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# Cyber Security

## Awareness for Citizens



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## MESSAGE

In this growing digital age, we have become more dependent on the internet for many of our daily activities. There are both advantages and disadvantages of using internet. Everyday, we see new cyber crimes being reported. Though Government agencies are equipped to deal with cyber crimes, it is our duty to take precautions to remain safe.

It is a proven fact that if we are aware about how various cyber crimes are committed, then it helps us to protect ourselves and our family from such frauds. Preventing crimes and protecting women and children in cyber space is the objective of this initiative.

I am happy to know that Maharashtra Cyber is bringing out the Cyber Security Awareness Booklet. I am sure that the tips given in the Cyber Security Awareness Booklet will help you to avoid everyday cyber frauds.

I wish all the best to the Maharashtra Cyber team in their endeavour to keep the state of Maharashtra cyber safe and secure.

*Yours truly,*

*3Exn*  
**(Uddhav Balasaheb Thackeray)**

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# Acknowledgement

Maharashtra Cyber is a nodal agency for conceptualization and implementation of all the Cyber initiatives/programs for the State of Maharashtra. The department was established by the Home Department of Government of Maharashtra as the Office of Special Inspector General of Police, Maharashtra Cyber, vide GR No. MISC-2015/CR-119/Spl-3A, dated 5<sup>th</sup> January 2015. Currently, Shri Brijesh Singh – Special Inspector General of Police is the head of this department.

Maharashtra Cyber works closely with district police personnel, cyber-security experts, law enforcement agencies/public prosecutors, pleaders/judicial officials in digital forensics to proactively thwart the cyber threats arising in the State of Maharashtra. As a nodal agency, the department focuses on spreading awareness to the Government officials, corporates & public at large about cyber security and building capability for Maharashtra Police in combating cybercrime.

Maharashtra Cyber would like to acknowledge the contribution made by **Directorate General of Information and Public Relations (DGIPR)** for providing support in publishing this booklet specially Shri. Ajay Ambekar, Ms. Mayura Deshpande and Ms. Reshma Tamboli; **PricewaterhouseCoopers Pvt. Ltd.** for supporting as the Knowledge Partner for this booklet specially Mr. Rahul Aggarwal, Mr. Krishna Sastry, Mr. Vikas Sood, Ms. Nidhi Khator, Mr. Raj Sawant, Mr. Tanmay Barhale, Mr. Dipankar Tripathy, Mr. Chinmay Vaidya and Mr. Akshat Agarwala who have contributed immensely in drafting the content, designing the graphics and managing the entire project from conceptualization to publication of the booklet.

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# **IMPORTANCE OF CYBER SECURITY**

# IMPORTANCE OF CYBER SECURITY

## Why is Cyber Security Awareness Important?

Advanced technologies have changed the modern way of life. The internet provides us with many benefits. Be it communicating with friends, searching for information, doing banking transactions, availing online services, finding job, finding life partner or even running entire businesses. The internet touches almost all aspects of our lives. However, it also makes us vulnerable to a wide range of threats.

New and powerful cyber-attacks are striking the internet regularly. A minor lapse in managing our digital lives can open the door to cyber criminals. Cyber criminals can steal our money or damage our reputation. According to a study by a leading industry research organization, 90% of all cyber-attacks are caused by human negligence. Therefore, cyber security awareness is important for everyone today.

We must be vigilant while making use of technology to reduce the risk of cyber threats.

## Types of Cybercrime

A cybercrime is a crime involving computers and networks. This includes a wide range of activities, from illegally downloading music files to stealing money from online bank accounts. Cyber criminals are not always financially motivated. Cybercrimes include non-monetary offenses as well. It can include frauds such as job related frauds, matrimonial frauds; stealing and misusing sensitive personal information (Aadhaar details, credit/debit card details, bank account credentials, etc.); defamation of an individual on social media; distribution of computer viruses etc. Cybercrimes can also lead to physical or sexual abuse.

In this booklet, we will discuss following common types of cybercrimes prevalent today.

Identity Theft

Psychological Tricks

Social Media related Attacks

Digital Banking Frauds

Attacks through Mobile Applications

Virus Attacks on Personal Computer

# **IDENTITY THEFT**

# IDENTITY THEFT

## What is Identity Theft?

Identity theft is the act of wrongfully obtaining someone's personal information (that defines one's identity) without their permission. The personal information may include their name, phone number, address, bank account number, Aadhaar number or credit/debit card number etc.

Identity theft can have many adverse effects. The fraudster can use stolen personal information and identity proofs to:

- gain access to your bank accounts
- apply for loans and credit cards or open insurance accounts
- file a tax refund in your name and get your refund
- obtain a driver's license, passport or immigration papers
- create new utility accounts
- get medical treatment on your health insurance
- assume your identity on social media
- give your name to the police during an arrest etc.

Hence, everyone should be aware about identity theft and should know how to prevent it. Let us look at some examples of identity theft.

### Hacking or gaining access to Social Media Accounts

The attacker hacks or gains access to the social media account of the victim. The attacker can then harm the victim by misusing their personal information and photographs. The attacker can also post offensive content on victim's profile or defame the victim.

### Misuse of photo copies of identity proofs

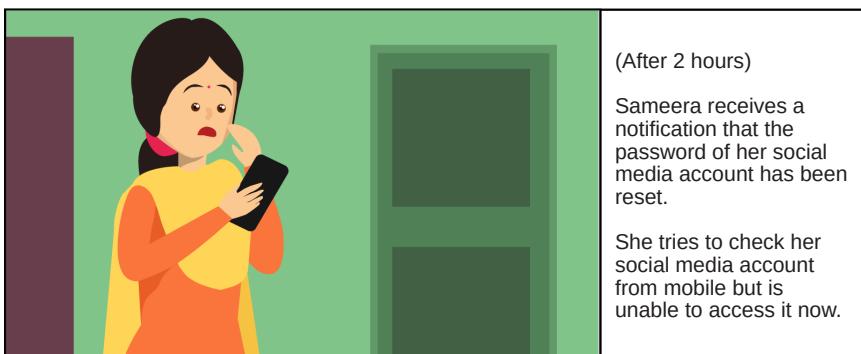
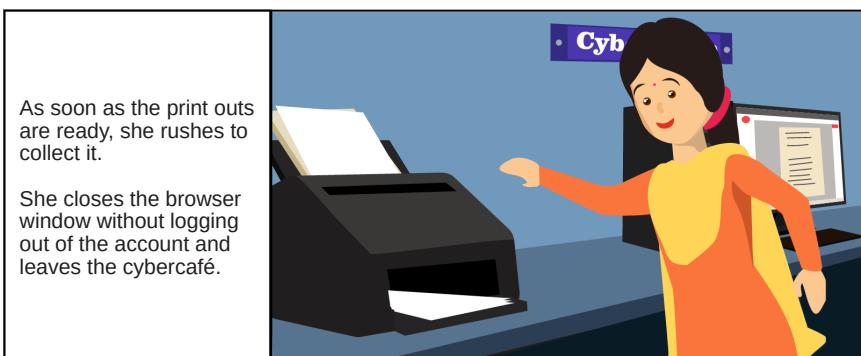
The attacker misuses the photo copies of identity proofs of the victim. These can be PAN Card, Aadhaar Card or any other identity proof of the victim. The attacker can use these photo copies to steal money or cause harm to the victim.

### Credit/Debit Card Skimming

Credit/Debit card skimming is done using a small device called skimmer. The magnetic stripe of the card stores details such as name, credit/debit card number and expiration date. First, the credit/debit card is swiped through a skimmer. Then, the skimmer captures all these details. Thieves use this stolen data to make online transactions. They also use this data to create duplicate credit/debit cards and withdraw money from ATM.

# IDENTITY THEFT

## Story 1: Hacking or gaining access to Social Media Accounts



Sameera gets a call from her Boss stating that the confidential project documents were leaked on the Internet by her.

She again receives a call from her friend saying that her social media page shows obscene images and videos.



Sameera loses her job due to leaking of the project documents.

Moreover, she is ashamed that her photoshopped obscene images are posted on social media.

She regrets that she did not log out of her social media account.

Sameera decides to report the incident in the Police Station.  
The Inspector investigates the matter and arrests the culprit.

