Module Code & Module Title

Level 5 – Network Operating Systems

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1   Practical Question

1) Create a **Directory Structure** as shown below and show it in the terminal.


```
ayan1@Aayan:~$ mkdir -p My_project/public My_project/source/{scripts,styles,assets} My_project/components My_project/documentation
ayan1@Aayan:~$ tree
.
└── My_project
    ├── components
    ├── documentation
    ├── public
    └── source
        ├── assets
        ├── scripts
        └── styles

9 directories, 0 files
ayan1@Aayan:~$
```

Figure 1: Creating a Directory structure

2) Create a directory named **'icons'** inside the **source/assets** directory using a relative pathname


```
ayan1@Aayan:~$ mkdir My_project/source/assets/icons
ayan1@Aayan:~$ tree
.
└── My_project
    ├── components
    ├── documentation
    ├── public
    └── source
        ├── assets
        │   └── icons
        ├── scripts
        └── styles

10 directories, 0 files
ayan1@Aayan:~$
```

Figure 2: Creating icon directory inside source/assets

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3) Create a file named '**Global.css**' inside the **'Styles'** directory using absolute
    pathname

```
ayan1@Aayan:~$ touch /home/ayan1/My_project/source/styles/global.css
ayan1@Aayan:~$ tree
.
└── My_project
    ├── components
    ├── documentation
    ├── public
    └── source
        ├── assets
        │   └── icons
        ├── scripts
        └── styles
            └── global.css

10 directories, 1 file
ayan1@Aayan:~$
```

Figure 3: Creating global.css file

4) Change Directory to the **'components'** using an absolute pathname.

```
ayan1@Aayan:~$ cd /home/ayan1/My_project/components
ayan1@Aayan:~/My_project/components$
```

Figure 4: Changing Directory using absolute pathname

5) Change directory to the **'scripts'** directory inside the **'source'** directory using
    absolute pathname.

```
ayan1@Aayan:~/My_project/components$ cd /home/ayan1/My_project/source/scripts
ayan1@Aayan:~/My_project/source/scripts$ S
```

Figure 5: Changing Directory using absolute pathname

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6) Change to the **'My_project'** directory using relative pathname

```
ayan1@Aayan:~/My_project/source/scripts$ cd ../../
ayan1@Aayan:~/My_project$
```

Figure 6: Changing Directory using relative pathname

7) Create a file named **'app.js'** inside the **'source/scripts'** and show the permission of **'app.js'** only

```
ayan1@Aayan:~/My_project$ touch source/scripts/app.js
ayan1@Aayan:~/My_project$ tree
.
├── components
├── documentation
├── public
└── source
    ├── assets
    │   └── icons
    ├── scripts
    │   └── app.js
    └── styles
        └── global.css

9 directories, 2 files
ayan1@Aayan:~/My_project$
```

Figure 7: Creating app.js file in source/scripts

```
ayan1@Aayan:~/My_project$ ls -l source/scripts/app.js
-rw-r--r-- 1 ayan1 ayan1 0 Jan 27 08:27 source/scripts/app.js
ayan1@Aayan:~/My_project$
```

Figure 8: Permission of app.js file only

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8) Remove all Permissions from **'app.js'**

```
ayan1@Aayan:~/My_project$ chmod 000 source/scripts/app.js
ayan1@Aayan:~/My_project$ ls -l source/scripts/app.js
---------- 1 ayan1 ayan1 0 Jan 27 08:27 source/scripts/app.js
ayan1@Aayan:~/My_project$
```

Figure 9: Removing Permission for app.js

9) Copy 'app.js' from the **'source/scripts'** directory to the **'public'** directory.

```
ayan1@Aayan:~/My_project$ cp source/scripts/app.js public
cp: cannot open 'source/scripts/app.js' for reading: Permission denied
ayan1@Aayan:~/My_project$
```

Figure 10: Copying the app.js to public directory

Here, in the above image the app.js file won't be copy because we have removed the all the permission or permission for reading of app.js file

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10) Add appropriate permission to **'app.js'** and move the file to '**public'** directory

```
ayan1@Aayan:~/My_project$ chmod 700 source/scripts/app.js
ayan1@Aayan:~/My_project$ ls -l source/scripts/app.js
-rwx------ 1 ayan1 ayan1 0 Jan 27 08:45 source/scripts/app.js
ayan1@Aayan:~/My_project$ tree
.
├── components
├── documentation
├── public
└── source
    ├── assets
    │   └── icons
    ├── scripts
    │   └── app.js
    └── styles
        └── global.css

9 directories, 2 files
ayan1@Aayan:~/My_project$ mv source/scripts/app.js public
ayan1@Aayan:~/My_project$ tree
.
├── components
├── documentation
├── public
│   └── app.js
└── source
    ├── assets
    │   └── icons
    ├── scripts
    └── styles
        └── global.css

9 directories, 2 files
ayan1@Aayan:~/My_project$ |
```

Figure 11: Giving permission for app.js file and moving it

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2   Conclusion

From the Practical question we have make many directories. Then, we have create file using absolute and relative pathname and also change the directory using absolute and relative pathname. We also moved file and tired to copy file. We have removed and again put the appropriate permission for that file.

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