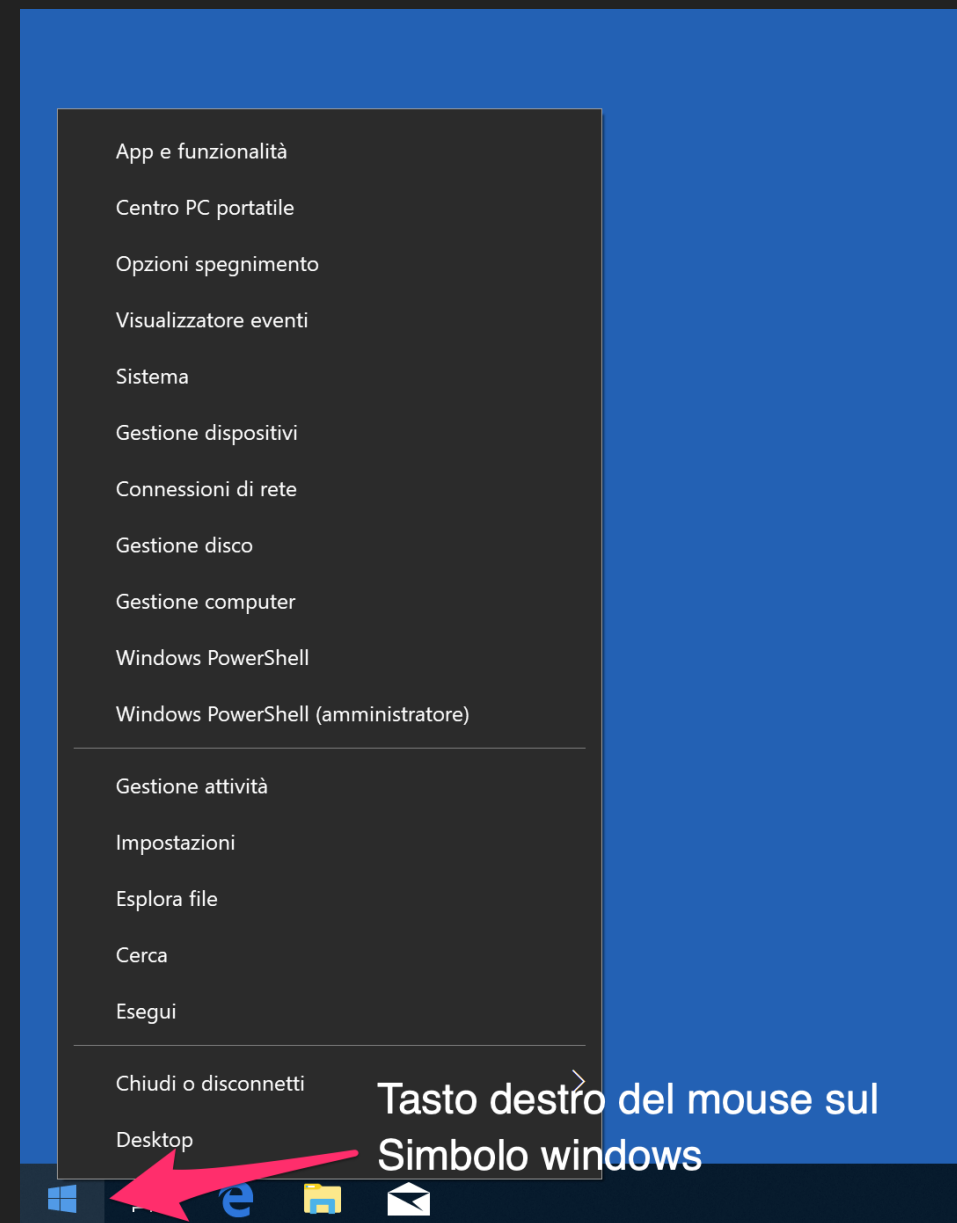
▶ Java - Quale sistema operativo?

- Come aprire il terminale (o bash o linea di comando) di windows

▶ Linux

▶ **Windows**

▶ Mac



▶ Java - Quale sistema operativo?

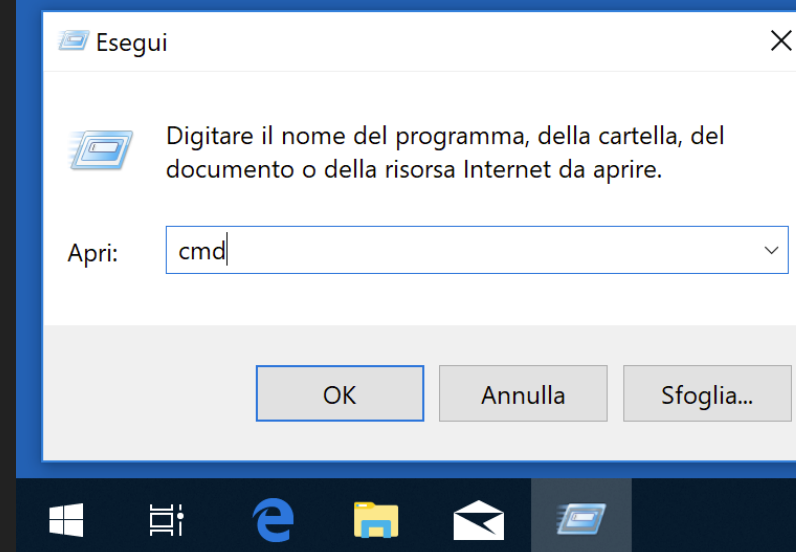
- Come aprire il terminale (o bash o linea di comando) di windows

▶ Linux

▶ **Windows**

▶ Mac

- Digitare cmd
- Tasto sinistro su Ok



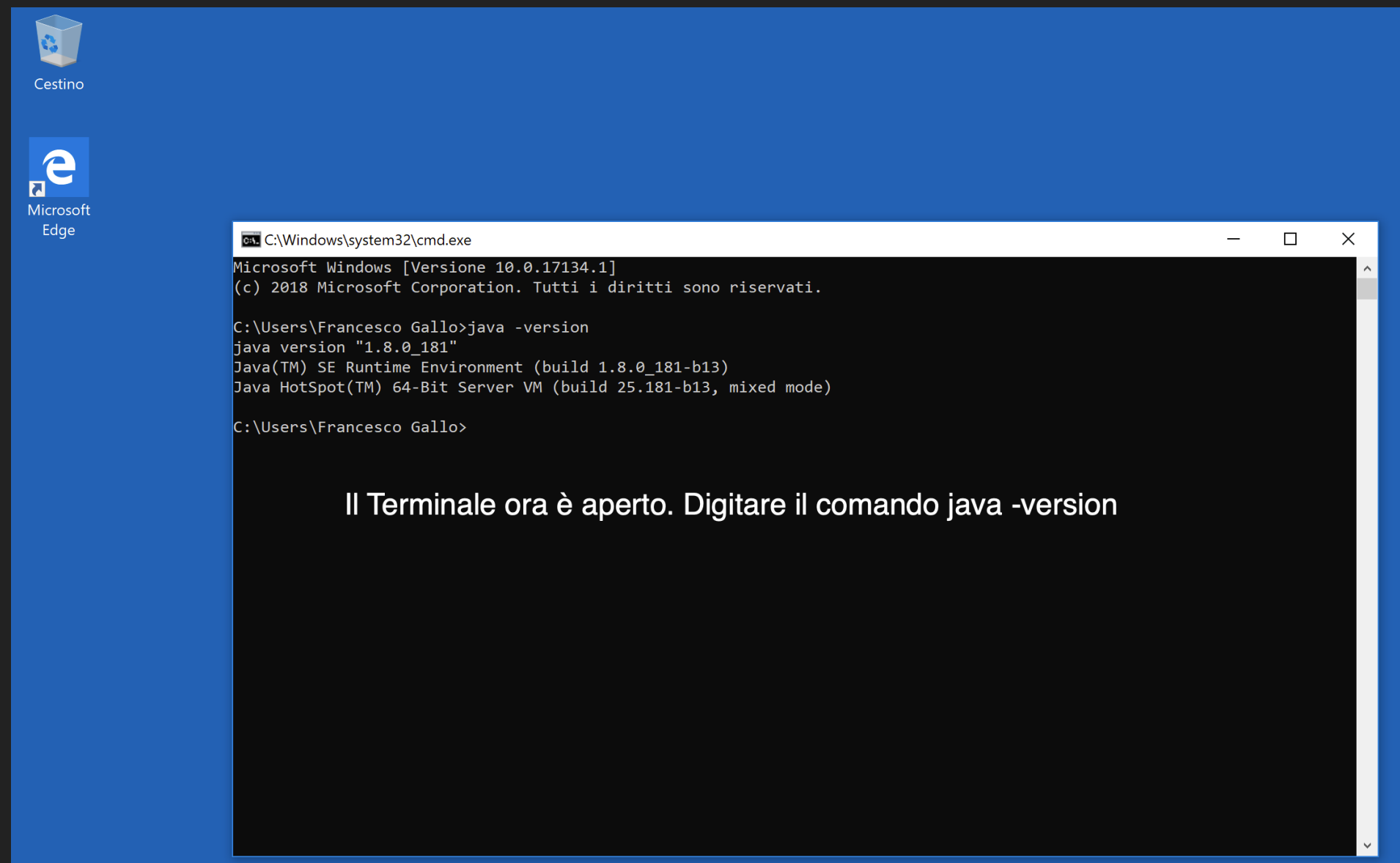
▶ Java - Quale sistema operativo?

