

Cyber Security
Final Year B.Tech IT 2021-2022

A PROJECT REPORT ON

“XBRIBE”

Group No: 33

Sr No.	Name	ID	Department
1	Shraddha Khedkar	191081904	IT
2	Manjushree Ghadge	191081908	IT

Under the guidance of

Prof. Shrinivas Khedkar



**VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE,
MATUNGA, MUMBAI-400019**

INDEX

Sr. No.	Topic Name	Page No.
1	Introduction	3
1.1	Abstract	3
1.2	Introduction	4
1.3	Motivation	5
2	Literature Review	7
2.1	Existing System	7
2.2	Proposed System	8
2.3	Features of Proposed System	8
3	Requirement and Analysis	11
3.1	Hardware Requirements	11
3.2	Software Requirements	11
4	Methodology	12
4.1	Process Flow Diagram	12
4.2	Modules	14
5	Implementation & Results	16
6	Conclusion	28
7	Reference	29

1. INTRODUCTION

1.1 Abstract

The battle against bribe is a huge challenge for all types of systems. Ministry of Minority Affairs, Ministry of Labor and Employment, Ministry of Law and Justice and almost every department faces such situation which corrupt our system. Bribery refers to the offering, giving, soliciting, or receiving of any item of value as a means of influencing the actions of an individual holding a public or legal duty. This type of action results in matters that should be handled objectively being handled in a manner best suiting the private interests of the decision maker. Bribery constitutes a crime and both the offeror and the recipient can be criminally charged.

The fundamental issue is that Bribery is an unethical practice, as it increases wealth inequality and supports corrupt regimes. As an immoral act, bribery should be prosecuted even in countries in which it is an acceptable practice. Businesses and governments should be considered moral entities that enter into a social contract. To overcome this challenge, many traditional methods are used to mitigate the bribe cases but still it needs to be improved.

So by proposing a digital solution, bribery cases can be reduced. A digital solution which is a bribery reporting website focusing on bringing user privacy, user utility and administration utility under one place. We hope this website serves the community to build a crime-free society.

The main aim of the project was to create an online portal, where one could post complaints for a government official who possibly could have asked for the bribe and showcased unprofessional behavior in their duty. This portal gives an opportunity to a common person to register any minor or major complaints related to bribe cases and let the higher authorities take the strict actions on such bribe crimes.

1.2 Introduction

The main goal of the project was to create an online portal, where one could post complaints for a government official who possibly could have asked for Bribe and showcased unprofessional behavior. The victim could upload video, audio files reporting the incident in the report. All these files would be encrypted so that no one tampers with them. This portal includes functionalities such as to register complaint, to track the complaint and also user can send the reminder for his registered complaint.

By considering the user privacy, none of the user's personal details email ID will be shared with the authorities. Timely progress report of registered complaint will be sent on user's email. This progress reports help to understand the actions taken on the registered complaint. To register the complaint, user has to would have to verify his identity through an email verification. After entering the 4 digit-OTP, the person can filter out government officials on the basis of their department and city. The user can also view the entire list of the complaints registered against a particular official in a certain city. The user can submit the proofs of bribery like video, audio format. Once user registered a complaint then he can download the receipt of his complaint which contains all the details of his complaints including audio and video files count. The user will be notified about the status of his complaint via registered email.

The Xbribe project has three menus the public portal, admin login and Contact. In the public portal, we have fetched some newly registered complaints in tabular format. The tabular format has the details of ministry, department, registration date, place, state and resolve date. Also, we provide the graphical trends of received and resolved barbery cases with respect to the months. In the admin login, admin can monitor all registered bribe cases and change the status of the complaint with respect to the situations.

1.3 Motivation

- **Impact of Bribery and corruption on India's economy and corporate organizations:**

Around 83% of respondents felt that the recent spate of scams can negatively impact FDI inflows into the country. 73 % of investors are expected to bargain hard and factor in the cost of corruption at the time of entering transactions. Nearly 50% of the respondents said their companies have lost business to their competitors because of the latter's unethical conduct.

The potential losses suffered by the Indian economy (according to reported corruption cases in media (from October 2011 to September 2012) stands at INR364 billion³ this excludes some large scams such as 2G, Commonwealth Games and Mining.

- **Corruption percolating through the sectors:**

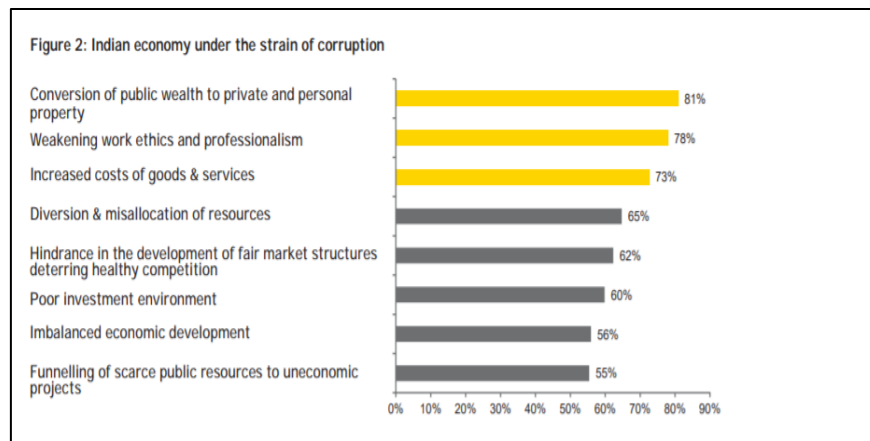
Bribery and corruption are pervasive, but some sectors tend to witness a relatively higher degree of such instances. Our respondents perceived the following sectors as the most vulnerable to corruption:

