

Programming assignment

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Section: 02

1. df command:

Code:

```
#include <stdlib.h>
```

```
#include <stdio.h>
```

```
int main()
```

```
{  
    system("df");  
    return 0;  
}
```

Output screenshot:

```
(base) f12@fahim:/media/f12/Documents/9th_Semester/CSE323/Assignment$ gcc df_command.c -o first  
(base) f12@fahim:/media/f12/Documents/9th_Semester/CSE323/Assignment$ ./first  
Filesystem      1K-blocks      Used Available Use% Mounted on  
udev            5971992            0  5971992    0% /dev  
tmpfs           1201656           18728   1182928    2% /run  
/dev/nvme0n1p2 143386764 120493828 15537324   89% /  
tmpfs           6008276  803812  5204464   14% /dev/shm  
tmpfs           5120            4    5116    1% /run/lock  
tmpfs           6008276            0  6008276    0% /sys/fs/cgroup  
/dev/loop0       128            128    0 100% /snap/bare/5  
/dev/loop2       14976           14976    0 100% /snap/cheat/3822  
/dev/loop1       278016          278016    0 100% /snap/brave/194  
/dev/loop3       168832          168832    0 100% /snap/gnome-3-28-1804/161  
/dev/loop6       249728          249728    0 100% /snap/code/118  
/dev/loop5       93952           93952    0 100% /snap/gtk-common-themes/1535  
/dev/loop4       83328           83328    0 100% /snap/gtk-common-themes/1534  
/dev/loop9       276608          276608    0 100% /snap/brave/196  
/dev/loop10      199680          199680    0 100% /snap/flutter/126  
/dev/loop12      56960           56960    0 100% /snap/core18/2667  
/dev/loop11      253952          253952    0 100% /snap/code/117  
/dev/loop21      64896           64896    0 100% /snap/core20/1778  
/dev/loop15      14976           14976    0 100% /snap/cheat/3811  
/dev/loop18      354688          354688    0 100% /snap/gnome-3-38-2004/119  
/dev/loop7       119552          119552    0 100% /snap/core/14399  
/dev/loop19      354688          354688    0 100% /snap/gnome-3-38-2004/115  
/dev/loop8       210816          210816    0 100% /snap/flutter/130  
/dev/loop20      990720          990720    0 100% /snap/intellij-idea-community/409  
/dev/loop13      993920          993920    0 100% /snap/intellij-idea-community/405  
/dev/loop16      119552          119552    0 100% /snap/core/14447  
/dev/loop14      64768           64768    0 100% /snap/core20/1738  
/dev/loop17      434432          434432    0 100% /snap/kde-frameworks-5-91-qt-5-15-3-core20/1  
/dev/loop23      56960           56960    0 100% /snap/core18/2679
```

2. **du** command

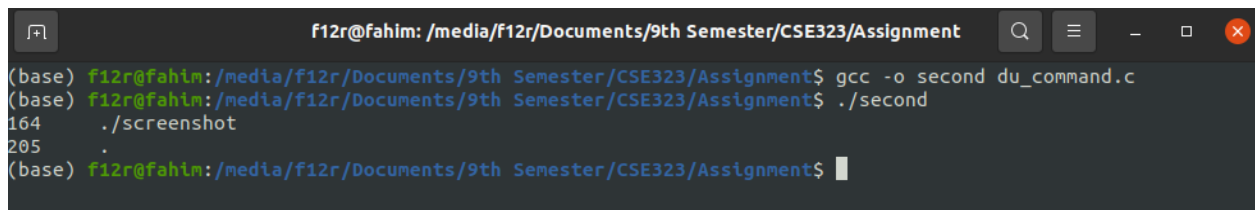
Code:

```
#include <stdlib.h>
#include <stdio.h>
```

```
int main()
```

```
{
    system("du");
    return 0;
}
```

Output screenshot:

A terminal window with a dark background. The title bar shows 'f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment'. The terminal shows the following commands and output:

```
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc -o second du_command.c
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ ./second
164  ./screenshot
205  .
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$
```

