

<td>

<td colspan="2"> one <td>

</td> // increase the  
column space twice .

text box

<input type="text"/>

text box

<input type="text"/>

Enter your

to separate two lines use paragraphs

<p> </p>

\$ Big text

<textarea>

</textarea>

it spans

you can

use span tag to display the  
words in same line, image etc.

<span> </span>

text area

<textarea>

Cols =

use div to print in next line

<div> </div> it can be

used for image every element

it spans

to create a text box

<input type="text"/>

You

37:27

DATE

text box for password

<input type = "password" />

text box with existing words

<input type = "text" value = "Enter your name" />

\$ Big text box creation

<textarea>

</textarea>

it spawns a big text box  
you can drag and resize.

text area with rows and columns

<textarea rows = "10" cols = "30"></textarea>

it spans n text boxes as table.

you can enter here the heading

classmate which is permanent

PAGE

PAGE

Input for date

<input type = "date"/>

Input for email ↓

replaced  
with "email"

← →

range setter

replaced by  
range

upload file as input

replaced by  
"file".

input type checkbox

replaced by  
"checkbox"

radio bu

box

if you

single bu

<input n

type =

<input

type =

+ > dep

be sam

to ca

< Inpu

more

only

classmate

radio button is same as check box

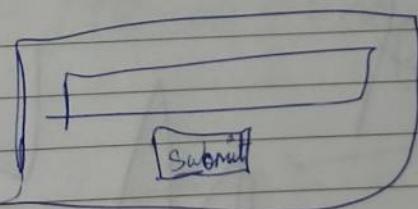
if you want to be clicked on a radio single button then use this

```
<input name = "define a common name"  
type = "radio" />
```

```
<input name = "define a common name"  
type = "radio" />
```

+> define a common name should be same for both radio button.

to create submit button



```
<input type = "submit" />
```

more input type can be searched online.

to save the inputs use form

<form>

<input type = "text" />

</form>

i frames. → you see another website  
on your screen

<iframe

http://

<iframe src = "www.google.com" />

if you can't see the website this message

will be displayed </iframe>

→ you can resize with width etc.

End of

7: 27

## OS for Us

DATE [ ]

- Arch Strike → all tools available free
- Pen tool Linux → Best for cracking
- Network Security Tool Kit → 125 open source tools
- Deft Linux → used by you and tools
- WiFi Slax → Best for wireless attacks
- Samurai Web → Unseen
- Bug trap → penetration
- Back Box → //
- ✓ Parrot Security OS → highly customizable
- Kali Linux → King

- Fedora Security → fast for beginners
- BlackArch → 1900 tools + 400 → fast, hard

~~27~~

King

We Select Kali

Linux

classmate

PAGE [ ]

(7)

## Python

order does matter.

you can use use Go to i python.

eg to know the place of the position of alphabet  
in a string eg

a = "cosmo"

~~print C[a:Index]~~~~print (phrase.Index ("C"))~~

it will print '0' because

0 1 2 3 4

cosmo



you can use a word also

you can replace the words using

a = " Gang Robbery "

Print (a.replace ("Gang", "Group"))

to convert from int to string or any

a = 55

print (str(a) + " it's string now")

DATE

to print the absolute value of any number

absolute value is nothing but removing the sign  
and showing the positive value

print (abs (-5))

it will print 5

to print power of a number

print (pow(4, 2))

>> 16.

to print the largest value of two numbers

print ( $\max^{\max}$  (4, 6))

>> 6

to print small value

print ( $\min$  (4, 6))

>> 4

classmate

PAGE

Same for round value

print (round (4.89))

>> 5

To convert

list to get

a = [ 4, 8,

b = [ 1, 2,

a. extend

>> [ 4, 8,

To round the value at the lowest point

print (floor (3.7))

>> 3

To add an

a. append

>> [ 4, 8,

value

print (ceil (3.7))

>> 4

To insert

a. append

>> [ 1, 1,

To find square root

print (sqrt (4))

>> 2

To remove

a. remove

>> [ 4,

To print the correct input

To concordate two lists or to join two  
list together one after one to one use

$$a = [4, 8, 6, 7, 8]$$

$$b = [1, 2, 3, \cancel{4}, 9]$$

a. extend (b)

$$\Rightarrow [4, 8, 6, 7, 8, 1, 2, 3, 9]$$

To add an I term in the list

a. append (10)

$$\Rightarrow [4, 8, 6, 7, 8, 10]$$

To insert the value inbetween

a. append (0, 11) — value  
position

$$\Rightarrow [11, 4, 8, 6, 7, 8, 10]$$

To remove a element

a. remove (11)

$$\Rightarrow [4, 8, 6, 7, 8, 10]$$

To clear the list

a. clear () // This will return an empty list

To find the position the stored data use index

To find the repeated value of a same data use .count

a = ["asd", "apple", "can", "can", "bug"]  
print(a.count("can"))

>> 2

To sort the list in <sup>ascending</sup> alphabetical order.

print(a.sort())

>> [asd]

>> [apple, asd, bug, can, can]

Not you can use to numbers also

How to reverse

~~a = [1,~~

~~a[0].rever~~

>> [4, 3, 2, 1]

To create a

~~a2 = a.~~

~~>> [1, 2]~~

You can create  
a list or list

Error handling

This is used

try :

a = int(i)

print(a)

Except:

Print [

3:04:30.

DATE

To reverse the order of the list

~~a = [1, 2, 3, 4]~~

~~a.reverse()~~

~~>> [4, 3, 2, 1]~~

To create a copy of a list

~~a2 = a.copy()~~

~~>> [1, 2, 3, 4]~~

You can create a list inside a tuple or tuple inside

a list or list inside list or tuple inside tuple

## Error handling

This is used when we have error of

try:

```
a = int(input("Enter a number"))
```

```
print(a)
```

Except:

```
Print("invalid input enter a number")
```

PAGE

output

When you input a string it does not able to convert it into integer at that time it usually shows error but now it will execute except:

→ Enter a number A to

→ Invalid input enter a valid number.

There are many types of exception like

10/0 - Division Error

int a = "cat" Value error

you can catch a particular type of errors

and show in different places

---

Code: # This is zero division error

try :

a = 10/0 # it will catch only 0 division error

a = int(input)

a = int(input("enter a num"))

except:

except ZeroDivisionError:

# this is an invalid error. There are many types

Errors to specify a particular type.

print ("you can't divide by zero")

Output

You can't divide by zero

Value errors

try: # it will get only the value error

a = int (input ("Enter a number"))

print (a)

except ValueError:

print ("Enter a valid number")

Output

Enter a number and

enter a valid number.

classmate

PAGE

→ you can store error in a variable

Code :

try :

`a = 10/0`

Except as err :

`print(err)`

# it will print the type of errors

output .

Division by Zero

reading files

# to open a file

`open("location", "r")` → read

// // "w" → write

// // "a" → append

// // "r+" → Read and write

opening and closing  
employee - file  
employee - file  
to check whether  
or not

`e = open("`  
`print(e.read())`  
~~employee.txt~~

output

True

`e = open("`  
`print(e.read())`  
`e.close()`  
output

false.

opening and closing a file

```
employee_file = open ("C:\Bull\employee.txt", "r")
```

```
employee_file.close()
```

to check whether the file is readable.

or not

```
e = open ("c\|a\b.txt", "r")
```

```
print (e.readable())
```

```
employee e.close()
```

output

True

```
e = open ("c\|a\b.txt", "w")
```

```
print (e.readable())
```

```
e.close()
```

output

false.

edwrite

PAGE

classmate

PAGE

to print all data from a file

use read

a = open ("a.txt", "r")

print (a.read ())

a.close ()

to print a particular line

same program but read is replaced

by read line () # not readlines ()

↓  
readline ()

write multiple ~~for~~ times to print

~~multiple~~ line.

to print a particular line 2<sup>nd</sup> or any other position

line use readlines () [ ]

print (a.readlines () [3])

# read lines not read line

a → app

end of t

~~open~~

e = opn

e. write ()

e. close ()

erase a

google se

We show

how to ch

C M D

>> pip -

>> pip i

eg >> pi

3:28:19

DATE

a → append → adding additional data to the end of the file

~~employ~~

e = open ('emp.txt', 'a')

e. write ("IntObj - human resource")

e. close()

you can use "W" but it will  
erase all data and from first it will ~~w~~ write

Google search list of modules in python

We should install more external module.

How to check pip

CMD

>> pip -- -- Version

>> pip install "the required module"

Eg >> pip install Pygame.

classmate

PAGE

Constructor

def \_\_init\_\_(self)

✓

→ it is good to use virtual Box

or to use cheap computer.

→ That point is great because you are not damaging the real system.

→ While testing on hacking tool we could break the system

→ Using test with virtual box does not damage the original data. we can visit unsafe web.

types to get access

1) network hacking → fiddler path

2) gaining access → getaccess

3) post Exploitation → what happens after

4) website hacking

hacking

gaining access

have access

types.

Kali Linux

→ you have

→ Ctrl +

Terminal

D) GUI → m

is best.

Basics.

pwd → c

eg pwd

c/

ls → all

cd →

eg cd

classmate

hacking

going access to the system which you should not have access to  
types.

### Kali Details

- you have multiple work space
- Ctrl + Alt to navigate

### Terminal and commands-

1) GUI → might have bugs so using cmd or terminal is best.

#### Basics.

pwd → current directory prints address

eg pwd

c:/asd/c/downloads

ls → all directory in the current folder.

cd → open file

eg cd /download → opens downloads.

to go back the main directory

type

cd ..

help → man

eg :

# man ls // it will show usages  
 // a how to use ls command text  
 // file will be opened.

Press Q to exit

to clear the screen by pressing clear.

Press tab to make the half word to become full.

ctrl + c to kill the program

apt - get  
 the programs.  
 where apt  
 store to get

~~apt-get~~ apt  
 the programs  
 it  
 eg

# apt - g  
 // this is to install  
 to upgrade it.  
 where apt  
 install → be  
 terminator  
 used here  
 terminator is Sam

apt - get update → is to upgrade  
the programs.

Where apt → apt - get is the  
store to get program

~~apt - gg~~. apt - get is allows us to install  
the programs So we can upgrade or install  
it

eg

# apt - get install terminator  
// this is to install the terminator software or  
to upgrade it.

where apt - get →

install → try to install

terminator → upgraded version of terminal

used here

terminator is same as terminal but we

DATE

use multiple windows and multiple command

9

Find

find & delete  
freeze cell  
Create a chart

NH

N H

it's  
desmid

NH → Network lacking every main computer we need in the field of having is in network.

PGP → Poor Grain Press Post.

- 1) pisces - Feb
- 2) taurus -
- 3) virgo - A
- 4) scorpio - Oct
- 5) cancer - Ju
- 6) capricorn

SQL

SQL

KK Sanket

classmate

8

9

DATE

Find

find 4 dead people  $\rightarrow$  desimard, desi aurat, firangi mard

firangi aurat ~~FB, Insta, gmail account,~~

Create a hotmail acc & what's app fake acc.

A T [REDACTED] 7

~~Q~~ it's a type of coding which is  
designed with many conditions

- 1) pisces - Feb 20 - March 20 Koushik      odd even  
even odd
- 2) taurus - April 21 - May 20 bapu      20 24
- 3) Virgo - Aug 24 - Sep 23 Balaji      odd even  
24 20
- 4) Scorpio - Oct 24 - November 22 bapu      24 - 20.
- 5) Cancer - June 22 - July 22 madan
- 6) Capricorn - Dec 22 - Jan 21 China

classmate

PAGE

⑩

⑪ ⑫  
Run

Color

DATE

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

- 1) head up not fall up
- 2) 90° elbow
- 3) arms should not cross, forward movement is good
- 4) hips straight don't move
- 5) do not bend
- 6) stretch

### Rock climbing

- 1) find center of gravity and bring it to your feet
- 2)

1, 4, 3,

aquarium

### Good manners

- 1) eyes up
- 2) smile
- 3) Stand straight (shoulders back)
- 4) hand shake with a <sup>firm</sup> grip (shake)
- 5) eye contact
- 6) full response

CLASSMATE

PAGE

280

CLASSMATE

13

## Cancer

DATE

Color

yellow) pink - orange ) Bluish - green

Stone

pearl, yellow Topaz and red coral

number

1, 4, 3, 7, 9

dis ad

Self-inflicted pain

## Aquarius

0.5 1.8

280

classmate

PAGE

# how to define a module

Syntax  
// defining it

```
#ifndef module_name_H
#define module_name_H
```

Class B

```
{ function C()
```

// calling it outside th. you can define another fun.

```
#include "module_name.h"
```

B :: C()

```
{ }
```

date [ ]

// calling the module.

#include <stdio.h> <iostream.h>

#include "module\_name.h"

int main()

{

    module\_name objectname;

    return 0;

}

// You can use the module and functions  
inside it

If & - and \* you can use in their  
while, for, do - while etc.

// || - Or operator

~~C++~~ + +

$$\text{last left} = 3:04:46$$

### C Standard Library

This contains a function called rand used for printing a random number

```
#include <csstd.h>
#include <cstdlib.h>
// Declaration of the C standard library
```

the program to generate a random number

```
#include <iostream.h>
```

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

```
void main()
```

```
{ cout << rand(); }
```

a program to  
a dice

#include <

#include <

int main()

{ for (int

i = 1; i <

3

2

but this  
same random

soft recalle

eg run 1

5

4

1

2

3

classmate

a program to generate  
a dice game

DATE

```
#include <iostream>
#include <cs(std::lib.h)>
int main()
{
    for(int x = 0; x < 25; x++)
        cout << 1 + (rand() % 6) << endl;
}
```

2

but this has a disadvantage it displays  
Same random numbers when it is ~~not~~  
~~not recalled~~.

e.g.

Run 1

Run 2

Run 3

{

5

5

5

4

4

4

1

1

1

2

2

2

3

3

3

Same.