1. Infrastructure & Real Estate (85%)
2. Metal & mining (76%)
3. Aerospace & Defense (64%)
4. Power & utilities (51%)

- **Specific Findings of survey include:**

1. Seeking fair practices: Around 83% of the respondents felt that cases of bribery and corruption can negatively impact FDI laws.
2. Sectors most vulnerable to corruptions: These include infrastructure & real estate, metals & mining, aerospace & defense, and power & utilities sectors.
3. Strain on ethical behavior: Alarmingly, a large number of respondents appeared to be comfortable with (or were aware of) unethical business conduct, including irregular accounting to hide bribery and corruption, gifts being given to given to seek favors and third parties being used to pay bribes.
4. Taking the easy way out: More than half of the respondents agreed that it is the lack of will to obtain licenses and approvals the "right way," which leads to bribery and corruption.
5. Need for greater enforcement of laws: Around 89% of the respondents felt that there should be greater enforcement of laws to curb the proliferation of bribery and corruption.

- **Indian economy under the corruption:**



- **Innovative ways of paying bribes**

1. Paying high salaries to selected employees with an understanding that the excess amount will be used to make improper payments.
2. Routing improper payments through payment facilitators (existing vendors or material suppliers), who pass on the cash to liaising agents, keeping themselves out of the loop.
3. Paying a periodic performance bonus to vendors assisting in procurement of licenses.
4. Presenting gift cards (prepaid cash cards issued by banks) to government officials with whom organizations frequently contact.

2. LITERATURE REVIEW

2.1 Existing System

- **Are there adequate safeguards to protect against bribery?**

Companies taking the first step towards compliance programs: More than 90% of the respondents reported that their companies had anti-bribery and corruption policies in place, standalone or covered under their code of conduct policy.

Lack of Training making program effective: According to 34% of the respondents, organizations do not conduct anti-bribery and corruption-related trainings for their employees.

Companies relying more on reporting mechanism than monitoring themselves: 76% of the respondents' companies have a whistle-blowing mechanism to report corruption issues; less than 60% of the respondents' companies monitor expenses and activities of the business partners to ensure compliance with their anti-bribery programs.

- **How effective are vigilance setups and existing regulatory bodies for investigation of bribery and corruption cases in India?**

The Prevention of Corruption Act 1988 is the law governing bribery and corruption in India. It extends to the whole of the country, except in Jammu and Kashmir. And it is only applicable to public servants.

State level: Every State has a Criminal Investigation Department (CID) for either investigating or taking over control of sensitive/special report cases registered at a police station, anywhere within the jurisdiction of the State. The economic offences wing (EOW) may be a part of the State CID or a separate wing altogether. Besides this, every State has a separate Vigilance department for investigation of bribery and corruption cases against public servants.

National level: The apex/premier investigation agency at the center is the Central Bureau of Investigation (CBI). The CBI is a nodal agency for coordinating with other central vigilance departments on vigilance matters. CBI has an Anti-Corruption Division to deal with cases of corruption and fraud committed by public servants of all Central Government Departments, Central Public Sector Undertakings and Central Financial Institutions.

Central Vigilance Commission (CVC): It's an autonomous body and is free of control from any executive authority. They are charged with the power of monitoring all vigilance activity under the Central Government of India, and

advising various authorities in central Government organizations in planning, executing, reviewing and reforming their vigilance work. They coordinate with the various vigilance departments involved in the public sector and also supervise CBI's work.

At the Centre, every Ministry has a vigilance cell. Similarly, all the public sector undertakings, nationalized banks etc. operating in India have their own vigilance set up.

2.2 Proposed System

- **Problem Statement**

With our aim to fight against bribery, we seek Digital Solution to Combat Bribery & Justice Restoration System for better policing and improved public delivery system. Solution should (1) Provide efficient ways of public delivery system for combating bribery (2) Reporting bribery incidences to authorities. You may add value addition features to your solution.

- **Solution**

The main goal of the project was to create an online portal, where one could post complaints for a government official who possibly could have asked for Bribe and showcased unprofessional behavior. The victim could upload video, audio files reporting the incident in the report. All these files would be encrypted so that no one tampers with them. This portal includes functionalities such as to register complaint, to track the complaint and also user can send the reminder for his registered complaint.

The Xbribe project has three menus the public portal, admin login and Contact. In the public portal, we have fetched some newly registered complaints in tabular format. The tabular format has the details of ministry, department, registration date, place, state and resolve date. Also, we provide the graphical trends of received and resolved bribery cases with respect to the months. In the admin login, admin can monitor all registered bribe cases and change the status of the complaint with respect to the situations.

2.3 Features of Proposed System

1. Easy to use:

A feasible interface for user to choose and categorize the organisation and easily fill up the necessary details.

2. Complete Anonymity:

A secured database to provide anonymity to users, while ensuring the authenticity of the reported case by sending the necessary details of the user to the administrator and the relevant authority.

3. Track case:

A public portal tracking the status of the ongoing cases and its settlement.

5. Realtime notification

A real time notification to user through the registered email such that he/she gets proper updates about their cases.

