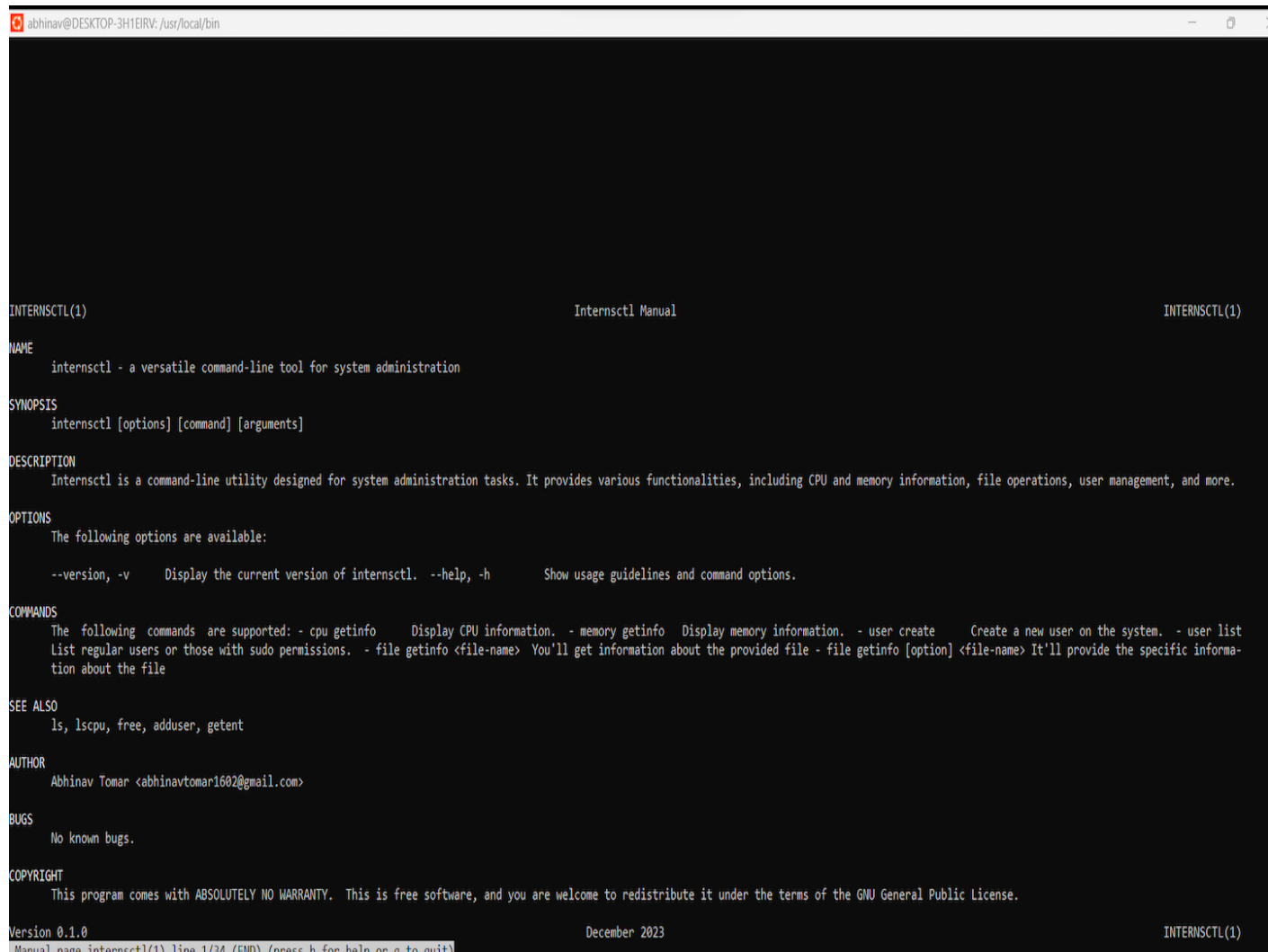


XenonStack Assignments

Section A

1. man internsctl

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ man internsctl
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$
```



```
abhinav@DESKTOP-3H1EIRV: /usr/local/bin

INTERNSCTL(1)                                Internsctl Manual                                INTERNSCTL(1)

NAME
    internsctl - a versatile command-line tool for system administration

SYNOPSIS
    internsctl [options] [command] [arguments]

DESCRIPTION
    Internsctl is a command-line utility designed for system administration tasks. It provides various functionalities, including CPU and memory information, file operations, user management, and more.

OPTIONS
    The following options are available:

    --version, -v      Display the current version of internsctl.  --help, -h      Show usage guidelines and command options.

COMMANDS
    The following commands are supported: - cpu getinfo      Display CPU information. - memory getinfo      Display memory information. - user create      Create a new user on the system. - user list      List regular users or those with sudo permissions. - file getinfo <file-name> You'll get information about the provided file - file getinfo [option] <file-name> It'll provide the specific information about the file

SEE ALSO
    ls, lscpu, free, adduser, getent

AUTHOR
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BUGS
    No known bugs.

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    This program comes with ABSOLUTELY NO WARRANTY. This is free software, and you are welcome to redistribute it under the terms of the GNU General Public License.

