Cyber Security Information Management

By:

Mahendra Chittupolu

IT-B

1602-18-737-081

Abstract:

Internet was made popular among all the people in the world and a new era of communication began since 1990s, from then people are using it for various purposes and many personal purposes are came into picture. So, according to the new revolution we have to take measures to make the use of internet safe.

Everything in the world have their respective negative things. Coming to internet as we are posting our personal data on the internet many hackers are being tracking our data and using that in their own purposes which is very illegal and those type of crimes are called cyber crimes and providing security for people about that crime are called cyber security.

This project stores the user's data and make sure that the information is protected and also to which cyber official your complaint assigned and to which office your data is shared and also it analyses the information of where the complaints and received and stores the information in a full secured manner and to ensure that where the information is stored.

Information can be tracked easily in and we can chesk our updates easily and the data of all the police who are working in our case are able to store the information easily and make it use whenever they want for that complaint's and at last all the data of cyber crimes can be stored and checked whenever wanted.

Roll No:1602-18-737-081
Name: Mahendra Chittupolu

Requirement Analysis:

List of Tables:

1. User's record
2. Cyber crime
3. Complaints received
4. Department
5. Monitor
6. Action taken
7. Criminal record

List of attributes with their Domain types:

1.User's record:

- Name: Varchar(20)
- Phno: Number(10)
- usid: varchar(15)
- age: number(2)
- hno: varchar(15)
- street: varchar(15)
- Mandal: varchar(15)
- District: varchar(15)

2.Cyber Crime:

- cid: varchar(10)
- location: varchar(25)
- category: varchar(15)

3.Complaints received:

- usid: varchar(15)
- cid: varchar(10)
- received date: Date

4.Department:

- eid: varchar(15)
- ename: varchar(20)
- Designation: varchar(20)
- Branch: varchar(20)

5.Monitor:

- cid: varchar(10)
- eid: varchar(15)
- status: varchar(10)

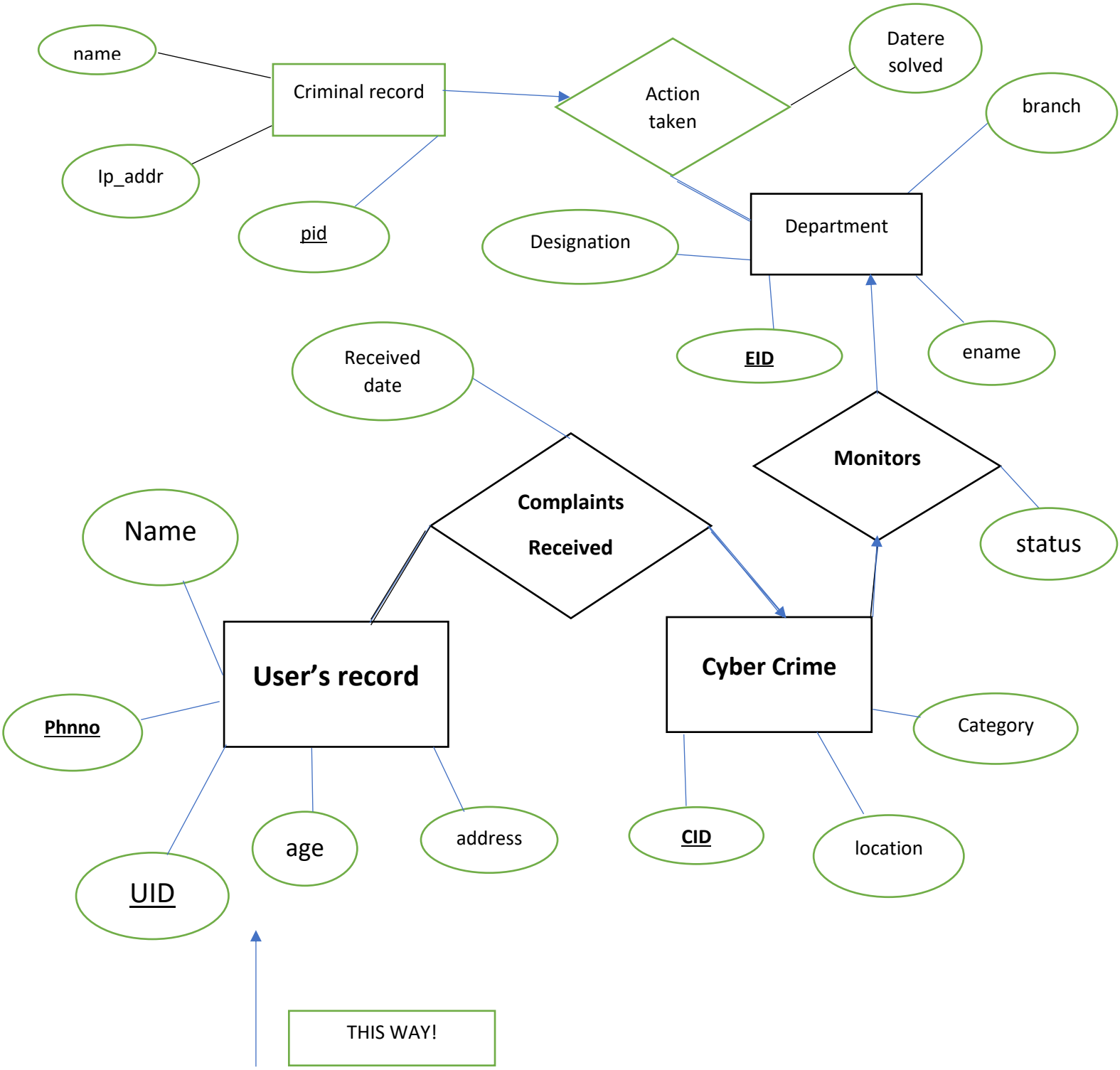
6.Action taken:

- pid: varchar(15)
- eid: varchar(15)
- date resolved: DATE

7.Criminal record:

- Name: varchar(15)
- Ip addr: varchar(20)
- Pid: varchar(15)

ER DIAGRAM:



Roll No:1602-18-737-081
Name: Mahendra Chittupolu

Mapping cardinalities and participation constraints:

All users recorded details should be go to complaints received table so it is a total participation and many to one mapping cardinality.

The received complaints should me must go to cyber crime department so it is a one to one relation.

All data from cyber crime should go to a department where the cases are solved so it is a one to one mapping cardinality and total participation.

Action should be taken separately to the criminals so that criminal record table is one to one with action taken

And many officers can solve any type of cases so that is a many to many mapping cardinality.

And action is taken by departments so it is many to one relation and total participation constraint.

Every criminal will take actions so it is total participation constraints.

DDL COMMANDS:

```
SQL> CREATE TABLE users_record(
  2  name varchar(20),
  3  phno number(10),
  4  usid varchar(15),
  5  age number(2),
  6  hno varchar(7),
  7  street varchar(15),
  8  mandal varchar(15),
  9  district varchar(15),
 10  primary key(usid));

Table created.
```

```
SQL> CREATE TABLE cyber_crime(
  2  cid varchar(10),
  3  location varchar(25),
  4  category varchar(15),
  5  primary key(cid));

Table created.
```

```
SQL> CREATE TABLE complaints_received(
  2  usid varchar(15),
  3  cid varchar(10),
  4  received_date date,
  5  foreign key(usid) references users_record,
  6  foreign key(cid) references cyber_crime,
  7  primary key(usid,cid));

Table created.
```

```
SQL> CREATE TABLE department(
  2  eid varchar(15),
  3  ename varchar(20),
  4  designation varchar(20),
  5  branch varchar(20),
  6  primary key(eid));

Table created.
```

```
SQL> CREATE TABLE monitors(
  2  cid varchar(10),
  3  eid varchar(15),
  4  status varchar(10),
  5  foreign key(cid) references cyber_crime,
  6  foreign key(eid) references department,
  7  primary key(cid));

Table created.
```

```
SQL> CREATE TABLE criminal_record(
  2  name varchar(15),
  3  ip_addr varchar(20),
  4  pid varchar(15),
  5  primary key(pid));

Table created.
```

```
SQL> CREATE TABLE action_taken(
  2  pid varchar(15),
  3  eid varchar(15),
  4  date_resolved date,
  5  foreign key(eid) references department,
  6  foreign key(pid) references criminal_record,
  7  primary key(pid));

Table created.
```