3. REQUIREMENTS & ANALYSIS

3.1 Hardware Requirements

- Laptop / Mobile
- Internet Setup

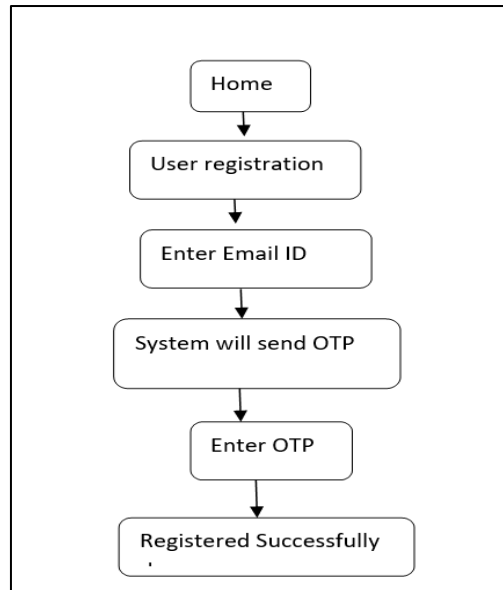
3.2 Software Requirements

- Languages: HTML, CSS, Bootstrap, JQuery.
- Database: Mongodb, Firebase.
- Framework: Node JS

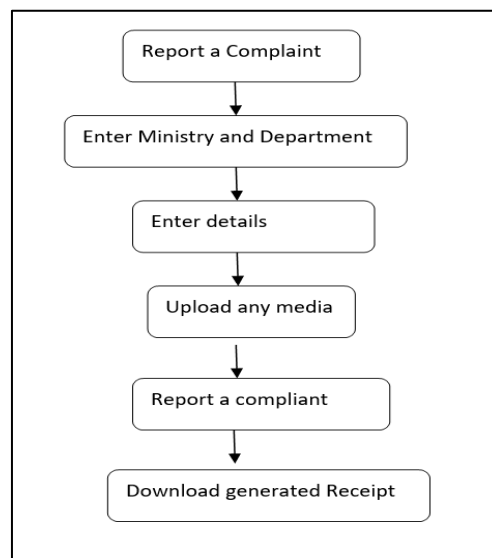
4. METHODOLOGY

4.1 Process Flow Diagram

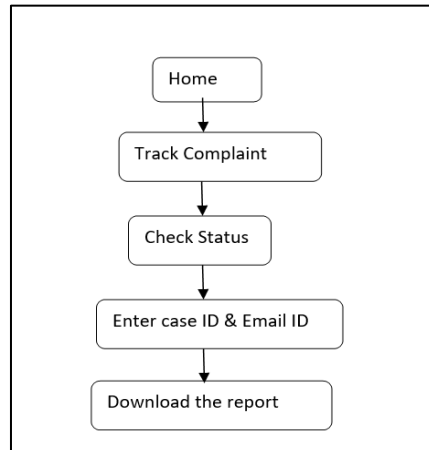
- User login:



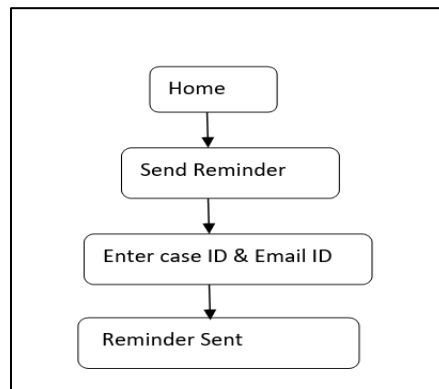
- To report complaint:



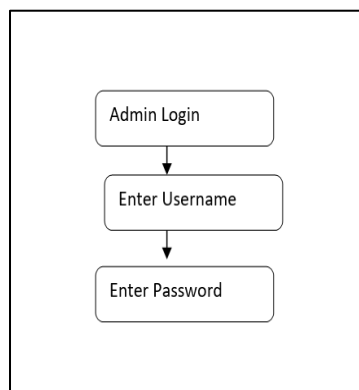
- To track complaint:



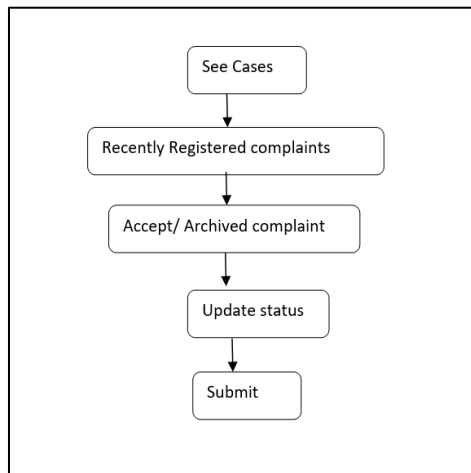
- To send reminder:



- Admin login:



- To see cases:



4.2 Modules

1. User
2. Admin

User Module:

- A. To register complaint
- B. To track complaint
- C. Send Reminder

A. To register complaint

1. For registering complaint, user first have to register them by using email id and OTP will be send that OTP has to enter to authorize the valid user for register on portal.
2. After successfully registration, user can report a complaint against any Ministry
3. Select Ministry and department from list, enter details such as, organization name, address, case description.
4. Upload media files if any have in images, audio or video format for proof.
5. After this, submit the report and complaint is registered against desired ministry is successfully.
6. It will generate case id, which will have to use to track the status of our complaint.
7. User can generate receipt in the form of .pdf for their reference.