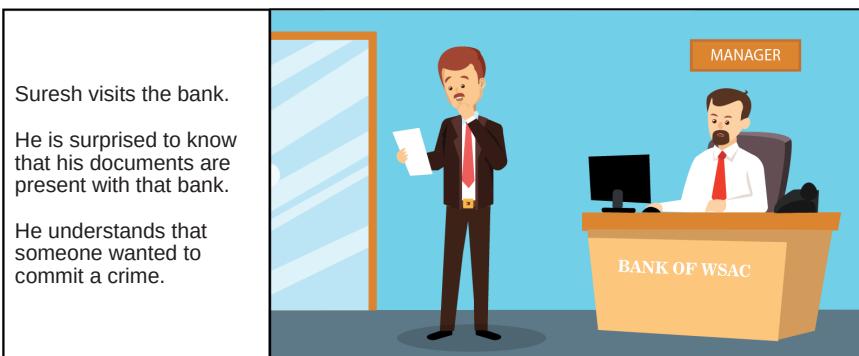
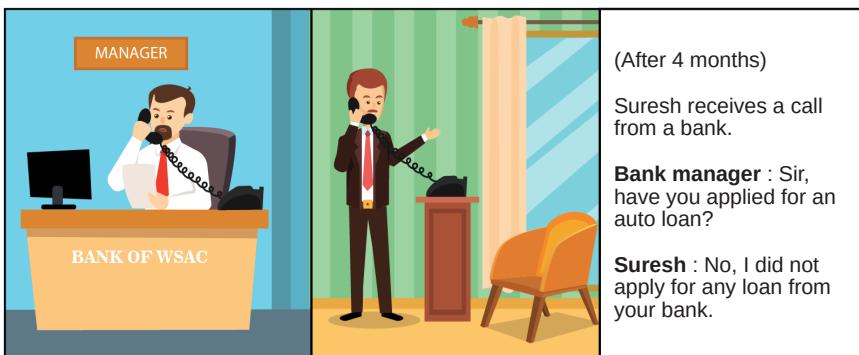


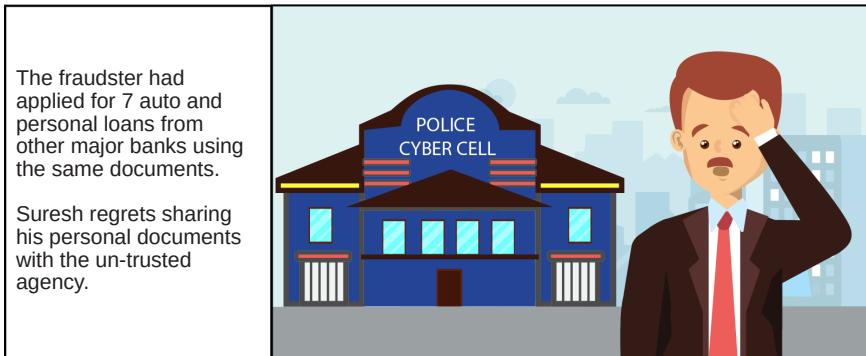
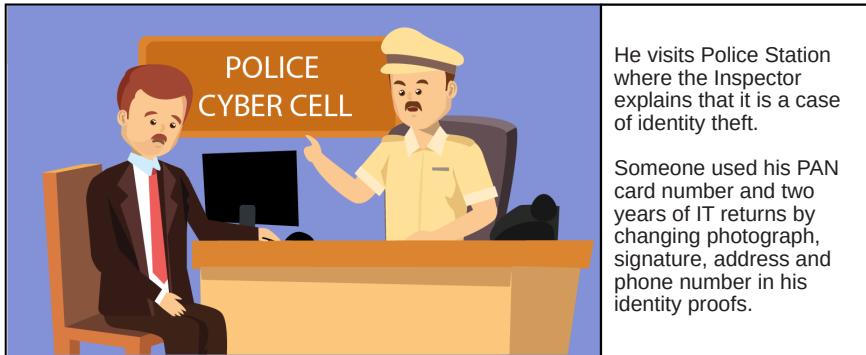
## TIPS

- Do not close the browser window without logging out of the account.
- Use 2-step verification such as one-time password (OTP) while using someone else's computer.
- Do not save your username and password in the web browser.
- Register your mobile number with social networking sites to get alerts in the event of un-authorized access.
- Permanently delete all documents downloaded on computers in cybercafé.

# IDENTITY THEFT

## Story 2: Misuse of photo copies of identity proofs





## TIPS

- Never provide details or copy of identity proofs (e.g. PAN Card, Aadhaar Card, Voter Card, Driving License, Address Proof) to unknown person/organization.
- Be careful while using identity proofs at suspicious places.
- Do not share sensitive personal information (like Date of Birth, Birth Place, Family Details, Address, Phone Number) on public platforms.
- Always strike out the photo copy of the identity proof; write the purpose of its usage overlapping the photo copy. This way, it becomes difficult to reuse the photo copy.
- Do not leave your credit, debit or ATM card receipts behind, in places such as a bank/ATM or a store; never throw them away in public.

# IDENTITY THEFT

## Story 3: Credit/Debit Card Skimming

Sachin and his friends are having dinner at a restaurant. The waiter gives the bill to Sachin.

**Sachin :** Do you accept card payment?

**Waiter :** Yes Sir.

Sachin hands over the debit card to the waiter for payment.



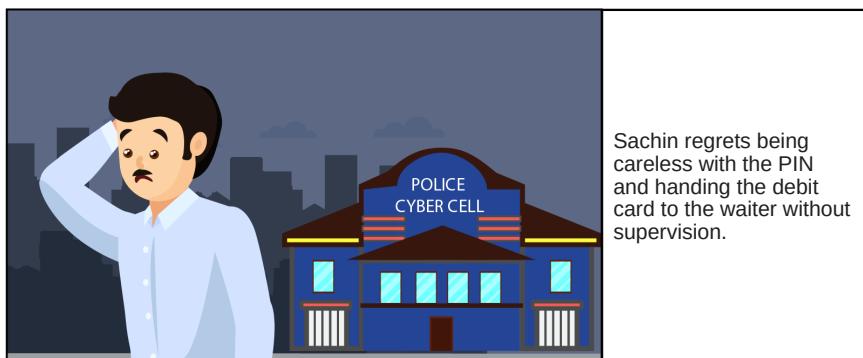
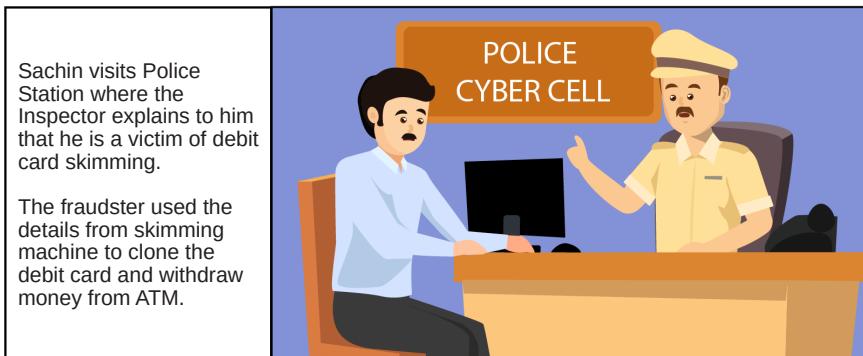
The waiter takes it to the billing counter where he secretly swipes the card in a skimming machine to capture card information.

The skimming machine looks just like a normal payment machine (usually seen in restaurants, shops etc.)

The waiter brings the card payment machine over to Sachin for him to enter the PIN. Sachin enters the PIN carelessly without hiding it from the people around him.

The waiter makes a note of the PIN.





## TIPS

- Always ensure that credit/debit card swipes at shopping malls, petrol pumps, etc. are done in your presence. Do not allow the sales person to take your card away to swipe for the transaction.
- Look out for credit/debit card skimmers anywhere you swipe your card, especially at petrol pumps, ATMs etc.
- If you notice a credit/debit card reader that protrudes outside the face of the rest of the machine, it may be a skimmer.
- Never share your PIN with anybody, however close they might be.