Select*from tab;

Action_taken Table

Complaints_received Table

Criminal_record Table

Cyber_crime Table

Department Table

Monitors Table

Users_record Table

```
SQL> desc users_record;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 NAME                                               VARCHAR2(20)
 PHNO                                               NUMBER(10)
 USID                                      NOT NULL VARCHAR2(15)
 AGE                                                NUMBER(2)
 HNO                                                VARCHAR2(7)
 STREET                                             VARCHAR2(15)
 MANDAL                                             VARCHAR2(15)
 DISTRICT                                           VARCHAR2(15)
```

```
SQL> desc cyber_crime;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 CID                                       NOT NULL VARCHAR2(10)
 LOCATION                                           VARCHAR2(25)
 CATEGORY                                           VARCHAR2(15)
```

```
SQL> desc complaints_received;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USID                                      NOT NULL VARCHAR2(15)
 CID                                       NOT NULL VARCHAR2(10)
 RECEIVED_DATE                                      DATE
```

```
SQL> desc department;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 EID                                       NOT NULL VARCHAR2(15)
 ENAME                                              VARCHAR2(20)
 DESIGNATION                                        VARCHAR2(20)
 BRANCH                                             VARCHAR2(20)
```

```
SQL> desc monitors;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 CID                                       NOT NULL VARCHAR2(10)
 EID                                                VARCHAR2(15)
 STATUS                                             VARCHAR2(10)

SQL> desc users_records;
```

```
SQL> desc criminal_record;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 NAME                                               VARCHAR2(15)
 IP_ADDR                                            VARCHAR2(20)
 PID                                       NOT NULL VARCHAR2(15)
```

```
SQL> desc action_taken;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 PID                                       NOT NULL VARCHAR2(15)
 EID                                                VARCHAR2(15)
 DATE_RESOLVED                                      DATE
```