3. **grep** command

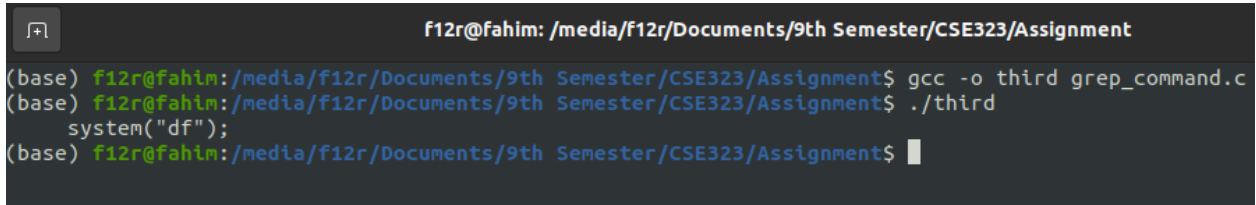
Code:

```
#include <stdlib.h>
#include <stdio.h>
```

```
int main()
```

```
{
    system("grep system df_command.c");
    return 0;
}
```

Output screenshot:

A terminal window with a dark background. The title bar shows 'f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment'. The terminal contains three lines of text: a prompt followed by a gcc command to compile 'grep_command.c' into 'third', a prompt followed by './third', and a prompt followed by 'system("df");'.

```
f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc -o third grep_command.c
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ ./third
system("df");
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$
```

4. **lpr** command:

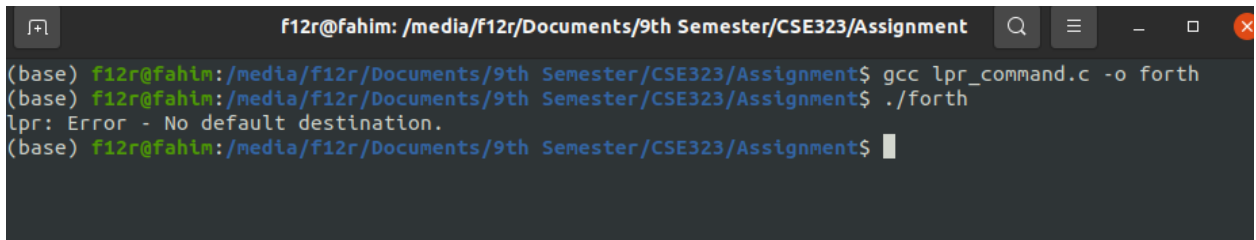
Code:

```
#include <stdlib.h>
#include <stdio.h>
```

```
int main()
```

```
{
    system("lpr df_command.c");
    return 0;
}
```

Output screenshot:

A terminal window with a dark background. The title bar shows 'f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment'. The terminal contains three lines of text: a prompt followed by a gcc command to compile 'lpr_command.c' into 'forth', a prompt followed by './forth', and a prompt followed by an error message from the lpr command: 'lpr: Error - No default destination.'.

```
f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc lpr_command.c -o forth
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ ./forth
lpr: Error - No default destination.
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$
```

5. **passwd** command

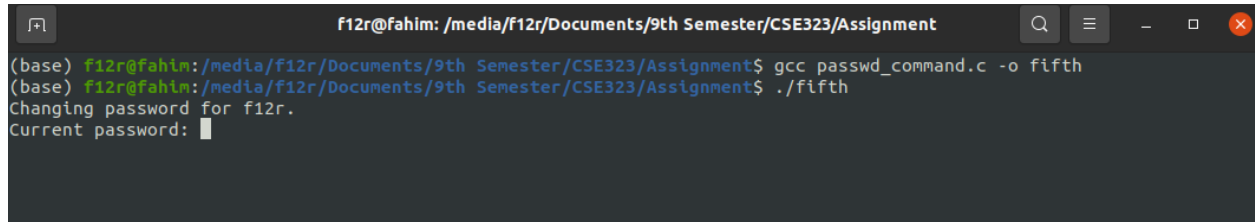
Code:

```
#include <stdlib.h>
#include <stdio.h>
```

```
int main()
```

```
{
    system("passwd");
    return 0;
}
```