B. To track complaint

1. To track status of complaint, user has to enter generated case ID and registered email ID
2. After providing, the receipt will generate where status of complaint will be shown.

C. To send reminder

1. To send reminder of complaint, user has to enter generated case ID and registered email ID

2. Click on send reminder button.
3. User can also send feedback.

Admin Module

1. Enter username and password for valid authorizing the admin
2. Admin can see the latest registered complaint on portal by clicking on SEE CASES tab.
3. Admin can see all the details along with media, which user has compliant against ministry, he can then update the status of the case either by accepting the case, archived the case, or by resolve the case and also by marking spam cases.
4. All this status update notification done by admin is sent to user for their reference.
5. Admin can also see reminder notification of any cases.

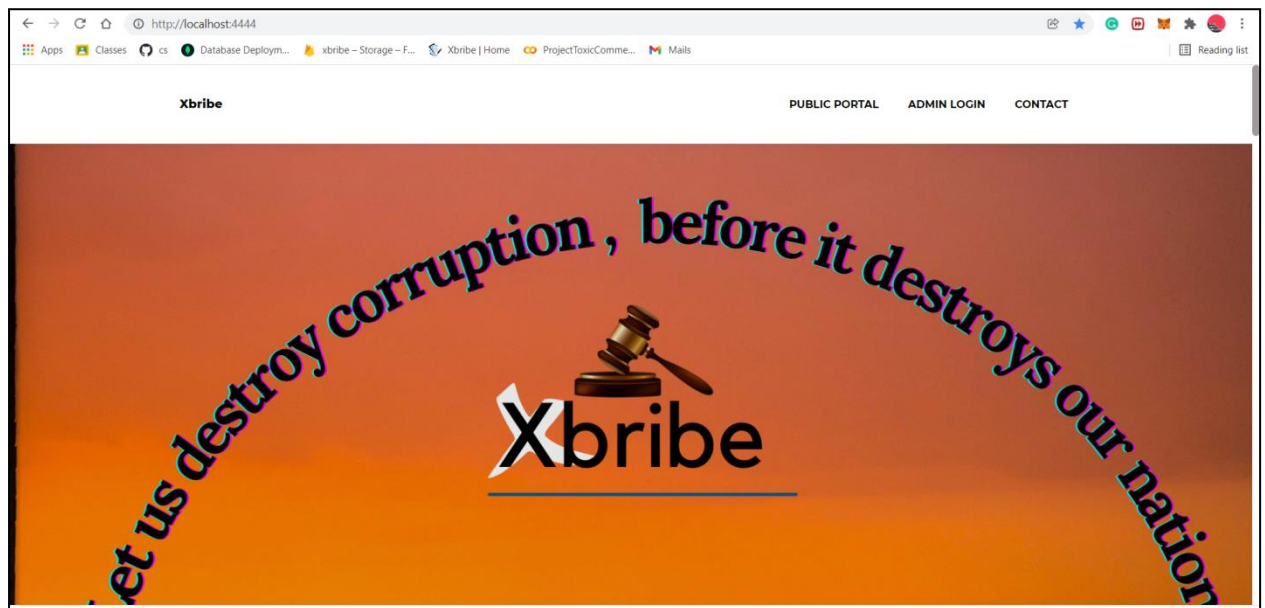
5. Implementation & Results

1. This website is uploaded via localhost, so first we have to start our server by node index.js command

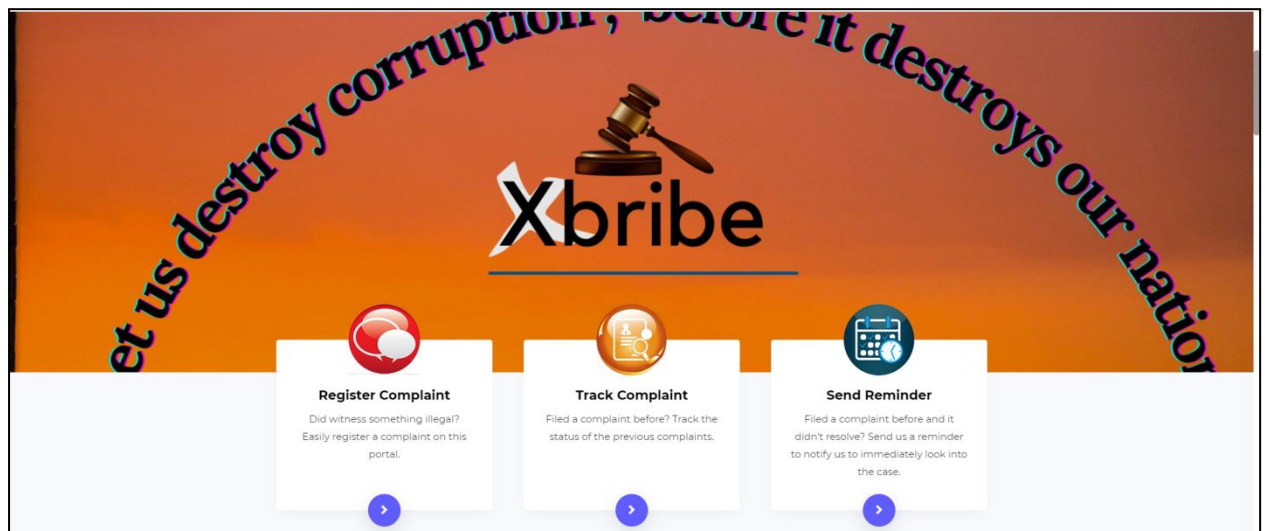
```
C:\Windows\System32\cmd.exe - node index.js
Microsoft Windows [Version 10.0.19043.1415]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin\Downloads\Xbribe-master (1)\Xbribe-master\web>node index.js
Server up on port 4444
Mongoose Connected!
```