# **PSYCHOLOGICAL TRICKS**

# PSYCHOLOGICAL TRICKS

## What are Psychological Tricks?

Psychological tricks are where attackers play with the minds of the user to trap them with lucrative offers. Once trapped, the attackers can exploit the victim by either stealing money or stealing sensitive personal information (name, Aadhaar details, bank account details etc.) or harm the victim in any other way. The entire basis of this kind of attack is to make the victim fall into their trap by sending fake e-mails, calls or SMSs.

**Phishing** is the act of sending fraudulent e-mail that appears to be from a legitimate source, for example, a bank, a recruiter or a credit card company etc. This is done in an attempt to gain sensitive personal information, bank account details etc. from the victim.

**Vishing** is similar to phishing. But, instead of e-mail, in this type of crime, the fraudster uses telephone to obtain sensitive personal and financial information.

**Smishing** is the SMS equivalent of phishing. It uses SMS to send fraudulent text messages. The SMS asks the recipient to visit a website/weblink or call a phone number. The victim is then tricked into providing sensitive personal information, debit/credit card details or passwords etc.

Phishing, Vishing and Smishing are done in an attempt to steal money from the victim or cause any other harm to the victim.

Let us look at some examples of psychological tricks.

### Lottery Fraud

The fraudster congratulates the victim for winning a handsome lottery via e-mail/call/SMS. The victim is delighted and is eager to get the lottery money. The fraudster asks the victim to transfer a token amount and share vital personal information to get the lottery money. The victim loses his/her money and does not get anything in return.

### Credit/Debit Card Fraud

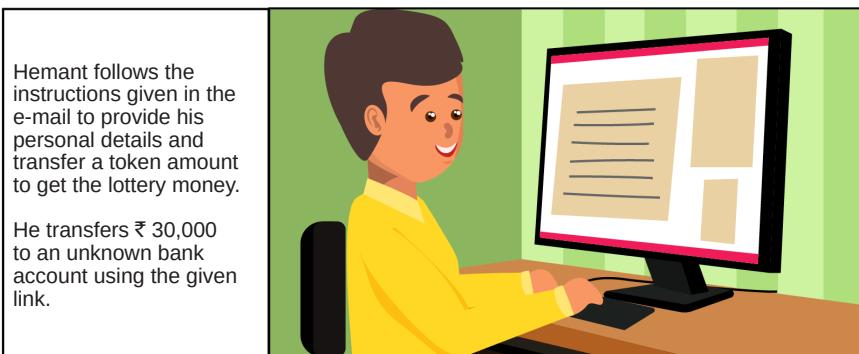
The attacker tries to scare the victim by informing them that their credit/debit card has been blocked. The victim becomes worried and starts panicking. The attacker takes advantage of this situation and asks victim to provide sensitive personal information to re-activate the card. This information is then misused to steal money or cause harm to the victim.

### Job Related Fraud

The attacker sends a fake e-mail to the victim offering a job with an attractive salary. The victim, unfortunately, believes it and follows the instructions. The attacker then steals the money or harms the victim physically.

# PSYCHOLOGICAL TRICKS

## Story 1: Lottery Fraud



**Hemant** : Ravi, my wait is finally over, I won the lottery worth ₹ 25 lakhs. Check this e-mail.

**Ravi** : This is a fake e-mail. This is not the website from where you purchased the lottery ticket. Don't transfer any money to them.



**Hemant** (shocked) : I already transferred ₹ 30,000!

**Ravi** : Report to the nearest police station immediately.

Hemant regrets that he lost his money as he did not think rationally and believed the e-mail without verifying its authenticity.

## TIPS

- Do not respond to messages from unknown source requesting personal or financial details even if it assures credit of money into your bank account.
- Do not respond to suspicious e-mails or click on suspicious links.
- Do not transfer money to any un-trusted unknown account.
- Remember you can never win a lottery if you have not participated in it.
- Always verify the correctness of the domain of the e-mail ID, for example, all government websites have ".gov.in" or ".nic.in" as part of their web address.
- Have proper spam filters enabled in your e-mail account.

# PSYCHOLOGICAL TRICKS

## Story 2: Credit/Debit Card Fraud

**Caller :** Hello, am I speaking to Ms. Manisha? I'm calling from your bank. Your debit card has been blocked due to suspicious activities. I need to verify your details to re-activate your card. Please provide your debit card number and PIN.



**Manisha :** But, how do I believe whether it's really blocked?

**Caller :** Is this Manisha living in Sunflower Society in Delhi, having savings account in the bank?

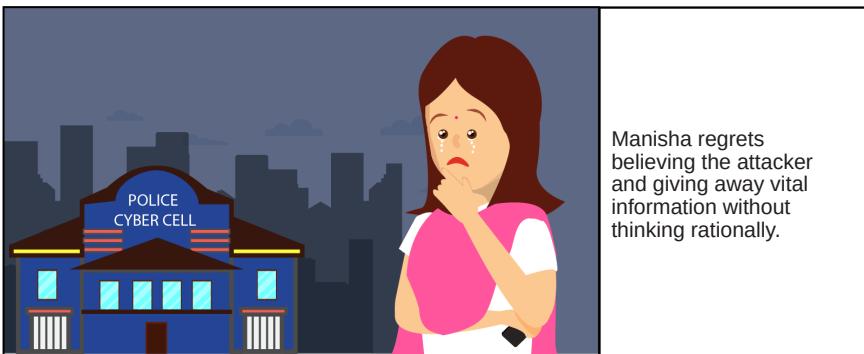
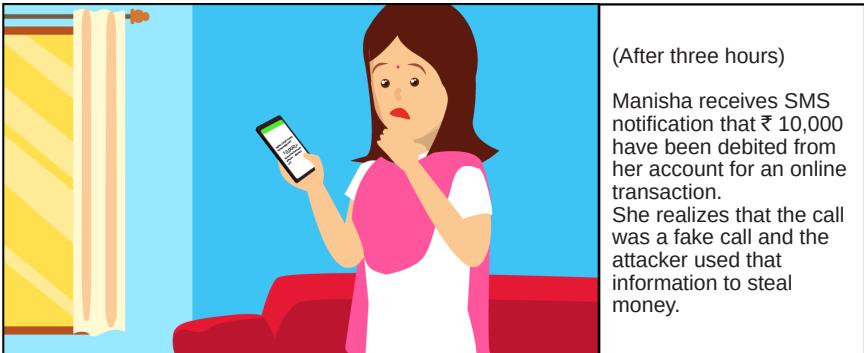
**Manisha :** Yes, the information you gave is correct.

**Caller :** We already have your details Ma'am, we just need to verify them. Please provide your debit card number and PIN.

(Manisha provides the details asked by the caller)

**Manisha :** Please re-activate my debit card soon.



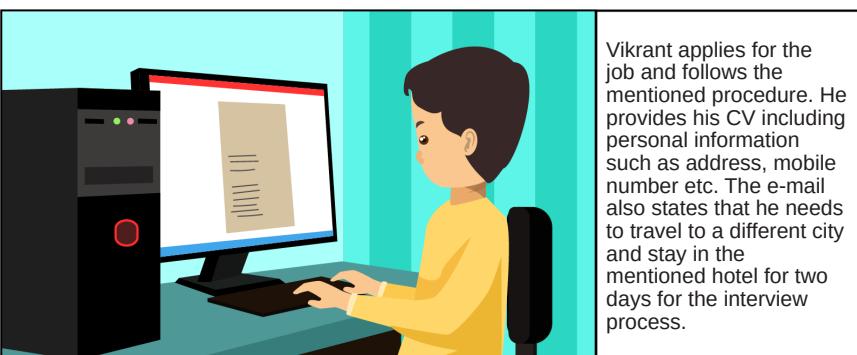


## TIPS

- Do not get petrified if you receive a call stating that your card is blocked. Bank will never convey such information on call.
- Do not share your PIN, password, card number, CVV number, OTP etc. with any stranger, even if he/she claims to be bank employee. Bank will never ask for any vital information.
- Keep your bank's customer care number handy so that you can report any suspicious or un-authorized transactions on your account immediately.

