

# **C-TAP**: **COVID-19 Tracking and Analysing Platform**

School name : Indira national school

Student name: Saniya Jain

CBSE Rollno. :

Class : XII Sci Alpha

Academic year: 2020 - 2021

# Indira National School, Tathawade CERTIFICATE

This is to certify that the project prepared by Miss Saniya Jain

of Class XII entitled 'C-TAP: COVID-19 Tracking and Analysing Platform' for CBSE Board, All India Senior School Certificate Examination for the academic year 2017 - 2018, for Computer Science subject at Indira National School, Tathawade has been examined and the report is found worthy of acceptance.

Principal's	External	Internal
Signature	Examiner	Examiner

Date: School Stamp:

### **ACKNOWLEDGEMENT**

I express my special thanks of gratitude to my teacher Ms. Aradhana Mundhe ma'am who gave me a golden opportunity to make such an interesting program and work on this wonderful project on the topic C-TAP: COVID - 19 Tracking And Analysing Platform.

It has given me a reason to research and dwell on the effect of COVID - 19 and dwell on its statistics.

I would like to thank Indira National School for encouraging me to gain such knowledge by providing an appropriate chance and infrastructure.

I would also like to thank the CBSE board for allowing me to act on my interests.

Thank you.

Saniya Jain

**Indira National School** 

# **TABLE OF CONTENTS**

- 1. WORKING DESCRIPTION
- 2. FLOW CHART
- 3. LIBRARIES IMPORTED
- 4. DATABASE USED
- 5. DATABASE TABLES CODE
- 6. DATABASE
- 7. SOURCE CODE
- 8. OUTPUT
- 9. BIBLIOGRAPHY

### **WORKING DESCRIPTION**

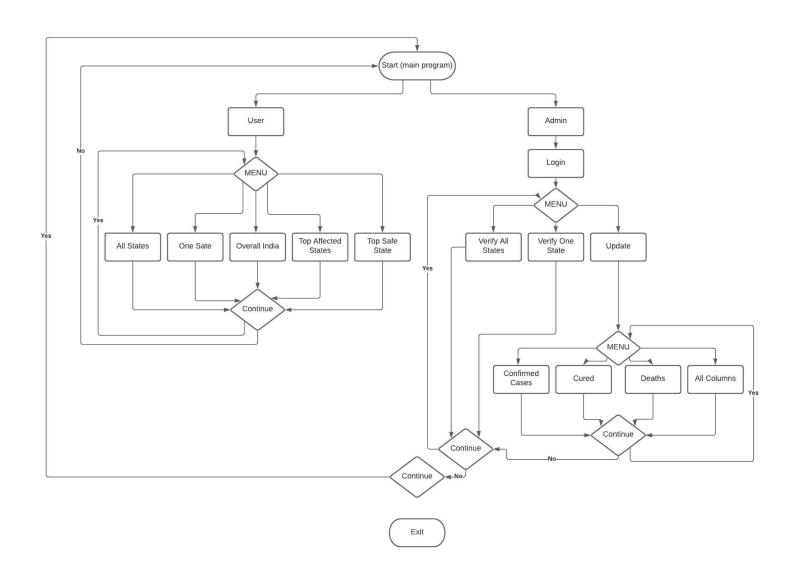
In a time like the COVID-19 Pandemic, it is important that people have a platform to keep a track of it.

This project is a software that provides a COVID-19 tracking and analyzing platform. It has two types of logins, user login, and admin login.

In the user login, there is no Id and password necessary, it is available to all in a formatted form. One can access the data that is available in my database using the menu. The functionalities can be used for as long as the user wishes.

The admin perspective program is secured by password. It can be used to verify the information, of the data can be updated. The functionalities can be used for as long as the admin wishes.

# **FLOWCHARTS**



# **LIBRARIES IMPORTED**

- 1. Prettytable: PrettyTable function is imported from this module for the creation of tables to make the printing of substitutions allotment presentable
- 2. Mysql.connector: Mysql.connector used to have database connectivity of python with MySql.cursor() function used to create cursor objects to help execute queries and report the changes made to the database.