Server
should
be start
on same
port



2. Dashboard of website



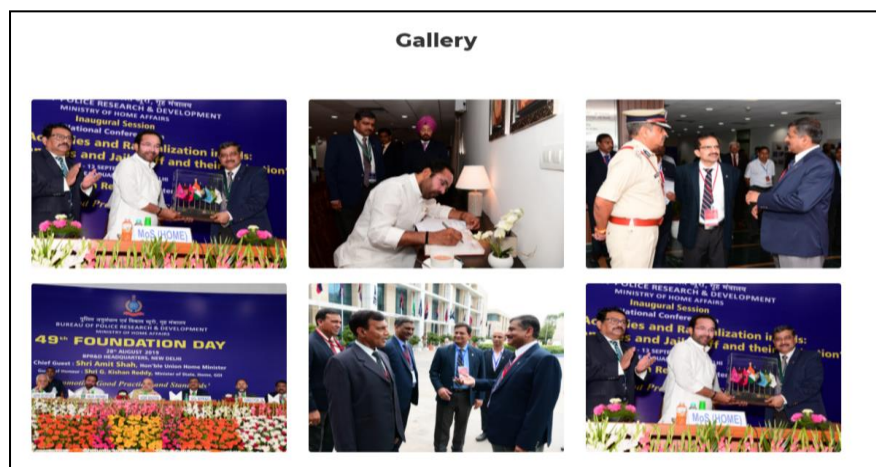
3. Real-time count of register complaints on portal



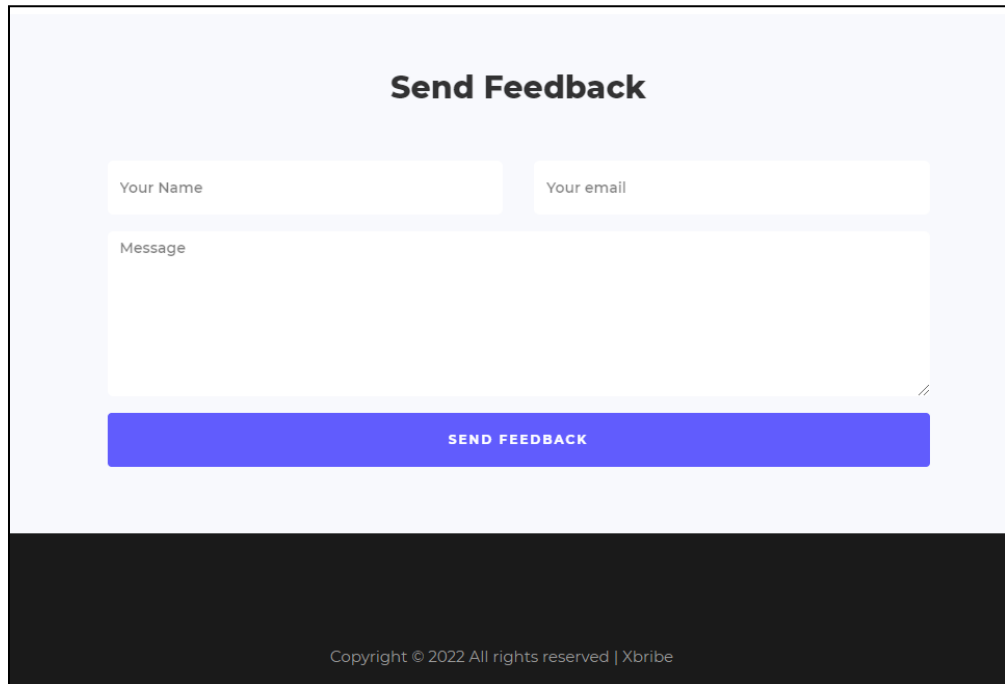
3. Highlighting Ministries, having against complaints



