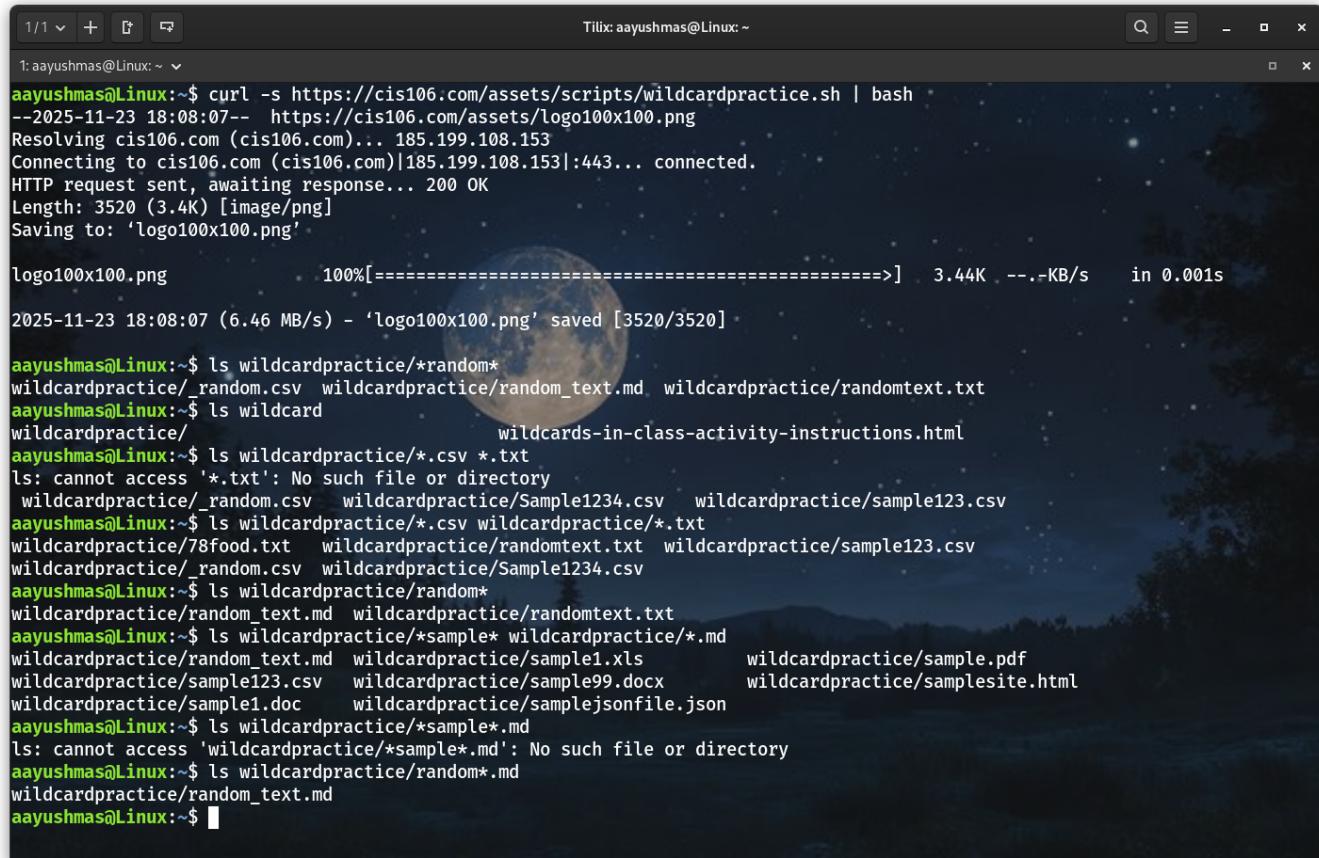


Lab 7 Submission

Question 1: Complete Practice Exercise

Practice 1: The * wildcard



The screenshot shows a terminal window titled "Tilix: aayushmas@Linux: ~". The session starts with a curl command to download a logo from cis106.com. It then lists files in the current directory using various wildcard patterns (*, *.random*, *.sample*).

```
1: aayushmas@Linux: ~
aayushmas@Linux:~$ curl -s https://cis106.com/assets/scripts/wildcardpractice.sh | bash
--2025-11-23 18:08:07-- https://cis106.com/assets/logo100x100.png
Resolving cis106.com (cis106.com)... 185.199.108.153
Connecting to cis106.com (cis106.com)|185.199.108.153|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3520 (3.4K) [image/png]
Saving to: 'logo100x100.png'

logo100x100.png          100%[=====] 3.44K --KB/s in 0.001s

2025-11-23 18:08:07 (6.46 MB/s) - 'logo100x100.png' saved [3520/3520]

aayushmas@Linux:~$ ls wildcardpractice/*random*
wildcardpractice/_random.csv  wildcardpractice/random_text.md  wildcardpractice/randomtext.txt
aayushmas@Linux:~$ ls wildcard
wildcardpractice/               wildcards-in-class-activity-instructions.html
aayushmas@Linux:~$ ls wildcardpractice/*.csv *.txt
ls: cannot access '*.txt': No such file or directory
wildcardpractice/_random.csv  wildcardpractice/Sample1234.csv  wildcardpractice/sample123.csv
aayushmas@Linux:~$ ls wildcardpractice/*.csv wildcardpractice/*.txt
wildcardpractice/78food.txt  wildcardpractice/randomtext.txt  wildcardpractice/sample123.csv
wildcardpractice/_random.csv  wildcardpractice/Sample1234.csv
aayushmas@Linux:~$ ls wildcardpractice/random*
wildcardpractice/random_text.md  wildcardpractice/randomtext.txt