# **DATABASE USED**

Database name: saniya

Tables present:-

- 1. Admin
- 2. COVID

#### **DATABASE TABLE CODE**

```
CREATE TABLE admin
(ID VARCHAR(50),
PASSWORD VARCHAR(50));
INSERT INTO admin
VALUES ('Arohi Gupta, 'abc123'),
('Saniya Jain','abcd1234');
CREATE TABLE COVID
(SNO INT(2),
STATE VARCHAR(50),
CONFIRMED_CASES INT(10),
CURED INT(10),
DEATH INT(10),
DATETIME TIMESTAMP DEFAULT CURRENT_TIMESTAMP);
INSERT INTO COVID
VALUES (1, Andaman and Nicobar Islands, 149, 77, 0),
(2, 'Andhra Pradesh', 22259, 11101, 264),
(3, 'Arunachal Pradesh', 287, 109, 2),
(4, Assam, 13336, 8729, 16),
(5, Bihar, 13944, 9816, 115),
(6, Chandigarh, 513, 402, 7),
(7, 'Chhattisgarh', 3525, 2835, 14),
(8, Dadra and Nagar Haveli and Daman and Diu, 408, 184, 0),
(9, Delhi, 107051, 82226, 15),
(10, Goa, 2151, 1273, 9),
```

```
(11, Gujarat, 38333, 27289, 1993),
(12, 'Haryana', 18690, 14106, 282),
(13, Himachal Pradesh, 1101, 833, 11),
(14, Jammu and Kashmir, 9261, 5567, 149),
(15, 'Jharkhand', 3096, 2170, 22),
(16, Karnataka, 28877, 11876, 470),
(17, Kerala, 6195, 3559, 27),
(18, Ladakh, 1041, 836, 1),
(19, Madhya Pradesh, 16036, 11987, 629),
(20, Maharashtra, 230599, 127259, 9667),
(21, Manipur, 1435, 793, 0),
(22, Meghalaya, 80, 43, 1),
(23, Mizoram, 197, 133, 0),
(24, Nagaland, 657, 304, 0),
(25, 'Odisha', 10624, 7006, 48),
(26, Puducherry, 1008, 480, 14),
(27, Punjab, 6907, 4828, 178),
(28, Rajasthan, 22063, 16866, 482),
(29, Sikkim, 133, 71, 0),
(30, Tamil Nadu, 122350, 74167, 1700),
(31, Telangana, 29536, 17279, 324),
(32, Tripura, 1761, 1324, 1),
(33, 'Uttarakhand', 3258, 2650, 46),
(34, Uttar Pradesh, 31156, 20331, 845),
```

(35, West Bengal, 24823, 16291, 827),

(36, Lakshadweep, 0, 0, 0)

# **DATABASE TABLES**

#### **TABLE: Admin**

+	++
ID	PASSWORD
+	++
Arohi Gupta	abc123
Saniya Jain	abcd1234
+	·+

#### **TABLE: COVID**

-	19   Madhya Pradesh	1	215957	199167	3347	2020-12-08
	21:39:47					
	20   Maharashtra	I	1855341	1730715	47774	2020-12-08
	21:37:57					
	21   Manipur		26225	22997	309	2020-12-08
	21:38:19					
	22   Meghalaya		12314	11573	120	2020-12-08
	21:38:47					
	23   Mizoram		3968	3757	6	2020-12-08
	21:39:26					
	24   Nagaland		11418	10773	66	2020-12-08
	21:40:08					
	25   Odisha	I	321564	316447	1778	2020-12-08
	21:40:34					
	26   Puducherry	I	37270	36263	615	2020-12-08
	21:41:00					
	27   Punjab	I	156839	144301	4934	2020-12-08
	21:41:22					
	28   Rajasthan	I	282512	258393	2448	2020-12-08
	21:41:43					
	29   Sikkim	I	5203	4715	117	2020-12-08
	21:42:10					
	30   Tamil Nadu	I	791552	769048	11809	2020-12-08
	21:42:36					
	31   Telangana	I	29536	17279	324	2020-07-09
	21:34:20					
	32   Tripura		32925	32125	373	2020-12-08
	21:43:18					
ı	33   Uttarakhand	I	78509	71980	1295	2020-12-08
	21:44:03					
ı	34   Uttar Pradesh	I	31156	20331	845	2020-07-09
	21:35:27					
	35   West Bengal	1	505054	472454	8771	2020-12-08
	21:44:41					
	36   Lakshadweep	I	0	0	0	2020-12-08
	21:37:33					
+-	+				+	