- Come aprire il terminale (o bash o linea di comando) di windows

▶ Linux

▶ **Windows**

▶ Mac



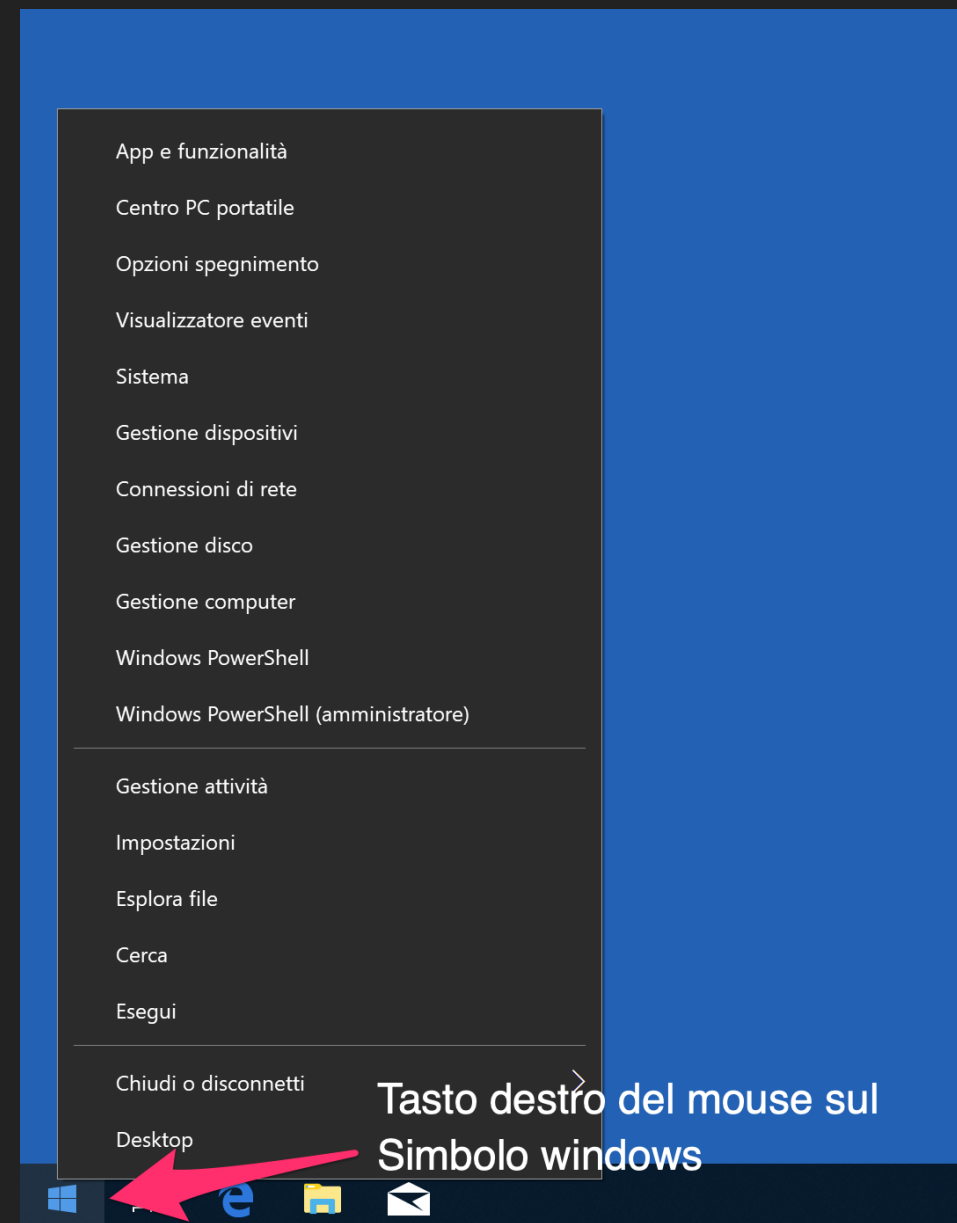
▶ Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

▶ Linux

▶ **Windows**

▶ Mac



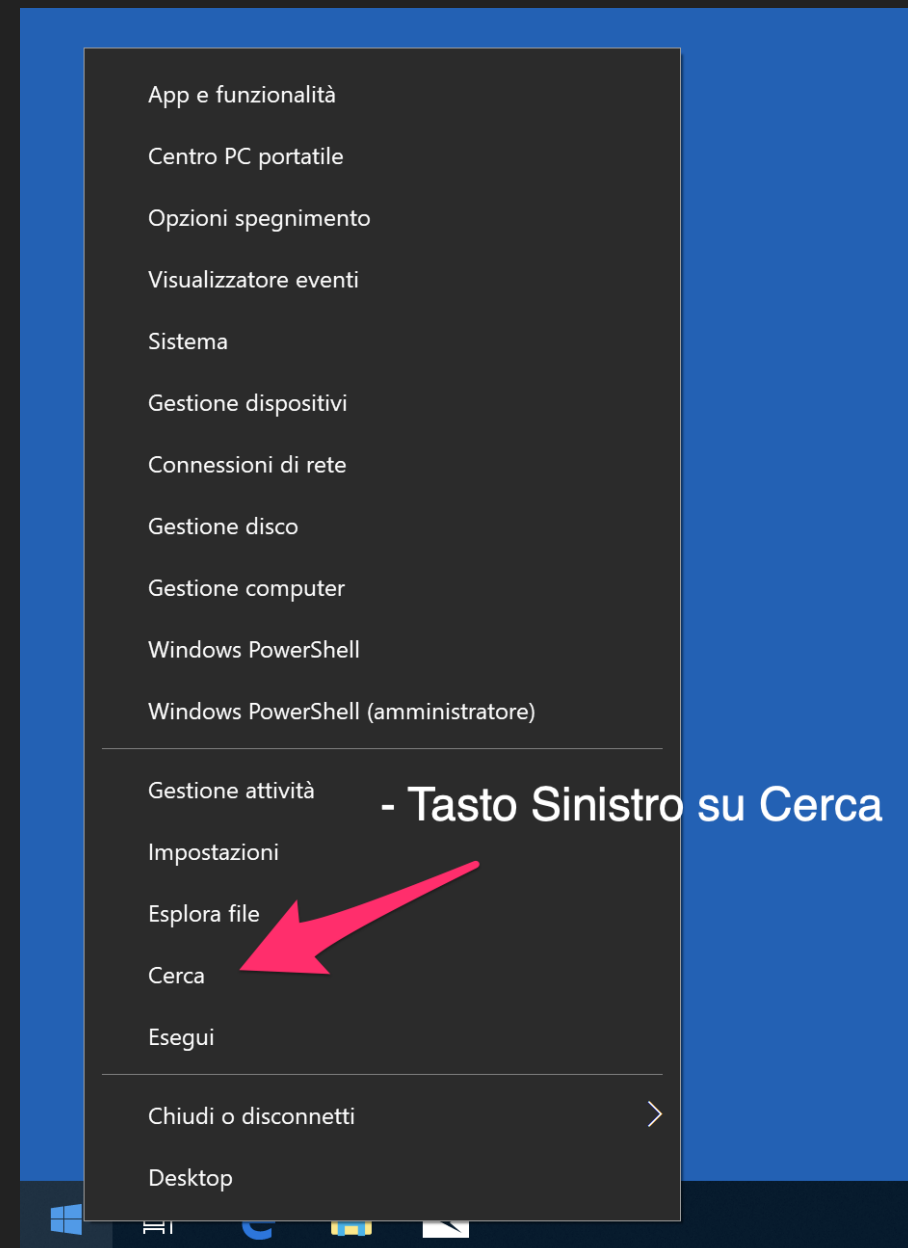
▶ Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