aayushmas@Linux:~$ ls wildcardpractice/*sample* wildcardpractice/*.md
wildcardpractice/random_text.md  wildcardpractice/sample1.xls      wildcardpractice/sample.pdf
wildcardpractice/sample123.csv  wildcardpractice/sample99.docx    wildcardpractice/samplesite.html
wildcardpractice/sample1.doc   wildcardpractice/samplejsonfile.json
aayushmas@Linux:~$ ls wildcardpractice/*sample*.md
ls: cannot access 'wildcardpractice/*sample*.md': No such file or directory
aayushmas@Linux:~$ ls wildcardpractice/random*.md
wildcardpractice/random_text.md
aayushmas@Linux:~$
```

Practice 2: The ? wildcard

The screenshot shows a terminal window titled "Tilix: aayushmas@Linux: ~". The terminal displays several commands using the ls command with different wildcards:

- `ls wildcardpractice/*.???` lists files like capture.raw, camera.jpg, food.txt, allfiles.lst, Allfiles.lst, baik.exe, baik.pdf, baik.xml, beatk.exe, beatk.pdf, beatk.xml, and logo100x100.png.
- `ls wildcardpractice/.??*` lists files like bash_history, hidden1.py, hidden2.py, hidden1.doc, hidden2.doc, and hiddenFile.txt.
- `ls wildcardpractice/b??*.???` lists files like baik.exe, beatk.exe, book.exe, baik.pdf, beatk.pdf, book.pdf, baik.xml, beatk.xml, and book.xml.
- `ls wildcardpractice/sample??.*` lists files like sample123.csv, sample1.xls, samplejsonfile.json, sample1.doc, sample99.docx, and samplesite.html.
- `ls wildcardpractice/sample?.*` lists files like sample1.doc and sample1.xls.
- `ls wildcardpractice/.???.??` results in an error message: "ls: cannot access 'wildcardpractice/.???.??': No such file or directory".
- `ls wildcardpractice/.??*.??` lists files like hidden1.py and hidden2.py.