PAGE

classmate

sets rand function

so

Syntax

Setrand (5); // The number can be full

(what does this function does this)

function does Selects a Sets

Sets inside the random fun

eg

Set 1      Set 2      Set 3

1

5

8

2

2

5

5

1

2

9

5

9

3

3

7

8

7

8

6

1

output

set 1

1

2

16

5

3

4

Used using Srand in the dice  
program

header files

Void main ()

{

Srand (43);

for (int x = 1; x < 25; x++)

~~int y =~~ { Srand (x); cout << "set ";

for (int x = 1; x < 25; x++)

{ cout << 1 + (rand () % 6) << endl;

}

3

Output

Set 1 Set 2 Set 3 ... Set 24

1  
2  
6

4  
4

3  
1

2  
2

5  
3

1  
6

4  
6

2  
4  
5

classmate

5

3

PAGE

Still every time we run program;  
truly not random we can make  
truly random by adding time

We can access #include <time.h>  
this allows us to access time  
time() // this is the function  
time(0) is used to access see  
dice program using time()  
header files &

#include <time.h> <ctime.h>

int main()

{ srand(time(0));

for (int x=1; x<25; x++) {

{

cout << 1 + (rand()%6) <<

}

now the p

0.1

3 :

How to han  
in C++

Syntax

header f

template

eg

header f

template

Void m

2 a

3 d

now the output is truly random

void

3 : 13 : 00.

How to have multiple type data type one  
in C++

Syntax

header files

template < class name of your datatype >

Cg

header file

template < class memo >

void main()

{ memo a; // initialization

} // This can be used as anything

classmate memo takes place at int, float, double etc...

eg

DATE

header files  
template < class first, class second>  
first smaller (first a) second b)

// This can be used for functions also

{ return (a < b ? a : b); }

int main()

{ int x = 89;

double y = 5.6;

cout << smaller (x, y) <<

endl;

}

7.29.00

Exception handling  
(error handling)  
Syntax

try { } +

catch (in

{ message

eg

int main()

{ try { in

in

catch (int

{ cout <

3

classmate

PAGE

## Exception handling in C++

(error handling)

## Syntax

```
try {} throw error_number;
catch (int variable)
    { message or program }.
```

eg

int main()

{ try { int momAge = 50;

int sonage = 34;

if (sonage &gt; momAge)

{ ~~throw~~ throw 99; }

}

Catch (int x)

{ cout << ~~99~~ "Son is older than mom" << x; }

3

classmate

15

16

DATE

out put

Son is odd older than mom,  
Error number .99

18

ans

→ The balance can be

Anonymouse.

that's Rudd.

Secret name

Venus

Bit coin

→ crypto wallet , this is safe bnd the info  
is stored within the crypto wallet.

→ no one asks the private key , its like  
pen

→ many copy of transaction is stored in many computer

→ American says a

→ Tulli - com

→ Europe

→ Edward Snowden

→ Browsing history

→ good is there  
classmate

PAGE

17

18

DATE

now

→ The balance can be seen by everyone

### Anonymouse

- You can use VPN
- onion routers
- proxy

↓  
fire blasting combo

- do not resize the window, you can be traced
- Tails or ~~the~~ quakes.

### Do WEB

The Information

is like Ath-

computers.

- American Spies are here
- Tulli - ~~com~~ Customer, Kalcha
- Europol, Interpol
- Edward ~~Sor~~ Snowden Speech
- Browsing history of celebrity is available
- good is there, there is a idea that cannot be killed

classmate

PAGE

PAGE

- \$ pg Psycobob is amble
  - Casino is easy but we have to stop
  - if you have gone to Dark web you can return
  - Casino we can find more criminal
  - ~~to \* # / / / # \* . . . | . . . # \*~~
  - the known link is dead dead
  - unknown is truth Dark
  - Captain is a bread of animal
  - Marijuana's web, → no one has read all treasure is here
  - In the Surface web the url gets info o IP So you can access website
  - Same find the browser so we can go to Smoke web
  - how can you tell the word is a dark web.
  - Magianas web
- classmate

1) (20) (21)

Hackers

→ jugadu

→ Cut hub, P

other websites

Hackers buying

→ they buy

→ to learn

→ Sim swap

→ social engineering

→ K linux

→ Brute force

→ cloud h

→ Python

→ ~~CMS~~ CMS

→ API

→ Click jack

classmate

29 21

DATE

hackers

→ jugadu

→ Git hub, Python script is available for hacking other websites

hackers buying products

→ they buy used or refurbished products

→

to learn

→ Sim swap

→ Social engineering → Passed.

→ K linux → Passed

→ Brute force :

→ cloud h

→ Python → Passed

→ ~~CMS~~ CMS, word press, VPS

→ API

→ Click jacking  
classmate

PAGE

(22)

DATE

- Stay away from carding products
- Phishing (fat fake website) →
- telegram → pass
- PGP encryption. → pass
- Backtrack
- Free king. → Fuckers.

return types

→ void

// comment line

// it is case

first program

package

public class M

· public static

// main function should

System

System

// print is used

// print ln is

3

3

18

## Java

JDK Should be Downloaded

JDK - Java development kit

Function in Java

return type name () {  
}

return types → void

Main function is main

self class is mandatory

name

classmate

PAGE

Return types

→ void

// comment line

// it is case sensitive

first program to print hello world

~~package~~

package com.package ~~is already written~~

public class Main { // here main has M as caps

    public static void main (String [] args) {

// main function should always be static

        System.out.print ("10"); // to print  
                                  // all

        System.out.println ("Hello World");

// print is used to print other data structures

// print ln is used to print the lines

}

}

18.32

(22)

JAVA was developed by  
James Gosling in 1995 at sun  
micro systems

25:20

JAVA.

Variable declaration same as in C++

→ we can print the variable like in C++

variable data types

byte → 1 Byte [-128, 127]

short → 2 Byte [-32K, 32000]

int → 4 Byte [-2B, 2B]

long → 8 Bytes

float

double

DATE

PAGE

1) Taylor Series  
2)  $\cos u$  residue  
Contour theorem  
↓  
Residue Contour

contour integration

Step 1 → write

2 → Substitute  $z =$

$$\cos \theta = \frac{z^2 + 1}{z^2 - 1}$$

Substitute this values

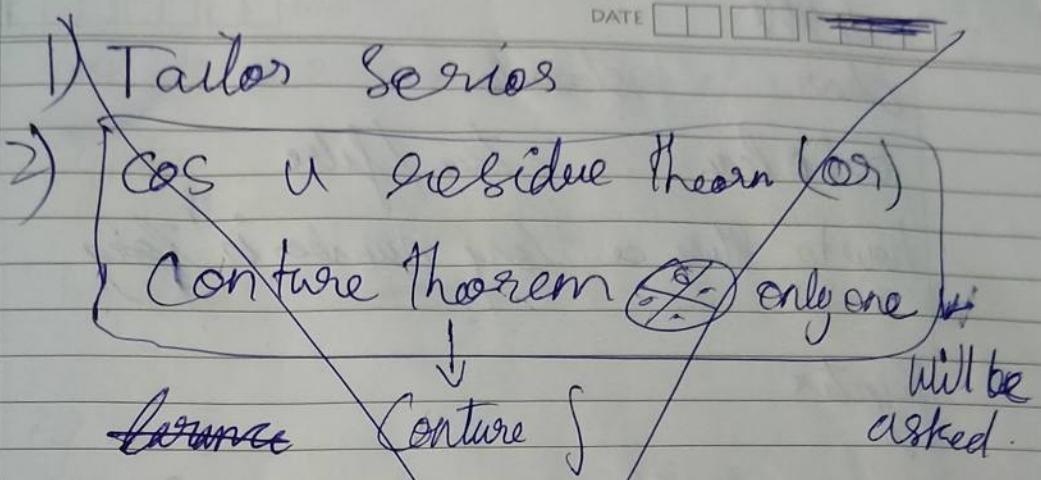
once → Substituted

of the  $\theta$ 's and pa

1 ~~Substituted~~ long

$z - \alpha$  -  $z - \beta$

classmate



contour integration will

Step 1 → write the given problem

2 → Substitute  $z = e^{i\theta}$ ,  $d\theta = \frac{dz}{iz}$

~~$\cos \theta = \frac{z^2 + 1}{2z}$~~        $\sin \theta = \frac{z^2 - 1}{2z^i}$

Substitute this values in the given problem  
once substituted remove the limit  
of the  $\theta$ 's and put  $\theta$  alone

~~Integration along~~

~~$z - \alpha = z - \beta$~~       ~~4 paths of closed~~

~~Path~~ ~~4 paths of closed~~  
~~409U form~~

3

DATE

how to use boolean type of variable

in lang.

Syntax

boolean Variable name  
boolean isEligible = true / false;

number \* L\*

eg

boolean isMale = false;

byte is used normally as int.

Char are same as C++

56, 789L;

34 : 28

hack on

- Kas ~~key~~ key contains a chip
- Adreno is a micro computer.

PAGE

CLASSMATE

PAGE

Java

Reference data types These are the data type like

→ Date

→ Font message

→ These types of data are stored in different modules.

Eg

// printing the date

package com.package;

import java.util.Date;

// We are importing a module which contains a class which is used to reflect date

public class Main {

public static void main (String [] args)

variable

DATE

char

character

boolean

true / false

how to store a long number in long

Syntax

long variable name = long number \* L

L = letter L

eg

long views = 3\_123\_456,789L

① how to represent a float

Same but F is used here

eg

float price = 10.99F

3

DATE  
how to use boolean type

Syntax

boolean

variable name  
~~isLight~~ =

eg

boolean isMale = false

byte is used normally  
char are same

34 :

back on

→ Las ~~the~~ key c

→ Alonso is a mis

byte age = 30;

Date now = new Date();

// here Date ~~now~~ is acting like int, float etc

// now is the variable name and new is the object

// here and date() is the function

System.out.println(now);

}

{

This prints the date

Output

Tue May 21 13:09:55 PDT 2019

Pointers in Java

Code:

import package com.package;

import java.awt.\*;

public class Main { }

public static void main (String [] args) { }

~~point point~~

Point point 1 = new Point(x:1)

Point point 2 = point 1;

here Point acts like the data type  
~~new point gives new point~~ and  
point 2 is the pointer

here Point 1 and point 2 both are  
pointers and  $x:1 \Rightarrow x=1, y:1 \Rightarrow$

$y=1$

The x and y can be accessed by point

Point 1.x = 2;

System.out.println(point2);

g

g

o

Output

DATE

Java.out.print [x=2, y=1]

// in the point 2 and point 2 the address is stored

String operations in Java

Code:

new string  
package com.CodeWithmosh;  
public class Main {

public static void main (~~st~~ String [] args) {

String message = "Hello world";

// where String is a datatype and message is  
// a variable and hello world is the message

// To print the string

~~st~~ System.out.println (\* message);

// to concatenate

message = "Hello world message + "!"

System.out.println (message);

CLASSMATE

PAGE

// To check end with  
message . endsWith

System . out . println ( message . endsWith (" ! ! "));

// To check starts with  
System . out . println ( message .  
startsWith (" ! ! "));

// To get length of the String

System . out . println ( message . length ());

// To get the portion of given letters in the

// String

System . out . println ( message . subString  
(" H "));

// Similarly we can replace ( e , H ) etc

// Similarly we can convert to lower case and  
upper case by

// To LowerCase () , To Uppercase ()

// we can delete  
unwanted like

// converted into

// trim () ;

// To print Double  
~~float~~

String message  
System . out . pr

// It prints here

Similarly with %

// And \n new line

2  
3  
3

array in

new is the  
data type.

DATE

// we can delete the space which is  
unwanted like 5 or more space can be  
converted into 1 space

// trim() is the function used here

// to print Double Quotes = "

~~String~~

String message = "Hello \" mosh\"";

System.out.println(message);

// it prints hello "mosh"

Similarly with back slash.

// And newline is same. ) tab space too...

3  
3  
3

array in Java

new is the keyword to modify the existing  
data type.

// arrays in Java are same but

import java.util.Arrays;

// this package contains some array functions

// that you can create an array without

// this also this is used to print array in

// a string etc...

public class Main {

public static void main (String [] args) {

int [] numbers = new int [5];

numbers [0] = 1 ;

numbers [1] = 2 ;

// it can be printed one by one

System.out.println (numbers (1));

// or fully into string .

~~Always to String~~

System.out.println (Arrays.toString (numbers)) ;

output is

2

other types

public st

int []

// we can

// before w

// then

Array. S

ystem. o

y

3

output

[ ), 2 ]

Output is

2 [1, 2, 0, 0, 0]

Other types of declaration of array

```
public static void main (String [] args) {
```

```
int [] numbers = {2, 3, 5, 1, 4};
```

// we can sort the array in order

// before using this function import java.

util. Arrays;

// then

```
Arrays.sort(numbers);
```

```
System.out.println(Arrays.toString(numbers));
```

3

Output

[1, 2, 3, 4, 5]

// to print multi dimensional array

public static void main () {

int [ ] [ ] ma = new int [2] [3];  
ma [0] [0] = 1;

Sys. out. println (Arrays. deepToString (ma));

// any multidimensional array can be printed

// another method to declare array

main () {

int [ ] [ ] numbers = {{1, 2, 3}, {4, 5, 6}};  
numbers [0] [0] = 1;

Sys. out. println (Arrays. deepToString (numbers));

output

[[1, 2, 3], [4, 5, 6]] ~~same for both~~

DATE  /  /   
I can't declare a variable that does not  
keep its value

error 03

final float pi = 3.14F;

x = 1; // this shows a error because

final is the key word used to declare  
a variable that does not change its value

| :03:00

Arithmetic operations are same from  
C++ including a++ ; a-- ;

| :13:00

// how to convert string into an  
integer .

String  $x = "1"$

```
int y = Integer.parseInt(x)+2;  
System.out.println(y))
```

Here  $x$  is converted into int

Same for float, Double etc

```
int y = float.parseFloat(x)
```

```
int y = Double.parseDouble(x)
```

1.14<sup>0</sup>00

## MATH OPERATIONS

## Math functions ()

Sy.out.println (math.round (1.1F))

//output is 1

Sy.out.println (math.ceil (1.1F));

//output is 2

Sy.out.println (math.floor (1.1F));

//output is 1

Sy.out.println (math.max (1, 2));

//the output is 2

Sy.out.println (math.min (1, 2));

//output is 1

Sy.out.println (math.random ());

//This prints a random number

//output is 0.45986016012

If you want a 2 digit

Random number

System.out.println(math.  
random() \* 100);

Output = 21.6124

If you want a whole number

System.out.println(Math.round(Math.random() \* 100));

Output is 21

(or)

int result = (int)(Math.random() \* 100);

System.out.println(result);

3

3

1 : 19 : 00

Camp

Syntax, for, if etc are  
Some.

input statement

int number = Scanner.nextInt();

2 : 00 : 00

2 : 08 : 00

Completed

25

Android studio now play list

7 : 46

18 : 00

- to start a new application
- Start a new application development
- write application name
- activity is an empty frame
- layout is an arrangement
  - ↓  
Buttons etc Box, & Scroll etc.
- More like VB.
  - UI ↑

40 : 00

Social

1) Victoria Gopi  
purpose → basis of

First official  
25 Apr. 2017

after 5:

2) Victoria 2 fifty

annie, subject →  
do people believe this

Timing of L

Timing of Santa

Timing of green

# Social engineering

1) Victim 1 Gopi Thambr passed  
purpose → Basics of social engineering

First official hacking Beginning date

25 April 2020

after 5:00 PM via Social engineering

2) Victim 2 kitty minor, featherless angle, pikay annie, subject → female purpose - Education how do people behave the strangers

Timing of Last - god - <sup>wake up - 3:00</sup> 1

Timing of Santa Jason - 7:30 - 10:00

Timing of great me - ∞.