Output screenshot:



```
f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc passwd_command.c -o fifth
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ ./fifth
Changing password for f12r.
Current password: 
```

6. tail command:

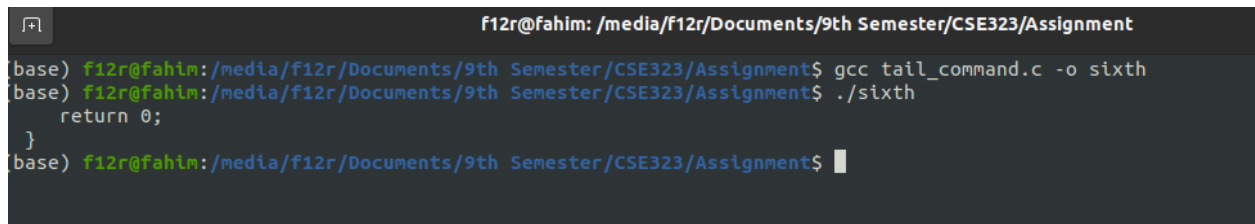
Code:

```
#include <stdlib.h>
#include <stdio.h>

int main()

{
    system("tail -n 2 df_command.c");
    return 0;
}
```

Output screenshot:



```
f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc tail_command.c -o sixth
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ ./sixth
    return 0;
}
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ 
```

7. diff command:

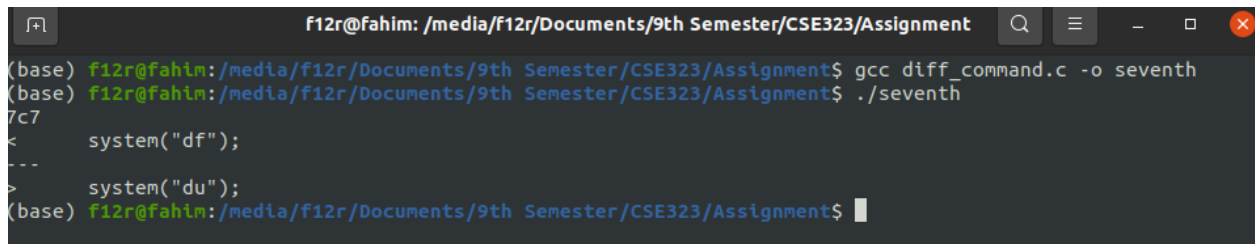
Code:

```
#include <stdlib.h>
#include <stdio.h>

int main()

{
    system("diff df_command.c du_command.c");
    return 0;
}
```

Output screenshot:

A terminal window with a dark background. The title bar shows 'f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment'. The terminal shows the following commands and output:

```
(base) f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc diff_command.c -o seventh
(base) f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment$ ./seventh
7c7
<      system("df");
---
>      system("du");
(base) f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment$
```

8. **top** command:

Code:

```
#include <stdlib.h>
#include <stdio.h>

int main()

{
    system("top");
    return 0;
}
```

Output screenshot:

```
f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc top_command.c -o eighth
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ ./eighth

top - 23:28:04 up 1:11, 1 user, load average: 0.52, 0.74, 0.82
Tasks: 300 total, 2 running, 298 sleeping, 0 stopped, 0 zombie
%Cpu(s): 2.7 us, 0.7 sy, 0.0 ni, 96.6 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 11734.9 total, 3659.7 free, 3979.0 used, 4096.2 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 6570.0 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM     TIME+ COMMAND
 2125 f12r        20   0 692060 125952 87488 R   5.6   1.0   2:10.30 Xorg
 2266 f12r        20   0 5664588 317900 115140 S   5.6   2.6   3:33.51 gnome-shell
13878 f12r        20   0 814344  50976 38736 S   5.6   0.4   0:00.49 gnome-terminal-
14014 f12r        20   0  12328   4048  3396 R   5.6   0.0   0:00.07 top
     1 root         0   0 168220  12204  8396 S   0.0   0.1   0:01.92 systemd

top - 23:28:19 up 1:11, 1 user, load average: 0.64, 0.75, 0.82
```

