

## Question 1 | Using the \* Wildcard

```
nouran@nouran-VirtualBox: ~/lab4/question1
nouran@nouran-VirtualBox:~/lab4/question1$ ls -lx
about-page.html  books.txt      bots.txt      creation.txt  download.js
home_page.html  html_page.html linux.txt     main.css     page.css
pageload.js     rook.rock.txt styles.css    workload.js
nouran@nouran-VirtualBox:~/lab4/question1$ ls *.txt
books.txt  bots.txt  creation.txt  linux.txt  rook.rock.txt
nouran@nouran-VirtualBox:~/lab4/question1$
```

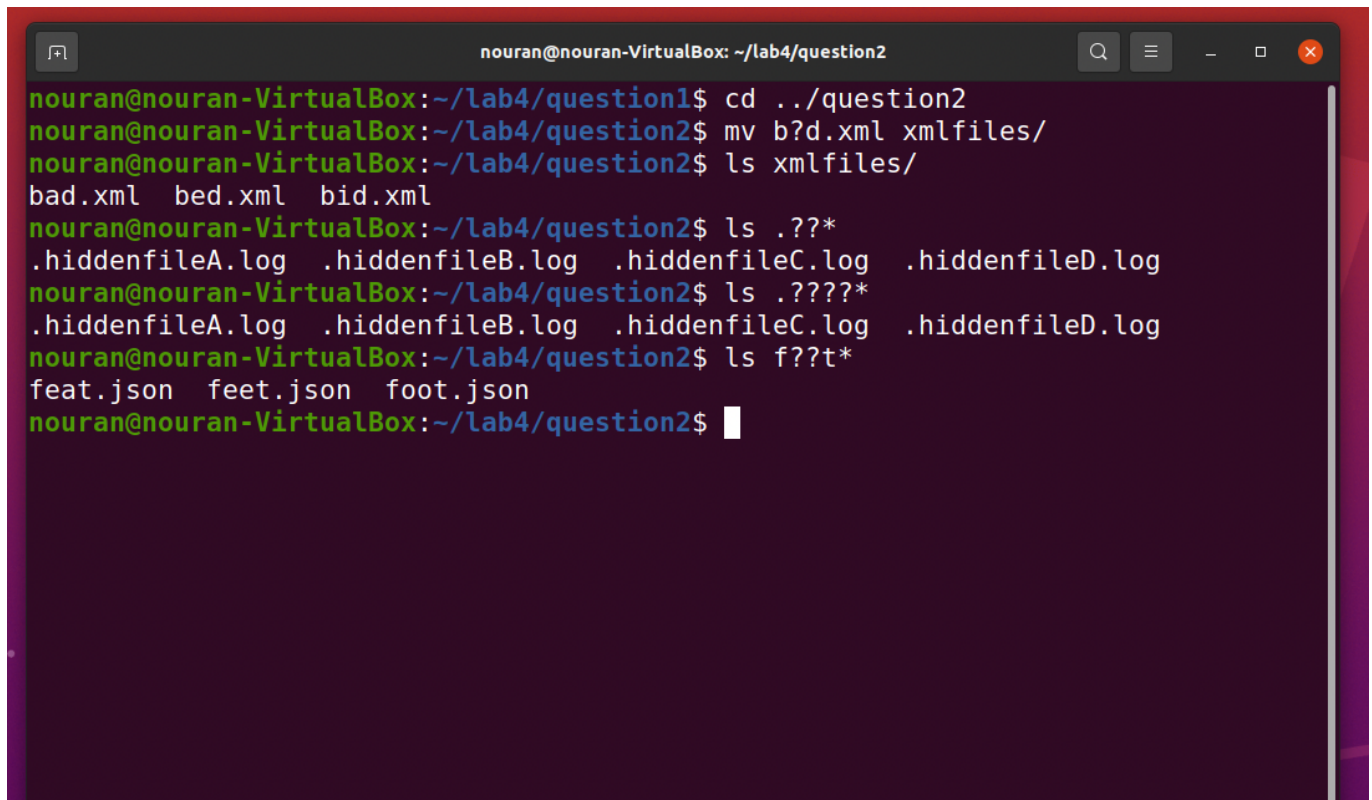
```
nouran@nouran-VirtualBox: ~/lab4/question1
nouran@nouran-VirtualBox:~/lab4/question1$ ls -xl
about-page.html
books.txt
bots.txt
creation.txt
download.js
home_page.html
html_page.html
linux.txt
main.css
page.css
pageload.js
rook.rock.txt
styles.css
workload.js
nouran@nouran-VirtualBox:~/lab4/question1$ ls -xl b*.txt
books.txt
bots.txt
nouran@nouran-VirtualBox:~/lab4/question1$
```

```
nouran@nouran-VirtualBox: ~/lab4/question1
nouran@nouran-VirtualBox: ~/lab4/question1$ ls
about-page.html  creation.txt  home_page.html  main.css      rook.rock.txt
books.txt        css           html_page.html  page.css      styles.css
bots.txt         download.js   linux.txt       pageload.js   workload.js
nouran@nouran-VirtualBox: ~/lab4/question1$ ls *.css
main.css  page.css  styles.css
nouran@nouran-VirtualBox: ~/lab4/question1$ ls *.html
about-page.html  home_page.html  html_page.html
nouran@nouran-VirtualBox: ~/lab4/question1$ ls *.css *.html
about-page.html  home_page.html  html_page.html  main.css  page.css  styles.css
nouran@nouran-VirtualBox: ~/lab4/question1$ ls *page*.