Practice 3: The [] wildcard

```
1/1 + 🔍 Tilix: aayushmas@Linux: ~ 🔍 x
1: aayushmas@Linux: ~
aayushmas@Linux:~$ ls wildcardpractice/[a-z]*.???
wildcardpractice/allfiles.lst    wildcardpractice/bk.exe    wildcardpractice/file.log
wildcardpractice/baik.exe        wildcardpractice/bk.pdf    wildcardpractice/logo100x100.png
wildcardpractice/baik.pdf        wildcardpractice/bk.xml   wildcardpractice/randomtext.txt
wildcardpractice/baik.xml        wildcardpractice/book.exe  wildcardpractice/sample123.csv
wildcardpractice/beatk.exe       wildcardpractice/book.pdf  wildcardpractice/sample1.doc
wildcardpractice/beatk.pdf       wildcardpractice/book.xml  wildcardpractice/sample1.xls
wildcardpractice/beatk.xml       wildcardpractice/fail.log  wildcardpractice/sample.pdf
aayushmas@Linux:~$ ls wildcardpractice/[A-Z]*[0-9]*
wildcardpractice/Sample1234.csv
aayushmas@Linux:~$ ls wildcardpractice/[0-9][0-9][0-9][0-9]*
wildcardpractice/2020-08-27-capture.raw      wildcardpractice/2022-02-02-camera.jpg
wildcardpractice/2021-04-10-screenshot.jpeg
aayushmas@Linux:~$ ls wildcardpractice/[!AEIOU][!aeiou]*
wildcardpractice/2020-08-27-capture.raw      wildcardpractice/78food.txt    wildcardpractice/bk.pdf
wildcardpractice/2021-04-10-screenshot.jpeg  wildcardpractice/allfiles.lst  wildcardpractice/bk.xml
wildcardpractice/2022-02-02-camera.jpg        wildcardpractice/bk.exe      wildcardpractice/_random.csv
aayushmas@Linux:~$ ls wildcardpractice/[!AEIOUaeiou]*
wildcardpractice/2020-08-27-capture.raw      wildcardpractice/fail.log
wildcardpractice/2021-04-10-screenshot.jpeg  wildcardpractice/file.log
wildcardpractice/2022-02-02-camera.jpg        wildcardpractice/logo100x100.png
wildcardpractice/78food.txt                  wildcardpractice/_random.csv
wildcardpractice/baik.exe                   wildcardpractice/random_text.md
wildcardpractice/baik.pdf                  wildcardpractice/randomtext.txt
wildcardpractice/baik.xml                  wildcardpractice/Sample1234.csv
wildcardpractice/beatk.exe                 wildcardpractice/sample123.csv
wildcardpractice/beatk.pdf                 wildcardpractice/sample1.doc
wildcardpractice/beatk.xml                 wildcardpractice/sample1.xls
wildcardpractice/bk.exe                   wildcardpractice/sample99.docx
wildcardpractice/bk.pdf                  wildcardpractice/samplejsonfile.json
wildcardpractice/bk.xml                  wildcardpractice/sample.pdf
wildcardpractice/book.exe                wildcardpractice/Sample.pdf
wildcardpractice/book.pdf                wildcardpractice/samplesite.html
wildcardpractice/book.xml
aayushmas@Linux:~$ ls wildcardpractice/[:punct:]*
ls: cannot access 'wildcardpractice/[:punct:]*': No such file or directory
aayushmas@Linux:~$ ls wildcardpractice/[:punct:]*/
wildcardpractice/_random.csv
aayushmas@Linux:~$
```

Practice 4: Brace Expansion

```
1: aayushmas@Linux: ~
aayushmas@Linux:~$ mkdir -p music/{jazz,rock}/{mp3files,videos,oggfiles}/new
aayushmas@Linux:~$ tree music/
music/
└── jazz
    ├── mp3files
    │   └── new
    ├── oggfiles
    │   └── new
    └── videos
        └── new
└── rock
    ├── mp3files
    │   └── new
    ├── oggfiles
    │   └── new
    └── videos
        └── new

15 directories, 0 files
aayushmas@Linux:~$
```