▶ Linux

▶ **Windows**

▶ Mac



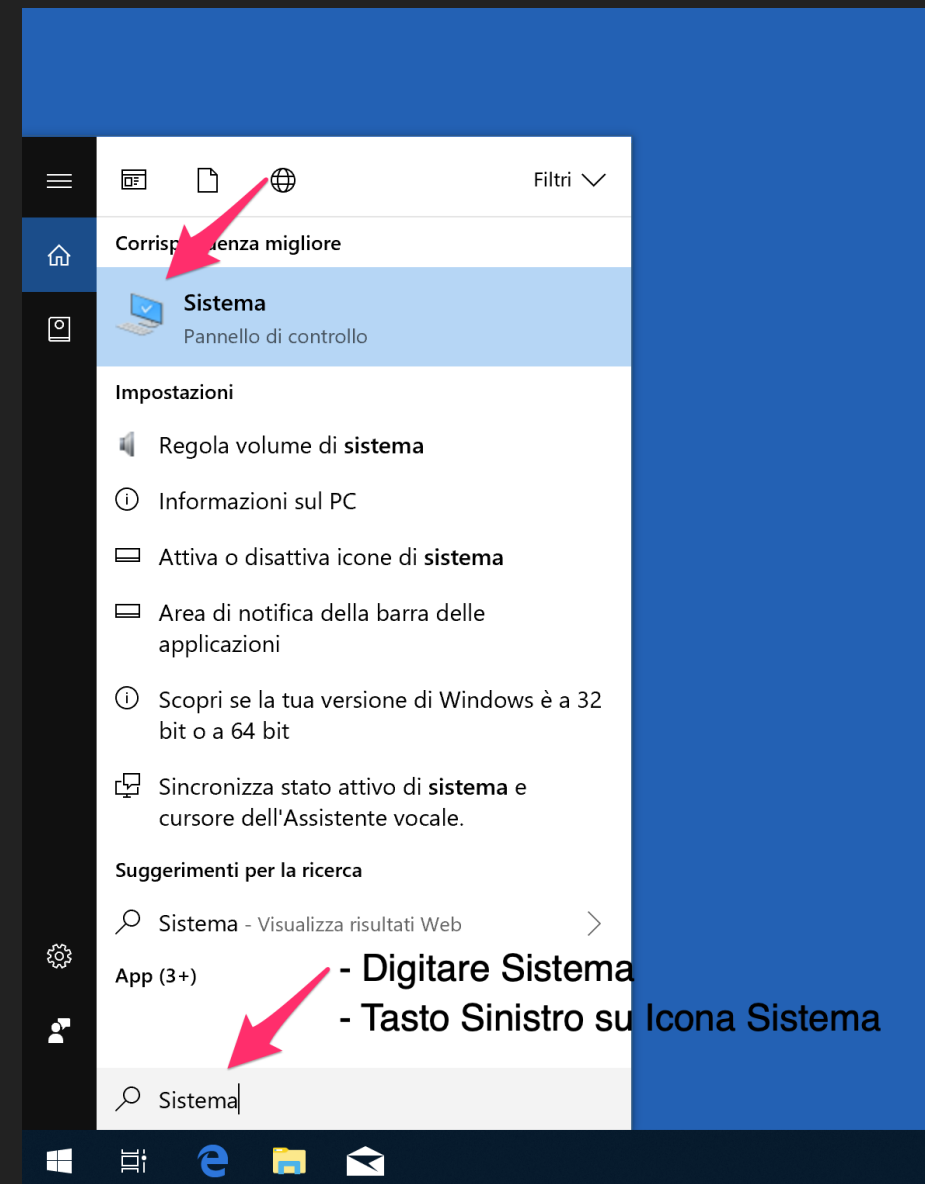
▶ Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

▶ Linux

▶ **Windows**

▶ Mac



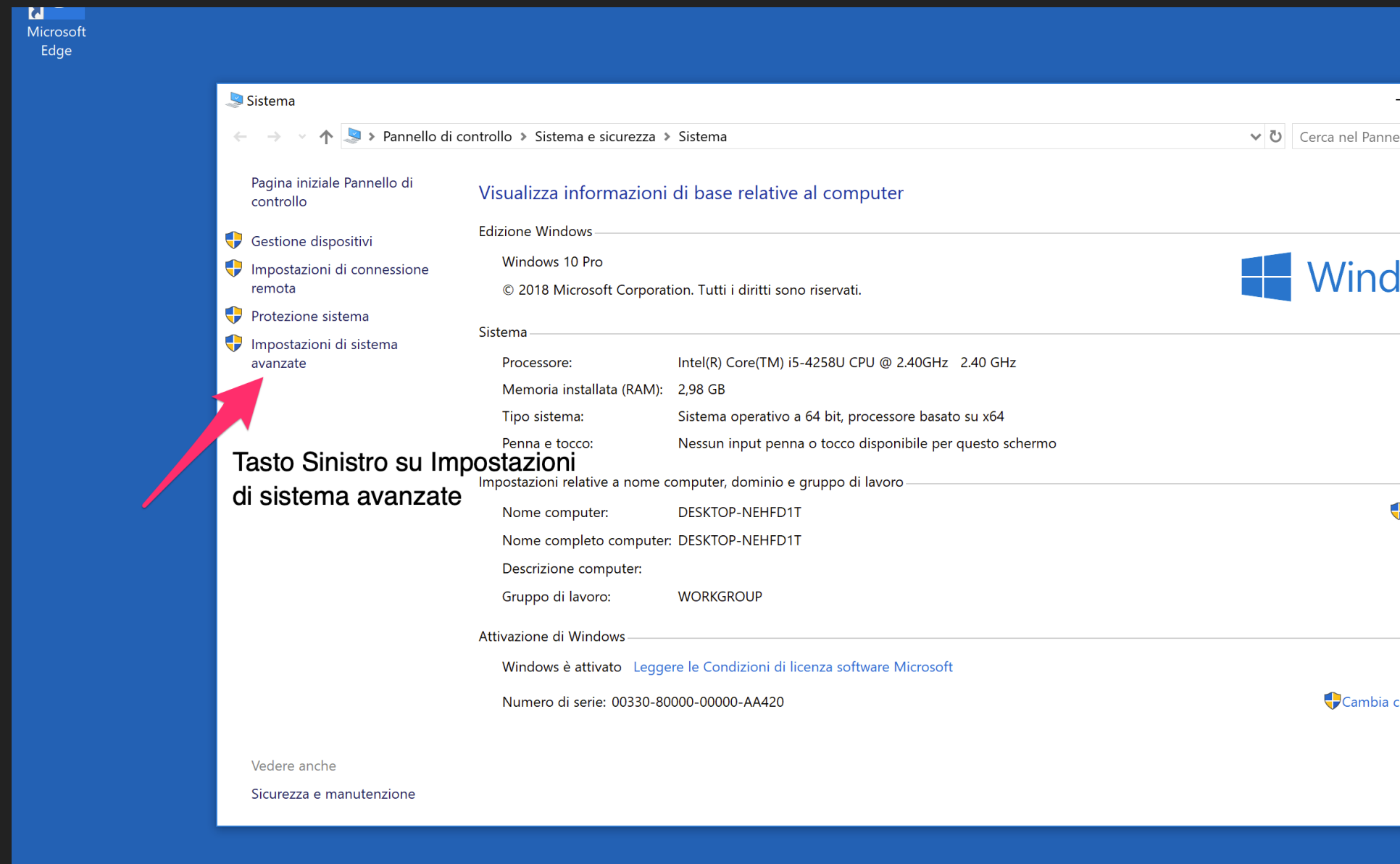
► Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