--+

# **SOURCE CODE**

# **Main Program**

import mysql.connector as msc

mycon = msc.connect(host ='localhost',user='root',passwd = 'root0509',database = 'saniya')
if mycon.is\_connected():

```
print('Connected to C-TAP: COVID-19 TRACKING AND ANALYSING PLATFORM',\n')
else:
 print('Error')
mycur = mycon.cursor()
#------MENU------
cch = 'y'
while cch == 'y':
  ===','\n')
 print('-----')
 print('Login as User : 1')
 print('Login as Admin : 2')
 print('Exit : 3')
 print('----')
 ch = int(input('Enter your choice : '))
 print()
#-----LOGIN AS USER------
```

```
if ch == 1:
    from PROJECT import user_project # The library project has the module User_project
#-----LOGIN AS ADMIN-----
  elif ch == 2:
    query = 'SELECT * FROM ADMIN'
    mycur.execute(query)
    res = mycur.fetchall()
                        # fetching all login details
   #LOGIN ID
    id_ = input('Enter your Login ID: ')
    [] = ]
    for i in res:
      l.append(i[0])
    while id_not in l:
      print('Incorrect Login ID! ')
      id_ = input('Enter your Login ID: ')
   #LOGON PASSWORD
    pswd = input('Enter your login password: ')
    query = 'SELECT PASSWORD FROM ADMIN WHERE ID = "{}"'.format(id_)
```

```
mycur.execute(query)
    res = mycur.fetchone()
    n = 2
    if res[0] == pswd:
      from PROJECT import admin_project # library PROJECT contains module admin_project
    while res[0] != pswd and n!=0: # condition for only 3 password attempts
      print('Incorrect Password! You will get',n,'more attempt(s).')
      pswd = input('Enter your login password: ')
      n -= 1
    else:
      if res[0]!= pswd and n == 0:
        print('Too many attempts! Acess Denied.;'\n')
#-----EXIT------
  elif ch == 3:
```

cch = 'n'

```
print('Thank You for using C-TAP!')
print('Quitting!')
```

# **User\_Project**

```
#------DATE FUNCTION-----
def date1(month):
    query = 'SELECT DATETIME FROM COVID WHERE STATE = "{}"'.format(month)
    mycur.execute(query)
    res = mycur.fetchone()
    print()
```

```
print ('Last updated: ',res[0] , '\n')
 return
#------MORTALITY RATE FUNCTION------
def mortality_rate(i, j):
 if i == 0:
   return 0
 else:
   rate = (j/i) * 100
   return rate
#------RECOVERY RATE FUNCTION------
def recovery_rate(i,j):
 if i == 0:
   return 0
 else:
   rate = (j/i)*100
   return rate
#-----STATE FUNCTION------
def info_state(name):
 query = 'SELECT * FROM COVID WHERE STATE = "{}"'.format(name)
```

```
mycur.execute(query)
 res = mycur.fetchone()
 return res
#-----SUM FUNCTION------
def sum1(a):
 query = 'SELECT SUM({}) FROM COVID'.format(a)
 mycur.execute(query)
 res = mycur.fetchone()
 return res
#-----TOP AFFECTED FUNCTION------
def max1(res):
 [1 = []
 [2 = []
 for i in range(1,4):
   max1 = max(res)
   l1.append(int(max(res)[0]))
   res.remove(max1)
   query = 'SELECT STATE FROM COVID WHERE CONFIRMED_CASES = {}'.format(max1[0])
   mycur.execute(query)
   a = mycur.fetchone()
```

```
l2.append(a[0])
   print(i,", a[0])
 graph(l1,l2)
 return
#-----TOP SAFEST FUNCTION-----
def min1(res):
 [1 = []
 [2 = []
 for i in range(1,4):
   min1 = min(res)
   l1.append(int(min(res)[0]))
   res.remove(min1)
   query = 'SELECT STATE FROM COVID WHERE CONFIRMED_CASES = {}'.format(min1[0])
   mycur.execute(query)
   a = mycur.fetchone()
   l2.append(a[0])
   print(i,", a[0])
 graph(l1,l2)
 return
#-----SPACING-----
```

```
def spacing(i,n,x):
  b = n - len(str(i[x]))
  s = ' '
  for j in range(1,b+1):
   S+=' '
  return s
#-----GRAPH------
def graph(l1,l2):
  plt.pie(l1,labels = l2,explode = [0.025,0.025,0.025])
  plt.show()
  return
#-----MAIN FUNCTION------
# main
import matplotlib.pyplot as plt
from prettytable import PrettyTable
import mysql.connector as msc
mycon = msc.connect(host ='localhost',user='root',passwd = 'root0509',database = 'saniya')
if mycon.is_connected():
```

```
===','\n')
 print('WELCOME USER',\n')
else:
 print('Error')
mycur = mycon.cursor()
cch = 'y'
while cch == 'y':
  ===','\n')
 print('----')
 print('Information About All States : 1')
 print('Information About One State : 2')
 print('Overall India
                   : 3')
 print('Top Affected States
                  : 4')
 print('Top Safe States
                   : 5')
```

```
print('----')
 ch = int(input('Enter your choice (1 to 5): '))
 print()
#-----VALIDATION------
 while ch \ge 6 or ch <= 0:
                               # condition for invalid choice
   print('Error! Enter valid choice.')
   ch = int(input('Enter your choice: '))
   print()
#-----ALL STATES------
 if ch == 1:
   query = 'SELECT * FROM COVID'
   mycur.execute(query)
   res = mycur.fetchall()
   t = PrettyTable(['Sno', 'State', Confirmed cases', 'Cured', 'Death', 'Last updated'])
   for Sno, State, Confirmed cases, Cured, Death, Datetime in res:
     t.add_row([Sno, State,Confirmed_cases , Cured , Death , Datetime])
   print(t)
#-----ONE STATE-----
 elif ch == 2:
```

```
name = input('Enter name of state: ')
    date1(name)
    res = info_state(name)
    mr = mortality_rate(res[2],res[4])
    rr = recovery_rate(res[2],res[3])
    print('State :', res[1])
    print('Total Cases :,res[2])
    print('Cured
                 :ˈ,res[3] )
    print('Deaths :', res[4] )
    print('Mortality Rate :', round(mr, 2), '%')
    print('Recovery Rate :',round(rr, 2), '%')
#-----OVERALL INDIA-----
  elif ch == 3:
    [] = J
    for a in ('Confirmed cases', 'Cured', 'Death'):
      res = sum1(a)
      s = spacing(a.split(), 15, 0)
      print(a,s,': ', res[0])
      l.append(res)
    mr = mortality_rate(l[0][0],l[2][0])
    rr = recovery_rate(l[0][0],l[1][0])
```

```
print('Mortality Rate :', round(mr, 2), '%')
   print('Recovery Rate : ',round(rr, 2), '%')
#-----TOP AFFECTED------
 elif ch == 4:
   query = 'SELECT CONFIRMED_CASES FROM COVID'
   mycur.execute(query)
   res = mycur.fetchall()
   max1(res)
#-----TOP SAFEST------
 elif ch == 5:
   query = 'SELECT CONFIRMED CASES FROM COVID'
   mycur.execute(query)
   res = mycur.fetchall()
   min1(res)
#-----CONTINUING------
 print()
 cch = input('Do you wish to continue as a user? (y/n): ')
 print()
 if cch != 'y':
```

```
print()
print('Exiting')
print('Thank You for using our services!",\n')
```