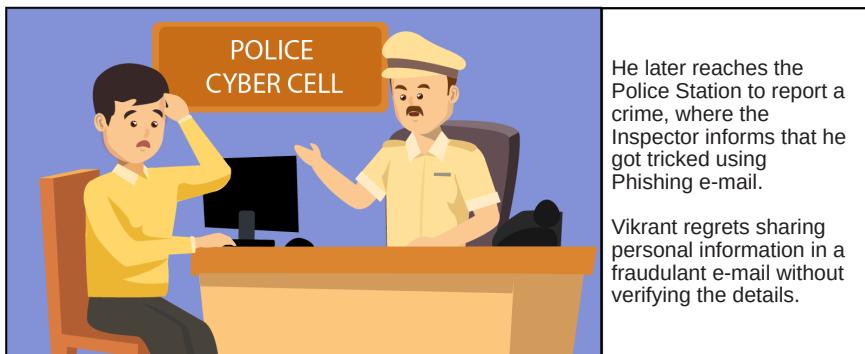
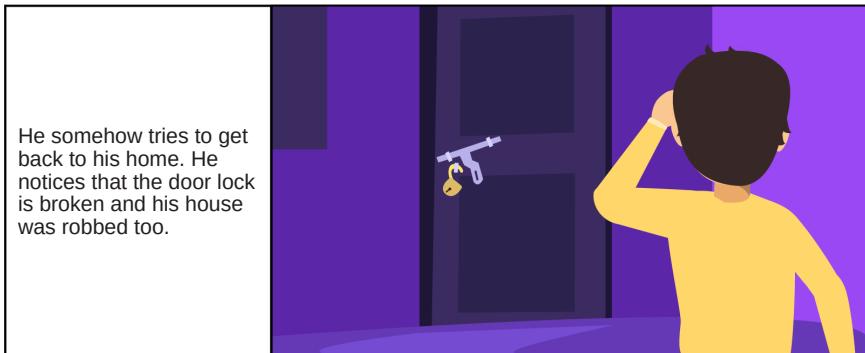
# PSYCHOLOGICAL TRICKS

## Story 3: Job Related Fraud





Once he wakes up, he finds himself lying on the street, all his belongings were gone. He realizes that he was robbed.



## TIPS

- Always search and apply for jobs posted on authentic job portals, newspapers etc.
- Check if the domain of the e-mail is the same as the one you have applied with. For example, all government websites have ".gov.in" or ".nic.in" as domain.
- If an e-mail has spelling, grammatical and punctuation errors, it could be a scam.
- Beware of the fake calls/e-mails impersonating themselves as recruiters and requesting for personal information or money.

# **SOCIAL MEDIA FRAUDS**

# SOCIAL MEDIA FRAUDS

## What are Social Media Frauds?

Social Media has become an integral part of our lives. It is the new way of communicating, sharing and informing people about the events in our lives. We share our day to day lives on social media in the form of self and family photographs, updates on our locations/whereabouts, our views/thoughts on prevalent topics etc. One can understand the entire history of an individual through their social media profile and can even predict future events based on patterns in the past.

This poses a threat to an individual as unwanted access to social media profile can cause loss of information, defamation or even worse consequences such as physical/sexual assault, robbery etc. Hence, protection and appropriate use of social media profile is very important.

Let us look at some examples of social media frauds.

### **Sympathy Fraud**

The attacker becomes friends with the victim on social media. The attacker gains trust by frequent interactions. The attacker later extracts money/harms the victim.

### **Romance Fraud**

The attacker becomes friends with the victim on social media. Over a period, the attacker gains victim's affection. The attacker later exploits the victim physically, financially and/or emotionally.

### **Cyber Stalking**

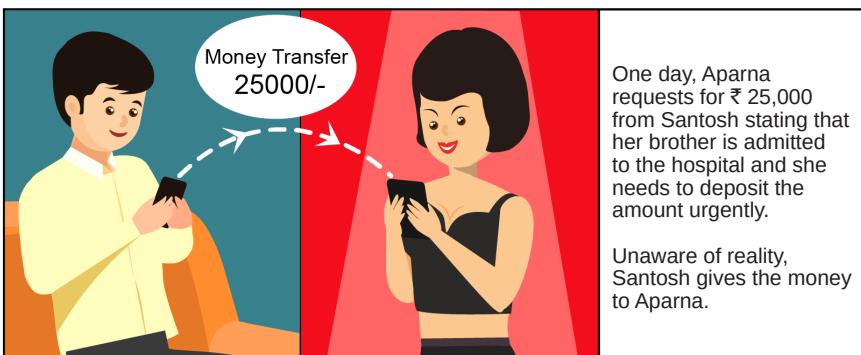
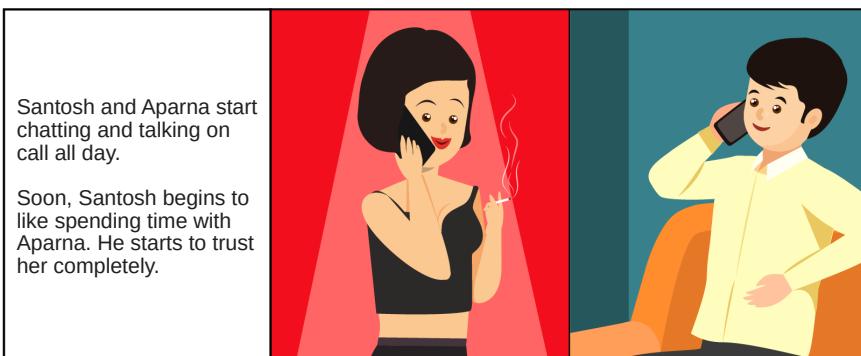
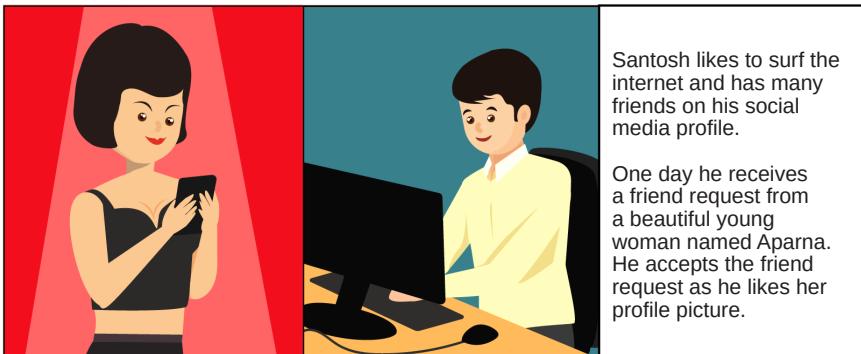
Cyber stalking is a crime in which the attacker harasses a victim using electronic communication, such as e-mail, instant messaging (IM), messages posted on a website or a discussion group. A cyber stalker relies upon the fact that his/her true identity is not known in the digital world. A cyber stalker targets the victim with threatening/abusive messages and follows them/their activities in the real world.

### **Cyber Bullying**

Cyber bullying is bullying that takes place over digital devices. Cyber bullying can occur through SMS, social media, forums or gaming apps where people can view, participate or share content. Cyber bullying includes sending, posting or sharing negative, harmful, false content about someone else. The intention is to cause embarrassment or humiliation. At times, it can also cross the line into unlawful criminal behavior.

# SOCIAL MEDIA FRAUDS

## Story 1: Sympathy Fraud



Aparna flees, never to be seen again.

Worried about her whereabouts, Santosh decides to report the same to the Police Station.



POLICE  
CYBER CELL



Santosh files a missing complaint at Police Station.

The Inspector explains that this is a very common crime and he has been a victim of sympathy fraud.

The Inspector investigates the matter and catches Aparna. Santosh realizes that Aparna was a fraud.

He regrets trusting a random stranger on social media and giving such a large amount of money to her.