► Linux

► Windows

► Mac



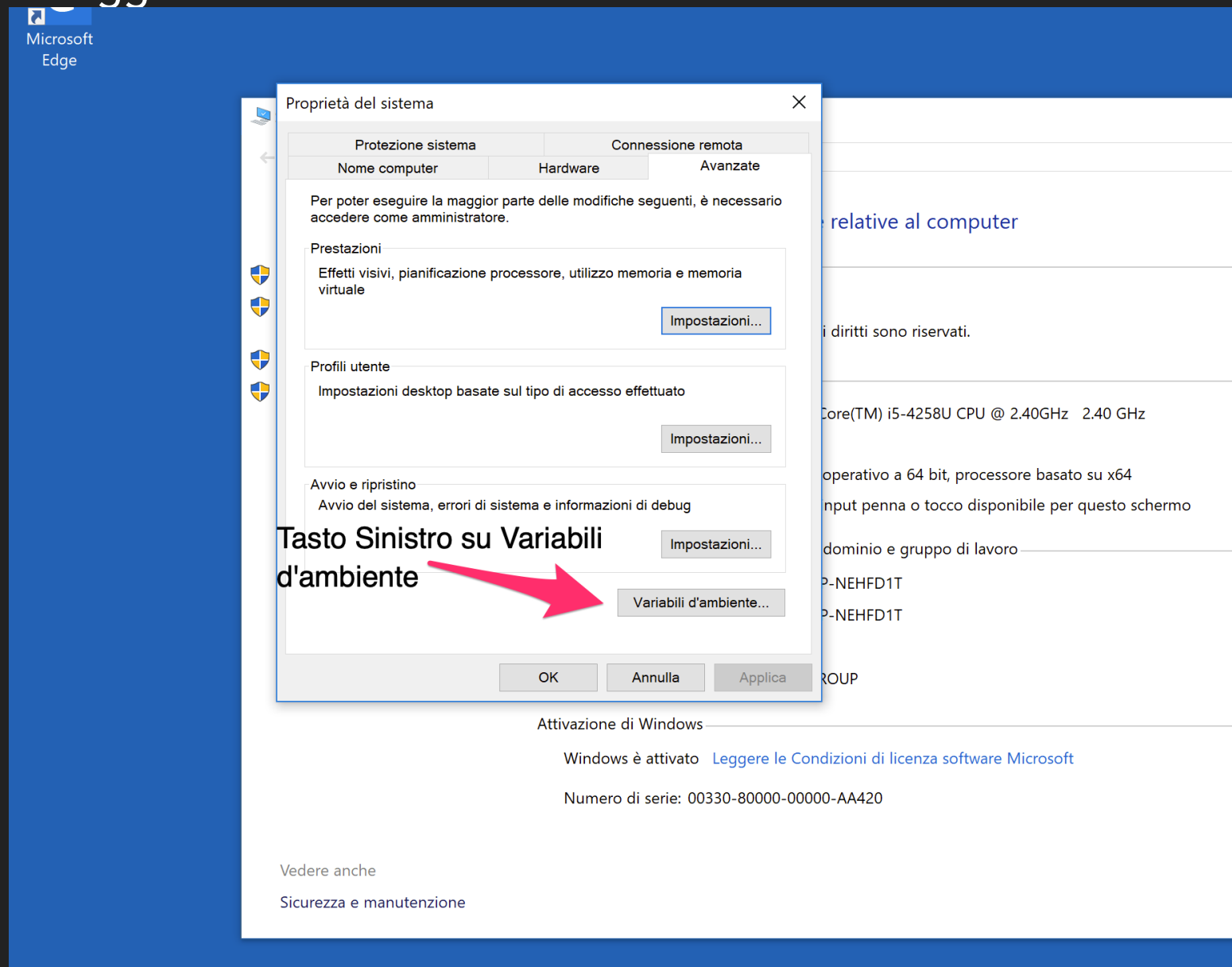
► Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

► Linux

► Windows

► Mac



JAVA - INSTALLAZIONE

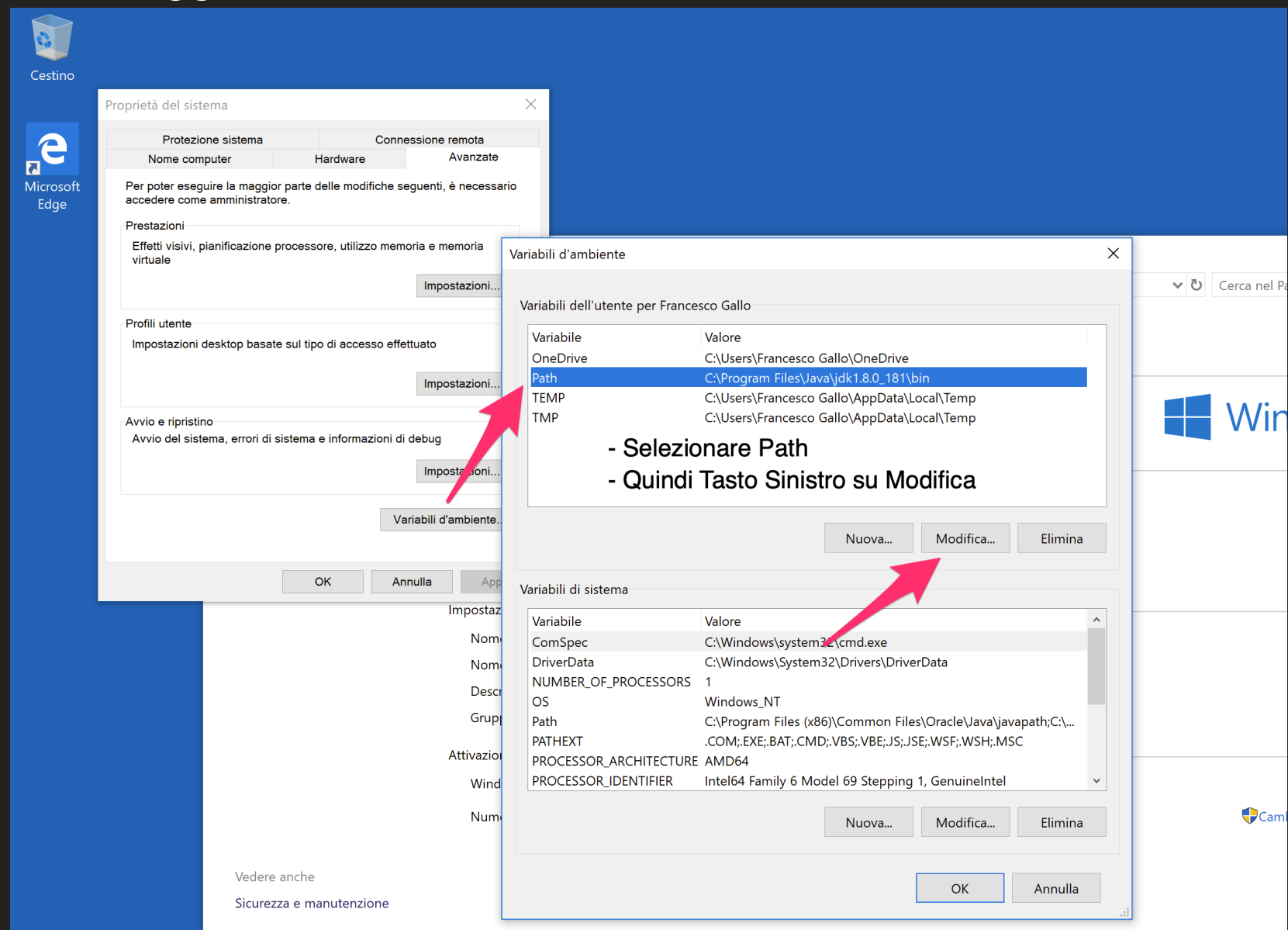
► Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