### Admin\_Project

```
#------DATE FUNCTION-----
def date1(state):
    query = 'SELECT DATETIME FROM COVID WHERE STATE = "{}"'.format(state)
    mycur.execute(query)
    res = mycur.fetchone()
```

```
print()
 print ('Last updated: ',res[0] , '\n')
 return
#------MORTALITY RATE FUNCTION------
def mortality_rate(i, j):
 if i == 0:
   return 0
 else:
   rate = (j/i) * 100
   return rate
#------RECOVERY RATE FUNCTION------
def recovery_rate(i,j):
 if i == 0:
   return 0
 else:
   rate = (j/i)*100
 return rate
#-----SPACING------
def spacing(i,n,x):
```

```
b = n - len(str(i[x]))
  s = ' '
  for j in range(1,b+1):
   S+=' '
  return s
#-----STATE FUNCTION------
def info_state(name):
  query = 'SELECT * FROM COVID WHERE STATE = "{}"'.format(name)
  mycur.execute(query)
  res = mycur.fetchone()
  return res
#------UPDATE FUNCTION------
def update(name , clm):
  n = int(input('Enter new info: '))
  query1 = 'UPDATE COVID SET {} = {} WHERE STATE = "{}".format(clm, n, name)
  query2 = 'UPDATE COVID SET DATETIME = CURRENT_TIMESTAMP WHERE STATE =
  "{}"'.format(name)
  mycur.execute(query1)
  mycon.commit()
  mycur.execute(query2)
```

```
mycon.commit()
  return 'Done'
#------UPDATE ALL FUNCTION------
def update_all(name , clm):
  for a in clm:
    print(a)
   n = int(input('Enter new info: '))
    query1 = 'UPDATE COVID SET {} = {} WHERE STATE = "{}"'.format(a, n, name)
    query2 = 'UPDATE COVID SET DATETIME = CURRENT_TIMESTAMP WHERE STATE =
   "{}"'.format(name)
    mycur.execute(query1)
    mycon.commit()
    mycur.execute(query2)
    mycon.commit()
  return 'Done'
#-----MAIN FUNCTION------
#_main_
import mysql.connector as msc
from prettytable import PrettyTable
mycon = msc.connect(host ='localhost',user='root',passwd = 'root0509',database = 'saniya')
```

```
if mycon.is_connected():
  ===','\n')
 print('WELCOME ADMIN!;'\n')
else:
 print('Error')
mycur = mycon.cursor()
#------MENU------
cch = 'y'
while cch == 'y':
  ===','\n')
 print('----')
 print('Verify Information of All States : 1')
 print('Verify Information of One State : 2')
 print('Update Information
 print('----')
 ch = int(input('Enter your choice (1 to 3): '))
 print()
```

```
#------VALIDATION------
 while ch \ge 4 or ch <= 0:
                              # condition for invalid choice
   print('Error! Enter valid choice.')
   ch = int(input('Enter your choice: '))
   print()
#-----VERIFY ALL STATES------
 if ch == 1:
   query = 'SELECT * FROM COVID'
   mycur.execute(query)
   res = mycur.fetchall()
   t = PrettyTable(['Sno', 'State', Confirmed cases', 'Cured', 'Death', 'Last updated'])
   for Sno, State, Confirmed cases, Cured, Death, Datetime in res:
     t.add row([Sno, State, Confirmed cases, Cured, Death, Datetime])
   print(t)
#-----VERIFY ONE STATE------
 elif ch == 2:
   name = input('Enter name of state: ')
   date1(name)
   res = info_state(name)
```

```
mr = mortality_rate(res[2],res[4])
   rr = recovery_rate(res[2],res[3])
                 :', res[1])
   print('State
   print('Total Cases :',res[2])
   print('Cured
              :ˈ,res[3] )
   print('Deaths :', res[4] )
   print('Mortality Rate :', round(mr, 2), '%')
   print('Recovery Rate :',round(rr, 2), '%')
#------UPDATE-----
 elif ch == 3:
   uch = 'y'
   while uch == 'y':
  ===','\n')
     name = input('Enter name of state: ')
     print()
     print('-----')
     print('Update No. of Confirmed Cases : 1')
     print('Update No. of Cured
                              : 2')
     print('Update No. of Deaths : 3')
     print('Update All Columns
                              : 4')
```

```
print('-----','\n')
ch = int(input('Enter your choice (1 to 4): '))
print()
while ch \ge 5 or ch <= 0:
                                  # condition for invalid choice
  print('Error! Enter valid choice.;'\n')
  ch = int(input('Enter your choice: '))
  print()
if ch == 1:
  clm = 'Confirmed Cases'
  res = update(name, clm)
  print(res)
elif ch == 2:
  clm = 'Cured'
  res = update(name , clm)
  print(res)
elif ch == 3:
  clm = 'Death'
  res = update(name, clm)
  print(res)
elif ch == 4:
  clm = ('Confirmed_Cases',Cured',Death')
```

```
res = update_all(name , clm)

print()

uch = input('Do you wish to continue updating? (y/n): ')

print()

#------CONTINUING-----

print()

cch = input('Do you wish continue as an admin? (y/n): ')

print()

if cch != 'y':

print('Exiting')

print('Thank You for using our services!')
```