5. Gallery

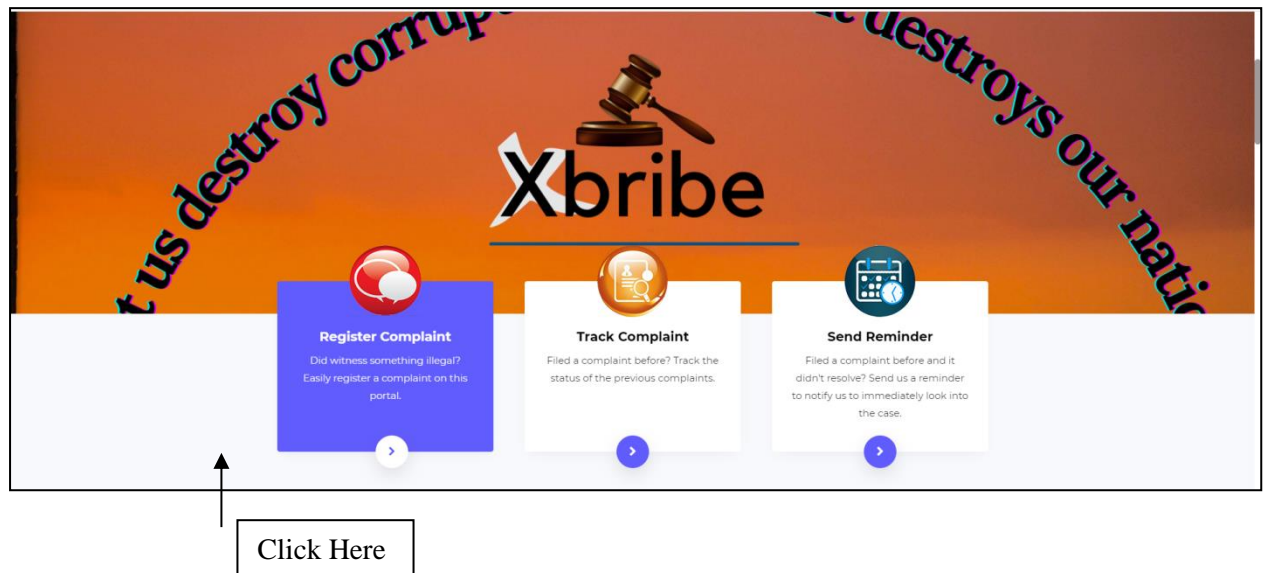


6. Contact Form




The image shows a 'Send Feedback' form on a light blue background. At the top, the title 'Send Feedback' is centered in bold black text. Below the title, there are three input fields: 'Your Name' and 'Your email' are small white rectangular boxes, and 'Message' is a larger white rectangular box with a small '//' icon at the bottom right. Below these fields is a wide blue button with the text 'SEND FEEDBACK' in white. At the bottom of the form, there is a dark grey footer with the text 'Copyright © 2022 All rights reserved | Xbribe'.

7. User Module – To register complaint



8. User registration - Enter valid email ID



Report a Case

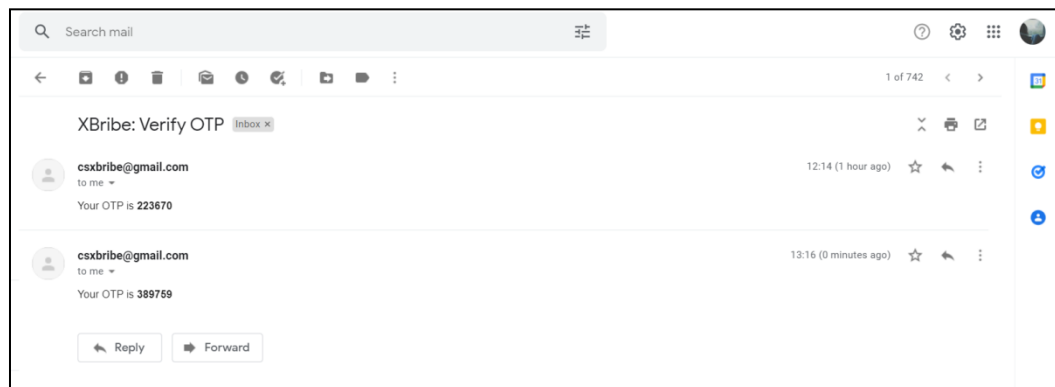
Register Yourself

EMAIL ID

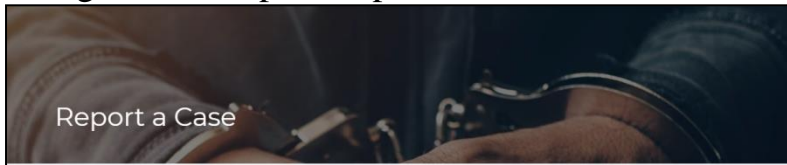
shwetzghadge99@gmail.com|

SEND OTP

8. OTP will be send to your given email id



10. Enter OTP, to register a complaint , provide all details



Report a Case

Your complaint ID will be: 74d74ac4-69fb-4e43-ac5a-21915d86396c

MINISTRY

Ministry of Agriculture and Farmers Welfare

DEPARTMENT:

Department of Agricultural Research and Education (DARE)

INSTITUTE/ORGANIZATION NAME

Enter Ministry Name

NAME OF CONCERNED PERSON/OFFICIAL

Enter Person's Name

Your complaint ID will be: 74d74ac4-69fb-4e43-ac5a-21915d86396c

MINISTRY
Ministry of Communications

DEPARTMENT:
Department of Posts

INSTITUTE/ORGANIZATION NAME
Shanti Sagar Society

NAME OF CONCERNED PERSON/OFFICIAL
Manjushree Ghadge

PLACE
Chatkopar

PIN CODE
400075

ADDRESS
B-20704, shanti sagar society, Chatkopar East

DESCRIPTION
At the Chatkopar post office, there is always a network issue for updating any kind of post related query. My RD was pending for the last 1 month, and while asking, the authorized person MR. Shinde (Head of Post Office, Chatkopar) always behave rudely and doesn't answer my query at all.

PROCEED

11. Upload media files

Upload Related Media

UPLOAD PICTURES
SELECT

काल्याने नागरिकांमध्ये नाराज
स्वामंतर सुकवारी बदलून देण
2 संसदीय मंत्रालय प्रमुख

UPLOAD SUCCESS!

UPLOAD AUDIO FILES
SELECT

UPLOAD VIDEOS
SELECT

CANCEL SUBMIT REPORT

12. Report filed successfully

Reported Successfully

Your Case has been reported Successfully!
Please note case ID cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96 for future reference.
An email has also been sent to shwetzghadge99@gmail.com.
Click below button to generate receipt.