► Linux

► Windows

► Mac

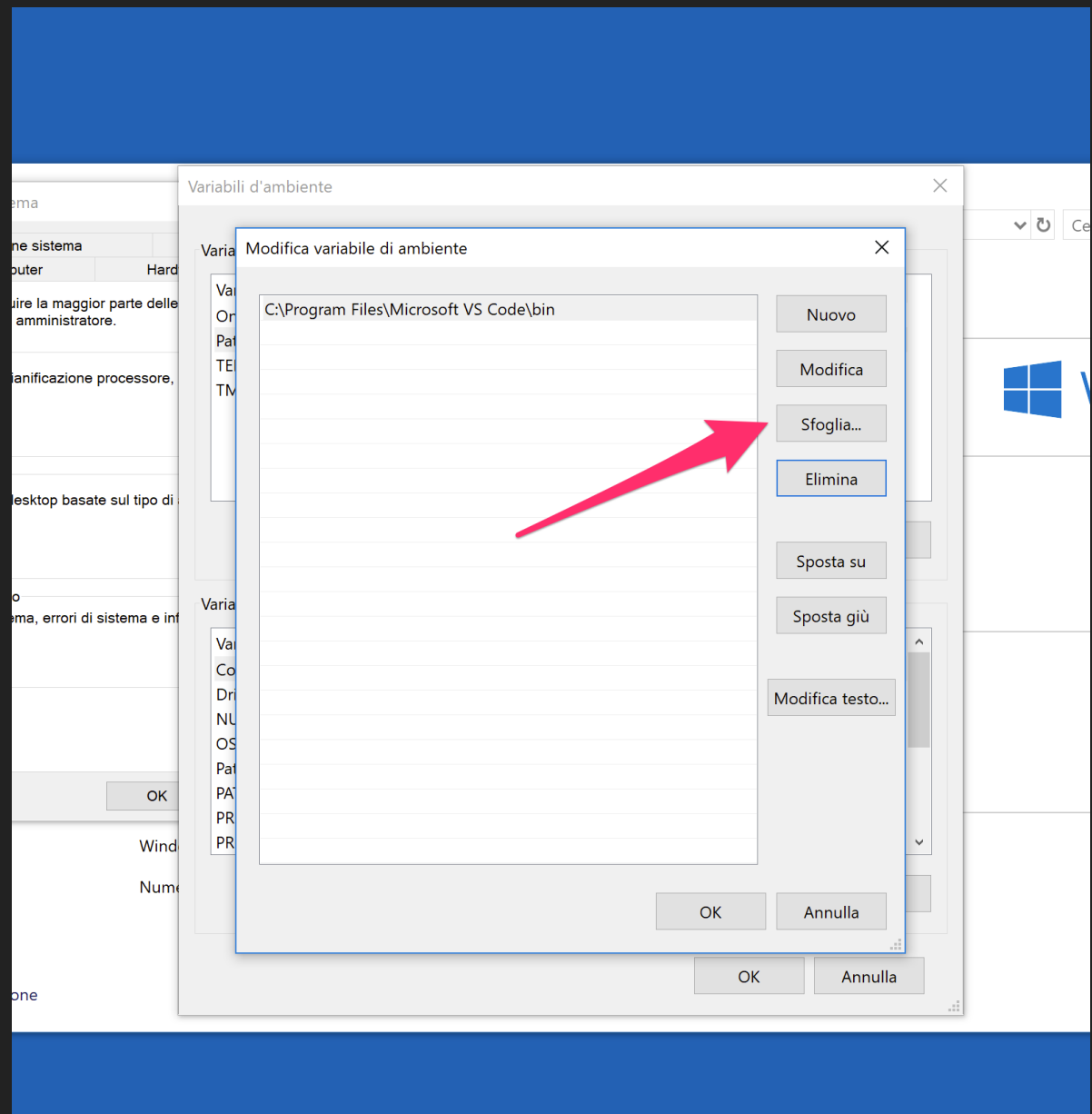


- ▶ Java - Quale sistema operativo?
 - Aggiornare variabili d'ambiente

- ▶ Linux

- ▶ **Windows**

- ▶ Mac



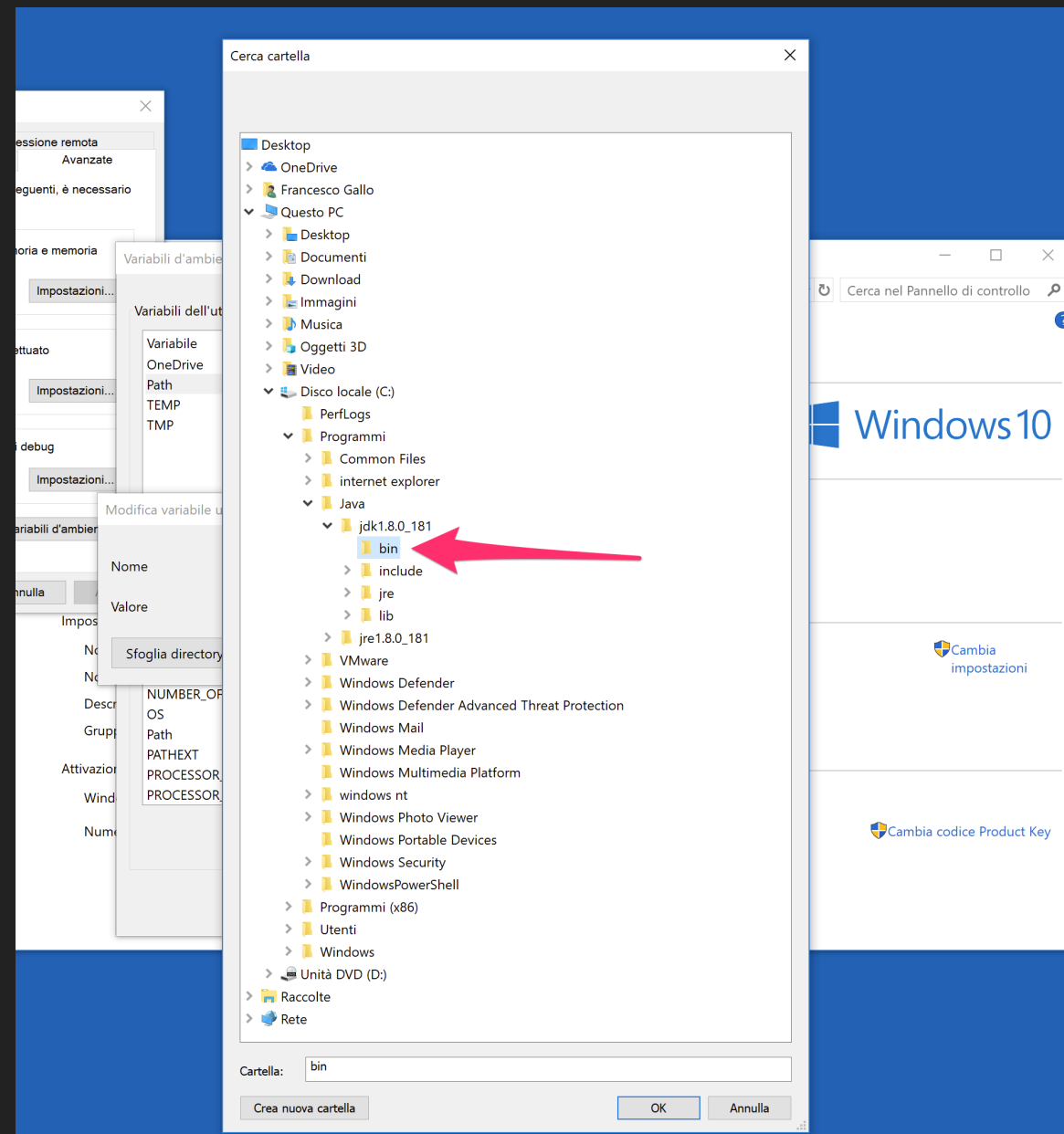
JAVA - INSTALLAZIONE

- ▶ Java - Quale sistema operativo?
 - Aggiornare variabili d'ambiente