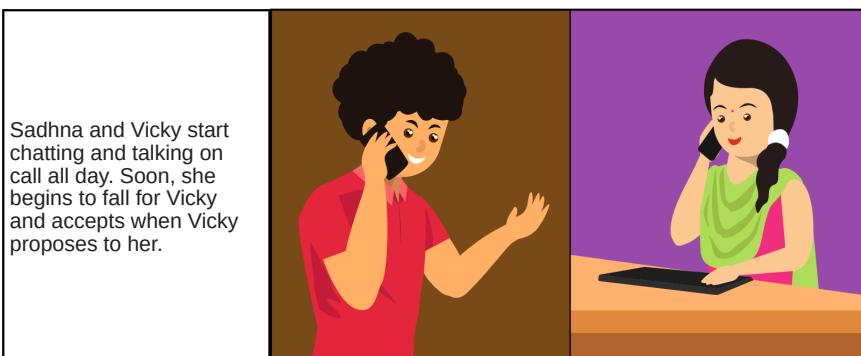
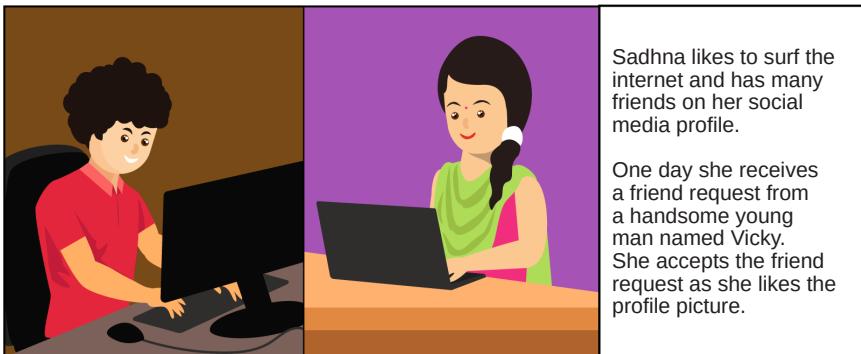


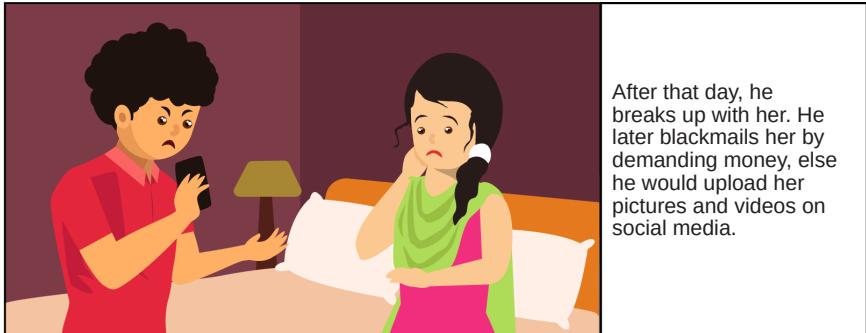
## TIPS

- Be careful while accepting friend request from strangers on social media. Cyber criminals often create fake social media profile to befriend potential victims with an intention to harm them.
- Do not share personal details or get into financial dealings with an unknown person whom you have met on social media platform.
- Keep family/friends informed, in case you plan to meet a social media friend. Always plan such meetings in public places.

# SOCIAL MEDIA FRAUDS

## Story 2: Romance Fraud



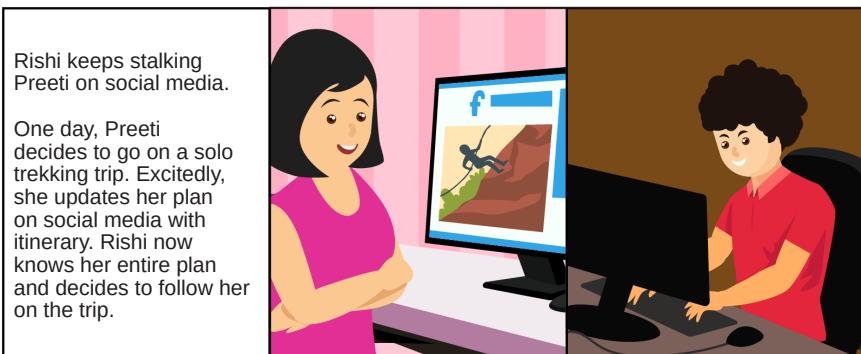
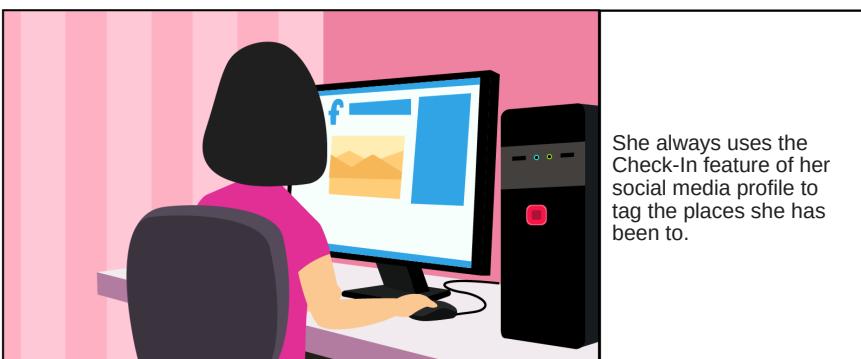


## TIPS

- Be cautious while responding to unknown friend requests on social media platforms. Do not respond to unknown friend requests.
- Never share intimate pictures with anyone on online platform as they can be misused later.
- Do not share personal details or get into financial dealings with an unknown person whom you have met on social media platform.

# SOCIAL MEDIA FRAUDS

## Story 3: Cyber Stalking

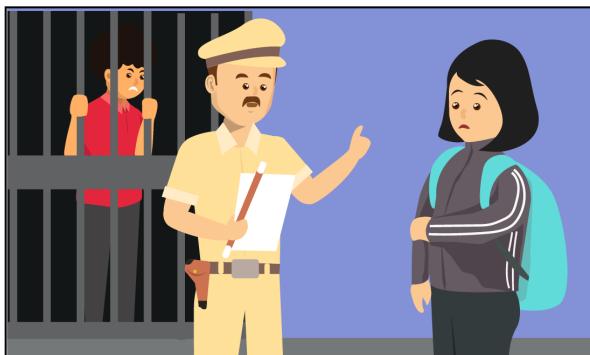




Rishi follows her near the mountain where he finds her alone and molests her.



Preeti cries and shouts for help. Rishi runs away before anyone arrives there for help.



Preeti visits Police Station where the Inspector investigates the case. The Inspector tracks the whereabouts of Rishi and arrests him.

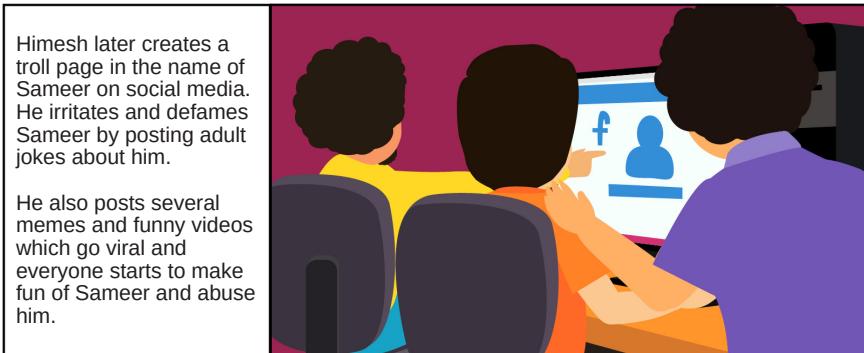
Preeti regrets sharing her trip itinerary publicly on social media.

## TIPS

- Restrict access to your profile. Social media sites offer privacy settings for you to manage who can view your posts, photos, send you friend request etc.
- Ensure your personal information, photos and videos are accessible only to your trusted ones.
- Be careful while uploading your photos on social media which show your location or places you frequently visit as cyber stalkers may keep tabs on your daily life.

# SOCIAL MEDIA FRAUDS

## Story 4: Cyber Bullying





## TIPS

- Be careful :
  - If your child's behavior is changing and he/she is more aggressive than before.
  - If suddenly your child stops talking with you or his/her friends.
  - If he/she stops using digital devices or is scared.
- Make your children aware that cyber bullying is a punishable crime so that neither do they indulge themselves in cyber bullying nor do they let anyone tease them.
- Discuss safe internet practices with your friends and family regularly.
- Monitor your kid's activity on internet/social media. Enable parental controls on computer/mobile devices.
- Even if the children or students know about any friend who is a victim of cyber bullying, they should help the victim. Report the matter to parents or teachers immediately.
- Do not delete offensive messages as it will help the police in investigation.

# **MOBILE APPLICATION FRAUDS**

# MOBILE APPLICATION FRAUDS

## How mobile applications can be used for cyber frauds?

With the increase in the use of smartphones and the consequent rise in the use of mobile applications, associated security risks have also increased. The number of mobile transactions has increased four times in the last couple of years, and now, cyber criminals are targeting mobile users to extract data and money.