Question 2: Challenge 1

```
1: aayushmas@Linux: ~
aayushmas@Linux:~$ mkdir -p wallpapers/cars/{1080p,2k,4k}
aayushmas@Linux:~$ tree wallpapers
wallpapers*
└── cars
    ├── 1080p
    ├── 2k
    └── 4k

5 directories, 0 files
aayushmas@Linux:~$ mkdir -p assets/{imgs,video}/{large,small}
aayushmas@Linux:~$ tree assets/
assets/
└── imgs
    ├── large
    └── small
└── video
    ├── large
    └── small

7 directories, 0 files
aayushmas@Linux:~$
```

Question 3: Challenge 2

Terminal 1 (Left):

```
aayushmas@Linux:~$ curl https://cis106.com/assets/scripts/chq-lab7.sh | bash
% Total    % Received % Xferd  Average Speed   Time   Time  Current
          Dload  Upload Total Spent   Left Speed
100  395 100  395     0      0 4741      0 --:--:--:--:--:-- 4759
aayushmas@Linux:~$ cp ~/website website_ch1_lab7/
aayushmas@Linux:~$ cp -r ~/website_ch1_lab7/ ~/copy_website_ch1_lab7
aayushmas@Linux:~$ ls website_ch1_lab7/
404.html  backup.sh  footer.html  item1.raw  post3.html  sidebar.html
api.js    build.sh   footer.jpg   item2.jpg  posts.json   _style.css
APP.conf  cart.svg   header.html  navbar.html _Products.Json _theme.css
APP.conf.bk DB1.conf.old hero.png   post1.html  _reset.css  Users.JSON
app.js    deploy.sh  index.html  post2.html  Robots.txt
aayushmas@Linux:~$ mkdir -p ~/website_ch1_lab7/{app,assets/{css,images},components,config/deploy,data,pages}
aayushmas@Linux:~$ mv ~/website_ch1_lab7/*.{js,css,html} ~/website_ch1_lab7/app/
aayushmas@Linux:~$ mv ~/website_ch1_lab7/*.{css,html} ~/website_ch1_lab7/assets/css/
aayushmas@Linux:~$ mv ~/website_ch1_lab7/*.{sh,conf} ~/website_ch1_lab7/config/deploy/
aayushmas@Linux:~$ mv ~/website_ch1_lab7/[a-z]*[0-9].html ~/website_ch1_lab7/pages/
aayushmas@Linux:~$ mv ~/website_ch1_lab7/*.{html,css,js} ~/website_ch1_lab7/components/
aayushmas@Linux:~$ mv website_ch1_lab7/*.{conf} website_ch1_lab7/config/
```

aayushmas@Linux:~\$ mv website_ch1_lab7/*.[Jj][Ss][Oo][Nn] website_ch1_lab7/data/
aayushmas@Linux:~\$ mv website_ch1_lab7/[a-z]*.???.{css,html} website_ch1_lab7/assets/images/
aayushmas@Linux:~\$

Terminal 2 (Right):

```
aayushmas@Linux:~$ tree website_ch1_lab7/
website_ch1_lab7/
├── 404.html
├── api.js
├── APP.conf
├── APP.conf.bk
├── app.js
├── backup.sh
├── build.sh
├── cart.svg
├── DB1.conf.old
├── deploy.sh
├── footer.html
├── footer.jpg
├── header.html
├── hero.png
├── index.html
├── item1.raw
├── item2.jpg
├── navbar.html
├── post1.html
├── post2.html
├── post3.html
├── posts.json
├── _Products.Json
├── _reset.css
├── Robots.txt
├── sidebar.html
├── _style.css
└── _theme.css
    └── Users.JSON
```