- ▶ Linux

- ▶ **Windows**

- ▶ Mac



JAVA - INSTALLAZIONE

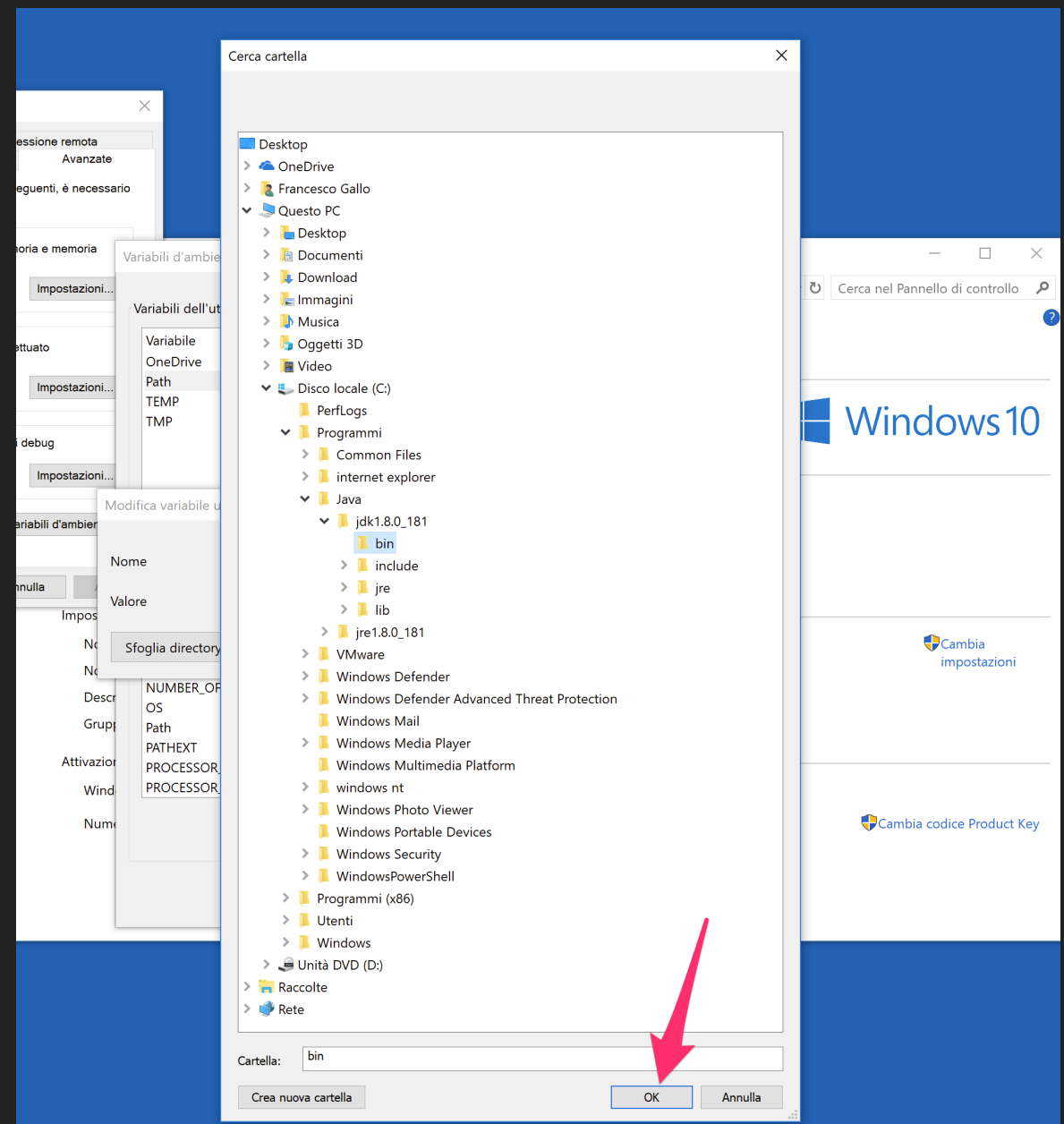
► Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

► Linux

► **Windows**

► Mac



JAVA - INSTALLAZIONE

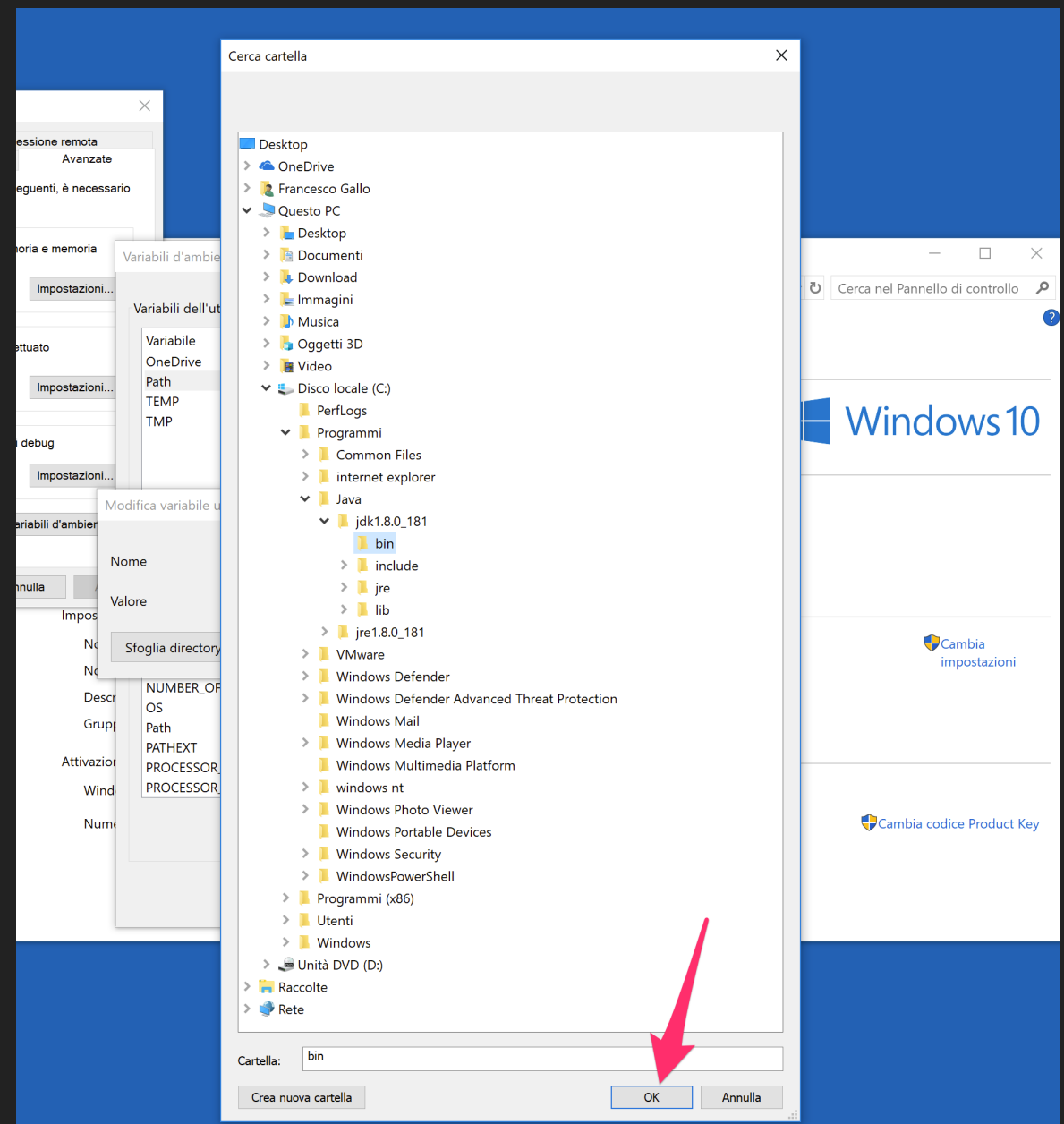
► Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