Mobile applications are widely used not only for entertainment but also for ease and convenience to perform day-to-day tasks such as bill payments, bank accounts management, service delivery etc. As a result, these applications are more prone to cyber-attacks. Users need to be aware of such attacks on commonly used mobile applications such as digital payment applications and gaming applications.

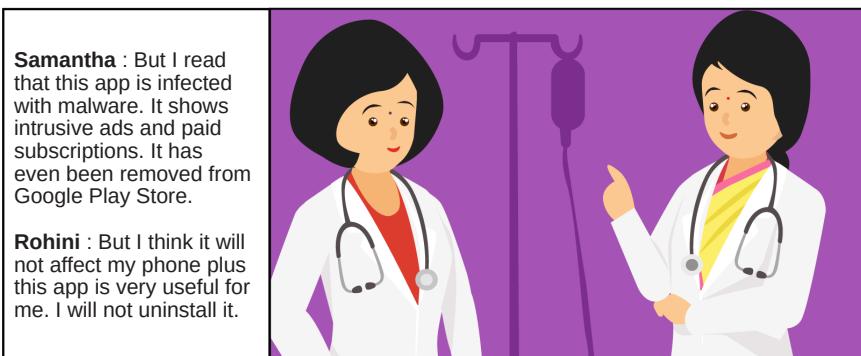
Let us look at some day to day example on how mobile applications can be used for cyber frauds.

### Cyber-attacks using Infected Mobile Applications

People become habitual users of certain mobile applications. As a result, they ignore security warnings. Fraudsters use this to attack the victim by infiltrating through such popular mobile applications. They infect the applications with malicious software, called Trojan. This Trojan can get access to your messages, OTP, camera, contacts, e-mails, photos etc. for malicious activities. It can also show obscene advertisements, sign users up for paid subscriptions or steal personal sensitive information from the mobile etc.

# MOBILE APPLICATION FRAUDS

## Story 1: Cyber-Attacks using Infected Mobile Applications



Rohini feels embarrassed to have opened such advertisements in front of her colleagues.

**Samantha** : Don't worry, it's not your mistake.  
Don't feel embarrassed.



**Rohini** : It is. I should have uninstalled this app when I had the chance. This app has also signed me up for paid subscriptions without my notice.

Rohini regrets that she ignored the warnings and continued using an infected mobile application.

## TIPS

- Always install mobile applications from official application stores or trusted sources.
- Scrutinize all permission requests thoroughly, especially those involving privileged access, when installing/using mobile applications.  
For example, a photo application may not need microphone access.
- Regularly update software and mobile applications to ensure there are no security gaps.
- Beware of malicious applications or malicious updates in existing applications. Clear all the data related to the malicious application and uninstall it immediately.

# **ONLINE BANKING FRAUDS**

# ONLINE BANKING FRAUDS

## What are Online Banking Frauds?

Nowadays, all banking services are shifting online. Services like retrieving account statement, funds transfer to other accounts, requesting a cheque book, preparing demand draft etc. can all be done online. Most of these services can be done sitting at home without physically visiting the bank. As the services are shifting towards online platforms, cyber frauds related to banking are also increasing. Just like we protect our locker full of jewelry with a lock and key, we must protect our online bank accounts with strong passwords. If the key is stolen, then the jewelry will be stolen. Similarly, if the password is stolen, then the money in the bank accounts will be stolen. Hence, protection of bank accounts with strong passwords becomes highly essential.

Let us look at some examples of online banking fraud.

### **Digital Payments Applications related attacks**

Digital payments have become very common in today's life. However, they do pose a threat if the account is hacked.

### **Hacking of Bank Account due to Weak Password**

In this type of attack, the attacker hacks into the victim's account by using a program to guess commonly used passwords. Once the account is hacked, the attacker can steal money or perform an illegal transaction in order to defame or frame the victim.

### **Hacking of Multiple Accounts due to same password**

If same password is used for multiple accounts, then hacking of one account may also lead to hacking of other accounts.

# ONLINE BANKING FRAUDS

## Story 1: Digital Payments Applications Related Attacks

John and Sahil always use digital payments applications in their day-to-day lives for convenience.

They pay house bills, grocery expenses and any other expenditure using digital payments applications.



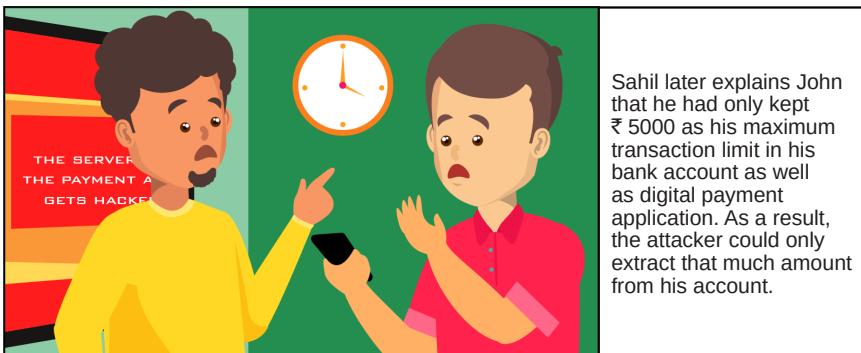
THE SERVER OF THE PAYMENT APP GETS HACKED

They read news on TV that the server of the payment applications is hacked.

Multiple accounts are affected and many users face financial loss due to this.

John losses all the money in his account.

However, Sahil losses only ₹ 5,000 from his account.



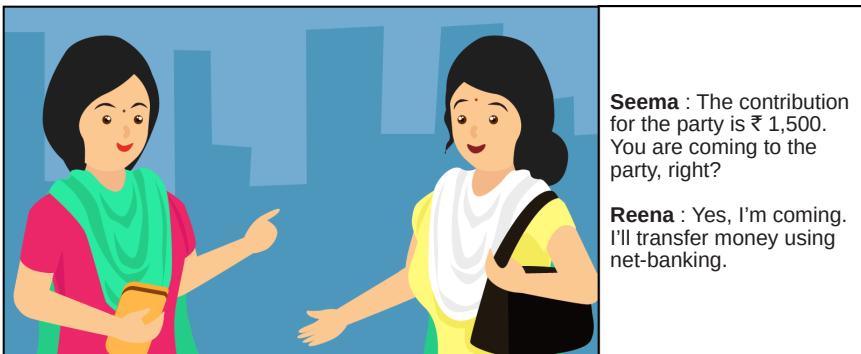
Sahil later explains John that he had only kept ₹ 5000 as his maximum transaction limit in his bank account as well as digital payment application. As a result, the attacker could only extract that much amount from his account.

## TIPS

- Never share your mobile unlocking PIN or passwords with anyone.
- Register your personal phone number and e-mail with your bank and subscribe to notifications. These notifications will quickly alert you on any transaction and the unsuccessful login attempts to your net-banking account.
- Always review transaction alert received on your registered mobile number and reconcile with the amount of your purchase.
- Always keep a maximum transaction limit for your bank account.
- Secure your applications with strong password and 2-step verification (such as OTP), even for transactions below your maximum transaction limit.
- Uninstall any compromised/malicious application immediately.

# ONLINE BANKING FRAUDS

## Story 2: Hacking of Bank Account due to Weak Password



**Seema :** The contribution for the party is ₹ 1,500. You are coming to the party, right?

**Reena :** Yes, I'm coming. I'll transfer money using net-banking.

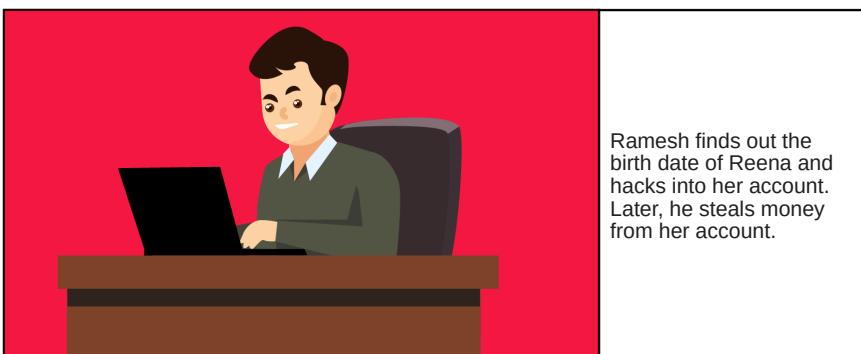


**Seema :** I'll do it from your phone. What's your password?

**Reena :** You know it, don't you! It's my birth date.

Ramesh is eavesdropping. He listens to the entire conversation.