#### **OUTPUT**

Connected to C-TAP: COVID-19 TRACKING AND ANALYSING PLATFORM

MENU
Login as User : 1
Login as Admin : 2
Exit : 3
Enter your choice : 1
WELCOME USER
MENU
Information About All States: 1
Information About One State : 2
Overall India : 3
Top Affected States : 4
Top Safe States : 5
Enter your choice (1 to 5): 1

+			-+			. + .		+
1	+ Sno	State	Confirmed_cases	1	Cured	1	Death	Last_updated
+	+ +		-+	+-		+-		+
I	1   And	aman and Nicobar Islands	4758		4624	1	61	2020-12-07
I	2   20:21:13	Andhra Pradesh	871972		859029		7033	2020-12-07
I	3   20:27:49	Arunachal Pradesh	16395		15605		55	2020-12-07
I	4   20:29:12	Assam	213759		209214		993	2020-12-07
I	5   21:29:17	Bihar	238648		231884		1297	2020-12-08
I	6   21:30:11	Chandigarh	18113		16899		293	2020-12-08
I	7   21:31:22	Chhattisgarh	248232		225633		3010	2020-12-08
I	8   Dadra and 21:31:56	Nagar Haveli and Daman and Diu	3346		3328		2	2020-12-08
I	9   21:32:23	Delhi	593924		561732		9706	2020-12-08
I	10   21:33:03	Goa	48776		46778		701	2020-12-08
I	11   21:34:15	Gujarat	220168		201580		4095	2020-12-08
I	12   21:34:38	Haryana	245288		230551		2611	2020-12-08
I	13   21:35:04	Himachal Pradesh	45697		37063		739	2020-12-08
I	14   21:35:40	Jammu and Kashmir	113568		106758		1755	2020-12-08
I	15   21:36:01	Jharkhand	110457		107710		988	2020-12-08
I	16   21:36:28	Karnataka	894004		857351		11867	2020-12-08
I	17   21:36:50	Kerala	639664		577616		2441	2020-12-08
I	18   21:37:15	Ladakh	8896		8014		121	2020-12-08
I	19   21:39:47	Madhya Pradesh	215957		199167		3347	2020-12-08
I	20   21:37:57	Maharashtra	1855341		1730715		47774	2020-12-08
I	21   21:38:19	Manipur	26225		22997		309	2020-12-08
I	22   21:38:47	Meghalaya	12314		11573		120	2020-12-08
I	23   21:39:26	Mizoram	3968		3757		6	2020-12-08
I	24   21:40:08	Nagaland	11418		10773	1	66	2020-12-08