► Linux

► **Windows**

► Mac



JAVA - INSTALLAZIONE

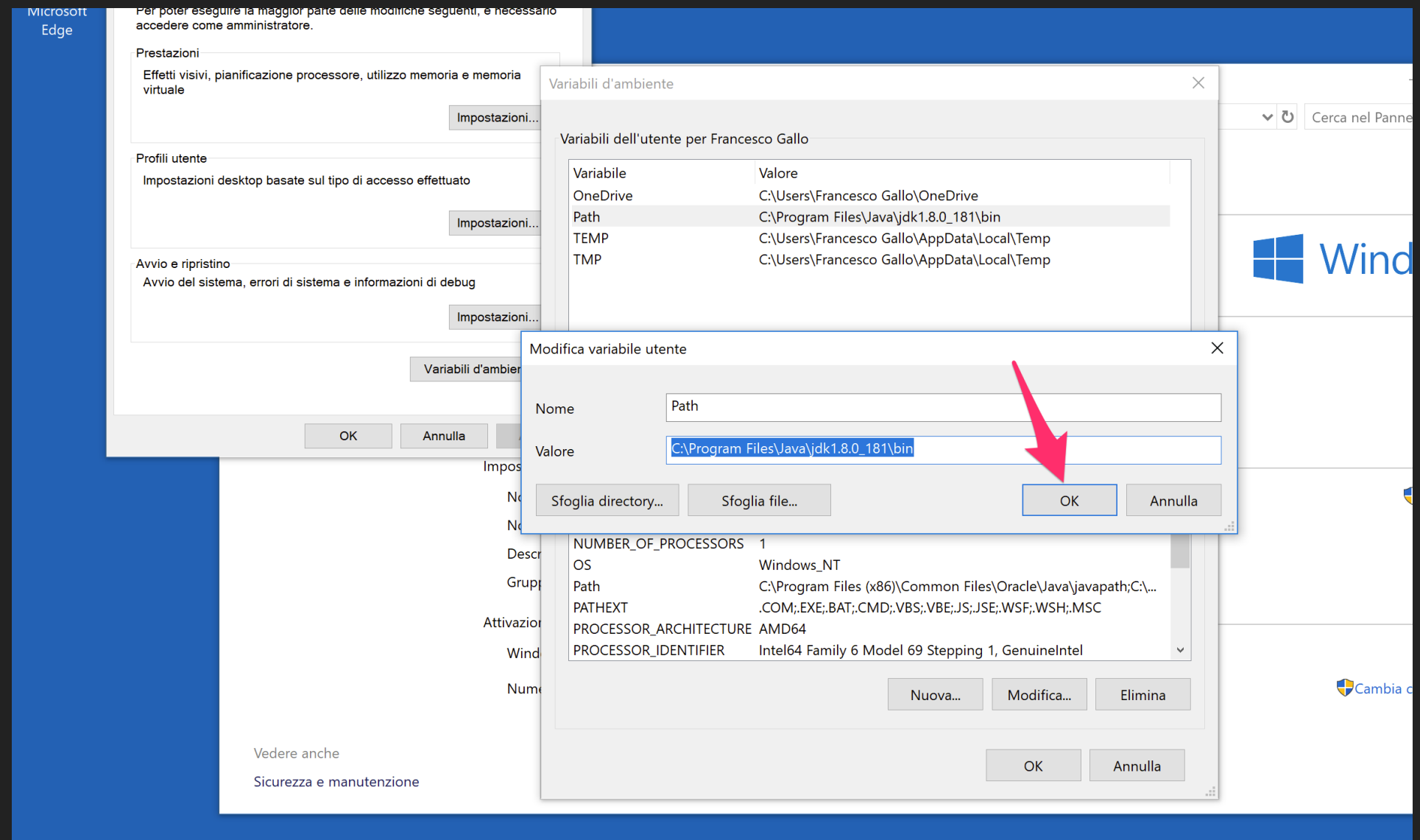
► Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