Ramesh finds out the birth date of Reena and hacks into her account. Later, he steals money from her account.





Reena visits Police Station. The Inspector investigates the case and finds out Ramesh was the culprit.

Ramesh confesses to his crime and says he heard Reena give up the password.



#### **Techniques for strong password which are easy to remember:**

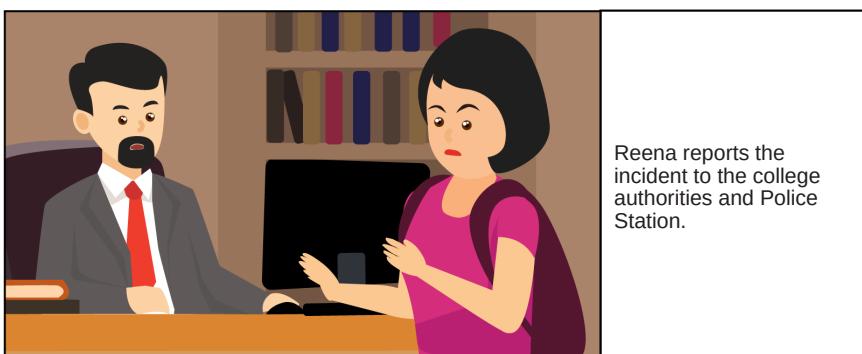
- For making unique passwords, create as many pass-phrases and words as possible (different passwords for different accounts) For example:
- shopping – \$h0pp!n9 (S =\$, i!=, g=9, o=0)
- october – 0cT0b3r9!  
(one more alphabet/number '9' is added as "october" is a 7 letter word)
- Social Network – \$0cialNetw0rK
- Windows – w!nD0W\$9
- NULinux – 9NuL!NuX  
(one more alphabet/number '9' is added as "NULinux" is a 7 letter word)

#### **TIPS**

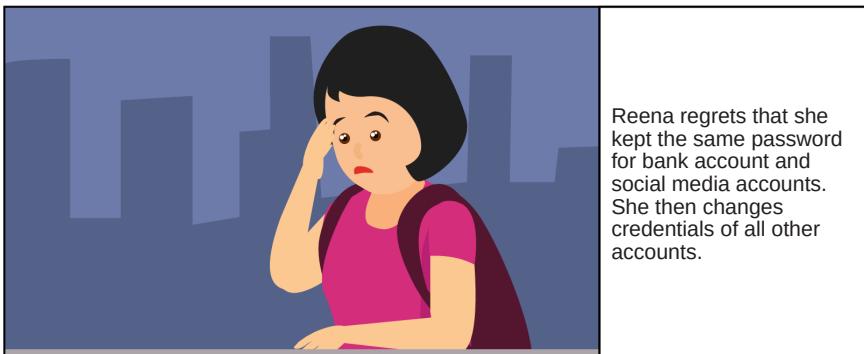
- Set your passwords to be at least 8 characters long.
- Make the passwords stronger by combining letters, numbers and special characters.
- Use a different password for each of your accounts and devices.
- Use 2-step verification (such as OTP) whenever possible.
- If one of your online accounts has been hacked, immediately log in and change the password to a strong, unique password.
- Do not share your passwords/PIN with anyone.
- Do not save your usernames and passwords in the web browser.

# ONLINE BANKING FRAUDS

**Story 3:** Hacking of Multiple Accounts due to same password



The Inspector explains that her social media account was also hacked as she had kept the same password for bank account and social media account.



Reena regrets that she kept the same password for bank account and social media accounts. She then changes credentials of all other accounts.

## TIPS

- Set your passwords to be at least 8 characters long.
- Make the passwords stronger by combining letters, numbers and special characters.
- Use a different password for each of your accounts and devices.
- Keep updating your password periodically.
- Use 2-step verification (such as OTP) whenever possible.
- If one of your online accounts has been hacked, immediately log in and change the password to a strong, unique password.
- Do not share your passwords/PIN with anyone.
- Do not save your usernames and password in the web browser.
- Avoid checking 'Keep me logged in' or 'Remember me' options on websites, especially on public computers.

# **VIRUS ATTACK ON PERSONAL COMPUTER**

# VIRUS ATTACK ON PERSONAL COMPUTER

## **Virus Attack on Personal Computers/Laptops**

Personal Computers or laptops play a very important role in our lives. We store our crucial information such as bank account numbers, business documents etc. in the computer. We also store personal files like photos, music, movies etc. in the computer. Therefore, protection of all this data is highly essential. Just as we keep a physical lock on our safe vaults, it is equally important to protect our valuable data from viruses/malicious applications that can damage it.

Let us look at some examples on how our personal computer can get affected by virus.

### **Virus Attack through external devices**

A virus can enter the computer through external devices like pen drive or hard disk etc. This virus can spread across all the computer files.

### **Virus Attack by downloading files from un-trusted websites**

The virus can enter the computer by download of files from un-trusted websites. The virus can be hidden in the form of music files, video files or any attractive advertisement. This virus can spread across all the computer files.

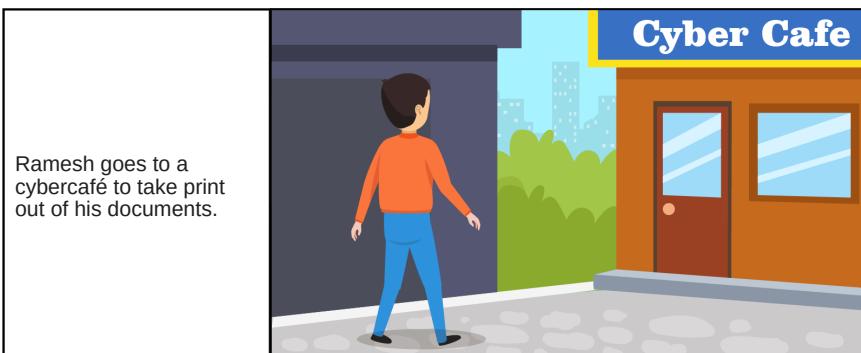
### **Virus Attack by installation of malicious software**

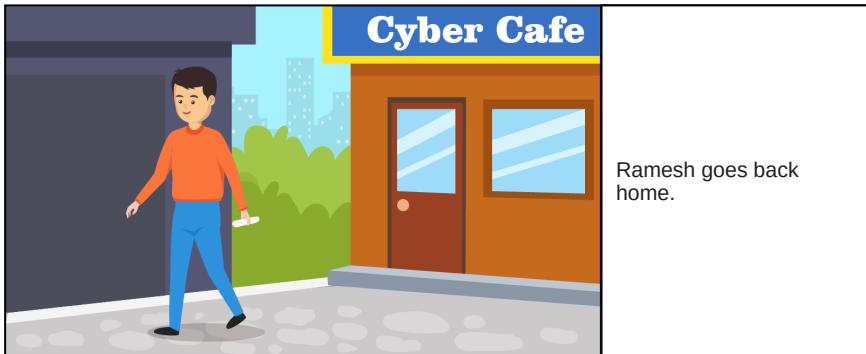
The virus can enter into the computer by installing software from un-trusted sources. The virus can be an additional software hidden inside unknown game files or any unknown software. This virus can spread across all the computer files.

A Virus/Malicious application can cause various harms such as slowing down the computer, lead to data corruption/deletion or data loss.

# VIRUS ATTACK ON PERSONAL COMPUTER

**Story 1:** Virus Attack through external devices





Oh! I need to take more print outs, let me put more documents in the USB drive.

Ramesh connects USB drive to his computer. The virus gets transferred to his computer.

The computer slows down due to virus infection.





Ramesh loses his personal photos, videos, games, scanned documents, health reports and other important documents.