1 directory, 29 files

```
aayushmas@Linux:~$ tree website_ch1_lab7/
website_ch1_lab7/
├── 404.html
├── api.js
├── app
├── APP.conf
├── APP.conf.bk
├── app.js
├── assets
│   ├── css
│   │   ├── _reset.css
│   │   ├── _style.css
│   │   └── _theme.css
│   └── images
│       ├── cart.svg
│       ├── footer.jpg
│       ├── hero.png
│       └── item1.raw
│           └── item2.jpg
└── components
    ├── footer.html
    ├── header.html
    ├── navbar.html
    └── sidebar.html
    └── config
        ├── APP.conf
        ├── APP.conf.bk
        ├── DB1.conf.old
        └── deploy
            ├── backup.sh
            └── build.sh
            └── deploy.sh
    └── data
        ├── posts.json
        └── _Products.Json
        └── Users.JSON
    └── index.html
    └── pages
        ├── post1.html
        ├── post2.html
        └── post3.html
    └── Robots.txt
```

10 directories, 29 files

Terminal 1 (Left):

```
aayushmas@Linux:~$ curl https://cis106.com/assets/scripts/chq-lab7.sh | bash
% Total    % Received % Xferd  Average Speed   Time   Time  Current
          Dload  Upload Total Spent   Left Speed
100  395 100  395     0      0 4741      0 --:--:--:--:--:-- 4759
aayushmas@Linux:~$ cp ~/website website_ch1_lab7/
aayushmas@Linux:~$ cp -r ~/website_ch1_lab7/ ~/copy_website_ch1_lab7
aayushmas@Linux:~$ ls website_ch1_lab7/
404.html  backup.sh  footer.html  item1.raw  post3.html  sidebar.html
api.js    build.sh   footer.jpg   item2.jpg  posts.json   _style.css
APP.conf  cart.svg   header.html  navbar.html _Products.Json _theme.css
APP.conf.bk DB1.conf.old hero.png   post1.html  _reset.css  Users.JSON
app.js    deploy.sh  index.html  post2.html  Robots.txt
aayushmas@Linux:~$ mkdir -p ~/website_ch1_lab7/{app,assets/{css,images},components,config/deploy,data,pages}
aayushmas@Linux:~$ mv ~/website_ch1_lab7/*.{js,css,html} ~/website_ch1_lab7/app/
aayushmas@Linux:~$ mv ~/website_ch1_lab7/*.{css,html} ~/website_ch1_lab7/assets/css/
aayushmas@Linux:~$ mv ~/website_ch1_lab7/*.{sh,conf} ~/website_ch1_lab7/config/deploy/
aayushmas@Linux:~$ mv ~/website_ch1_lab7/[a-z]*[0-9].html ~/website_ch1_lab7/pages/
aayushmas@Linux:~$ mv ~/website_ch1_lab7/*.{html,css,js} ~/website_ch1_lab7/components/
aayushmas@Linux:~$ mv website_ch1_lab7/*.{conf} website_ch1_lab7/config/
```

aayushmas@Linux:~\$ mv website_ch1_lab7/*.[Jj][Ss][Oo][Nn] website_ch1_lab7/data/
aayushmas@Linux:~\$ mv website_ch1_lab7/[a-z]*.???.{css,html} website_ch1_lab7/assets/images/
aayushmas@Linux:~\$

Terminal 2 (Right):

```
aayushmas@Linux:~$ tree website_ch1_lab7/
website_ch1_lab7/
├── 404.html
├── app
│   ├── api.js
│   └── app.js
├── assets
│   ├── css
│   │   ├── _reset.css
│   │   ├── _style.css
│   │   └── _theme.css
│   └── images
│       ├── cart.svg
│       ├── footer.jpg
│       ├── hero.png
│       └── item1.raw
│           └── item2.jpg
└── components
    ├── footer.html
    ├── header.html
    ├── navbar.html
    └── sidebar.html
    └── config
        ├── APP.conf
        ├── APP.conf.bk
        ├── DB1.conf.old
        └── deploy
            ├── backup.sh
            └── build.sh
            └── deploy.sh
    └── data
        ├── posts.json
        └── _Products.Json
        └── Users.JSON
    └── index.html
    └── pages
        ├── post1.html
        ├── post2.html
        └── post3.html
    └── Robots.txt
```

10 directories, 29 files