9. ifconfig command:

Code:

```
#include <stdlib.h>
#include <stdio.h>

int main()

{
    system("ifconfig");
    return 0;
}
```

Output screenshot:

```
f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc ifconfig_command.c -o ninth
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ ./ninth

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
    inet 127.0.0.1  netmask 255.0.0.0
    inet6 ::1  prefixlen 128  scopeid 0x10<host>
    loop txqueuelen 1000  (Local Loopback)
    RX packets 1837  bytes 194724 (194.7 KB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 1837  bytes 194724 (194.7 KB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

wlo1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
    inet 192.168.0.15  netmask 255.255.255.0  broadcast 192.168.0.255
    inet6 fe80::330d:5c77:6bed:f71e  prefixlen 64  scopeid 0x20<link>
    ether 18:47:3d:80:1e:03  txqueuelen 1000  (Ethernet)
    RX packets 358729  bytes 301036664 (301.0 MB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 181570  bytes 40092884 (40.0 MB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0
```

10. wget command:

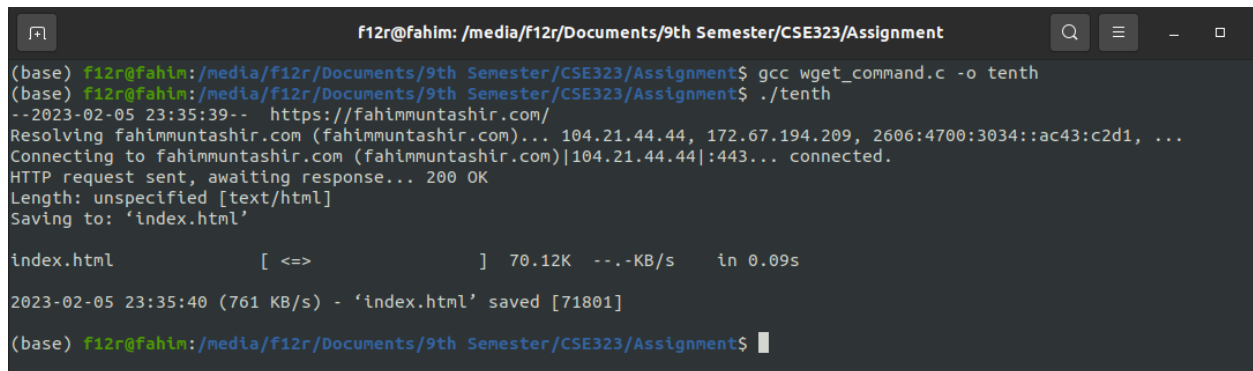
Code:

```
#include <stdlib.h>
#include <stdio.h>
```

```
int main()
```

```
{
    system("wget https://fahimmuntashir.com/");
    return 0;
}
```

Output screenshot:

A terminal window titled 'f12r@fahim: /media/f12r/Documents/9th Semester/CSE323/Assignment'. The terminal shows the following commands and output:

```
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ gcc wget_command.c -o tenth
(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$ ./tenth
--2023-02-05 23:35:39-- https://fahimmuntashir.com/
Resolving fahimmuntashir.com (fahimmuntashir.com)... 104.21.44.44, 172.67.194.209, 2606:4700:3034::ac43:c2d1, ...
Connecting to fahimmuntashir.com (fahimmuntashir.com)|104.21.44.44|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'index.html'

index.html          [ <=>          ] 70.12K  --.-KB/s   in 0.09s

2023-02-05 23:35:40 (761 KB/s) - 'index.html' saved [71801]

(base) f12r@fahim:/media/f12r/Documents/9th Semester/CSE323/Assignment$
```

-----end-----