Assignment 4

Satyam Kumar
ID: 201552062

2. Procedure used to crack the User's password.

1. Install John the ripper ,which is used to decrypt any user password, encrypted using any known method.

```
[satyam@Eulerton ~]$ sudo pacman -S john
```

2. Store user's name (anonymous) and encypted value in a text file and save it in a home directory.

3. Run /textit/usr/sbin/john –text command. This command creates new hidden file in home direcrtory

```
[satyam@Eulerton ~]$ /usr/sbin/john --test
Created directory: /home/satyam/.john
```

4. To crack password, type the following command with the name of file in which password is stored.
   /textit/usr/sbin/john password.txt
   This may take few minute to few hours, depending upon the speed of processor.

```
[satyam@Eulerton ~]$  /usr/sbin/john password.txt
```

5. The cracked password of the user obtained and it is **system** as can be seen from the image.

```
[satyam@Eulerton ~]$ /usr/sbin/john --show password.txt
anonymous:system:17803:0:99999:7:::
```

3. Write a Bash script to add the following users (in a batch mode).

```
#!/bin/bash
USERNAME=$(cat userlist.txt | cut -d: -f1)
echo "$USERNAME"

PWd=$(cat userlist.txt | cut -d: -f2)
echo "$PWd"

UID=$(cat userlist.txt | cut -d: -f3)
echo "$UID"

GID=$(cat userlist.txt | cut -d: -f4)
```

```
echo "$GID"

USER_SHELL=$(cat userlist.txt |  cut -d: -f5)
echo "$USER_SHELL"

useradd -m -s "$USER_SHELL" -u "$UID" -g "$GID" "$USERNAME" -p "$PWd"
```

4. Write (1) description (purpose), (2) example(s), and (3) output of following commands or command-line switches.

4.1. w

w - Show who is logged on and what they are doing.
Example(s): w
Output: w : displays information about the users currently on the machine, and their processes.

```
[satyam@Eulerton ~]$ w
 23:40:43 up  2:09,  1 user,  load average: 1.85, 1.50, 1.39
USER     TTY        LOGIN@   IDLE   JCPU   PCPU WHAT
satyam   :1        21:36   ?xdm?   3:12   0.00s /usr/lib/gdm-x-session --run-sc
```

4.2. id

id - print real and effective user and group IDs
Example(s): id
Output: Print user and group information for the specified USER

```
[satyam@Eulerton ~]$ id
uid=1000(satyam) gid=1000(satyam) groups=1000(satyam),90(network),98(power),108(
vboxusers),991(lp),998(wheel)
```

4.3. id -g

id -g : print only the effective group ID
Example(s): id -g
Output: 1000(gid)

4.4. id -G

id -G : print all groups
Example(s): id -G
Output: 1000 90 98 108 991 998

4.5. id -u

id -u : print only effective user id
Example(s): id -u
Output: 1000

4.6. id -n

id -n :print a name instead of a number, for -ugG
Example(s): id - n
Output: cannot print only names or real IDs in default format

4.7. id -gn

id -gn :print a group name
Example(s): id - gn
Output: satyam

4.8. id -un

id -un :print a user name
Example(s): id - un
Output: satyam

4.9. groups

groups - display current group names Example(s): groups
Output: satyam

4.10. groups <user-name>

groups ¡user-name¿ - display current group names Example(s): groups satyam
Output: wheel lp network power vboxusers satyam

4.11. su

su - run a command with substitute user and group ID Example(s): su
Output: su allows to run commands with a substitute user and group ID.

4.12. su -

su - :Start the shell as a login shell with an environment similar to a real login: Example(s): su -
Output: root login

4.13. su <user-name>

Example(s): su satyam
Output: No root login

4.14. su - <user-name>

Example(s): su - satyam
Output:Login back to USERS

4.15. chsh

chsh : change your login shell
Example(s): chsh
Output: chsh is used to change your login shell. If a shell is not given on the command line, chsh prompts for one.

4.17. passwd

passwd - change user password
Example(s): passwd
Output: The passwd command changes passwords for user accounts. passwd also changes the account or associated password validity period.

4.18. passwd -S

passwd -S Display account status information.
Example(s): passwd -S
Output:satyam P 07/05/2018 0 99999 7 -1

4.19. passwd -d <user-name>

Delete a user's password (make it empty)
Example(s): sudo passwd -d satyam
Output:password expiry information changed.