(29)

DATE

## Introduction to clue hunt.

1) Victim

2) Objectives

→ find clue from stock book

→ find sister clue

→ find family members

→ find location

→ social engineering in Insta

→ day 1 likes

→ after 3<sup>rd</sup> day Womanish Social link

• intro card. copy information from

→ write the amount mess detail in

13) → find the family in other medium of social media  
and

→ pack a box.

→ find answers

→ Blocker her & because the social org

lesson ends here and real technology hacking

classmate  
Delete ticktock, and any other means  
of social media.

Victim → Cavin

is Col - me

Kathleen

name → harini

gender → Doubt.

Tick tock → acc

Location clues

typed tree,

School →

secondary ta

to learn

→ Digital

classmate

Vitins → Cousin or ~~sister~~ into acc name

is Cal — me — champion and the Name  
Korathey

name → harinisekhar (anukutty)

gender → Doubt.

Fit Tok → acc + name → @ harini\_barate\_girl

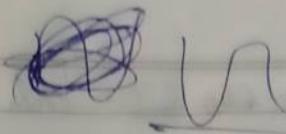
Location clues → Bamboo ~~specif~~ Special  
typed tree, Native location is ~~coco~~ coimbatore

School → G RG matriculation higher  
secondary school IV std A sec

to learn

→ Digital foot point

~~Commit~~



DATE

- 1) → to do all a hacker.
- 2) → encrypted ~~email~~ emails should be
- 3) → understand proton mail.
- 4) → use all encrypted software and
- 5) → Buy a iPhone.
- 6) → use linux
- 7) → Do not have any photos.
- 8) → use Tor network and fuck google.
- 9) → know to extract geo data from photo.
- 10) → delete apps save and apple is Safe
- 11) → But the phone is not.
- 12) → delete all google account
- 13) → delete all microsoft and other account which contains private information
- 14) → Create proton mail
- 15) → Get anonymous gmail with different password.

classmate

PAGE

classmate

should be

software and

at google

data from photo &

apple is safe

other account who

ail with different

PAGE

→ Buy a laptop only for UR purpose and encrypted it

→ never connect to ~~that~~ encrypted laptop any personnel emails or turn on ~~on~~ and the battery should be removable and don't put any personnel items.

→ buy a electric bike for commercial purpose and

← buy an manual pedal bike for UR.

CLASSMATE

PAGE

32

33

## hackers plant.

DATE

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

- 1) mal ware
- 2) proliferation
- 3) Viruses (computer virus)
- 4)
- 5) worms (computer virus)
- 6) trojan horses
- 7) root kits
- 8) back door
- 9) evasion
- 10) Antimalware (Antivirus)

### Deadly computer Infections

- 1) SQL Slammer/Sapphire ★★
- 2) Melissa Virus ★★
- 3) Anna Kournikova
- 4) Sircam
- 5) CODE Red & Code Red II ★★★
- 6) Conficker Worm ★★★

Blackenergy - 1, 2, 3

TeleBOT and

- 7) I love you
- 8) So Big ★
- 9) Mydoom ★
- 10) Stuxnet
- 11) home depot
- 12) span horses
- 13) Distributed
- 14) ebay phish ph
- 15) OSX / RS
- 16) storm
- 17) Sasser
- 18) poison I
- 19) oo mpaa
- 20) jigsaw
- 21) crypto m
- 22) cerber
- 23) spear
- 24) Taff classmate

PAGE

|  |
|--|
|  |
|--|

# ⑧ TeleBOT and Grey Energy

DATE

- 7) I love you ★★★
- 8) So Big ★★
- 9) Mydoom ★★★
- 10) Stuxnet attack Stuxnet ★★★
- 11) home depot credit card attack
- 12) Spain horse attack
- 13) Distributed denial service DDoS
- 14) ebay phish phishing -
- 15) OSX / RS phug.A Trojan
- 16) Storm worm ★
- 17) Sasser & netsky ★
- 18) poison Ivy ★
- 19) oo mpa - Loo mpa [aka Leap.A]
- 20) jigsaw
- 21) crypto mix
- 22) cerber
- 23) Spora
- 24) Taff  
classmate

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- 25) Nemu cod  
 26) Cognac  
 27) Lockkey  
 28) Wanna cry  
 29) Not petya  
 30) Bonzi Buddy  
 31) Butter fly on Desktop  
 32) Mo tags mot itags  
 33) memz virus  
 34) Teusolem  
 35) Solar surprise  
 36) Brain  
 37) Explorer Zip  
 38) Auto run  
 39) Fizzer  
 40) Sir cam  
 41) magister  
 42) Storm metropoltan police virus  
classmate

- 34)  
 43) Nimda  
 44) Alureon (T)  
 45) Klez  
 46) CIH  
 47) Blaster  
 48) Morris.  
 49) Agent .bt2  
 50) Win32/Fake  
 51) Zeus  
 52) Cryptolocker  
 53) Kms , kengen  
 54) Botnet army  
 55) Anti and u  
 56) Bit defender  
 57) AVira  
 58) Avast  
 59) AVG  
 60) Kaspersky  
 61) Quick heal.  
classmate

34

DATE

- 43) Nim da
- 44) Alureon (TPSS)
- 45) Klez
- 46) CIH
- 47) Blaster
- 48) Morris.
- 49) Agent .bt2
- 50) Win32/Fake Sysdef.
- 51) Zeus
- 52) Cryptolocker.
- 53) Kms , Kengene , crack etc. rootkit
- 54) Botnet army -
- 55) Anti and uncle UI
- 1) Bit defender. Free | Paid | 1) Avast
- 2) AVG
- 3) Avast
- 4) AVG
- 5) Kaspersky
- 6) CLASSMATE  
QUICK Heal.

- 2) AVG Norton
- 3) Webroot.
- 4) Bit defender.
- 5) Kaspersky
- 6) AVG
- 7) McAfee

PAGE

# To install for beginner

To install tor in ubuntu.

Search in internet.

Virtual Box.

→ the ~~expensive~~ free software you can just download many os.

→ it needs bios settings.

Detail Secrets of Linux (remake)

→ Kali Linux → Debian OS + Tools  
Back

→ BlackBox → Ubuntu + Tools

→ parrot security os → Debian + Tools

→ DEFT Linux → Standalone Linux

→ Samurai web Testing framework → X11

→ Network Security Toolkit → X11

→ BlackArch Linux → Arch Linux + Tools

→ Cyborg Hawk → Ubuntu  
Linux

classmate

PAGE

classmate

→ Gnach Track

→ Node Zero

Comparison of

1) parrot security

2) Kali

3) Black Box

4) other os are required OS

5) windows, Mac

2) Back Box or

4) parrot security

Defaults

→ Kali Linux Default

→ Virtual Box OS

→ Gnu ch Track → Ubuntu

→ Node Zero → Ubuntu

Comparison of top hacking OS

1) parrot Security OS as user

Gali

2) Kali

Nasm

3) Bf0 Back Box.

4) Other OS are Shit

Required OS for hacking

1) windows, which we want to test.

2) Back Box or any Linux which we want to test

4) parrot Security OS

Defaults

→ lubuntu Default OS

→ virg ful box OS

+ Tools

Linux

1

Arch Linux + Tools

Ubuntu

PAGE

classmate

DATE

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## CE0H

DATE

- 1) → Command Line
- 2) → proxy chain
- 3) → macchanger
- 4) → wireless penetrating testing
- 5) → Aircrack-ng

### 1) Command Line Essentials

- leafpad is a text editor
- Cd - change directory → open ~~new~~ file
- Pwd - current working directory
- ls - list of files
- nano list.txt → It creates new text file called list.
- CP - copy
- MV - move
- cat
- less

classmate

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- grep
- echo
- touch
- mkdir
- chown
- chmod
- rm - to remove
- man + help

12:00

how to copy a file

CP filename.ext

→ rm is same as

file location

→ rm file.txt

→ MV is same as

copy.

classmate

→ grep  
→ echo  
→ touch  
→ mkdir  
→ chown  
→ chmod  
→ rm → to remove file delete  
→ man + help

12:00  
open my file  
create new text file called  
how to copy a file in terminal  
using CP filename.extension [location]  
→ rm is same as CP used in that particular  
file location  
→ rm file.txt  
→ mv is same as CP but it moves the file not  
copy.

classmate

20:00

DATES

- Ctrl + l or clear it clear the window
- grep g sep → does filter the content  
g if in b/w you want a particular word
- Usage you can use it
- eg
- MV → help | grep V
- echo is like print
- touch is used to create a file  
eg → touch name.txt
- (or) touch multiple files
- touch file1 file2 file3  
it creates many files
- mk dir is used to make directory  
mk dir file name

32

Proxy Chai

CLASSMATE

PAGE

CLASSMATE

39)

- Go back to one file
- cd . is used here.
- Chown is used make accessible to the owner from root to all people etc.
- Chmod is used to change the mode of the file eg readable  
writable  
executable
- you can force a file to be removed by

rm -r filename // command  
~~man~~ man // manual command.

32 : 44

## Proxy Chains



classmate

PAGE

PB

DATE

→ proxy chains are like tor but not tor,  
is simply # number of proxy  
you can enable it by

- 1)
- 2)
- 3)
- 4) open terminal
- 5)
- 6) # nano /etc/proxychains.conf
- 7)
- 8)
- 9)
- 10)
- 11)
- 12)
- 13)
- 14)
- 15)
- 16)

Static

dynamic chain

→ you have to add Sockets 5 at proxy  
list.

→ you can get free proxy by Scrolling  
the list

classmate

PAGE

classmate

Ma

→ arp -a  
to see which  
ips  
→ if config  
→ macchange  
→ macchange  
} Tool

to change  
mac

→ Crontab  
this tool  
eg while b  
address,

DATE [ ]

but not for ;)

only

## MacChanger

→ arp -a this command is used  
to see which device is connected to  
us

→ ifconfig is same

→ macchanger --help

→ macchanger -s eth0

Tool

Show

to show current and  
permanent mac address

0-Zero  
0-O Alphabet.

to change random mac address

→ macchanger -r eth0

→ cron tab

this tool is used to schedule the things  
eg while booting automatically change the mac  
address, open proxy etc..

Sat proxy

by Scrolling

PAGE [ ]

classmate

PAGE [ ]

how to run the  
macchanger tool when the system  
gets reboot (restart) using crontab

→ @reboot ~~math~~  
macchanger -r eth0  
Ctrl + x to exit

) before it select the editor  
press (2) in most case

When the crontab editor is open  
the editor will explain many things about  
crontab.

the reboot in the linux can be  
done in terminal by

→ Reboot // command.

57:  
yet to be continued

(Crunch)

this tool is used

word list to do bruteforce

→ you can use

→ command

- Crunch

eg (Crunch)

57:

the system  
using command

DATE     
57:33

DATE

yet to be continued

## Crunch

this tool is used to ~~install~~ create a word list to do brute force attack.

→ you can use crunch by

→ command

| - crunch | minimum length | maximum length | characters |
|----------|----------------|----------------|------------|
|----------|----------------|----------------|------------|

|           |   |   |     |
|-----------|---|---|-----|
| eg crunch | 3 | 5 | abc |
|-----------|---|---|-----|

57:33

## Kali Linux

- 1) how to install man in the middle frame work.

inter →

apt - get install mitmfp

and for many uses see help of proxy

man config or re  
after having the file

inter →

→ Service to start

of Install - one

1) to install proxy

inter →

→ cd ~~proxy~~

↳ Sudo git cl

- 2) how to install Root kit hunter on

Kali linux

inter →

apt - get install RKhunter.

→ Same

- 3) how to install tor and proxy chains

inter →

// for tor

apt - get install tor

// for proxy chains

leafpad (or) nano /etc/proxychains.conf

→ Sudo git cl

Then config as known

after saving the folder

inter →

→ Service to Start  
~~(root)~~

⑥) Install java

⑦) To install lazy kali (first install git)

inter →

→ cd ~~Desktop~~

↳ Sudo git clone https://github.com/~~thehacker~~

th3h4ck3r/LazyKali-and-

Hackpack.git

(09)

→ Sudo git clone http://github.com/azismelach

90inos/1script  
↓ git

(09)

Search net.

→ cd lscript

→ chmod +X install.sh

→ ./install.sh

to run it

① inter →

l.

7) to install Git

inter →

→ Sudo dnf install git-all

(or)

→ Sudo apt install git-all

8) to ~~see~~ install the screen recorder in  
linux

inter →

→ apt - get install record my desktop  
classmate

no space.

8) how to ins

• See SS

7) how to ins

inter-

apt - get

inter

→ agi g

3) adriino

→ adriino

→ patento m

~~electr~~

to contr

4) I C

→ connet all

→ mico con

→ Sender a

classmate

8) how to install and configure free VPN

- See SSTecTutorials

9) how to install fire wall

~~inter~~

apt-get install → (agi)OK ✓

inter

→ agi gufw

43) arduino fun fact

→ arduino uses C program to run program

→ potentiometer is used to control the power of the

electricity / variable resistor is used to

control the amount of electric city flow.

44) IOT

→ connect all devices and hacking is made possible

→ micro controllers are used here like raspberry pi

→ Sensors are used they could be wearable.

Raspberry pi uses python

as program to print

import RPI.GPIO as

This are the pins by side

Some of its advantage. But has many disadvantages and  
advantages.

### Ethical hacking once again

When we open any OS you should install  
Kali Sources.list repository

- to install this go to Kali dock
- and click on Kali Sources.list repository
- copy the command and paste it in the file  
`/etc/apt/sources.list` with nano mode  
and paste there is the documentation.
- and then save.