I	25   21:40:34	Odisha	T	321564	I	316447	I	1778	2020-12-08	
I	26   21:41:00	Puducherry	I	37270	I	36263	I	615	2020-12-08	
I	27   21:41:22	Punjab	I	156839	I	144301	I	4934	2020-12-08	
I	28   21:41:43	Rajasthan	1	282512	I	258393	I	2448	2020-12-08	
	29   21:42:10	Sikkim	I	5203	I	4715	I	117	2020-12-08	
	30   21:42:36	Tamil Nadu	I	791552	I	769048	I	11809	2020-12-08	
I	31   21:34:20	Telangana	I	29536	I	17279	1	324	2020-07-09	
	32   21:43:18	Tripura	I	32925	I	32125		373	2020-12-08	
	33   21:44:03	Uttarakhand	I	78509	I	71980		1295	2020-12-08	
	34   21:35:27	Uttar Pradesh	I	31156	I	20331		845	2020-07-09	
I	35   21:44:41	West Bengal	I	505054	I	472454	1	8771	2020-12-08	
l	36   21:37:33	Lakshadweep	1	0	I	0		0	2020-12-08	
+-	+				+-		+-	+		

Do you wish to continue as a user? (y/n): y

\_\_\_\_\_\_

-----MENU-----

Information About All States: 1

Information About One State: 2

Overall India : 3

Top Affected States : 4

Top Safe States : 5

-----

Enter v	your	choice	(1	to	5	):	2

Enter name of state: Maharashtra

Last updated: 2020-12-08 21:37:57

State : Maharashtra

Total Cases : 1855341

Cured : 1730715

Deaths : 47774

Mortality Rate : 2.57 %

Recovery Rate : 93.28 %

Do you wish to continue as a user? (y/n): y

\_\_\_\_\_\_

-----MENU-----

Information About All States: 1

Information About One State: 2

Overall India : 3

Top Affected States : 4

Top Safe States	: 5
Enter your choice (1 t	co 5): 3
Confirmed_cases : 8	3933008
Cured : 84236	687
Death : 1326	99
Mortality Rate : 1.4	19 %
Recovery Rate : 94	1.30 %
=======================================	
MENU	·
Information About All	l States : 1
Information About Or	ne State : 2
Overall India	: 3
Top Affected States	: 4
•	: 5
Enter your choice (1 t	

1 . Maharashtra	
2 . Karnataka	
3 . Andhra Pradesh	
Do you wish to continu	ue as a user? (y/n): y
=======================================	
MENU	
Information About All	States : 1
Information About One	e State : 2
Overall India	: 3
Top Affected States	: 4
Top Safe States	:5
Enter your choice (1 to	
1 . Lakshadweep	
2 . Dadra and Nagar Ha	aveli and Daman and Diu
3 Mizoram	

Do you wish to continue as a user? (y/n): n
Exiting
Thank You for using our services!
=======================================
MENU
Login as User : 1
Login as Admin : 2
Exit : 3
Enter your choice : 2
Enter your Login ID: Saniya Jain
Enter your login password: abcd1234
WELCOME ADMIN!