about-page.html  home_page.html  html_page.html  page.css  pageload.js
nouran@nouran-VirtualBox: ~/lab4/question1$ ls -S *page*.
home_page.html  html_page.html  about-page.html  pageload.js  page.css
nouran@nouran-VirtualBox: ~/lab4/question1$ ls -l *page*.
-rw-rw-r-- 1 nouran nouran 7575 Mar 22 16:05 about-page.html
-rw-rw-r-- 1 nouran nouran 12009 Mar 22 16:05 home_page.html
-rw-rw-r-- 1 nouran nouran 8147 Mar 22 16:05 html_page.html
-rw-rw-r-- 1 nouran nouran 22 Mar 22 16:05 page.css
-rw-rw-r-- 1 nouran nouran 840 Mar 22 16:05 pageload.js
nouran@nouran-VirtualBox: ~/lab4/question1$ ls
about-page.html  creation.txt  home_page.html  main.css      rook.rock.txt
books.txt        css           html_page.html  page.css      styles.css
bots.txt         download.js   linux.txt       pageload.js   workload.js
nouran@nouran-VirtualBox: ~/lab4/question1$

nouran@nouran-VirtualBox: ~/lab4/question1$ mkdir text
nouran@nouran-VirtualBox: ~/lab4/question1$ mkdir webpage
nouran@nouran-VirtualBox: ~/lab4/question1$ mkdir layout
nouran@nouran-VirtualBox: ~/lab4/question1$ mkdir java
nouran@nouran-VirtualBox: ~/lab4/question1$ ls
about-page.html  css           java           page.css      text
books.txt        download.js   layout         pageload.js   webpage
bots.txt         home_page.html  linux.txt     rook.rock.txt  workload.js
creation.txt     html_page.html  main.css      styles.css
nouran@nouran-VirtualBox: ~/lab4/question1$

mv: target '/layout/' is not a directory