→ Then update the

~~apt~~ apt

apt install

(or)

→ use # apt  
and dont

→ copy the new url

→ type # apt

→ type # apt in  
version)

→ then reboot

→ then # apt

- Then update the system by  
~~apt~~ apt update
- apt install linux-headers-\$ (uname -r)
- (or) if this does not work
- use # apt install linux-headers-\*  
and dont continue
- copy the new version of header and
- type # apt install linux-headers
- type # apt install linux-image-(paste the newer  
version)
- Then reboot.
- Then # apt install linux-headers-\$ (uname -r)

→ You can simply create python program  
first you create yours using nano

→ to change mode use chmod command  
w a x

e.g chmod +x program.py

→ to make it executable ./filename

e.g ./program.py

→ Commands to try

1 pwd

2 cd

3 ls

4 -la  $\Rightarrow$  ls -la

5 touch

6 rm

7 mk dir

8 clear

9 cd ..

- 10 whoami
- 11 chmod
- 12 cat
- 13 grep
- 14 echo
- 15 history
- 16 cp
- 17 mv
- 18 man
- 19 locate
- 20 nano
- 21 ~~sh~~ S
- 22 shutdown
- 23 reboot
- 24 ps
- 25 top
- 26 cat
- 27 unmount

- 10) whoami
- 11) ~~stop~~ chmod +xc
- 12) cat
- 13) grep
- 14) echo
- 15) history
- 16) cp
- 17) mv to change name, location
- 18) man
- 19) locate
- 20) nano
- 21) ~~Stop~~ Shut down
- 22) Shut down -c → to cancel
- 23) Reboot
- 24) PS → process running in cur dir.
- 25) top → shows all process
- 26) ctrol + x or +y → no command key
- 27) uname -a

- 28) man
- 29) uname → to show the type of os
- 30) man uname
- 31) ifconfig → linux , ipconfig → windows
- 32) net stat
- 33) net state -nra
- 34) net stat -antp
- 35) net stat -ntp
- 36) update apt update
- 37) apt-get update
- 38) apt-get upgrade
- 39) exit

~~These~~ words that should be known by us.

- 1) footprinting → getting the information about the comp or the client.
- 2) scanning and enumeration → without attacking the system → remove the there data etc. OS etc.. using nmap or map network → apt interface

- 3) System hacking  
etc. etc. etc.
- 4) Malware → worms,  
viruses,  
Trojans,
- 5) Sniffing → sniffing
- 6) Social engineering
- 7) Denial of service
- 8) SQL & XSS
- 9) WiFi hacking
- 10) Phising, mobile

11) Cryptography

12) Phising  
Additional tools

- 3) System hacking → entering into the system through back door etc. . . , unlock, take picture, Key Stroker etc.
- 4) Malware → program that damage your computer.

worms  
Trojans  
@ virus

} popular .

- 5) Sniffing → sniffing the packages
- 6) Social engineering → setting the attacking the user (or) people
- 7) Denial of Service → crash website (or) pc .
- 8) SQL & XSS

- 9) WiFi hacking .

(10) Phising, mobile hacking, apple and android .

(11) Cryptography .

(12) Phising

Addition tools before the Linux

→ remove the logs if errors occurs

→ apt install git

→ using the git hub install in stashell  
using

eg

git clone "the website link"

→ apt install filix → terminator type.

→ apt-get install tor.

→ to start tor → # service tor start.

to stop → # service tor stop.

how to use mac changer

O-Zero

1) to see the current and permanent mac address.

# macchanger -s eth0

if want macchanger --help for more info

When we reboot the permanent mac address

comes to action.

Foot printing

Foot printing

types

→ Active foot printing

requires interaction between

passive foot printing

Social engineering, ph

Google hacking

Inula Scans

This scans the websites

eg code :-

inurl: "index.php"

Wular can be exploited

More updates

Just search in google

it will show consequences

or exploit details

## Foot printing

### Foot printing

Type

- False foot printing

Exploit injection attack target

- Passive foot printing

social engineering, public information

Google hacking

## Google Scan

To scan the websites etc.

Example :-

"index.php?id="#" // this always

will can be exploited using SQL injection

## Google update

Just search in google "google hacking database"  
it will show commands.

or exploit database

discrete

PAGE

Nicto

- 1) → for more info use help  
 2) → Do research on these tools  
 3) in this help is -H not small -h

Who is tool

to get a detail of a company or a website.

The harvester

if the tool does not run find the location and run.

ShodanShODAN

→ Search on IP ~~and~~ and greater IP if its user

then it will get displayed

→ same

Dig

- DATE
- Dig is used for Zone transfer attack or getting more IP or DNS data.
  - Zone transfer → replicates you as Slave to the master.  
eg: dig google.com /for details

Zone Transferring

A - IPv4 Address

AAAA - IPv6 Address

NS - named Server.

Zone transfer

dig axfr website // get help

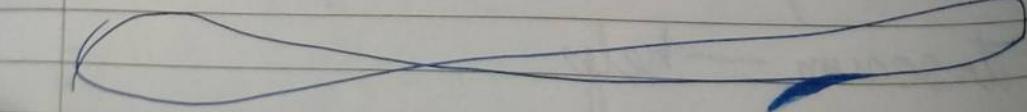
## dnsenum

- Same as Dig but. ~~but~~ // known by your self
- # dnsenum -- help

# METASPOLITABLE

- user first download it
- it is a portable virtual machine which issues to attacks and scan the attacks
- Don not connect to the network locally.
- it is a linux machine
- use it as a victim and attack it

- Villain and hero of the hackers
- Important as computer network properties
- only tool ever used by us
- OS can be detected. ↗



→ Nmap -- help for more help.

The protocols that

- TCP
- UDP
- ICMP
- CTP

Nmap or by default  
used

# Nmap nmap

The bunch of

→ Major IP this  
are blocked.

# nslookup

it gives the

→ curl is a

The ip address

→ # curl ip

and location

The protocols that can be used

- DCP
- UDP
- ICMP
- CTP

nmap or by default scans 1000 ports which is commonly used

# nmap nmap

The bunch of options will be printed

→ major IP This is a website where the ip address are blocked.

# nslookup "Ip address" (or) "website"

it gives the name of the server.

→ curl is a tool used to find the the name of the ip address

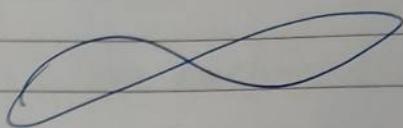
→ # curl ipinfo.io/ "Ip address"  
and location is also find.

→ ip locator in google , This website is used to locate IP address.

→ nmap.org you can practice

→ nmap with Gui is zenmap

# TCP



App

Port

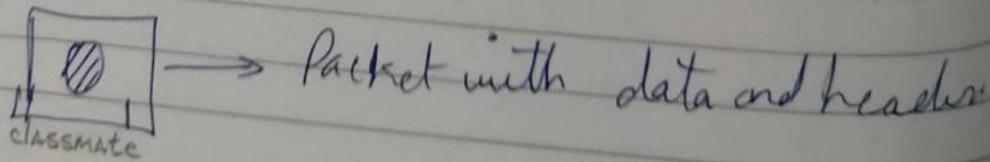
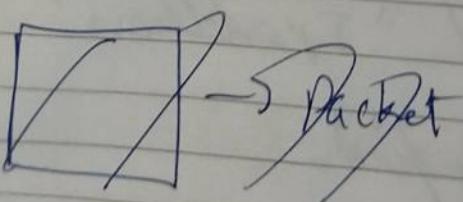
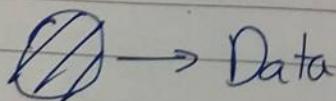
→ Layer 1 :- Software (Application layer)

→ layer 2 :- Transport layer

→ layer 3 :- Internet layer

→ layer 4 :- network layer (local)

~~modern~~ modern tells who is visit where.

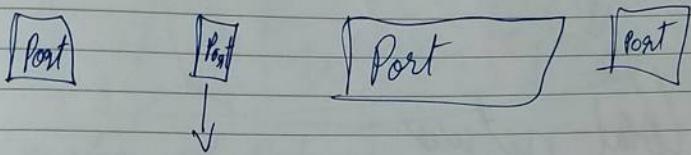
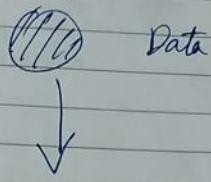


# Crui TCP/IP

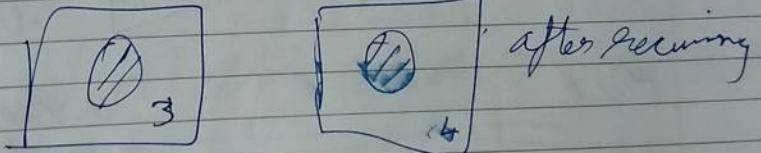
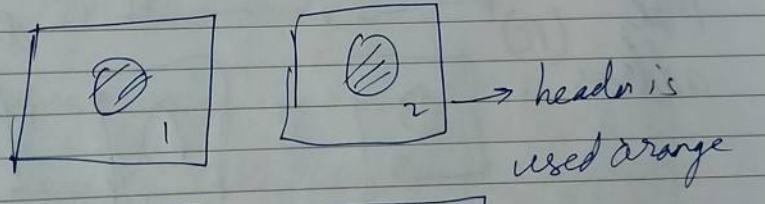
DATE

(Data) Data from program

Application Browser



TCP layer

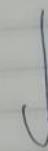


PAGE

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PAGE

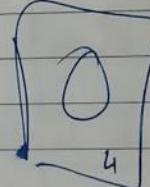
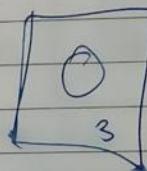
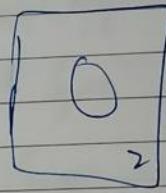
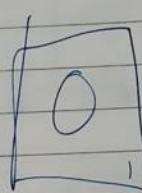
Internet



local network



Mac address (PC)



the data  
arrange

if the data  
is missing

a request is  
to receive again

→ Application → Browser

→ Types of transportation (

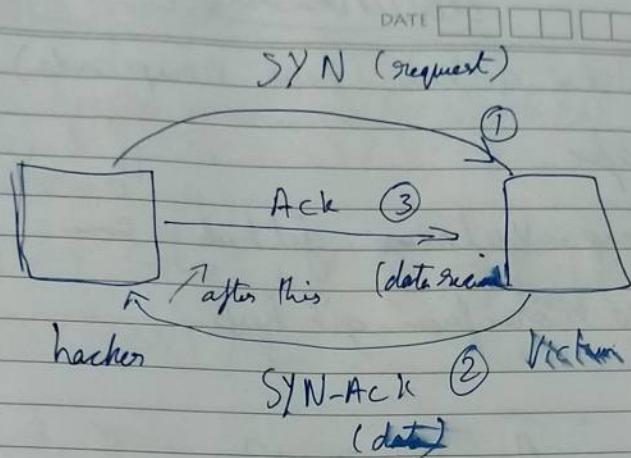
network (IP address)

link (wire or wifi)

physical layer / car

N M

→ see the box



# Networking

## Structure of Networking

- Application → Browser (chrome etc.)
- Types of transportation (UDP method, TCP method)
- Network (IP address sending)
- Link (wire or wifi)
- physical layer (cable) (modem)

## Nmap again

- See the scripts in nmap.

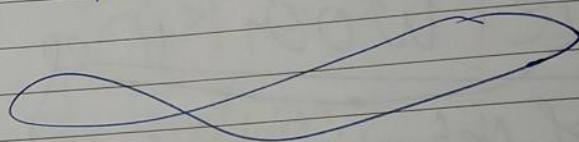
## downloads

DATE

|  |  |  |  |  |
|--|--|--|--|--|
|  |  |  |  |  |
|--|--|--|--|--|

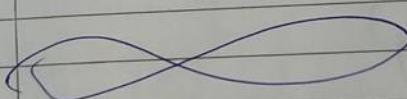
- Vulscan github (new nmap code) Search  
fire fox.
- nmap - vulners github same
- See more from git hub.

## A MAP



- Same as Nmap Explore.

## OWASP



- This is used to test web Application.

→ install in ~~VM~~ virtub box

→ install the first one.

→ Com Copy the ipaddress in your browser.

→ you will get an idea

Network pages

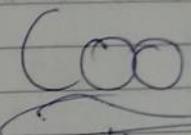
HTTP - hyper te

easy to check

HTTPs → same

like SSL (or)

→ cookie is main



→ These are the

id the princi  
classit.

Bu

→ This is pre instal

→ used for proxy

→ if you can open

→ we can mo

→ The proxy site

→ install burp

→ you can get it in

classmate

Search

## Network page

HTTP - hyper text transfer protocol  
easy to check //

HTTPs → same but encryption is used  
like SSL (or) TLS

→ cookie is main

## Cookies

→ These are the small data packets stored in the browser  
if the privacy can be breached please don't allow it.

## Burp Suite

- This is pre installed GUI program
- used for proxy, attack etc., Brute force, decoder etc.
- you can open in cmd or start.
- we can modify our own packets.
- The proxy listening should be used both Burp Suite and Firefox.
- install Burp Suite trusted certificate
- you can get it in <http://burp>

→ and import the certificate

→ you can edit the header and the value

## What Web

→ This used known more about web technology  
data... whatweb - help

## dirb

→ it finds hidden pages of a website  
→ it brute forces the webserver.

## hydra

### Brute force attack in web

- help.

→ Copy the path from Burpsuit

→ See video

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### Session tag hij

→ flow in cookie  
→ Steal Stealing  
the information

### Session fix

→ flow in link  
→ when the user  
unique user  
user so  
login.

### Hijacking the

→ Zoom links

### SQL Inj

D) command injection  
basic commands

## Session hijacking

- flaw in cookie
- Stealing the information while exchanging the information

## Session fixation

- flaw in link
- when the Web Server creates greater unique id for unique user it only interacts with particular id not user so that unique link can be accessed without login.

## Hijacking the session

- Zoom links eg.

## SQL Injection

### 1) command injection

basic commands for Linux or windows

DATE

## net cat

"nc" is the word for terminal.

## Blind command injection

→ same like command injection

→ to check whether the Blind command can be executed and ping twice

## Wire shark

## Shell Shock

## Met console

## SQL Injection.

### Commands in SQL

- |           |            |
|-----------|------------|
| 1) Create | 5) Delete. |
| 2) Select | 6) Drop.   |
| 3) Update |            |
| 4) Insert |            |

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Data base  
Collection

Relational

Related tab

Non rela  
expose

for SQL yo

→ DNS -

→ it maps

→ all DNS

Share connec

Date \_\_\_\_\_

Data base

Collection of Data which can be used

Relational Database

Related tables

Non relational database  
opposite

for SQL you should install MySQL or related software.