GENERATE RECEIPT

Copyright © 2022 All rights reserved | Xbribe

13. User can download the receipt

SUBMITTED REPORT

Ministry: Ministry of Communications

Department: Department of Posts

Institute/Organization Name: Shanti Sagar Society

Concerned Person/Govt Official Name: Vikas Shinde


Date: Tue Jan 04 2022 13:50:24 GMT+0530 (India Standard Time)
Place: Ghatkopar
Address: Shanti sadan Ghatkopar east , 400076
Location Coordinates: 22.281134 Deg N, 86.798533 Deg E
Case ID: cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96
Status: submitted
Priority: Low

Reporting person Info:
User ID: 616188fb5e71125d982b1581
User email: shwetghadge99@gmail.com

Description:
Mr. Vikas Shinde (head of post office, Ghatkopar) has refused to give RD money and also behave very rudely

Count of attached Media:
Pictures: 1
Audio Recordings: 0
Video Clips: 0

It will upladte on user's regisyterd mail id also

**csxbribe@gmail.com**
to me

13:50 (3 minutes ago) ☆ ↶ ⋮

Hello! Thanks for reporting


Your case has been registered and an action will be taken on it soon. We'll keep you notified with all further updates.


Please note the CASE ID **cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96** for future reference.


↶ Reply


➦ Forward

14. To track complaint

**Xbribe**

**Register Complaint**
Did witness something illegal?
Easily register a complaint on this portal.

**Track Complaint**
Filed a complaint before? Track the status of the previous complaints.

**Send Reminder**
Filed a complaint before and it didn't resolve? Send us a reminder to notify us to immediately look into the case.

15. Enter case ID and mailID

Xbribe PUBLIC PORTAL

Send Reminder

CASE ID:
cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96

EMAIL ID:
shwetzghadge99@gmail.com

SUBMIT

Copyright © 2022 All rights reserved | Xbribe

19. send reminder sucessfully

Send Reminder

A reminder was sent regarding your case.

CASE ID:
Enter Case ID

EMAIL ID:
Enter email

SUBMIT

Copyright © 2022 All rights reserved | Xbribe

Admin Module

1. Login

Administrator Login

You are logged out.

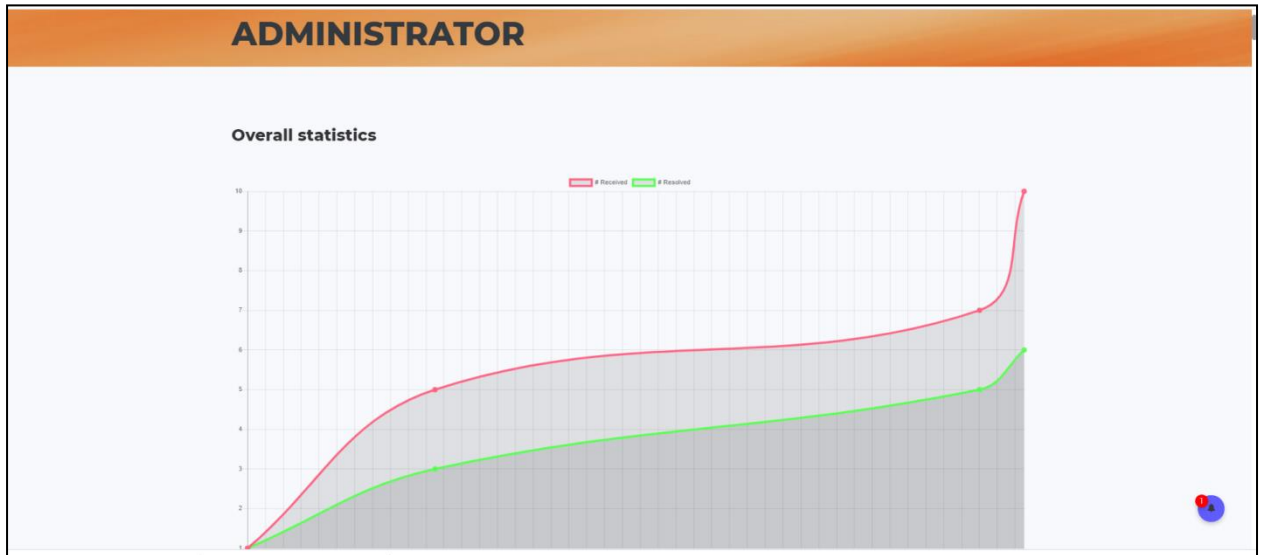
shradha

LOGIN

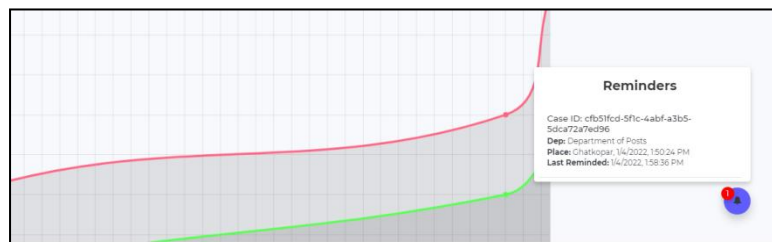
[Forgot Administrator ID / Password?](#)

[Go to home](#)