nouran@nouran-VirtualBox: ~/lab4/question1$ mv *.css layout
nouran@nouran-VirtualBox: ~/lab4/question1$ mv *.html webpage
nouran@nouran-VirtualBox: ~/lab4/question1$ mv *.txt text
nouran@nouran-VirtualBox: ~/lab4/question1$ mv *.js java
nouran@nouran-VirtualBox: ~/lab4/question1$ ls
css  java  layout  text  webpage
nouran@nouran-VirtualBox: ~/lab4/question1$
```

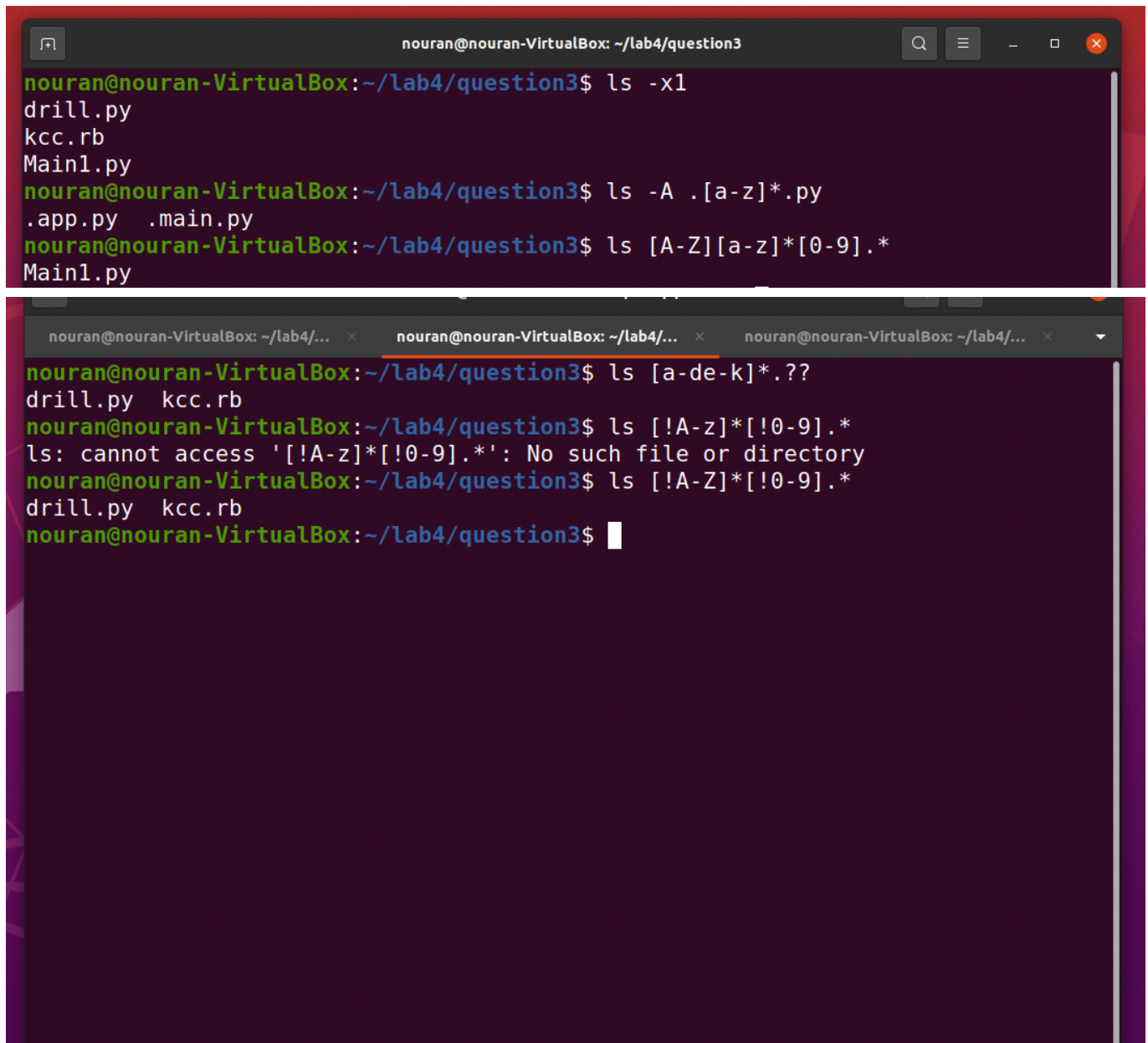
## Question 2 | Using the ? wildcard



```
nouran@nouran-VirtualBox: ~/lab4/question2
nouran@nouran-VirtualBox:~/lab4/question1$ cd ../question2
nouran@nouran-VirtualBox:~/lab4/question2$ mv b?d.xml xmlfiles/
nouran@nouran-VirtualBox:~/lab4/question2$ ls xmlfiles/
bad.xml  bed.xml  bid.xml
nouran@nouran-VirtualBox:~/lab4/question2$ ls .??*
.hiddenfileA.log .hiddenfileB.log .hiddenfileC.log .hiddenfileD.log
nouran@nouran-VirtualBox:~/lab4/question2$ ls .????*
.hiddenfileA.log .hiddenfileB.log .hiddenfileC.log .hiddenfileD.log
nouran@nouran-VirtualBox:~/lab4/question2$ ls f??t*
feat.json  feet.json  foot.json
nouran@nouran-VirtualBox:~/lab4/question2$
```

## Question 3 | Using the [] Wildcard

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The image shows two screenshots of a terminal window. The top screenshot shows the user running `ls -x1` and `ls -A .[a-z]*.py`, listing files like `drill.py`, `kcc.rb`, and `Main1.py`. The bottom screenshot shows the user running `ls [a-de-k]*.??`, `ls [!A-z]*[!0-9].*` (which results in an error), and `ls [!A-Z]*[!0-9].*`, listing files like `drill.py` and `kcc.rb`.