4.20. passwd -e <user-name>

Lock the password of the named account.
Example(s): passwd -e satyam
Output:password expiry information changed.

4.21. passwd -l <user-name>

Lock the password of the named account.
Example(s): passwd -l satyam
Output:password expiry information changed.

4.22. passwd -n <user-name>

Set the minimum number of days between password changes to MIN_DAYS.
Example(s): passwd -n 1 satyam
Output:password expiry information changed.

4.23. passwd -u <user-name>

unlock the password of the named account
Example(s): passwd -u satyam
Output:password expiry information changed.

4.24. passwd -w <user-name>

Set expiration warning days to WARN_DAYS
Example(s): passwd –warndays 3 satyam
Output:password expiry information changed.

4.25. passwd -x <user-name>

Set expiration warning days to MAX_DAYS
Example(s): passwd –warndays 3 satyam
Output:password expiry information changed.

4.26. chage -l <user-name>

Change user password expiry information
Example(s): chage -l satyam
Output:

```
[satyam@Eulerton ~]$ chage -l satyam
Password:
Last password change                                    : Oct 20, 2018
Password expires                                        : never
Password inactive                                       : never
Account expires                                         : never
Minimum number of days between password change          : 2
Maximum number of days between password change          : 99999
Number of days of warning before password expires       : 3
```

4.27. chage -d <value> <user-name>

set date of last password change to LAST_DAY
Example(s):chage -d 30000 satyam
Output: Last password change : Feb 20, 2052

4.28. chage -E <value> <user-name>

set account expiration date to EXPIRE_DATE Example(s): chage -E 30 satyam
Output: Account expires : Jan 31, 1970

4.29. chage -m <value> <user-name>

set minimum number of days before password change to MIN_DAYS
Example(s): chage -m 1 satyam
Output: Minimum number of days between password change: 1

4.30. chage -M <value> <user-name>

set maximum number of days before password change to MAX_DAYS
Example(s): chage -m 28 satyam
Output: Maximum number of days between password change: 28

4.31. gpasswd <group-name>

gpasswd - administer /etc/group and /etc/gshadow
Example(s): gpasswd satyam
Output: Ask to change group password

4.32. gpasswd -a <user-name> <group-name>

Add the user to the named group.
Example(s): gpasswd -a satyam som
Output:Set password for new user Som

4.33. gpasswd -d <user-name> <group-name>

Delete the user to the named group
Example(s): gpasswd -d steve sysadmin Output: Removing user steve from group sysadmin

4.34. gpasswd -r <group-name>

Remove the GROUP's password
Example(s): gpasswd -r vinay
Output:Password of vinay is removed.

4.35. gpasswd -M <user-name1,user-name2,...> <group-name>

gpasswd -M : set the list of members of GROUP
Example(s): gpasswd -M bill steve sysadmin
Output:sysadmin:x:1001:bill,steve

4.36. adduser <user-name>

Example(s): adduser vinay
Output: No output

4.37. useradd <user-name>

useradd - create a new user or update default new user information
Example(s): useradd vinay
Output:User Vinay added.

4.38. useradd -d <home-dir> <user-name>

The new user is created using HOME_DIR as the value for the user's login directory.
Example(s): useradd -d /home/vinayak vinayak
Output:User Vinayak added in /home/vinayak from /home/satyam

4.39. useradd -u <UID> <user-name>

useradd -u:The numerical value of the user's ID.
Example(s):useradd -u 1234 vinayak
Output:User Vinayak with userid 1234
To check user has been added or not : getent passwd | grep vinayak
vinayak:x:1234:1234::/home/vinayak:/bin/bash

4.40. useradd -g <GID> <user-name>

useradd -g :Sets the initial, or primary, group.
Example(s):useradd -G 123 vinayak
Output:User Vinayak with groupid 1234 is added

4.41. useradd -G <group1/GID1,group2/GID2,...> <user-name>

useradd -G: Sets the supplementary, or additional, groups.
Example(s):useradd -G steve,bill vinay2
Output: steve:x:1002:vinay2
bill:x:1003:vinay2

4.42. useradd -s <login-shell> <user-name>

The name of the user's login shell.
Example(s):useradd -s /bin/sh vinay
Output:vinay1:x:1235:1235::/home/vinay1:/bin/sh

4.43. usermod <user-name>

usermod - modify a user account.
Example(s):usermod vinay
Output:

4.44. usermod -d <home-dir> <user-name>

usermod -d : new home directory for the user account
Example(s):usermod -d /home/vinay1 vinay
Output: User vinay's home directory is modified to /home/vinay1

4.45. usermod -g <group/GID> <user-name>

usermod -g: Changes group of user to another Group with other being new primary group
Example(s):usermod -g vinay vinay1
Output:vinay1:x:1235:

4.46. usermod -G <group1/GID1,group2/GID2,...> <user-name>

usermod -G : new list of supplementary GROUPS
Example(s):usermod -G vinay,vinay1 steve
Output:vinay1:x:1235:steve
vinay:x:1004:steve

4.47. usermod -l <new-user-name> <user-name>

usermod - l:new value of the login name
Example(s):usermod -l vinay2 vinayak
Output:getent passwd — grep vinay2
vinay2:x:1234:1234::/home/vinayak:/bin/bash

4.48. usermod -L <user-name>

usermod -L :Lock the user account
Example(s):usermod -L vinay2
Output:getent passwd — grep vinay2
vinay2:x:1234:1234::/home/vinayak:/bin/bash

4.49. usermod -U <user-name>

usermod -U :Unlock the user account
Example(s):usermod -U vinay2
Output: Unlocking the user's password would result in a passwordless account.

4.50. deluser <username>

No such command found.

4.51. userdel <username>

userdel - delete a user account and related files
Example(s):userdel vinay2
Output: No user vinay2 found.

4.52. addgroup <group-name>

No manual entry for addgroup
Example(s):addgroup vinay2

4.53. groupadd -g <GID> <group-name>

groupadd - create a new group
Example(s):groupadd sv
Output:sv:x:1236:

4.54. groupmod <group-name>

groupmod - modify a group definition on the system
Example(s):groupmod sv
Output:sv:x:1236:

4.55. groupmod -g <new-GID> <group-name>

groupmod -g: The group ID of the given GROUP will be changed to GID.
Example(s):groupmod -g 1007 sv
Output:sv:x:1007:

4.56. groupmod -n <new-group-name> <group-name>

groupmod -n: The name of the group will be changed from GROUP to NEW_GROUP name.
Example(s):groupmod -n sysadmin1 sv
Output:sysadmin1:x:1007:

4.57. delgroup <group-name>

No manual page for delgroup

4.58. groupdel <group-name>

groupdel - delete a group
Example(s):groupdel sysadmin1
Output:No group sysadmin1 found.

4.59. finger <user-name>

No manual entry for finger

4.60. chfn <user-name>

chfn - chfn is used to change your finger information. This information is stored in the /etc/passwd file, and is displayed by the finger program.
Example(s):chfn steve
Output:

```
[Eulerton ~]# chfn steve
Changing finger information for steve.
Name []: Steve
Office []: Gandhinagar
Office Phone []: 1233221
Home Phone []: 22256773


Finger information changed.
```

5. Write the following answers. Replace <your-name> with your real name.

5.1. Add three users,<your-name>, Bill, Steve. Users <your-name> and Bill are also a part of the group, "SysAdmin". In addition, disable the user Steve's shell access.

groupadd sysadmin
useradd bill useradd -s /usr/sbin/nologin steve
gpasswd -a satyam sysadmin
gpasswd -a bill sysadmin
gpasswd -a steve sysadmin

5.2 Automatically add a file <your-name¿.txt to all new user's account (or home directory).

5.3 Add a user account, ¡your-name¿, and set the account expiry date on 30-Nov-2018.

usermod -e 2018-11-30 satyam
chage -l satyam

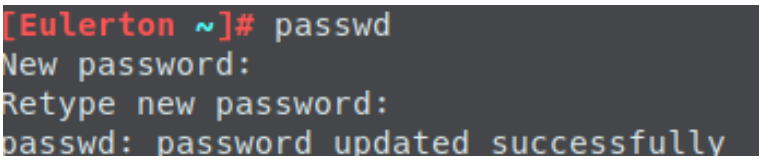
5.4. Create a user named Mark, where the user ID is 123 and password is Mark123.

useradd -u 123 mark
passwd Mark

5.6. Change the user <your-name>'s group to "Guest".

groupmod -n guest satyam

5.7. Change the password of your root user account



5.8. Change the default "bash shell" of your user account. The change should be permanent.

chsh -s /bin/bash