DNS

- DNS - Domain name System
- it maps domain name with IP address
- all DNS Server Does not has every IP and to share connect the information for security purpose

## DNS Components

→ Name Space

eg

92.58.101 = google.com (They are called IP address)

IP

→ Client

We are the clients ask web names ip

→ Servers

it holds all name spaces.

### Record types

1) A record

→ it maps IP address

### Tools for DNS

→ Ping

→ nslookup

→ Dig → dig

## DNS Spoofing

Learn it.

~~DNS Sec~~

Learn it.

Nat VS Bridged VS host only

JS

Y

Variables → These values can be changed in the programs.

Constants → These values cannot be changed.

Literals → Directly providing the value in the program

It is a mixture of variables and constants

Variables

Syntax

let Variable\_name = "Value"; // Same as C

Constant

Syntax

const VariableName = "Value";

operator preference is same like a

Dot

Selecting as variable ~~or~~ object or anything

Delete is the keyword.

Syntax

~~to~~ delete variable name or constant name or object

Array eg

constant a1 = [0, 1, 2, 3, 4];

const a2 = [0, 1, null, 3, 4, "fine"];

Array can have many array.

const const a4 = [0, 1, 2, 3, "Mabu", 2];

Date object

Syntax

// I +

const now = n

console.log (n)

// this prints

// II +

const dt

console.log

// II +

(const . dt

console. b

// prints y  
if else  
if else is s

## Date object

Syntax

// I +  
→ const now = new Date();

console.log(now);

// This prints current time

// II +

const dt = new Date(2018, 9, 12);  
| year | month | date

console.log(dt);

// III +

const dt = new Date(2018, 9, 12, 15, 0);  
| year | month | date | hour | min

console.log(dt);

// prints year, month, Date, hour, min.

if else

if else is same

switch Statement

Same.

let while

Same

do while

for for loop

Same.

for in loop

Same as python

for of loopSame as in loop but in loop prints id  
but it prints the value of the variableType of

Same.

Print in console using `console.log ("")`if else

Same

conditional op

Same.

Break

Same

functionfunction

Get

3

functionfunction

Anonymous

You can

if-else

Same

conditional operator

Same.

Break

Same

function declaration

→ function "function name" (~~parameters~~) { actionblock;  
    return ( parameter );

}

function call

↳ function name ( parameters )

Anonymous function

You can hide a function inside a variable

eg

DATE

### Syntax

const f = function () {

Statement }

f(); // calling a function

You can declare it in a ~~tuple also~~.

dictionary also.

### 1) Arrow notation

eg

#### Syntax

~~with~~ out arrow

const f1 = function () { return "hey"; }  
with arrow

const f1 = () => "hey";  
// both are same.

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2) another eg: without

`const f2 = function (arg) { return "by" };`

with

`const f2 = arg1 => "you by";`

3) another eg

without

`const f3 = function (arg1, arg2) { return  
arg1 * arg2; };`

with

`const f3 = function (arg1, arg2) => arg1 * arg2;`

this keyword.

not return function

means when the function executes the return

value can ~~be~~ be a function

why

same

how to add an element in the array

const arr = [2, 3, 4];

console.log(arr);

// output 2, 3, 4

console.log(arr.push(5));

console.log(arr)

// output 2, 3, 4, 5.

console.log(arr.pop());

// to remove the last element.

console.log(\$arr)

// output 2, 3, 4

console.log(arr.unshift(1));

console.log(arr);

// adds an element at beginning

output 1, 2, 3, 4

console.log(arr.shift());

console.log(arr)

// to remove the first element

output 2, 3, 4,

concat()

const arr =

console.log()

// output -

console.log

// many elements

// output .

Slice()

eg

const arr =

console.

// Starts

// output

console

// start

// output

addAll

## concat()

DATE

```
const arr = [1, 2, 3];
```

```
console.log(arr);
```

// output - 1, 2, 3

```
console.log(arr.concat(4, 5, 6));
```

// many elements can be added in the array

// output - 1, 2, 3, 4, 5, 6.

## Slice()

eg

```
const arr2 = [1, 2, 3, 4, 5];
```

```
console.log(arr2.slice(2));
```

// Starts from 2<sup>nd</sup> element

// output - 3, 4, 5

```
console.log(arr2.slice(2, 4));
```

// start from 2 element and end with 5<sup>th</sup>

// output - 3, 4, 5

// all same like python

## object creation

DATE

The object is created by use of variable

## class creation.

Syntax

class model {

constructor () {

}

}

const obj1 = new model();

const obj2 = new model();

## Error handling

try {

statements

}

catch (e) {

~~console.log~~ - statements

}

classmate

PAGE

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# SQL Injection

Create  
Select  
update  
Insert  
Delete  
Drop

From

where

Syntax

g

Select column from tablename where condition

eg

Select name from products where name =

-- comment line

/\* comment line \*/

→ to check the website is vulnerable to SQL p

or  
" " "

↓  
apostrophe if this show error  
it is vulnerable.

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PC Victim

I am root

tools to be used  
→ all hacking tools  
→ apt-get install  
→ pip3 install  
→ pip3 all  
tools to be used  
→ XSSer.py  
→ XSS XSS -

MIMI

Man In Middle

# SQL Injection

DATE: [ ]

Create  
Select  
Update  
Insert  
Delete  
Drop

From

where

Syntax

eg

Select column from tablename where condition

eg

Select name from products where name = 'm'

-- comment line

/\* comment line \*/

→ To check the website is vulnerable to SQL p

“ , ”

↓  
apostrophe

if this shows error

it is vulnerable.

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PAGE [ ]

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tools to be used

→ all hacking tools

→ apt-get install python

→ pip3 install xss

→ pip3 all hacking

tools to learn

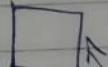
→ XSSer, Jdipt

→ XSS-Sniper

MIMA

Man In middle

PC Victim



Packet

I am  
Router.

## Tools to be instl

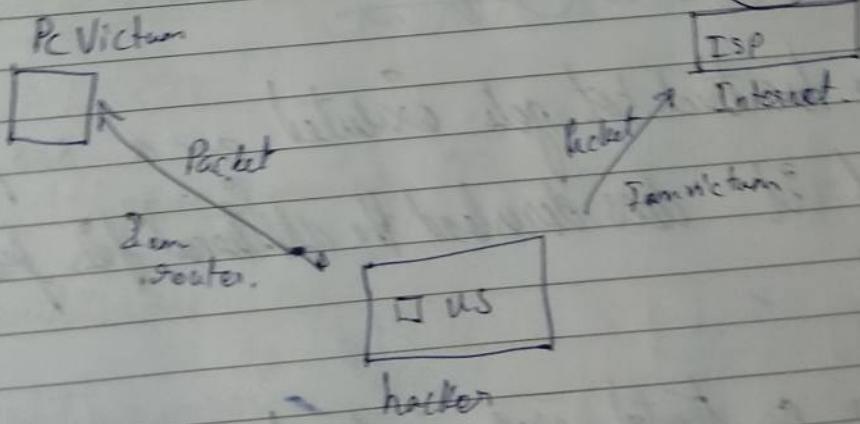
- all hacking tools from git hub.
- apt-get install python3-pip
- pip3 install xcat
- pip3 all hacking tools, apache2

## Tools to learn

- XSSer, JdiT net, ettercap, with Cain and other tools
- XSS-Sniper - GitHub download.

## MIMA

### Man In middle Attack.



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tools to be install

- mitm ; Git hub
- and install all requirements for mitm by → pip install -r requirements.txt.
- Wine
- dpkg --add-architecture i386 → inject D164 config
- apt-get update
- apt-get install wine32
- python 2.7.14 for windows x86 MSI → https://github.com
- wine msieexec /i python-2.7.14.msi
- ngrok download

tick bot analysis (virus)

- The tick bot gets executed as a sub process and it does download the additional files from Web
- Then a trusted program is turned on and the trusted program runs in process following

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Real time OS

Batch OS

Multiprogramming

multitasking OS

multiprocessing

- The trusted program goes into suspended mode and after every data gets load the virus replace the code in that program. and runs
- using some tools we can see the files added to program modified etc ..
- inject D164\_configs → this is Stealing Banking credentials.
- its network transfer is not encrypted in network transfer.
- <https://github.com/hasherezaade>

## \* OS

→ a interface between human and computer hardware.

### types of OS

→ Batch OS

Sub progs  
les from → Multi programming OS

→ multitasking OS

→ multiprocessing OS

→ Real time OS

## Websites to be known

→ ~~wget~~ OWASP

→ Nmap

→ Hackers

→ Hackme.

CMD

→ dir = ls

→ cd = cd.

→ help → This is like manual or help

eg help dir

help cd.

→ mkdir = mkdir.

→ rmdir = rm - for folders.

→ move = mv

→ copy = cp

→ ren → is used to rename a file or anything

eg: ren cat.txt cats.txt

The cat file

→ Del = rm

→ \* = all.

→ echo = ec

→ type = cat

Echo usage

create a new

echo hel

modify the

echo by

→ & = ;

→ & & = &

→ || → or

→ & | → ou

→ Set = le

→ System in

The cat file will become catfile

→ \$! Dc! = !m . for files

→ \* = all.

→ echo = echo

→ type = cat.

### Echo usage

create a new file

echo helloworld > File.txt

modify the existing file

echo bye bro >> file.txt

→ \$! = ;

→ \$! \$! = \$!\$!

→ || → only one command is run.

→ \$! | → outputs are combined.

→ Set = let. (JavaScript)

→ System info → Shows details about our system

→ copy any content to the clipboard

eg

~~System~~

ipconfig | clip

→ driverquery → gives list of drivers in your pc.

→ -V = -V

→ tasklist → shows current task

→ tree → shows the path of files

→ fc → used to compare files

eg

fc tx1.txt tx2.txt

→ Shutdown -s = Shutdown

→ Shutdown -c = Shutdown  
Linux (Windows)

→ cipher → used to encrypt files

eg

to encrypt  
eg: Cipher

to decrypt  
eg: cipher

for more use

→ taskkill → to

→ ping = ping

→ tracert

eg trace

→ pathping →

eg pathping

→ ipconfig

→ arp -a

→ Nslookup

→ F7 → history

→ Ctrl + C

→

to encrypt

eg: cipher /e File.txt

to decrypt

eg: cipher /d File.txt

for more use help

→ taskkill → to kill task

→ ping = ping

→ tracert ~~8.8.8.8~~ → use and c

eg tracert 8.8.8.8

→ pathping → use and c

eg pathping 8.8.8.8

→ ipconfig = ifconfig

→ arp -a = arp -a

→ Nslookup = NS lookup (used to find domain ip or web)

→ F7 → history of command

→ Ctrl + C = Ctrl + C

→

# Information gathering

(websites)

- use DomainTools.com or ultiois.no
- use pipi (person)

## Creating a malware

- things that malware does.

- 1) Create a connection with our server.
- 2) Create a shell function.
- 3) Automatically start program when machine reboot
- 4) Start / Stop / Spawn other programs
- 5) Navigate through different directories
- 6) able to restart it self within a period of time
- 7) Implement keylogger to our backdoor

## C program modules to be learnt

- 1) stdio.h
- 2) stdlib.h
- 3) unistd.h  
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- 4) winsock2.h
- 5) windows.h
- 6) winuser.h

- 7) wininet.h
- 8) string.h
- 9) sys/types.h

tods to be

- bee logger
- F society
- apt-get
- ⇒ " "
- SSL Strip

the new

~~use~~ said iso

- Ruby
- Bash
- Root kit
- Digital forensics
- See Parrot OS
- IDA
- ~~fracti~~ classmate

7) wininet.h  
8) windows X.h  
9) string.h  
10) sys/stat.h  
11) sys/types.h

DATE [ ] [ ] [ ] [ ]

Tools to be Downloaded.

- bee logger → GitHub.
- F.Society → GitHub.
- apt-get install chkrootkit
- ⇒ " " " ⇒ BackTrack

→ SSL Strip (man in middle), metasploit 3.

The new cores to be learnt

~~Java~~ C/C++

Said 150 Shell Scripting

→ Ruby

→ Bash

→ Root kit

→ Digital forensics

→ See Parrot OS site.

→ IDA

~~Rootkit~~  
CLASSMATE

PAGE [ ] [ ]

## Things before deploying the Rootkit

DATE

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

MSDN

msdn.microsoft.com

- check whether it already exists on the host target
- check whether the target is virtual machine
- check the location
- disable antivirus
- make a loadable kernel program
- examine the process list

Exp

Places where we can download viewers

- VirusShare.com
- Malware - TrafficAnalysis.Net
- GitHub → Shadow brokers.
- Disassembler and assembly-level debugger
- Basics of Reverse Engineering
- how to set up a safe malware analysis lab

XSS

Request by asking

XSS Request

→ Tricks a logged-in user to a

→ Request is sent by the user

→ Can be difficult to detect

→ Also called one click

CLASSMATE

CLASSMATE

MSDN

DATE

msdn.microsoft.com

## Experience

### Learn

#### XSS Attack

- it takes advantage by submitting unexpected request by asking commands or programs etc.
- XSS Request forgery

- Tricks a logged - on victim's browser to send a request to a vulnerable web application
- Request is sent by the victim, ~~but not the attacker~~
- Can be difficult to detect
- Also called one click vulnerability

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W - Website, A - App, T - Tool, Th - like oswasp

DATE

- hellbound hackers - w
- McAfee HackMe Sites - w
- HackMe Bank - w
- HackMe Bank for android - A
- HackMe Books - w
- HackMe Casino - w
- HackMe Shipping - w
- HackMe Travel - w
- mutillid~~o~~ace - w - t
- Over the wire - w
- Owasp Juice Shop project - w → Github.
- perugia - w - t
- Root me - w
- Try 2 hack - w → git and some web
- Vicnum - w - t
- Web Goat - w - t - Git
- hack.me - w
- Hack the Box - w

- CTF 365 - w
  - 1) → hacking lab = OS - T
  - 2) → Pwnable.kr
  - 3) → Smash the Stack
  - 4) → microcorruption
  - 5) → W3gallschalls
  - 6) → PWNO
  - 7) → DVIA
  - 8) → CTF fibre
  - 9) → Juice Shop
  - 10) → hackademic
  - 11) → hackxos
  - 12) → Budget & Store
  - 13) → Enigma group
  - 14) → hackyourselffirst.troyhunt.com
  - 15) → Slave hack .com
  - 1) → peruggia
  - github.com/psiinon/budget
- CLASSMATE
- penetration
- metasploit
- Penetration
- OpenWRT
- pentest
- penetration
- XSS
- OpenSUSE
- Manjaro
- MITK
- Exploit
- Shell
- Shell
- Shell
- Exploit

## Penetration testing resources

- metasploit - unleashed
- Penetration testing Execution Standard (PTES).
- Open Web Application Security project (owasp)
- pentest - wiki
- penetration-testing Framework .(PTF)
- XSS - Payloads
- Open Source Security Testing methodology manual .(OSSTMM).
- MITRE's Adversarial Tactics, Techniques & Knowledge (ATT&CK)

## Exploit Development

- Shell code .Tutorial - tutorial on how to write shell code.
- Shell code Examples - shellcodes database
- Exploit writing tutorials - same as name.