Verify Information of All States : 1

Verify Information of One State : 2

Update Information : 3

-----

Enter your choice (1 to 3): 1

+			-+		+-		+-		+
	1	State		_					_
+	+ +		-+		+-		+-		+
	1   And	aman and Nicobar Islands	I	4758	I	4624		61	2020-12-07
I	2   20:21:13	Andhra Pradesh	I	871972	I	859029		7033	2020-12-07
	3   20:27:49	Arunachal Pradesh	I	16395		15605		55	2020-12-07
	4   20:29:12	Assam	I	213759		209214		993	2020-12-07
	5   21:29:17	Bihar	I	238648		231884		1297	2020-12-08
	6   21:30:11	Chandigarh	I	18113		16899		293	2020-12-08
	7   21:31:22	Chhattisgarh	I	248232		225633		3010	2020-12-08
	8   Dadra and 21:31:56	. Nagar Haveli and Daman and Diu	I	3346		3328		2	2020-12-08
	9   21:32:23	Delhi	I	593924	l	561732		9706	2020-12-08
	10   21:33:03	Goa	I	48776	l	46778		701	2020-12-08
	11   21:34:15	Gujarat	I	220168		201580		4095	2020-12-08
I	12   21:34:38	Haryana	I	245288	I	230551		2611	2020-12-08

I	13   21:35:04	Himachal Pradesh	I	45697	37063   739   2020-12-08
I	14   21:35:40	Jammu and Kashmir	1	113568	106758   1755   2020-12-08
I	15   21:36:01	Jharkhand	I	110457	107710   988   2020-12-08
I	16   21:36:28	Karnataka	I	894004	857351   11867   2020-12-08
I	17   21:36:50	Kerala	1	639664	577616   2441   2020-12-08
I	18   21:37:15	Ladakh	T	8896	8014   121   2020-12-08
I	19   21:39:47	Madhya Pradesh	I	215957	199167   3347   2020-12-08
I	20   21:37:57	Maharashtra	I	1855341	1730715   47774   2020-12-08
I	21   21:38:19	Manipur	I	26225	22997   309   2020-12-08
I	22   21:38:47	Meghalaya	I	12314	11573   120   2020-12-08
I	23   21:39:26	Mizoram	I	3968	3757   6   2020-12-08
I	24   21:40:08	Nagaland	I	11418	10773   66   2020-12-08
I	25   21:40:34	Odisha	I	321564	316447   1778   2020-12-08
I	26   21:41:00	Puducherry	I	37270	36263   615   2020-12-08
I	27   21:41:22	Punjab	I	156839	144301   4934   2020-12-08
I	28   21:41:43	Rajasthan	I	282512	258393   2448   2020-12-08
I	29   21:42:10	Sikkim	I	5203	4715   117   2020-12-08
I	30   21:42:36	Tamil Nadu	I	791552	769048   11809   2020-12-08
I	31   21:34:20	Telangana	I	29536	17279   324   2020-07-09
I	32   21:43:18	Tripura	I	32925	32125   373   2020-12-08
I	33   21:44:03	Uttarakhand	1	78509	71980   1295   2020-12-08
I	34   21:35:27	Uttar Pradesh	1	31156	20331   845   2020-07-09
I	35   21:44:41	West Bengal	I	505054	472454   8771   2020-12-08

Lakshadweep 0 | 0 | 2020-12-08 | 36 | 21:37:33 | Do you wish continue as an admin? (y/n): y \_\_\_\_\_\_ -----MENU-----Verify Information of All States: 1 Verify Information of One State : 2 **Update Information** Enter your choice (1 to 3): 2 Enter name of state: Goa Last updated: 2020-12-08 21:33:03

State : Goa

Total Cases : 48776

Cured : 46778

Deaths : 701

Mortality Rate: 1.44 %	
Recovery Rate : 95.9 %	
Do you wish continue as an admin? (y/n): y	
	=
MENU	
Verify Information of All States: 1	
Verify Information of One State : 2	
Update Information : 3	
Enter your choice (1 to 3): 3	
	=
Enter name of state: Andaman and Nicobar Islands	
MENU	
Update No. of Confirmed Cases : 1	
Update No. of Cured : 2	
Update No. of Deaths : 3	

Update All Columns	: 4
Enter your choice (1 to 4):	1
Enter new info: 4773	
Done	
Do you wish to continue u	pdating? (y/n): y
=======================================	
Enter name of state: Anda	man and Nicobar Islands
MENU	
Update No. of Confirmed (	Cases: 1
Update No. of Cured	: 2
Update No. of Deaths	: 3
Update All Columns	: 4

Enter your choice (1 to 4): 2

Enter new info: 4631 Done							
Do you wish to continue updating? (y/n): y							
Enter name of state: And	aman and Nicobar Islands						
MENU							
Update No. of Confirmed	Cases: 1						
Update No. of Cured	: 2						
Update No. of Deaths	: 3						
Update All Columns	: 4						
Enter your choice (1 to 4)	): 3						
Enter new info: 61							
Done							