```
nouran@nouran-VirtualBox: ~/lab4/question3
nouran@nouran-VirtualBox:~/lab4/question3$ ls -x1
drill.py
kcc.rb
Main1.py
nouran@nouran-VirtualBox:~/lab4/question3$ ls -A .[a-z]*.py
.app.py  .main.py
nouran@nouran-VirtualBox:~/lab4/question3$ ls [A-Z][a-z]*[0-9].*
Main1.py

nouran@nouran-VirtualBox: ~/lab4/... x  nouran@nouran-VirtualBox: ~/lab4/... x  nouran@nouran-VirtualBox: ~/lab4/... x
nouran@nouran-VirtualBox:~/lab4/question3$ ls [a-de-k]*.??
drill.py  kcc.rb
nouran@nouran-VirtualBox:~/lab4/question3$ ls [!A-z]*[!0-9].*
ls: cannot access '[!A-z]*[!0-9].*': No such file or directory
nouran@nouran-VirtualBox:~/lab4/question3$ ls [!A-Z]*[!0-9].*
drill.py  kcc.rb
nouran@nouran-VirtualBox:~/lab4/question3$
```

## Question 4 | Using brace expansion.

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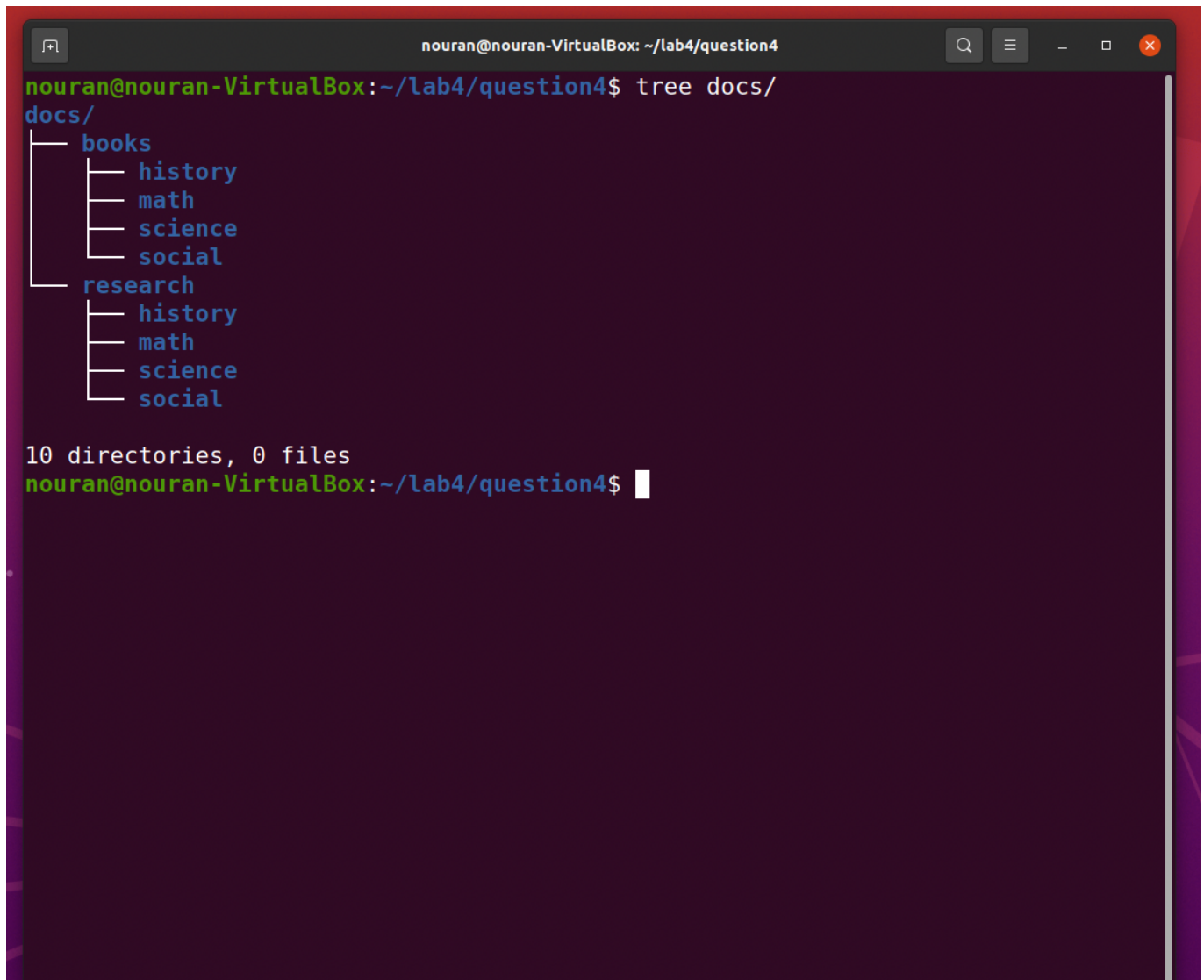


```
nouran@nouran-VirtualBox: ~/lab4/question4
nouran@nouran-VirtualBox:~/lab4/question3$ cd ../question4
nouran@nouran-VirtualBox:~/lab4/question4$ mkdir -p wallpapers/{cars,ocean}/{1080p,2k,4k}
nouran@nouran-VirtualBox:~/lab4/question4$ tree
.
├── wallpapers
│   ├── cars
│   │   ├── 1080p
│   │   ├── 2k
│   │   └── 4k
│   └── ocean
│       ├── 1080p
│       ├── 2k
│       └── 4k
└──

9 directories, 0 files
nouran@nouran-VirtualBox:~/lab4/question4$
```

```
nouran@nouran-VirtualBox: ~/lab4/question4
nouran@nouran-VirtualBox:~/lab4/question4$ mkdir -p {imgs,video}/{large,small}/source
nouran@nouran-VirtualBox:~/lab4/question4$ tree
.
├── imgs
│   ├── large
│   │   └── source
│   └── small
│       └── source
├── video
│   ├── large
│   │   └── source
│   └── small
│       └── source