## OSINT Resources

- OSINT framework - OSINT hacking tools
- Intel techniques - OSINT tools
- Net Bootcamp OSINT Tools - OSINT
- Wigle.net → information about network
- Social Engineering Resources
- Social Engineering Framework
- Lock picking Resources
- Schuyler Towne channel
- bosnialab11
- /r/lockpicking

- Security @ Dist
- Cuckoo -
- Computer Hacking (CAINE)
- Digital Evidence
- Tails
- Hacking tools
- OS
- parrot, kali
- Docker for penetration testing
- docker pull

## Operating System Resources

- Security related operating systems
- Rawsec
- Best Linux penetration testing Distribution
- @ Cyber punk

- ↓  
Same for all
- gthackers.
- multi - para
- metasploit
- Aermage
- Faraday

- Security @ Distrowatch
- Cuckoo -
- Computer Based Investigative Environment (CBAINE)
- Digital Evidence & Forensics toolkit (DEFT)
- Tails

### Hacking tools

#### OS

- parrot, kali

Docker for penetration testing

docker pull owasp/zap2docker-stable

↓ wpscan teamwpscan

Same for all etc... See

ghackers.com/hacking-tool-list/

multi-paradigm frameworks

- metasploit
- Armitage
- Faraday

CLASSMATE

- Exploit pack
- Pupy

## Vulnerability Scanners

- Nmap
- Nessus
- OpenVAS
- Vuln

## Static Analyzers.

- Brakeman
- Cppcheck
- FindBugs
- SonarQube
- bandit

## Web Scanners

- Nikto
- Arachni
- W3af  
classmate

- Wapiti
- Sec Apps
- WebReaver
- WPS-can
- CMS-exp
- TeamScan
- AcTIS

## Tools type

- Network
- Wire less
- Transport
- Web Expl
- hex Edit
- File F
- Defense f
- hash Crea
- windows 1
- GNU/Linux  
classmate

- Wapiti
- Sec Apps
- net Reaver
- WPS-can
- CMS-explorer
- TeamScan
- Acstis

### Tools types

- Network tools
- Wire less network hacking tools
- Transport layer security tools
- Web Exploitation
- hex Editors
- File Format analysis tools
- Defense evasion tools
- hash cracking tools
- windows utilities
- GNU/Linux Utilities

→ Mac OS Utilities

← PPOS tools

→ Social Engineering tools

→ OSINT Tools

→ Anonymity tools

→ Reverse Engineering tools

→ Physical Access tools

→ Side-channel tools

→ CTF tools

→ penetration testing Report templates

Security courses

→ Offensive Security testing

→ SANS Security training

→ Open Security training

→ CTF Field Guide

→ Arizona Cyber warfare Range

→ Library

→ Computer Security Student  
classmate

→ European Union  
information Se

Database of Non

→ see on

# <https://gb>

drone

→ drone exploit

→ Cyber punk

hackable site

→ hack yourself

~~state~~

→ b0n3l - sec.

E

→ windows 8

→ you can use  
or up to

Then you know P: or C: ch.

Windows password cmd

net user → This command is used  
to find users list :

net user Administrators \*

→ to change pass

Open windows Explorer

cd. P:/my softwares

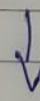
Start

Tools

Software to be download

→ Safenugget → GitHub → Scan. Vulnerable po

Scanner.



Safe Nugget

→ web clustering → learn

MFTM The

ARP (APP Re-

Simple protocol  
machine to

Be logger is a

keylogger.

→ it sends key stro

→ Find it from

VEI

→ it is a fun

back door tool

→ to download it

→ and goto

→ and run VEI

## MITM Theory

### ARP (Address Resolution protocol)

- Simple protocol used to map ip address of a machine to its mac address
- Beebagger is a tool in Kali Linux used to create keyloggers.
- It sends key strokes from victim.
- Find it from GitHub

Veil

- It is a framework which allows to create backdoor
- To download it go to GitHub Veil Framework
- And ~~then~~ go to config directory and run Setup.sh
- And run Veil.py.

# MITMF

- to install it get it from git.
- it is used Mitm attacks
- first install Requirements
- by:- pip install → Requirements
- follow the instructions given on git hub  
then

## Post-connection Attacks

### (Information gathering)

- Discover all devices on the network
- Display them
  - a) Ip add
  - 2) mac add
  - 3) OS
  - 4) Open ports

Pass Q b

F SOC

→ install if g

→ dt is o

R OO

classmate

- ③ Running Services etc.  
etc. This can be done by nmap, net scanner  
net discover, nmap  
how to use net discover
- net discover -h --help
  - netdiscover -r (range of IP address)  
eg = 10.0.0.1/24  
it means 10.0.0.1 - 10.0.0.24

Press Q to quit the program

or

→ netdiscover -i eth0

## F-Society

→ install it from Github

→ it is collection of tools.

## Rootkit.Cheater

# Rootkit checker

- in windows install the newest Norton antivirus
- Rootkits are the viruses or malware which hide in Root Kernel code and attack you very deep
- it's very important and difficult to detect
- in Linux use

1) Chkrootkit

2) Rkhunter

→ Chkrootkit - help

→ apt-get install Rkhunter

→ Rkhunter - help

→ To perform same and update it frequently

→ Rkhunter -c -C

→ This is like antivirus but you have to manually delete the files

the who is look up - use web browser.

- you can gather information on the domain website
- 1) DNS Stuff
- 2) Net Craft.
- please Sing the domain primarily check
- 1) DNS Stuff / you have tools online so you can do etc
- this is not a fool. it is a website

Hey hacker

## THE LAB

- The place where we ~~can~~ can practice because we want to run a malicious software you can't run on original OS on original computer you may break it
- so we need Virtual machine

## Typical Network

### Information gathering

- IP
- Domain name
- Technologies used
- other websites on the same server.
- DNS Records
- files / sub-domains / directories
- Running the websites
  - use a program to discover the sub-domains

## SETUP BURP SUITE

- first check the Burp Suite is installed
- Enable proxy of the Burp Suite
- and enter the proxy in the Browser
- first install or upgrade Burp Suite
- The Default Interface is 127.0.0.1

→ The Burp Suite website like  
download the  
your Browser  
→ to install CA  
turn on proxy  
Just type  
CA cert  
Downloaded  
that's it.  
→ and don't forget  
closing the  
off.

MA

for

These are the  
→ Physi

→ The Burp Suite proxy will not run higher security websites like google so, in order to run it download the trusted certificate and install it in your browser.

→ To install CA, turn on the Burp Suite and then turn on proxy and turn off intercept and just type "burpsuite" in url and download CA certificates from .ca & add the downloaded certificate by pressing import and that's it.

→ And don't forget to turn off the burp suite before exiting the browser it will show that the services off.

## MAC Address Changer

→ These are the address which is → kept fixed by manufacturer  
→ Physical, → Permanent, → Unique

Why change the mac Address

- increase anonymity
- You can bypass the filters
- hide the identity

macchanger

macchanger

~~auto~~

## how to change Mac address

⇒ ifconfig (interface) down  
eth0

Wlan0

// this command is to ~~change the turn off the~~  
~~device~~

⇒ ifconfig (interface) hw ether (mac address)

e.g:- 00:11:22:33:

⇒ ifconfig eth0 up

Ett

→ Another tool for

Built-in Sn

→ dns spoofing

(OR)

macchanger

macchanger → eth0

~~how to~~

~~How to convert py into~~

~~OXC~~

~~game~~

→ use pip install pyinstaller.

→ Then pyinstaller python programme.py --onefile  
// This creates That executable in one file.

## Ether Cap

→ Another tool for MitM attacks

→ Built in Sniffer

→ dns spoofing etc.

→ Before using the ettercap which is preinstalled

→ nano /etc/ettercap/etter.conf

remove .# below

if use ip tables.

ec\_uid=0

ec\_gid=0

→ and save!

→ ettercap -- help.

## The harvester

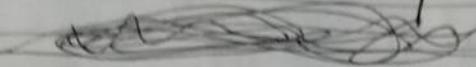
→ This gather the emails so we can do file etc engineering

→ To run it type

The Harvester (no space)

# NMAP

- 20nmup



- huge security scanner
- IP range scan
- open ports
- Running Services
- Operating System
- connected clients etc . . .

Nmap -- help.

# Proxy Chains



- file location
- etc/proxychains.conf
- Run proxychain

proxychains firefox www.duckduckgo.com

- dnsleaks.com for you working.

# Metasploit

- to start it by "msf console"
- the modules of this tool are saved in
- = /usr/share/metasploit-framework/modules

## Phy Pro to Change to run

~~Mac address~~

- The program should execute the terminal commands
- Sub process . is the module which allows to run commands in linux and windows.

→ Syntax

import subprocess

subprocess.call("Command", shell=True)

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to see

Eg:-

import subprocess

subprocess.s

HYD

use xhyd

do a nmap

then open x

BackDoors

Comm

in Cr

or

term

less & Lis

Specifi

net cat

E X

All the

classmate

to see if config

DATE

Eg:-

Import Subprocess as s

Subprocess S. call ("ifconfig", shell=True)

HYdra for internal network hacking

- Use xhydra → Gui of hydra
- do a nmap scan to locate the open ports.
- Then open xhydra etc.

BackDoors → Reverse connection

- Listening for incoming connections on a specific port

→ netcat can be used

Exploit XSS

- All the attacks are performed using DVWA

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Level 1 Low Security

e.g. <script> alert(1)</script>

Level 2 Medium Security

e.g. changing a single char capital etc.

<Script> alert(1) .</Script>

Level 3 High Security

using other tags you can perform attacks

e.g. <body onload=alert(1)></body>

Level 4 Impossible

find your self

SQL Injection

~~Attacker~~

Using SQL Map

~~Attacker~~

These Shuts

at security level

the Bump into  
request.

→ Then the request  
by converting

→ and use the

#

→ use crack

An OS

OS

→ get it from git

→ These are good

→ got help.

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These Shnts are performed under DVWA  
at security level low or medium

- the Barp Snit proxy is used to capture the request.
- Then the request txt is pasted in Barp by • converting into txt documents
- and use the help to do • some action

## ~~# cracking~~

- use crack station website.

## An OSINT ~~Tools~~

- get it from git hub
- These are proxies to browse the dark net .
- go to help .

TAP

# Tor

DATE

- modified version of Firefox
- fully patched
- disable plugins
- enable private plugins
- disable Java scripts

Verify the tor

in windows

- ~~From~~ download Tor browser and its signature
- Download GPG4win (InstallIt)
- open Cmd
- [torproject.org/docs/verify](http://torproject.org/docs/verify)
- copy the code from it paste it in cmd
- type → gpg.exe --fingerprint (input) and compare the finger print in the and Cmd

and Cmd

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- you have vid in
- type → gpg.exe
- Apple
- See vid
- linux
- See vid

# Tor

- Do not use bridge
- use bridge
- use plug
- ~~use~~ bridge
- download b
- email
- the bridge
- use vpn

- you have vid watch it.
- type → gpg.exe - verify tor (setup) torkey  
Apple
- See vid

linux

- See vid

Tor

- Do not maximise the window

Bridge in tor

- use bridge if tor is not working
- use plugin even if bridge is not working
- ~~to~~ bridge.torproject.org/~~optional~~ options
- download bridge with a pluggable transport.  
or Send
- mail to .bridge@torproject.org
- the bridge will be downloaded, copy the bridge
- use vpn with it.

## how to use a good VPN

- The VPN should be reputable
- avoid free VPN
- make sure they keep no logs.
- use HTTPS everywhere.

## how to have a fully secured Tor connection

- HTTPS everywhere + VPN +
- Tor + Bridges with plugins + TLS
- Create your own VPN

## Tips for tor

- ~~never~~ never use tor in full screen.
- check for updates.
- drag to increase the size
- go to options
- privacy and security
- never remember history
- Block trackers

→ Block pop-up windows

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## Tails

- it is a live
- the default conn
- it leaves no
- once the comp
- do not use
- Ctr+Alt+
- Same as all

PAGE

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→ warns when browser install addons

→ prevent accessibility services

→ security safest

→ Block dangerous and deceptive content

→ Block dangerous downloads

→ warn you about unwanted software

→ test with ~~panoptclick.off~~ .02g

→ panoptclick

## Tails.

→ it is a live operating system

→ the default connection is by tor.

→ it leaves no traces.

→ once the computer is restarted the traces are erased.

→ do not use tails in virtual box or vmware.

→ Ctr+Alt+↓ New Work Space (second desktop)

→ Same as all linux

→ Tails is a volatile OS nothing is stored after.

→ Restart

Same as for browser.

## Enabling persistence in Tails

→ Start application → tails → config persistence

→ put pass phrase.

→ Select options

→ Restart.

## More on Tails

→ The tor browser in tails will only share across

folder called tor browser.

→ dread (Dark)

→ Tails has a addition browser called unsafe browser

→ hidden answers

the internet directly

→ For S&T - the

// it is used

→ The unsafe browser is used to access local network

// email that can

→ google, face

→ In Duck Duck go mention onion to get dark web

→ Do not use links, copy and paste url in onion

after a

DATE

## Dark net Search engines

- Duck Duck go (clear net) (Dark net)
- not Evil (Dark) (Quality)
- search (Dark)
- atmia (few) (Dark)
- hidden wiki (contains broken links and scans be careful) (Clear/Dark)
- dark fail (Clear) (Dark)
- deep web subreddit (Clear) (or) (r/deepweb)  
Reddit  
(Clear)
- ↓  
type with URL  
(r/onions)

- dread (Dark) (Guard)
- hidden answers (Dark) (of deep.)

