

# Run java jar file on a server as background process

Asked 11 years, 1 month ago   Modified 11 months ago   Viewed 279k times



128



I need to run a java jar in server in order to communicate between two applications. I have written two shell scripts to run it, but once I start up that script I can't shut down / terminate the process. If I press `ctrl` + `C` or close the console, the server will shut down. Could anyone help me how to modify this script to run as a normal server?

```
#!/bin/sh
java -jar /web/server.jar
echo $!
#> startupApp.pid
```

[shell](#)   [unix](#)   [executable-jar](#)

[Share](#) [Improve this question](#)

[Follow](#)

[edited Jan 2, 2017 at 10:35](#)



[Lefty G Balogh](#)

**1,781**   3   27   40

[asked Aug 24, 2012 at 1:49](#)



[Bernad Ali](#)

**1,709**   6   23   29

## 4 Answers

Sorted by:

Highest score (default)



314



You can try this:

```
#!/bin/sh
nohup java -jar /web/server.jar &
```

The & symbol, switches the program to run in the background.

The nohup utility makes the command passed as an argument run in the background even after you log out.

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

[answered Aug 24, 2012 at 11:34](#)



[Anton Beloglazov](#)

**4,959**   1   21   9

1   Thanks Anton,currently im stopping the server by killing the process id.i don't think it's best practice.is therey command to to stop the server? – [Bernad Ali](#)   Aug 25, 2012 at 5:01

3   Short answer: it depends on the server. Long answer: as far as I know, there is no safe way to shut down a process without the process supporting such graceful shut downs. For example, if it's a web server being terminated by an external signal, there is always a possibility that some requests


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

[Sign up](#)



sending it a request of that special kind. Otherwise, killing the process by its ID is the simple way.  
– [Anton Beloglazov](#) Aug 27, 2012 at 0:33

- 1 Using `nohup` should always be combined with redirecting stdout and stderr explicitly -- otherwise, you don't get control of where the logs go, and end up with an ugly `nohup.out` created in whichever directory this script happens to be invoked from. – [Charles Duffy](#) Dec 14, 2018 at 16:23

@Anton when I run a script(just like your answer) with SSH EXEC `runjar.sh`. It started streaming the logs in my local terminal and if close my terminal my jar gets killed. How can I run a jar in the background using SSH EXEC? – [AATHITH RAJENDRAN](#) Feb 19, 2020 at 6:16 



**Systemd** which now runs in the majority of distros

74



## Step 1:

Find your user defined services mine was at `/usr/lib/systemd/system/`



## Step 2:

Create a text file with your favorite text editor name it `whatever_you_want.service`

## Step 3:

Put following **Template** to the file `whatever_you_want.service`

```
[Unit]
Description=webserver Daemon

[Service]
ExecStart=/usr/bin/java -jar /web/server.jar
User=user

[Install]
WantedBy=multi-user.target
```

## Step 4:

### Run your service

*as super user*

```
$ systemctl start whatever_you_want.service # starts the service
$ systemctl enable whatever_you_want.service # auto starts the service
$ systemctl disable whatever_you_want.service # stops autostart
$ systemctl stop whatever_you_want.service # stops the service
$ systemctl restart whatever_you_want.service # restarts the service
```

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

[Sign up](#)



Follow

user285594



mtelesha

2,089 18 16

This is the modern way of doing it – [aardbol](#) May 30, 2019 at 18:21

- 4 on aws ubutnu image I had to install systemd then found the image in /etc/systemd/system/ – [Robbo\\_UK](#) Jun 3, 2019 at 13:46

Where could I find the logs with this method? – [Sajeer Babu](#) Apr 26, 2022 at 6:39

If you have created the file, but face issue like "Failed to start ---- service", then run `systemctl daemon-reload` before Step 4. [unix.stackexchange.com/questions/364782/...](http://unix.stackexchange.com/questions/364782/) – [abitcode](#) Aug 15, 2022 at 19:51



If you're using Ubuntu and have "Upstart" (<http://upstart.ubuntu.com/>) you can try this:

34

Create `/var/init/yourservice.conf`



with the following content



```
description "Your Java Service"
author "You"
```



```
start on runlevel [3]
stop on shutdown
```

```
expect fork
```

```
script
```

```
  cd /web
```

```
  java -jar server.jar >/var/log/yourservice.log 2>&1
```

```
  emit yourservice_running
```

```
end script
```

Now you can issue the `service yourservice start` and `service yourservice stop` commands. You can tail `/var/log/yourservice.log` to verify that it's working.

If you just want to run your jar from the console without it hogging the console window, you can just do:

```
java -jar /web/server.jar > /var/log/yourservice.log 2>&1
```

Share Improve this answer

edited Feb 19, 2020 at 7:15

answered Aug 24, 2012 at 2:41

Follow



Serg

2,346 3 29 38



Strellok


50.4k 9 102 116

- 3 Is that a systemd service? This question is not tagged linux, and very few distros have systemd by default. – [jordanm](#) Aug 24, 2012 at 3:15

- 1 I will amend the question to say that this is using "upstart" which is included in ubuntu. – [Strellok](#)

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

[Sign up](#)


- 1 I believe for the last advice if you want it to run in the background and the shell got released, you should do: `java -jar /web/server.jar > /var/log/yourservice.log 2>&1 &` – [Montaro](#) May 6, 2015 at 22:52 

All system jobs by default live in the following directory: `/etc/init/` ... By default, there is no `/var/init/` directory in Ubuntu 14.04. – [Michael Lafayette](#) Sep 9, 2015 at 16:30

Also, starting a service requires "sudo". `sudo service yourservice start` – [Michael Lafayette](#) Sep 9, 2015 at 16:36



Run in background and add logs to log file using the following:

21

`nohup java -jar /web/server.jar > log.log 2>&1 &`



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



answered Jun 18, 2020 at 5:29



[KayV](#)

13.1k

11

99

148



**Highly active question.** Earn 10 reputation (not counting the [association bonus](#)) in order to answer this question. The reputation requirement helps protect this question from spam and non-answer activity.