DML COMMANDS:

```
SQL> insert into users_record values('&name',&phno,'&uid','&age','&hno','&street','&mandal','&district',
);
```

```
SQL> select *from users_record;

NAME                      PHNO USID                 AGE HNO
------------------- ---------- --------------- ---------- ---------------
STREET          MANDAL          DISTRICT
--------------- --------------- ---------------
niteesh              6303520640 1                       19 1-2/a
nandipahad      miryalaguda     nalagonda

khushi               9346498993 2                       18 12-5-505/17
kantinagar      mehadipatnam    hyderabad

mohith               6302560420 3                       19 12-133/6
krishna colony  miryalaguda     nalgonda


NAME                      PHNO USID                 AGE HNO
------------------- ---------- --------------- ---------- ---------------
STREET          MANDAL          DISTRICT
--------------- --------------- ---------------
badri                9246897210 4                       19 15-155
kailashnagar    devarakonda     nalagonda

kranthi              9864321102 5                       22 12-33/s
donagalguda     moosapet        rangareddy
```

```
SQL> /
Enter value for cid: 4
Enter value for location: lbnagar
Enter value for category: mobile
old   1: insert into cyber_crime values('&cid','&location','&category')
new   1: insert into cyber_crime values('4','lbnagar','mobile')

1 row created.

SQL> /
Enter value for cid: 5
Enter value for location: secundrabad
Enter value for category: mobile_data
old   1: insert into cyber_crime values('&cid','&location','&category')
new   1: insert into cyber_crime values('5','secundrabad','mobile_data')

1 row created.

SQL> select *from cyber_crime;

CID        LOCATION                  CATEGORY
---------- ------------------------- --------------
1          asif nagar                banking
2          asif nagar                hospitals
3          cyberabad                 mobile
4          lbnagar                   mobile
5          secundrabad               mobile_data
```

```
SQL> insert into complaints_received values('&usid','&cid','&received_date');
Enter value for usid: 1
Enter value for cid: 1
Enter value for received_date: 12-AUG-2019
old   1: insert into complaints_received values('&usid','&cid','&received_date')
new   1: insert into complaints_received values('1','1','12-AUG-2019')

1 row created.

SQL> /
Enter value for usid: 2
Enter value for cid: 2
Enter value for received_date: 15-OCT-2019
old   1: insert into complaints_received values('&usid','&cid','&received_date')
new   1: insert into complaints_received values('2','2','15-OCT-2019')

1 row created.
```

```
SQL> /
Enter value for usid: 3
Enter value for cid: 3
Enter value for received_date: 28-FEB-2019
old   1: insert into complaints_received values('&usid','&cid','&received_date')
new   1: insert into complaints_received values('3','3','28-FEB-2019')

1 row created.

SQL> /
```

```
SQL> /
Enter value for usid: 4
Enter value for cid: 4
Enter value for received_date: 01-JAN-2020
old   1: insert into complaints_received values('&usid','&cid','&received_date')
new   1: insert into complaints_received values('4','4','01-JAN-2020')

1 row created.

SQL> /
Enter value for usid: 5
Enter value for cid: 5
Enter value for received_date: 05-FEB-2020
old   1: insert into complaints_received values('&usid','&cid','&received_date')
new   1: insert into complaints_received values('5','5','05-FEB-2020')

1 row created.
```

```
1 row created.

SQL> select *from complaints_received;

USID            CID         RECEIVED_
--------------- ----------- ---------
1               1           12-AUG-19
2               2           15-OCT-19
3               3           28-FEB-19
4               4           01-JAN-20
5               5           05-FEB-20
```

```
SQL> /
Enter value for eid: 1202
Enter value for ename: seenaiah
Enter value for designation: ACP
Enter value for branch: cyberabad
old   1: insert into department values('&eid','&ename','&designation','&branch')
new   1: insert into department values('1202','seenaiah','ACP','cyberabad')

1 row created.

SQL> /
Enter value for eid: 1203
Enter value for ename: Arjun
Enter value for designation: DGP
Enter value for branch: moosapet
old   1: insert into department values('&eid','&ename','&designation','&branch')
new   1: insert into department values('1203','Arjun','DGP','moosapet')

1 row created.

SQL> /
Enter value for eid: 1204
Enter value for ename: mallesham
Enter value for designation: HIT
Enter value for branch: moosarambagh
old   1: insert into department values('&eid','&ename','&designation','&branch')
new   1: insert into department values('1204','mallesham','HIT','moosarambagh')

1 row created.
```

```
SQL> insert into department values('&eid','&ename','&designation','&branch');
Enter value for eid: 1205
Enter value for ename: mahesh
Enter value for designation: SI
Enter value for branch: lbnagar
old   1: insert into department values('&eid','&ename','&designation','&branch')
new   1: insert into department values('1205','mahesh','SI','lbnagar')

1 row created.
```

```
SQL> select *from department;

EID             ENAME               DESIGNATION         BRANCH
--------------- ------------------- ------------------- --------------------
1201            narsaiah            SP                  secundrabad
1202            seenaiah            ACP                 cyberabad
1203            Arjun               DGP                 moosapet
1204            mallesham           HIT                 moosarambagh
1205            mahesh              SI                  lbnagar

SQL>
```