2. Admin Dashboard



3. Admin can see reminder



4. See cases

Administrator

PUBLIC HOME

SPAM CASES

FILTER POSTS

LOGOUT

ADMINISTRATOR

Recently Registered Complaints

Type a keyword and hit enter

Below are some newly registered complaints arranged in tabular form

Successfully fetched 9 results in 1 pages

S NO.	DEPARTMENT	CASE ID	DATE	PLACE	STATUS	PRIORITY	RESOLVE DATE
1	Department of Posts	cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96	14/2/2022, 1:50:24 PM	Chatkopar	submitted	Low	---
2	Department of Financial Services	448a7f3c-54af-4b44-98bd-2595c68c3f9f	14/2/2022, 12:18:31 PM	Mumbai	submitted	Medium	---
3	Department of Financial Services	448a7f3c-54af-4b44-98bd-2595c68c3f9f	14/2/2022, 12:18:31 PM	Mumbai	resolved	Medium	14/2/2022, 12:25:25 PM
4	None	7162a058-4c62-49d2-a4d2-43e85d7a33fb	12/30/2021, 11:33 PM	Thane	resolved	Medium	12/30/2021, 11:34 PM
			10/2/2022, 10:16:23 PM				

5.Recent case , admin will accept this case

Ministry: Ministry of Communications

Department: Department of Posts

Institute/Organization: Shanti Sagar Society

Concerned Person/Official: Vikas Shinde

Chatkopar, 14/2/2022, 1:50:24 PM

CASE ID: cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96

Reported from: Website

Description

Mr. Vikas Shinde (head of post office, Chatkopar) has refused to give RD money and also behave very rudely

#Attached Media

Pictures:

Audio Recordings:

Video Recordings:

ACCEPT THIS CASE?

ACCEPT

ARCHIVE

Reporting Person

Location

22°16'52.17N 86°47'54.7E

Kulm, Jharkhand 822101

View larger map

Address: Shanti sadan Chatkopar east

District: Not Specified

PIN code: 400076

6. Admin can update the stauts of case


Concerned Person/Official: Vikas Shinde
Ghatkopar, 1/4/2022, 15:024 PM

CASE ID: cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96

Reported from: Website

Description
Mr. Vikas Shinde (head of post office, Ghatkopar) has refused to give RD money and also behave very rudely

#Attached Media

Pictures:


Audio Recordings:

Video Recordings:

Case Options

Set Status

Mark as spam

SUBMIT

Location
 22°16'52.17"N 89°47'54.7"E
 Ghatkopar, Maharashtra 400101
[View larger map](#)

This case has been Accepted

7. User can get notification on mail

csxbribe@gmail.com
to me
14:04 (1 minute ago)

Your case with case ID cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96 has been accepted

csxbribe@gmail.com
to me
14:05 (0 minutes ago)

Your case with case ID cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96 has been accepted

[Reply](#) [Forward](#)

XBribe: Case Resolved! [Inbox x](#)

csxbribe@gmail.com
to me
Your case with case ID a48a1f3c-54af-4b44-98bd-2595c68c5f91 has been resolved

csxbribe@gmail.com
to me
Your case with case ID cfb51fcd-5f1c-4abf-a3b5-5dca72a7ed96 has been resolved

[Reply](#) [Forward](#)

8. Admin can see any spam cases

Administrator

DASHBOARD PUBLIC HOME SEE CASES FILTER POSTS LOGOUT

ADMINISTRATOR

Spam Complaints

Below are newly registered complaints classified as spam

Type a keyword and hit enter

Successfully fetched 1 results in 1 pages

S.NO.	DEPARTMENT	CASE ID	DATE	PLACE	STATUS	PRIORITY	RESOLVE DATE
1.	Department of Agricultural Research and Education (DARE)	34c72d7b-23e5-43b4-b8f5-22b25957e6b5	10/30/2021, 2:38:01 PM	thane	resolved	High	10/30/2021, 2:53:41 PM

9. Admin can filter cases

Select filters

Ministry
Ministry of Communications

Date (From): dd-....yyyy Date (To): dd-....yyyy

Case Status
Accepted

Order By
Newest first

Posts per page
20

APPLY FILTER

10. User can send feedback

Send Feedback

Shweta shwetzghadge99@gmail.com

Thank you for resolving my complaint very soon.

SEND FEEDBACK

11. Admin can see feedback

XBribe: Feedback from a User (Shweta) Inbox x

csxbribe@gmail.com
to me ▼

Name: Shweta
Email: shwetzghadge99@gmail.com
Message: Thank you for resolving my complaint very soon.
Dated: 1/4/2022, 2:09:40 PM

Reply Forward

6. CONCLUSION

The Xbribe is a digital solution which is a bribery reporting website focusing on bringing user privacy, user utility and administration utility under one place. We hope this website serves the community to build a crime-free society.

The main aim of the project was to create an online portal, where one could post complaints for a government official who possibly could have asked for the bribe and showcased unprofessional behavior in their duty. This portal gives an opportunity to a common person to register any minor or major complaints related to bribe cases and let the higher authorities take the strict actions on such bribe crimes. By using this website, we can live in a world which can be corruption-free and bribery-free.

7. REFERENCE

- <https://ficci.in/SEdocument/20254/FICCI-EY-Report-Bribery-corruption.pdf>
- <https://timesofindia.indiatimes.com/topic/bribery-case>
- <https://www.ibef.org/economy/directory/ministries-and-departments-in-india>
- <https://docs.mongodb.com/>
- <https://github.com/jquery/jquery>
- <https://www.codegrepper.com/codeexamples/javascript/encrypt+and+decrypt+in+js>