Do you wish to continue updating? (y/n): y						
=======================================						
Enter name of state: And	hra Pradesh					
MENU						
Update No. of Confirmed	Cases: 1					
Update No. of Cured	: 2					
Update No. of Deaths	: 3					
Update All Columns	: 4					
Enter your choice (1 to 4	): 4					
Confirmed_Cases						
Enter new info: 872288						
Cured						
Enter new info: 859624						
Death						
Enter new info: 7038						

Do you wish to continue updating? (y/n): n

Do you wish to continue as an admin? (y/n): y

\_\_\_\_\_\_

-----MENU-----

Verify Information of All States: 1

Verify Information of One State : 2

Update Information : 3

-----

Enter your choice (1 to 3): 1

									<b>.</b>
ı	+ Sno		Coni	firmed_cases	ı	Cured	l D	eath	Last_updated
+-	+	Andaman and Nicobar Islands			·				
I	2   21:50:19	Andhra Pradesh	I	872288	I	859624		7038	2020-12-08
I	3   20:27:49	Arunachal Pradesh	I	16395	I	15605		55	2020-12-07
I	4   20:29:12	Assam	I	213759		209214		993	2020-12-07
I	5   21:29:17	Bihar	I	238648		231884		1297	2020-12-08
I	6   21:30:11	Chandigarh	I	18113		16899		293	2020-12-08

I	7   21:31:22	Chhattisgarh	I	248232	I	225633		3010   2020-12-08
I	8   Dadra and 21:31:56	Nagar Haveli and Daman and Div	1	3346		3328	I	2   2020-12-08
I	9   21:32:23	Delhi	I	593924	1	561732	l	9706   2020-12-08
I	10   21:33:03	Goa	I	48776		46778	I	701   2020-12-08
I	11   21:34:15	Gujarat	I	220168	1	201580	l	4095   2020-12-08
	12   21:34:38	Haryana	I	245288		230551	l	2611   2020-12-08
	13   21:35:04	Himachal Pradesh	I	45697		37063	l	739   2020-12-08
	14   21:35:40	Jammu and Kashmir	Ι	113568	I	106758	l	1755   2020-12-08
	15   21:36:01	Jharkhand	Ι	110457	I	107710	l	988   2020-12-08
	16   21:36:28	Karnataka	I	894004		857351	l	11867   2020-12-08
	17   21:36:50	Kerala	I	639664	I	577616		2441   2020-12-08
I	18   21:37:15	Ladakh	I	8896		8014		121   2020-12-08
I	19   21:39:47	Madhya Pradesh	I	215957		199167		3347   2020-12-08
I	20   21:37:57	Maharashtra	I	1855341		1730715		47774   2020-12-08
I	21   21:38:19	Manipur	I	26225	I	22997		309   2020-12-08
I	22   21:38:47	Meghalaya	I	12314	I	11573		120   2020-12-08
I	23   21:39:26	Mizoram	I	3968	1	3757		6   2020-12-08
I	24   21:40:08	Nagaland	I	11418	1	10773		66   2020-12-08
I	25   21:40:34	Odisha	I	321564	I	316447		1778   2020-12-08
	26   21:41:00	Puducherry	I	37270	I	36263		615   2020-12-08
I	27   21:41:22	Punjab	I	156839		144301	l	4934   2020-12-08
I	28   21:41:43	Rajasthan	I	282512	1	258393	l	2448   2020-12-08
I	29   21:42:10	Sikkim	I	5203		4715	l	117   2020-12-08

I	30   21:42:36	Tamil Nadu	I	791552	I	769048	:	11809	1	2020-12-08
I	31   21:34:20	Telangana	I	29536	I	17279		324	I	2020-07-09
I	32   21:43:18	Tripura	I	32925	1	32125		373	I	2020-12-08
I	33   21:44:03	Uttarakhand	I	78509	I	71980		1295	I	2020-12-08
I	34   21:35:27	Uttar Pradesh	I	31156	I	20331		845	I	2020-07-09
I	35   21:44:41	West Bengal	I	505054	I	472454		8771	I	2020-12-08
I	36   21:37:33	Lakshadweep	I	0	T	0		0	1	2020-12-08
+-	+ +		+		-+-		-+		-+-	

Do you wish continue as an admin? (y/n): n

## Exiting

Thank You for using our services!

-----MENU-----

Login as User : 1

Login as Admin : 2

Exit: 3

-----

Enter your choice: 3

Thank You for using C-TAP!

Quitting!

## **BIBLIOGRAPHY**

- 1. Zedcode.com
- 2. Geeksforgeeks.org
- 3. Sumita Arora computer science textbook for class 11
- 4. Sumita Arora computer science textbook for class 12
- 5. python.org