Roll No:1602-18-737-081
Name: Mahendra Chittupolu

```
SQL> insert into monitors values('&cid','&eid','&status');
Enter value for cid: 1
Enter value for eid: 1201
Enter value for status: pending
old   1: insert into monitors values('&cid','&eid','&status')
new   1: insert into monitors values('1','1201','pending')

1 row created.

SQL> /
Enter value for cid: 2
Enter value for eid: 1202
Enter value for status: completed
old   1: insert into monitors values('&cid','&eid','&status')
new   1: insert into monitors values('2','1202','completed')

1 row created.

SQL> /
Enter value for cid: 3
Enter value for eid: 1203
Enter value for status: completed
old   1: insert into monitors values('&cid','&eid','&status')
new   1: insert into monitors values('3','1203','completed')

1 row created.
```

```
SQL> /
Enter value for cid: 4
Enter value for eid: 1204
Enter value for status: pending
old   1: insert into monitors values('&cid','&eid','&status')
new   1: insert into monitors values('4','1204','pending')

1 row created.

SQL> /
Enter value for cid: 5
Enter value for eid: 1205
Enter value for status: completed
old   1: insert into monitors values('&cid','&eid','&status')
new   1: insert into monitors values('5','1205','completed')

1 row created.
```

```
SQL> select *from monitors;

CID        EID             STATUS
---------- --------------- ----------
1          1201            pending
2          1202            completed
3          1203            completed
4          1204            pending
5          1205            completed
```

```
SQL> insert into criminal_record values('&name','&ip_addr','&pid');
Enter value for name: gilfoyle
Enter value for ip_addr: 192.192.168.52
Enter value for pid: 1
old   1: insert into criminal_record values('&name','&ip_addr','&pid')
new   1: insert into criminal_record values('gilfoyle','192.192.168.52','1')

1 row created.

SQL> /
Enter value for name: richard
Enter value for ip_addr: 255.255.127.27
Enter value for pid: 2
old   1: insert into criminal_record values('&name','&ip_addr','&pid')
new   1: insert into criminal_record values('richard','255.255.127.27','2')

1 row created.

SQL> /
Enter value for name: dinesh
Enter value for ip_addr: 192.192.168.52
Enter value for pid: 3
old   1: insert into criminal_record values('&name','&ip_addr','&pid')
new   1: insert into criminal_record values('dinesh','192.192.168.52','3')

1 row created.

SQL> /
Enter value for name: jian yang
Enter value for ip_addr: 192.192.168.35
Enter value for pid: 4
old   1: insert into criminal_record values('&name','&ip_addr','&pid')
new   1: insert into criminal_record values('jian yang','192.192.168.35','4')

1 row created.

SQL> /
Enter value for name: k.ramachandra
Enter value for ip_addr: 255.255.197.152
Enter value for pid: 5
old   1: insert into criminal_record values('&name','&ip_addr','&pid')
new   1: insert into criminal_record values('k.ramachandra','255.255.197.152','5')

1 row created.
```

```
SQL> insert into action_taken values('&pid','&eid','&date_resolved');
Enter value for pid: 1
Enter value for eid: 1201
Enter value for date_resolved: 20-AUG-2019
old   1: insert into action_taken values('&pid','&eid','&date_resolved')
new   1: insert into action_taken values('1','1201','20-AUG-2019')

1 row created.

SQL> /
Enter value for pid: 2
Enter value for eid: 1202
Enter value for date_resolved: 25-OCT-2019
old   1: insert into action_taken values('&pid','&eid','&date_resolved')
new   1: insert into action_taken values('2','1202','25-OCT-2019')

1 row created.

SQL> /
Enter value for pid: 3
Enter value for eid: 1203
Enter value for date_resolved: 7-MAY-2019
old   1: insert into action_taken values('&pid','&eid','&date_resolved')
new   1: insert into action_taken values('3','1203','7-MAY-2019')

1 row created.

SQL> /
Enter value for pid: 4
Enter value for eid: 1204
Enter value for date_resolved: 25-JAN-2020
old   1: insert into action_taken values('&pid','&eid','&date_resolved')
new   1: insert into action_taken values('4','1204','25-JAN-2020')

1 row created.

SQL> /
Enter value for pid: 5
Enter value for eid: 1205
Enter value for date_resolved: 10-FEB-2020
old   1: insert into action_taken values('&pid','&eid','&date_resolved')
new   1: insert into action_taken values('5','1205','10-FEB-2020')

1 row created.
```