- For Staken - the fake id generator

// it is used to generate fake information and  
// email that can be used.

dark web

onions

PAGE

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PAGE

## Temporary Accounts. - Email

→ Tempmailaddress.com (Clear)

→ GuerrillaMail.com (Dark) (Clear)

Use ~~scrambled~~ address.

## Private permanent emails

opens

Sender of emails

→ protonmail (Clear) (Dark) → (Clear) (Dark)

→ Elude (Dark) → (Clear) (Dark)

→ TorBox (Dark) → (Dark)

→ xmpp

# X M P P

→ list of servers that can be searched on  
git hub

→ It is like free email providers but it is instant  
~~not~~ it is instant

- You can create
- using tails
- add our account
- if you want link from local tab.

→ use OTR

→ Tools →

✓ Enable proxy

✓ Automation

✓ Requires

✓ Don't forget

press not

→ and verify

File

to do

- DATE [ ]
- you can create a email on any server and
  - using tails it has a python application
  - add our account in it and fill informations
  - if you want onion service then copy paste the onion link from last server in python app. in connect server tab.
  - use OTR for communication it encrypts
  - Tools → Plugins → OTR (off the Record)
    - ✓ Enable private mess
    - ✓ Automatinticate private mess
    - ✓ Require priv mess
    - ✓ Don't log.
  - press not private (or) OTR
  - and verify your buddy.

## File management

~~to do~~

# File manag

- Remove identifying Information
  - Securely delete the data
  - Securely wipe and encrypt the storage

META Data  
class

- each file has metadata such as
    - the creator
    - programme used to create it
    - time etc ...

24

- the meta data can be cleared in files ~~as~~ by right click

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fire for fire

Filo

三

- fire for S
  - Send. fire fax

Uses Java

- Onion Skin  
Right click  
using to

Wipe

11

HDD  
Simply de

(o delete it)

files has

it only more  
classmate

firefox file send

DATE: [ ] [ ] [ ] [ ]

## File Sending methods

Methods

- firefox Send.com
- Send.firefox.com (not that trustable)
  - (Security level → low & medium)
  - (uses Java Script)
- Onion Share (app built in tails) (uses tor)
  - (right click) (uses an onion link) (access only using tor)
  - (Sensitive files can be shared.)

## Wipe data or Erase a Storage

Old Old Old Old Old

HDD

- Simply deleting just shows that the file is in active to delete it completely
- file has inbuilt option called wipe
- it only works on hard disk not in usb etc..

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PAGE: [ ] [ ]

$\theta = \text{Zero}$

DATE

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

- number of passes 2 is good for new hard disk  
38 for more security
- 1 is waste.
- it does not work on SSD or USB or etc...
- safely click on windows wear do it

### SSD

- destroy the SSD is best
- or format and encrypt.
- application → utilities → Disks
- Select the partition

~~Delete the~~ format the partition



Erase = overwrite with 0

Type = any ~~file~~ type (your option)

Name = any name (your option)

to encrypt it (more secure)

Erase = overwrite with 0

Type = LUKS + Ext4 (encrypted)

CLASSMATE

PAGE

CLASSMATE

name = any  
purpose =

(Bante p

Encr

W

This a my  
which is no

PGP

Very strong

unbroken

Encrypts

Signature

Some key

any body

DATE 

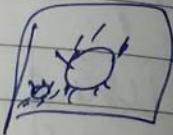
|  |  |  |  |  |
|--|--|--|--|--|
|  |  |  |  |  |
|--|--|--|--|--|

  
for new hard drives

3 or etc . . .

if

Disk



name = any

DATE 

|  |  |  |  |  |
|--|--|--|--|--|
|  |  |  |  |  |
|--|--|--|--|--|

password = any

(only available in tails)  
(Buntu core can be used to open it)

## Encryption

---

- This is a method of converting useful data into gibberish which is understood by only some people

PGP

- Very strong public key encryption
- unbroken
- Encrypts all files

## Segmented encryption

- Same key encryption
- any body has the key can decrypt it.

)

)

Secure)

)

## A Symmetric encryption

- 2 different key are used
- one key is public key that is used to encrypt but this key cannot decrypt
- another key is private key it is used to decrypt.

## Manual encryption in fails

- Applications → utilities → password and keys
- GnuPG Keys → + New (or) (File → new)

PGP Key → continue → (full name and Email all should be fake) → Create Advance key option →

Encryption type = RSA , Key Strength = 4096

Expiration date (as wished) → Create → (fill password)

→ OK

Share the public key

in (GnuPG Keys Tab) → File → Export → (Select file)

→ (Change PGP key → Armored PGP keys)

## → Export →

Go to the file location where you saved and share the file in email, onion share etc... (or) open in txt format copy text and as message

at the receiver end

- how to use others public key.
- if text is sent copy it in text editor and save it as .txt → .asc
- if the file is sent download it as .asc file
- then go to GnuPG keys page → File import → (Select the file) → import.
- You can see new key in GnuPG keys tab  
you can verify the finger print etc..

### Encryption using public key (text)

- open a text editor → type message → copy
- clipboard [ ] → Sign/Encryption clipboard with public keys. → (select the public key) → ok
- open another txt editor → right click → paste and
- copy the txt → Send via email or onion etc..

## decryption using private key (Text)

→ copy the received file in email etc.

→  clipboard → Decrypt / Verify clipboard  
password = (user password) → OK → (output)

## Sign / Sign the message

- to verify the file is from a real person we sign the file
- to verify whether the message is modified

## Sending

→ text editor → type message → copy →  clipboard

Sign / Encrypt . . . . . → Select the person . . . . .

Sign message as = (user) → password = (user) → OK

OK → ~~not yet~~

→ in the text editor → paste . . . . . → send the part message (share)

## Encrypting

- copy the message →  clipboard → Decrypt/ Verify . . . → enter password → you can see ~~the~~ Sender info and message.

## for files (files)

- Select the file → <sup>Sender</sup> right click → encrypt → Select the keys. (optional signature) → OK → password = (urs) → OK
- you can see new Image in same folder → Share it

## Receiver

- download the file → right click → open with decrypt file → enter pass word → OK → open the new file and See  if it was sign for past will receive notification that it has been verified

## Just signing

- select file → right click → Sign → Select the file key → Share it - (image and sign)

## Verifying Sign

- Shared Image and sign download → Right Signature → open with verified signature

## Tips

- you can upload the key to a server
- you can download a key from server using email → name etc...
- Verify the finger print

## Cryptocurrency

- same like normal transaction
- one form can be exchanged to another.
- private and anonymous.
- works on block chain
- anyone has the record of transaction calculate the money you have.

## Wallets Cryptocurrency

Applications → Flexdium Bitcoin wallet

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CLASS

- WPS = your choice DATE
- update the Electrum → by → electrum.org
  - download → link → save it → save signature
  - download public key → import the download key
  - open with verify signature (signature download) →  
if it is valid → Electrum is probably →
  - Change the copy the electrum app in persistence →  
change setting as executable → run → Name = (wiz)
  - Standard wallet → next → Create a new seed
  - Next → Segwit (or) legacy → note the seed  
(Seeded) (durable)  
So you can ~~see~~ recover wiz wallet → password  
(wiz). → next

## Ways to get Bitcoin

~~The best option~~

- mine it yourself
  - powerful computer required → complex
  - Expensive → Very anonymous.
  - time consuming

- DATE [ ]
- using an exchange + Tumbler/mixer
    - complicated
    - not anonymous
  - Bit coin ATMs
  - peer to peer (auth. cash)
  - Bit coin exchange
    - Bitcoin.org
    - Coinbase.com
    - Coin ATM Radar .com
    - If the address starts with Bit it is Segwit address
    - I for legacy
  - *Sending and Receiving Bit coins*
    - never send your money to illegal accounts.

Mixes

- copy address from Tor onion ~~recv tab~~
- paste it in send tab → enter pass word
- it will take time

DATE

## Mixed and fumbler

~~mix~~ ~~fumbler~~

- See more in Duck Duck Go . com
- bit coin - landay . com (free) <sup>Safe</sup> (not that secure)
- Bitmix (onion) (charge) (fast)
- mixtum (most anonymous). (the delay) (onion) (costly)

~~mix~~

## Mix tum

- send you receiving address
- send money
- wait

→ you have depend on mixtum website to keep yours  
ants.

Secret -

PAGE

# Monero

- like bit coin monero is Decentralised
- unlike bit coin monero is private
- untraceable and unlinkable transactions.
- go to .

Web. getmonero.org.

- download the linux setup , verify
- unzip using hash using Gtkhash
- Gtkhash
- Select the file → ~~tempa~~ hash
- Compare the hash using Ctrl+F in browser.
- Open Gtkhash in application utilities
- Change the mode
- execute using linux terminal
- Select language
- use advance mode

- create a new wallet
- set full details → next → Set default (first option)
- set password → connect a node (second option)  
(first option is resource hungry). →  
monero.world.com/ftnodes → copy a node  
and paste it and port → next → open wallet  
and similar to electrum

how to login after restart

Fails

- go to the location → open Start GUI →  
select the language → advanced mode. →  
restore wallet from Keys or open the file of the  
wallet. → password → use <sup>R</sup>Custom Settings  
→ node → paste the node again and port

# how to buy monero

## Anonymously

- mine it yourself (secure)
- using an exchange
  - with normal currencies
  - with crypto
- ATMs
- peer to peer.
- web, getmonero.org

atm is same as bit coin atm

## Crypto exchange

- cash → Bit → monero

Cash → monero → Bit

Bit → monero → Bit → monero → etc.  
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BTF  
link  
Monero  
(anonymous)

Web + g  
Morph  
note the  
donation.

you can't  
it do

Can't

B.Y → Monero (Name Because)  
↳ link broken.

- Monero → monero → monero (not anonymous)
- Web · getmonero.org
- Morph Token ↑  
→ note the minimum amount or else it can be used as donation.

# Qubes OS

- you can't be private if you are not secure
- it creates different virtual partition that cannot access from one partition.

- Qubes OS uses Compartmentalization
  - different domains are created
  - every partition has own specs.
  - it is very resource consuming
  - all are same as there's only difference that there's compartmentalization
  - It can be a live or main OS.
- Download and use

- Verify and download
- ~~copy~~ copy USB
- Change BIOS settings

Enable Virtualisation

Disable Secure boot

Set boot to legacy

→ Boot from USB

→ Go to boot Select USB

→ Test option

→ Open instance destination

→ One

→ One

→ Like

One

reboot

→ you see

→ Ctrl +

→ Ctrl +

→ default

→ another

→ you

by

→ you

- test option should be used
- open installer → english → continue → installation destination → select usb or harddrive → format
- encrypt → put passphrase → Begin install
- create user → Finish

~~Like mode 2 SIS6 is required~~

one as Setup → one as OS insten  
reboot ✓

→ you use it you can understand.

→ Ctrl + Shift + C → global clipboard.

→ Ctrl + ⌘ Shift + V → Global paste

→ default network is direct not tor

→ anon - whonix → this connects to tor default.

→ you can change .Sys.net → Sys-whonix

by .Qade manager.

→ you can clone it by right click on. ✓

Software to be install

On linux

→ Synaptic  
apt-get install synaptic.

153) Important python libraries modules

→ win sound

→ main

→ url lib

→ xml pc . Server , xmlpc - client

→ xml

→ profile , CProfile

- win reg
- web browser
- tty
- tkinter
- Tkhtml
- Tkinter
- temp file
- Telnet
- far file
- Syslog
- Sys
- SSI
- Spur
- socket
- Smtp
- Smtp
- Site

- winsreg → Signal → ftplib  
 → web browser → random → email  
 → tty → pwd → dir  
 → tkinter → ppt. pty → curses  
 → timeit → poplib → crypt  
 → time → pdb → codepp  
 → temp file → OS → cmd  
 → telnet lib → msilib → ~~an~~asyncio  
 → far file → msilib → anasyncore  
 → SysLog → ~~and~~ mail cap → SSL  
 → SysConfig → ~~mail~~ mail box → socket ~~(⊗)~~  
 → Sys → 2 to 3 → module.pyton  
 → ~~SSL~~ SSL → ipaddress  
 → spwd → imaplib → Beginner's guide  
 → socketserver → http → Developers guide  
 → Smtpplib → html → python.org  
 → Smtp pd → hashlib → CV2 ~~(⊗)~~ ~~(Screen record)~~  
 → Site → getpass

# Maltego

- This tool is used for information gathering
- It is a GUI discovered by your self.

## No Distribute

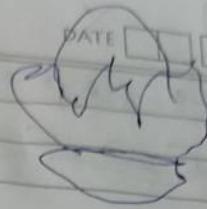
~~Antivirus checker~~

- This is a website which is used to check whether your antivirus gets detected or not.
- [no distribute.com](http://nodistriute.com)

## The FATrat

- It's same as Veil
- Download it in Github
- Run Setup.sh

# EMPIRE ONLINE



DATE

- Same as v0.1 and fat sat.
- download it from Github
- run setup → install
- Give password.
- Create a listener

Z logger

- download this from Github
- it's a key logger creator

BadZagre

- download in github

Ww)

X

DATE

Bat → exe



- download. bat → exe Software from
- www.123-k0.de/en/b2e.php  
// no caps is used
- Download and install using wine
- Invisible programs can be created

## Icon Achives

~~Icon Achives~~

- Used to download Icons
- ↔ I convert → to convert Image to Icon
- Image 256 X 256.
- Bat → exe set Icon

Right to left override

~~Right to left override~~

- zaid.pdf.exe → exe.fdp.diaz

- an app called Characters
- right to left override
- copy
- paste
- delivers the virus as zip.