► Linux

► Windows

► Mac



JAVA - INSTALLAZIONE

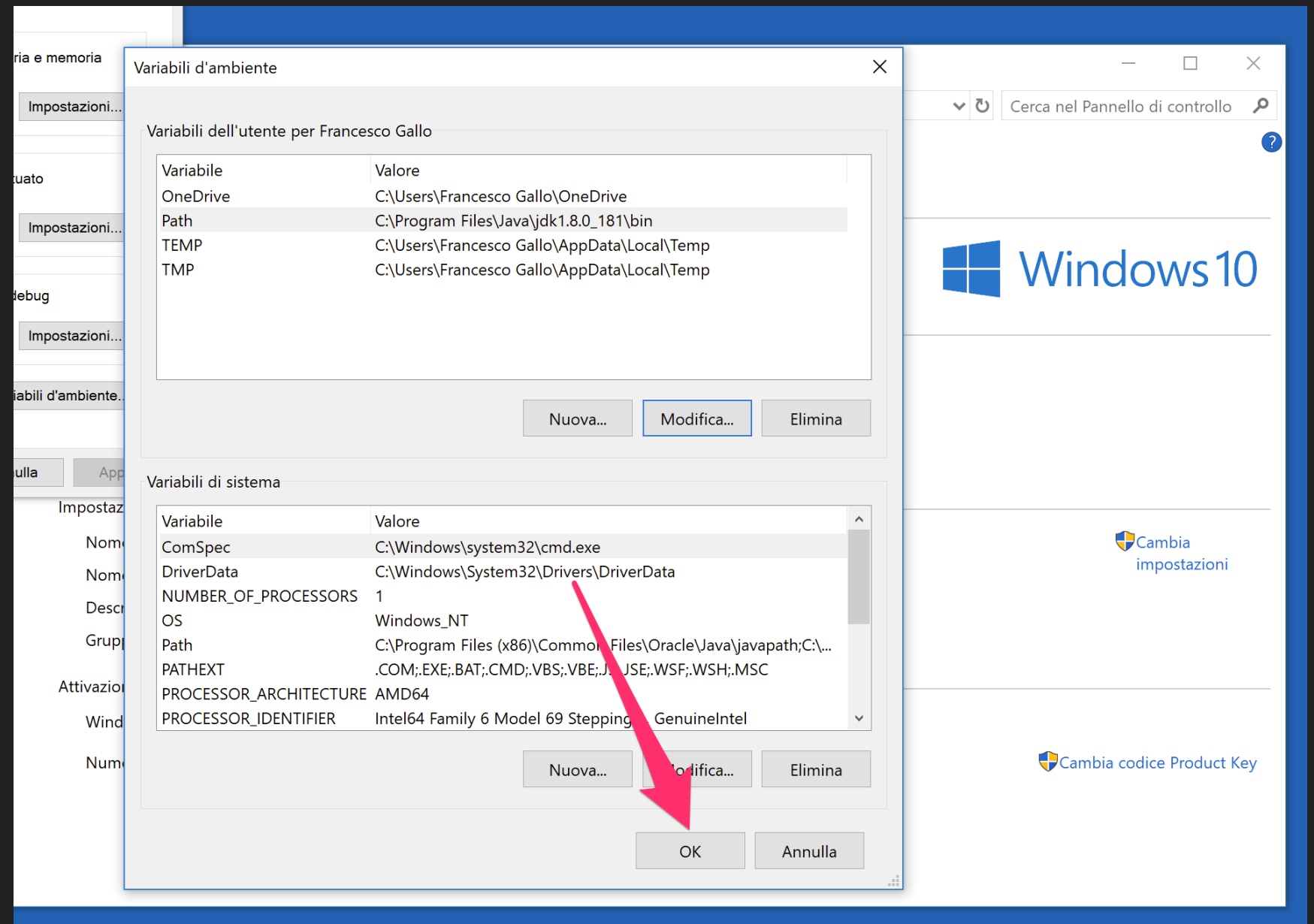
► Java - Quale sistema operativo?

- Aggiornare variabili d'ambiente

► Linux

► **Windows**

► Mac



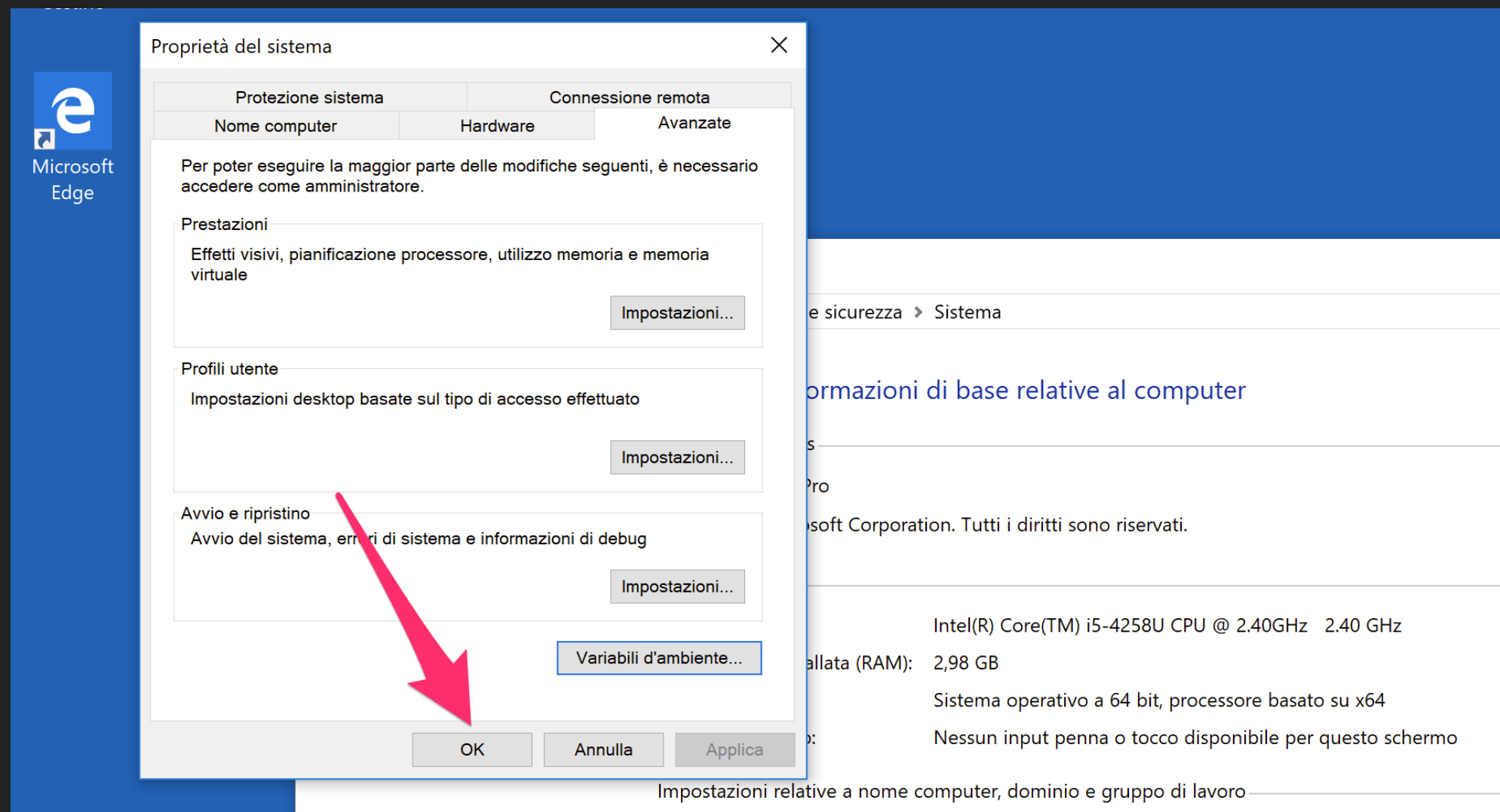
JAVA - INSTALLAZIONE

- ▶ Java - Quale sistema operativo?
 - Aggiornare variabili d'ambiente

- ▶ Linux

- ▶ Windows

- ▶ Mac



► Java - Quale sistema operativo?

► Linux

► Windows

► Mac

[Overview](#) [Downloads](#) [Documentation](#) [Community](#) [Technologies](#) [Training](#)

Java SE Development Kit 8 Downloads

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, applets, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

See also:

- [Java Developer Newsletter](#): From your Oracle account, select **Subscriptions**, expand **Technology**, and subscribe to **Java**.
- [Java Developer Day hands-on workshops \(free\) and other events](#)
- [Java Magazine](#)

JDK 8u181 [checksum](#)

Java SE Development Kit 8u181

You must accept the [Oracle Binary Code License Agreement for Java SE](#) to download this software.

Thank you for accepting the Oracle Binary Code License Agreement for Java SE; you may now download this software.

Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	72.95 MB	jdk-8u181-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	69.89 MB	jdk-8u181-linux-arm64-vfp-hflt.tar.gz
Linux x86	165.06 MB	jdk-8u181-linux-i586.rpm
Linux x86	179.87 MB	jdk-8u181-linux-i586.tar.gz
Linux x64	162.15 MB	jdk-8u181-linux-x64.rpm
Linux x64	177.05 MB	jdk-8u181-linux-x64.tar.gz
Mac OS X x64	242.83 MB	jdk-8u181-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	133.17 MB	jdk-8u181-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	94.34 MB	jdk-8u181-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	133.83 MB	jdk-8u181-solaris-x64.tar.Z
Solaris x64	92.11 MB	jdk-8u181-solaris-x64.tar.gz
Windows x86	194.41 MB	jdk-8u181-windows-i586.exe
Windows x64	202.73 MB	jdk-8u181-windows-x64.exe