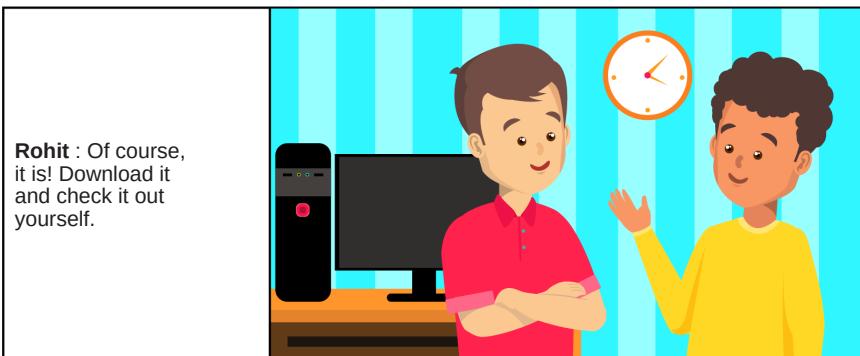
Ramesh regrets that he did not install an anti-virus software in his computer.

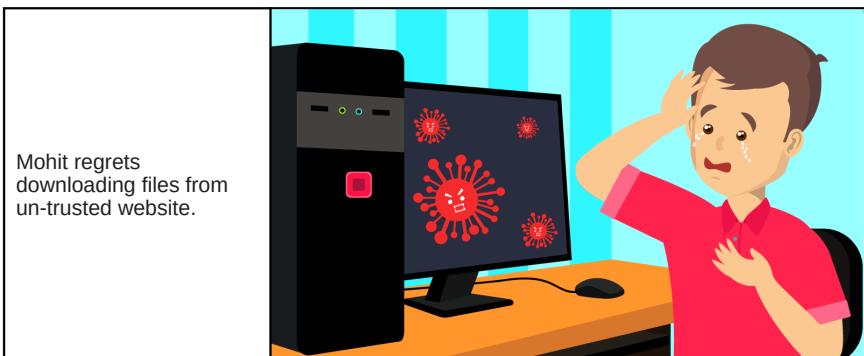
## TIPS

- Computers/Laptops should have a firewall and anti-virus installed, enabled and running the latest version.
- Always scan external devices (e.g. USB) for viruses, while connecting to the computer.
- Always keep the “Bluetooth” connection in an invisible mode, unless you need to access file transfers on your mobile phone or laptops.
- Before disposing of computers or mobile devices, be sure they are wiped of any personal information. For mobile devices, this can be done by selecting the option for a secure reset/factory reset of the device.

# VIRUS ATTACK ON PERSONAL COMPUTER

**Story 2:** Virus Attack by downloading files from un-trusted websites



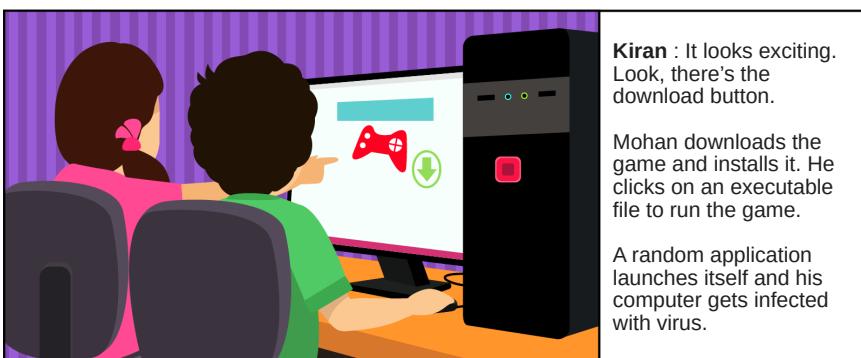


## TIPS

- Never download or install pirated software, applications etc. on your computer, laptops or hand-held devices. It is not only illegal but also increases your vulnerability to potential cyber threats.
- Do not click on the URL/links provided in suspicious e-mails/SMS even if they look genuine as this may lead you to malicious websites. This may be an attempt to steal money or personal information.
- Always check “https” appears in the website’s address bar before making an online transaction. The “s” stands for “secure” and indicates that the communication with the webpage is encrypted.

# VIRUS ATTACK ON PERSONAL COMPUTER

**Story 3:** Virus Attack by installation of malicious software



Multiple applications are installed one after the other.

**Mohan** : What is this! The system has slowed down! And what are these applications! So many applications are installed automatically!



**Kiran** : This is a virus attack! We will have to format the system to get rid of it.

Kiran and Mohan regret installing an un-trusted software and losing all their data.

## TIPS

- Always use genuine software and applications to avoid potential security lapses. Genuine software gets regular updates to protect your data from new cyber threats.
- Never download or install pirated software, applications etc. on your computer, laptops or hand-held devices. It is not only illegal but also increases your vulnerability to potential cyber threats.
- Always read the terms and conditions before installation of any application.

# **GENERAL TIPS TO KEEP YOU SAFE**

# GENERAL TIPS TO KEEP YOU SAFE

1. Always keep your systems/devices (desktop, laptop, mobile) updated with latest patches.
2. Protect systems/devices through security software such as anti-virus with the latest version.
3. Always download software or applications from known trusted sources only. Never use pirated software on your systems/devices.
4. Ensure all devices/accounts are protected by a strong PIN or passcode. Never share your PIN or password with anyone.
5. Do not share your net-banking password, One Time Password (OTP), ATM or phone banking PIN, CVV number etc. with any person even if he/she claims to be an employee or a representative of the bank and report such instances to your bank.
6. Always change the default admin password on your Wi-Fi router to a strong password known only to you. In addition, always configure your wireless network to use the latest encryption (contact your network service provider, in case of any doubt).
7. Be cautious while browsing through a public Wi-Fi and avoid logging in to personal & professional accounts such as e-mail or banking on these networks.
8. Always use virtual keyboard to access net-banking facility from public computers; and logout from banking portal/website after completion of online transaction. Also ensure to delete browsing history from web browser (Internet Explorer, Chrome, Firefox etc.) after completion of online banking activity.
9. Do scan all e-mail attachments for viruses before opening them. Avoid downloading e-mail attachments received in e-mails from unknown or un-trusted sources.
10. Be careful while sharing identity proof documents especially if you cannot verify the authenticity of the company/person with whom you are sharing information.
11. Note the IMEI code of your cell phone and keep it in a safe place. The operator can blacklist/block/trace a phone using the IMEI code, in case the cell phone is stolen.
12. Observe your surroundings for skimmers or people observing your PIN before using an ATM.
13. Discuss safe internet practices and netiquettes with your friends and family regularly! Motivate them to learn more about cybercrimes and safe cyber practices.
14. Do not save your card or bank account details in your e-wallet as it increases the risk of theft or fraudulent transactions in case of a security breach.
15. If you think you are compromised, inform authorities immediately.

# **INCIDENT REPORTING**

# INCIDENT REPORTING

## Where to Report a Cyber Fraud?

1. Visit the nearest police station immediately.
2. To report cybercrime complaints online, visit the **National Cyber Crime Reporting Portal**. This portal can be accessed at <https://cybercrime.gov.in/>. In this portal, there are two sections. One section is to report crimes related to Women and Children (where reports can be filed anonymously as well). Another section is to report other types of cybercrimes. You can also file a complaint offline by dialing the helpline number **155260**.
3. In case you receive or come across a fraud sms, e-mail, link, phone call asking for your sensitive personal information or bank details, please report it on **Maharashtra Cyber's** web portal by visiting [www.reportphishing.in](http://www.reportphishing.in)
4. Refer to the latest advisories which are issued by **CERT-IN** on <https://www.cert-in.org.in/>
5. Report any adverse activity or unwanted behavior to **CERT-IN** using following channels

**E-mail :** incident@cert-in.org.in

**Helpdesk :** +91 1800 11 4949

Provide following information (as much as possible) while reporting an incident.

- Time of occurrence of the incident
  - Information regarding affected system/network
  - Symptoms observed
6. To report lost or stolen mobile phones, file a First Information Report (FIR) with the police. Post filing the FIR, inform Department of Telecommunications (DoT) through the helpline number **14422** or file an online compliant on **Central Equipment Identity Register (CEIR)** portal by visiting <https://ceir.gov.in>. After verification, DoT will blacklist the phone, blocking it from further use. In addition to this, if anyone tries to use the device using a different SIM card, the service provider will identify the new user and inform the police.



# NOTES

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