## Auto IT



- Learn

- Used to create exe files

- less detectable

## MSOffice

- You can run codes in a normal word etc

- ms office application

- only VBA code is run

- using Empire → ~~use stages~~ →

- Windows Macro → ~~info~~ → set options (w options) →

- copy the code
- create a new macro
- Save as Word 97-2003
- Tell the person to enable the content when it's opened
- check whether the program is detected
- use download and extract if empico is detected

## Auto Scan

- download it from  
<http://autoscans-network.com/download>
- download for linux
- extract it
- add 32bit compatibility
- # dpkg --add-architecture i386
- #apt-get update
- #apt-get install libcurl:i386

classmate

→ dpkg  
 → apt-get  
 → apt-get  
 → apt-get

→ install  
 → man  
 → cg  
 → fed po  
 → fed m

07 install using wine 3.2

## 32 bit apk

- dpkg - add-architecture i386
- apt - get update
- apt - get upgrade
- apt - get install lib32:i386

## ARP Spoofer

- Install in kali
  - Man Arp for more details
  - cg -> arpspoof. i when -t 192.168.1.6 192.168.1.1  
    → fast pc 11  
    → fast modem →
- ↓  
widnows  
modem  
192.168.1.1      192.168.1.1

## Surfer site attack

### TFP attacks

- using Zen map discover open ports
- google the service
- see how to exploit it
- like a -logon client

## Back Door

~~Using~~

~~Metasploit~~

- Rapid 7 makes it possible
- msfconsole → runs the metasploit
- help → shows help.
- show [Somethings]
- use [Somethings]

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- set [option] [value] → "Known"
- exploit → runs the current task.
- use nmap and use it
- search online

## Metasploit

### Community (Gru)

- download it from =  
<https://www.rapid7.com/products/metasploit/metasploit-community-registration.jsp>
- Change the permission to executable
- Run installer
- once metasploit community is installed  

```
// # Service metasploit Start
```
- go to https://localhost:3790  
 in a browser. → enter your product key
- we can perform psql and all attacks

parts

h

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## Defence

### Nexpose

- Download it from <http://www.zapier.com/products/nexpose/> compare - download
- try all products.
- before installing Stop PostgreSQL
  - # Service postgresql Stop
- execute the setup.
- follow internet → modify all

### Usage

- before running
  - # Service postgresql Stop
- # ~~nsC~~ Sudo Su
- # ./nsC.sh
- copy the url
- login

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DATE      
enters the product log  
GUI (no prob)

This can be used to generate the reports

CSS

Gimp

(~~scribbles~~)

→ P - paint brush

→ n → pencil

→ play bro.

Dash

(~~scribbles~~)

types

→ Z Shell C Shell

→ TCSH

→ K ~~Shell~~ S ~~Shell~~ KSH → Korn Shell

→ sh

→ bash Shell etc

PAGE

## Kernel

- controls hardware and software
- it is a program which ~~allows~~ the system to be turned on
- OS = Kernel + Shell
- Software = Shell + application

## Shell

- ~~echo~~ how to find
- echo \$0 ⇒ tell what type of shell
- cat /etc/shells ⇒ available shells.
- ~~etc~~ cat /etc/passwd ⇒ your shell

## Shell Script

- Programming

## Types of Shells

- Dos = ms Dos = has Gui (except msDOS)
- Gnome = has Gui
- KDE = has Gui

sh = command line

bash

csh and tcsh (Stay away from it)

ksh (Advanced)

Starting a Shell (open terminal)

find the current shell

\$ echo \$0

→ you can start sh shell by

\$ sh

\$ echo \$\$0 // (verify)

\$ exit // (to exit)

\$ → C Shell

\$ csh

\$ exit

→ ksh

\$ ksh

\$ exit

## Script file permission

→ permission only for ~~smt~~. Sudo Su

chmod +x Script-name

→ permission for all

chmod a+x Script-name

→ Checking permission

## Define shell

→ #!/bin/bash

→ use VI (or) nano (or) ~~sublime~~ ~~pluma~~

## Scripting.

1) hello world program

o #!/bin/bash

echo

echo hello world

echo

## basic task Scripts

#!/bin/bash

echo

echo this script will run few basic task like

echo pwd =

~~echo~~ pwd

echo whoami ls =

~~echo~~ ls

echo whoami =

who am i

echo date

date

echo cal

cal

echo touch a.txt

Creation of files with message

echo this is a message > a.txt

echo print the message

cat a.txt

echo That's all

echo

## Debuging

→ press Esc

: (enter the line number)

→ press Esc //to quit and save

: X

→ press Esc //to just quit

: q

## Basic administration task program

#!/bin/bash

# echo

echo Admin tasks

echo

top # This checks the system usage

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DATE

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top Head -

echo

df -h

echo

uptime # di

echo

last

cd

free -m

echo

8

Usage of

#!/bin/b

p = 'pu'

l = 'ls'

wf = 'wif'

d = 'date'

c = 'ca'

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top I head -10 # gives 10 lines of Sys usage

echo

df -h

echo

uptime # displays after the Sys was turned on.

echo

isstat

echo

free -m # checks free memory

echo

\*

## Usage of Variables

#!/bin/bash

p='pwd'

l='ls'

wf='who amI'

d='date'

c="cal 2018"

echo  
\$ P  
\$ l  
\$ wi  
\$ od  
\$ c

## Input Output

~~Output~~

# program to print your name

Echo

Echo Enter your name

Echo

Read name

Echo

Echo \$ name , hello

a='host name' # it is pre defined who is log in

Echo

Echo This is \$a computer

C = \$a  
DATE:   
## colon is use because it is  
## value not a key word.

## Conditional Scripts

if else → if ... then ... else

== => -eq => ==

-e => if the file exist

if -then Scripts

check variable

#!/bin/bash

Count = 100

if [ \$count -eq 100 ]

then

echo count is 100

else

echo count is not 100

## Syntax

if [Condition]

then

Statements

else

Statements

fi # Determined end of the Statements.

Check if the file error.txt exist

#!/bin/bash

Clear

if [-e /home/iafza1/error.txt]

then

echo "file exist"

else ~~else~~

echo "file does not exist"

fi

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Check if a var

#!/bin/bash

a='data'

if [ "\$a"

then

echo

else

echo

fi

yes or

echo "

read l

echo

if [

then

echo

Check if a variable value is monday.

#!/bin/bash

```
a='date | awk " {print $1} "'  
if [ "$a" == Mon ]  
then
```

```
echo today is $a  
else
```

```
echo today is not monday, $a  
fi
```

yes or know

echo "Do you love Bada"

Read like

echo

```
if [ "$like" == y ]
```

then

echo you are cool

clif [ "\$like == n" ]

then

echo you should try Beef

else

echo nikal lowday paheli pwest my

echo nikal

fi // ends here

## Comparison operators

- eq  $\Rightarrow$  equal for numbers

$= = \Rightarrow$  equal for letters

- ne  $\Rightarrow$  not equal for numbers

$\neq \Rightarrow$  not equal for letters

- lt  $\Rightarrow$  less than

- le  $\Rightarrow$  lesser than or equal to

- gt  $\Rightarrow$  greater than

- ge  $\Rightarrow$  greater than or equal to.

## file operations

DATE: [ ]

- s => file exist and not empty
- f => file exist and not a directory (folder)
- d => directory exist (folder)
- x => whether file is executable
- w => || || || writable
- r => || || || readable

## Note

→ if [ , Condition , ]  
→ spaces

Same for elif.

- you should be case sensitive
- you should be space sensitive

PAGE: [ ]

# Case Scripts

Syntax

```
#!/bin/bash
```

```
echo statement
```

```
read input
```

```
case $input in
```

```
(choice 1) Statement ;;
```

```
(choice 2) Statement ;;
```

```
(choice 3) Statement ;;
```

```
*) default Statement ;;
```

```
esac
```

eg

Command running using  
Case

#! bin/bash

echo

echo p/

echo

echo a

echo b

" "

1b

1c

read ch

~~the~~ case

a) date ;

b) ps ;

c) psud ;

d) updat

e) instal

esac

es all m

#!/bin/bash

DATE

echo

echo pls choose one of the options below  
echo .

echo 'a = Display Date and Time'

echo 'b = files and dir \* '

" " 'c = list of users logged in!'

if : 'd = check sys cmd time'

read choice

case \$choice in

a) date ;;

b) ps ;;

c) ps aux ;;

d) uptime ;;

\* ) ~~for~~ ~~at~~ echo nochoice

esac.

esac means → end of script and ~~end~~ case

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## Exit Status

→ When a program gets executed successfully, it returns 0 if can be used to run next command.

e.g. if update is done upgrade %.

echo \$?

0 # means last command was success

1 # minor problem

2 # serious problem

3 # everything else - error.

eg of usage

Sudo apt upgrade date

if [ \$? == 0 ]

then

Sudo apt upgrade

else

if

which →

:

{ }

Cat usage

Cat

# prints

Cat <

lines  
a

# prints mu

if (()

#

which → This shows the path.

:

{ → multiline comments.

## Cat usage

Cat file name

# prints the text inside the file

Cat << a

lines

a

# prints multiple line

if (\$c < 9)

and, or, not

while

and

if [`"$age" -gt 18`]  $\&\&$  [`"$age" -lt`]

11 / bin/b

number

n = 0

while

do

if [`"$age" -gt 18 & & "$age" -lt`

40

i) [`"$age" -gt 18 && "$age" -lt`

done

if [`"$age" -gt 18 -a "$age" -lt 4`

until

→ all are same for and operation

number

capital

for or it can be replaced by

11, -0

done

White

DATE

# /bin/bash

number = 1

n = 0

while [ \$number -lt 10 ]  
do

echo "\$n"

number = \$(~~echo~~) \$((n+1))

done

until

number = 1

until [ \$number -ge 10 ]  
do

echo \$number

number = \$((number + 1))

done.

# both are same but  
# different loops

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for

for i in 1, 2, 3, 4, 5

do

echo \$i

done

for i in {0..20}

do

echo \$i

done

for i in {0..20..2} ~~& start~~

# \${start..ending..increment}

do

echo \$i

done

for ((i=0; i<5; i++))  
do

echo \$i

done.

## break and continue

break is directly used

if (condition)

then

Statement

break (or) continue

fi

# break exits loop

# continue skips particular condition

## Arguments

while executing

\$0

\$1

\$2

# ./do.bash arg1 arg2...args

args is pre defined

args = ("\$@")

# unlimited arguments

echo \$@ # prints all arguments  
echo \$# # prints no of arguments

## Exporting Variable

ds. 28

message = "hello"

export message; # the message variable is exported.  
./secondscript.sh

## arithmetic operations

\$(( n1 + n2 ))

\$(( n2 - n2 ))

\$(( n3 / n4 ))

\$(( n4 \* n5 ))

\$(( n5 % n6 ))

Synt

use of -n = new line

1 :20:35

hex → Dec

Using Bash → bc → calculator

#!/bin/bash

echo "Enter -Hex number of your choice"

read hex

echo -n "The decimal value of \$hex is:

echo "obase=10;ibase=16;\$hex"

\$ hex | bc

function declaration

Syntax :- function funcname()  
{ Statements }

eg function echobash()

{ echo bash }

Calling a function by its name

1:58:40

## Mail using ssmtplib

- lower the security apps in google
- Sudo apt install ssmtplib
- --help

## Curl direct download

- usage man curl
- usage curl --help
- curl "url" off url should download

- curl "url" → # to download it in  
current directory
- curl "url" → file name  
# downloads in a new file ↓
- curl "curl" > location  
# a specific location (curl directory)

~~grep~~

- Sudo apt update | grep completed.  
--- help  
→ man

## Objectives

- try to make ping command.  
use cron. and email it or notify

load.

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## Cron

DATE

- go to the directory where the script is
- crontab -e # in that script dir.

• enter

min hour day month day of week

Syntax

min hour day of month month day of week location of Script

Eg

24 20 \* \* \* /home/run.sh

> file to save  
location

#\* = run eg every day, week etc ...

## One Page at Time

Syntax ⇒ cmd | more.

⇒ Chown or chgrp change ownership

bash

## For loops

Read numbers with sleep (time delay)

```
for i in (1..10)
```

```
do
```

```
echo $i
```

Sleep .1 # reads 1 number per sec

done.

## Combining the 2 or more files

```
cat file1 file2 file3 > file4
```

Split 1 in to multiple file

```
split -l 300 file.txt file2.txt
```

output will be

file2.txta

file2.txtb ...

## Copy file to a remote host -

→ ~~FTP~~ is used or SCP is used.

### Script.

```
#!/bin/bash
```

```
# This is a script to copy file to remote host.
```

```
for i in ip range
```

```
ip=(192.168.1..192.168.22)
```

```
for i in ip
```

```
do
```

```
Scp Somefile $ i:/tmp
```

```
done
```

```
# (OR)
```

```
for i in PC1 PC2 PC3
```

```
do
```

```
Scp Somefile Somefile $ i:/tmp
```

```
done.
```

```
# PC1, PC2, PC3 has IPs of computers.
```

## Linux file Editors

vi → ed → ex → emacs  
pico → vim

### Keys used in vi

Esc - Escape out of any mode

i - insert

r = replace

d = delete

:q!l = quit without saving

:x = Save and quit

## System Utility Commands

→ date # displays date

→ uptime # displays when was system turned on

→ hostname # " host name

→ uname -a # " type of OS

→ which

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- Cal # calendar
- bc # calculator.

### Aliases

→ it is used to cut down the big commands into small

→ eg

alias ls = "ls -al"

alias pl = "pwd > ls"

alias ll = "who am i ; hostname ; pwd ;"

alias dir = "ls -l | grep ^d"

alias wpa = "chmod atw"

### Ftp

### Command usage

Ftp Ftp. ip. com # com. is required  
# if, it is a website

## Terminal commands

DATE: [ ] [ ] [ ] [ ]

Clear

Exit

Script

Su

Sudo Su.

Sle User name

## Power Shell

Bat + cmd + terminal + Bash # + powershell  
(unique)

= power shell

get - host # this gives details of ur shell

get - help # help

get - process # process list

get - command # all command list

get - alias alias # all alternative cmd

PAGE [ ] [ ]

Android Studio

DATE

x x x x x

Call

in bin

A

B

C

D

E

in

A

B

C

D

E

Power

classmate

PAGE

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

class

Observation.

case class of IP  
in binary  
First byte

A D

B | 10

C 110

D 1110

E 1111

in decimal notation

First byte

A 0 to 127 Big

B 128 to 191 medium

C 192 to 223 local

D 224 to 239 multicasting

E 240 to 255 Research

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~~for a~~  
 1st bit 2nd bit 3rd 4th  
 A 1st net | host 2nd 3rd 4th

B net 1st 2nd | 3rd 4th host

C net IP 1st 2nd 3rd | host  
4th

D full address

E full address

## Default Subnet mask

Subnet mask for a

255 : 0 . 0 . 0

B

255 , 0 . 0 . 0  
255

C

DATE

255 : 255 . 255 , 0

Router finds the type of address by  
A ND operation.

4th

and 3rd and

4th host

host  
4th

k  
s

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