Version 0.1.0                                December 2023                                INTERNSCTL(1)
Manual page internsctl(1) line 1/34 (END) (press h for help or q to quit)
```

2. internsctl --version

```
abhinav@DESKTOP-3H1EIRV: /usr/local/bin
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl --version
internsctl v0.1.0
```

3. internsctl -help

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl --help
Usage: internsctl [OPTIONS]
Description: Your command description

Options:
--version          Show the current version of internsctl
--help            Show this help message

CPU Options:
cpu getinfo        Show CPU information

Memory Options:
memory getinfo     Show memory information

User Options:
user create <username> Create a new user
user list          List all users
user list --sudo-only List users with sudo permissions

File Options:
file getinfo [OPTIONS] <file-name> Get information about a file
File getinfo Options:
file getinfo [OPTIONS] <file-name> Get information about a file
File getinfo Options:
--size, -s        Print size
--permissions, -p Print file permissions
--owner, -o       Print file owner
--last-modified, -m Print last modified date
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl cpu getinfo
```

Section B

1. internsctl cpu getinfo

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl cpu getinfo
Architecture:      x86_64
CPU op-mode(s):    32-bit, 64-bit
Address sizes:      39 bits physical, 48 bits virtual
Byte Order:         Little Endian
CPU(s):             8
On-line CPU(s) list: 0-7
Vendor ID:          GenuineIntel
Model name:         Intel(R) Core(TM) i5-1035G1 CPU @ 1.00GHz
CPU family:         6
Model:              126
Thread(s) per core: 2
Core(s) per socket: 4
Socket(s):          1
Stepping:           5
BogoMIPS:           2380.80
Flags:              fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse ss
                    e2 ss ht syscall nx pdpe1gb rdtscp lm constant_tsc arch_perfmon
                    iable nonstop_tsc cpuid pni pclmulqdq vmx ssse3 fma cx16 pdcm pcid sse4_1 sse4_2 x2apic movbe p
                    opcnt tsc_deadline_timer aes xsave
                    x f16c rdrand hypervisor lahf_lm abm 3dnowprefetch invpcid
                    _single ssbd ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi ept vpid ept_ad fsgsbase tsc_adjust
                    bmi1 avx2 smep bmi2 erms invpcid avx512f avx512dq rdseed adx smap avx512ifma clflushopt avx512c
                    d sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves avx51
                    mi umip avx512_vbmi2 gfni vae
                    s vpclmulqdq avx512_vnni avx512_bitalg avx512_vpopcntdq rdpid fsrm flush_l1d arch_capabilities
Virtualization features:
Virtualization:     VT-x
Hypervisor vendor:   Microsoft
Virtualization type: full
Caches (sum of all):
L1d:                192 KiB (4 instances)
L1i:                128 KiB (4 instances)
L2:                 2 MiB (4 instances)
L3:                 6 MiB (1 instance)
Vulnerabilities:
Gather data sampling: Unknown: Dependent on hypervisor status
Itlb multihit:      KVM: Mitigation: VMX disabled
L1tf:               Not affected
Mds:                Not affected
Meltdown:           Not affected
Mmio stale data:    Vulnerable: Clear CPU buffers attempted, no microcode; SMT Host state unknown
Retbleed:           Mitigation; Enhanced IBRS
Spec rstack overflow: Not affected
Spec store bypass:  Mitigation; Speculative Store Bypass disabled via prctl and seccomp
Spectre v1:         Mitigation; usercopy/swaps barriers and __user pointer sanitization
Spectre v2:         Mitigation; Enhanced IBRS, IBPB conditional, RSB filling, PBSRB-eIBRS SW sequence
```

2. internsctl memory getinfo

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl memory getinfo
```

	total	used	free	shared	buff/cache	available
Mem:	3893228	499820	3034764	3244	358644	3172636
Swap:	1048576	0	1048576			

3. internctl user create <username>

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internctl user create vishal
Adding user `vishal' ...
Adding new group `vishal' (1001) ...
Adding new user `vishal' (1001) with group `vishal' ...
Creating home directory `/home/vishal' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for vishal
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
```

4. internctl user list

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internctl user list
root
daemon
bin
sys
sync
games
man
lp
mail
news
uucp
proxy
www-data
backup
list
irc
gnats
nobody
systemd-network
systemd-resolve
messagebus
systemd-timesync
syslog
apt
uidd
tcpdump
abhinav
vishal
```

5. `internsctl user list --sudo-only`

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl user list --sudo-only
abhinav
```

6. `internsctl file getinfo <filename>`

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl file getinfo internsctl
File: internsctl
Access: -rwxr-xr-x
Size(B): 2993
Owner: root
Modify: 2024-01-03 18:46:51.015430826 +0530
```

7. `internsctl file getinfo --options <filename>`

```
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl file getinfo --permissions internsctl
-rwxr-xr-x
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl file getinfo --size internsctl
2993
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl file getinfo --owner internsctl
root
abhinav@DESKTOP-3H1EIRV:/usr/local/bin$ internsctl file getinfo --last-modified internsctl
2024-01-03 18:46:51.015430826 +0530
```