└── wallpapers
    ├── cars
    │   ├── 1080p
    │   ├── 2k
    │   └── 4k
    └── ocean
        ├── 1080p
        ├── 2k
        └── 4k

19 directories, 0 files
nouran@nouran-VirtualBox:~/lab4/question4$
```



```
nouran@nouran-VirtualBox: ~/lab4/question4
nouran@nouran-VirtualBox:~/lab4/question4$ tree docs/
docs/
├── books
│   ├── history
│   ├── math
│   ├── science
│   └── social
└── research
    ├── history
    ├── math
    ├── science
    └── social

10 directories, 0 files
nouran@nouran-VirtualBox:~/lab4/question4$
```

```

research/
├── {books}
│   ├── math
│   │   ├── epub
│   │   └── pdf
│   └── science
│       ├── epub
│       └── pdf
├── {magazines}
│   ├── computers
│   │   ├── fanmade
│   │   └── official
│   ├── running
│   │   ├── fanmade
│   │   └── official
│   └── videogames
│       ├── fanmade
│       └── official
└── 17 directories, 0 files

nouran@nouran-VirtualBox:~/lab4/question5$ mkdir -p backup/{files}/{personal,programs,school}/{feb,jan,march}
nouran@nouran-VirtualBox:~/lab4/question5$ mkdir -p backup/{images}/{cars,classic,panorama,world}/{high,low}
nouran@nouran-VirtualBox:~/lab4/question5$ mkdir -p backup/{random}
nouran@nouran-VirtualBox:~/lab4/question5$ tree backup/
backup/
├── {files}
│   ├── personal
│   │   ├── feb
│   │   ├── jan
│   │   └── march
│   ├── programs
│   │   ├── feb
│   │   ├── jan
│   │   └── march
│   └── school
│       ├── feb
│       ├── jan
│       └── march
├── {images}
│   ├── cars
│   │   ├── high
│   │   └── low
│   ├── classic
│   │   ├── high
│   │   └── low
│   ├── panorama
│   │   ├── high
│   │   └── low
│   └── world
│       ├── high
│       └── low
└── {random}

```