



# CYBER SECURITY

**DURATION: 4 HOURS**



## What will we learn?



- Smart phone and its usage
- Smart Phone Applications
- How to use Calculator ?
- Uses of the camera
- How to connect internet on smartphone ?
- Internet in every day life
- Mobile security

# False Sense of Security?



# Cyber Security is Safety



- **Security:**
- We must protect our computers and data in the same way that we secure the doors to our homes.
- **Safety:**
- We must behave in ways that protect us against risks and threats that come with technology.



# Smart phone and its usage



- **Calling and communication**
- **Social media**
- **Internet use**
- **Banking**
- **To trace the Locations**
- **Application Download**
- **Etc.,**

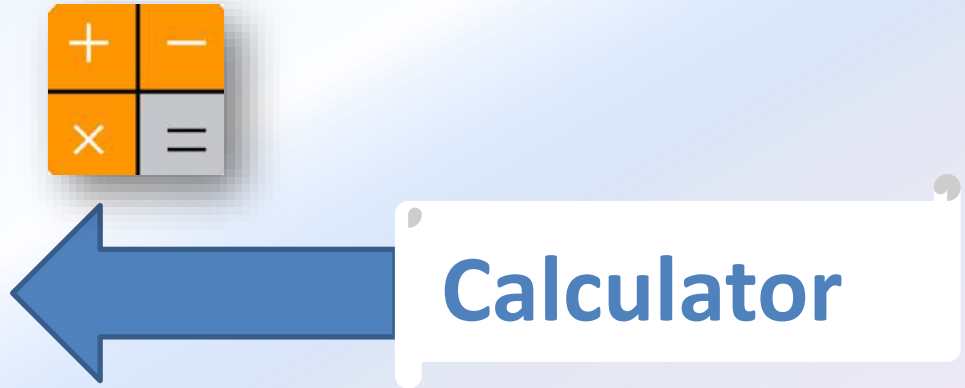
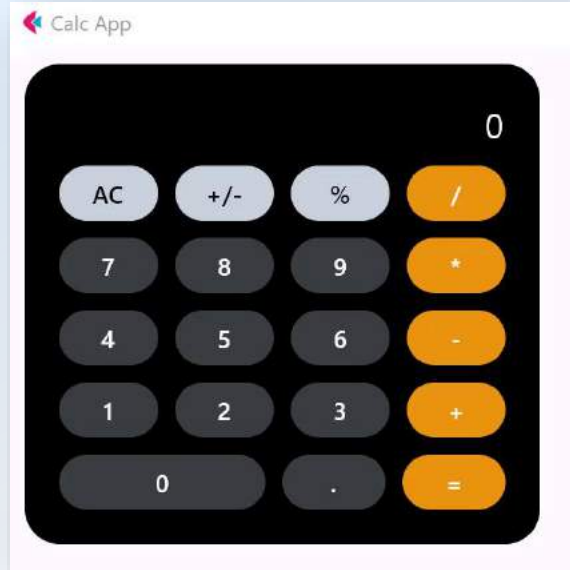
# Smart phone applications



# Malware Applications



# Use calculators





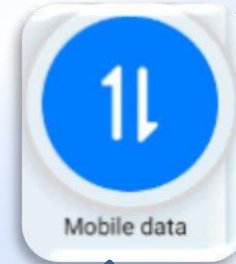
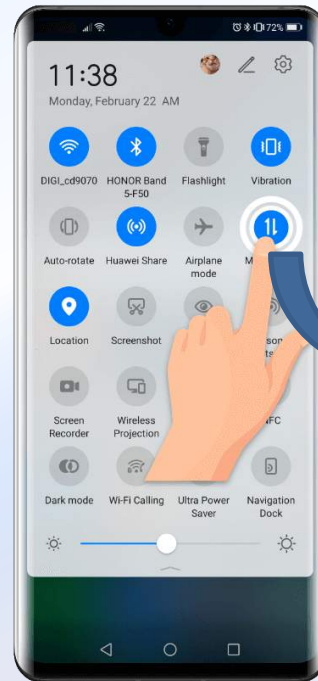
# Uses of the camera

**A mobile camera is a piece of equipment that is used for taking photographs, making films, online payments, documentations, etc.,**



**The camera**

# How to connect internet on smartphone



# Some apps to use internet



# Where we are using Internet



- 1.To do Mobile Recharge
- 2.Electric bill payment
- 3.Gas booking
- 4.Purchasing of materials(Amazon/Flipkart)
4. Money Transfer
- 5, Bus/Train/flight ticket booking

# Mobile Security



**Protection of mobile phone  
from virus and hackers**

# Mobile Device Security



## Mobile Device Definition

- Small, hand-held Computing device
  - Built in display
- Touch screen or mini-keyboard
  - Less than 2 pounds

## Mobile Device Examples

- iPhone/iPad
- Android Smartphones/Tablets
  - Windows Smartphone
  - Blackberry

# Importance of Mobile Device Security

## Business

- Intellectual Properties
  - Financial Loss

## Government

- Operational Security
- Mission Compromise

# Malware

## Malware = “malicious software”

Malware is any kind of unwanted software that is installed without your consent on your computer and other digital devices.

Viruses, Worms, Trojan horses, Bombs, Spyware, Adware, Ransomware are subgroups of malware.





# COVID-19 Cyber Threats



# COVID-19 Cyber Threats



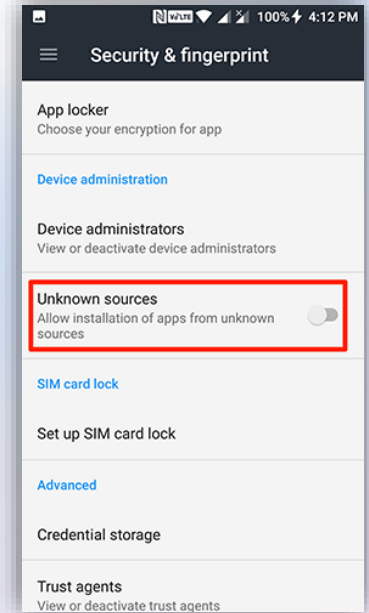
# The first steps



- Apps should always be downloaded from Play Store.
- Checks whether the app is secure or not in google play store
- if it is secure then only google will allow to keep in the play store

# The second steps

- We should not install any App from unknown source
- Some times the app is not available in play store in such cases we will be downloading from browser or link .
- such app are considered as app from unknown source.

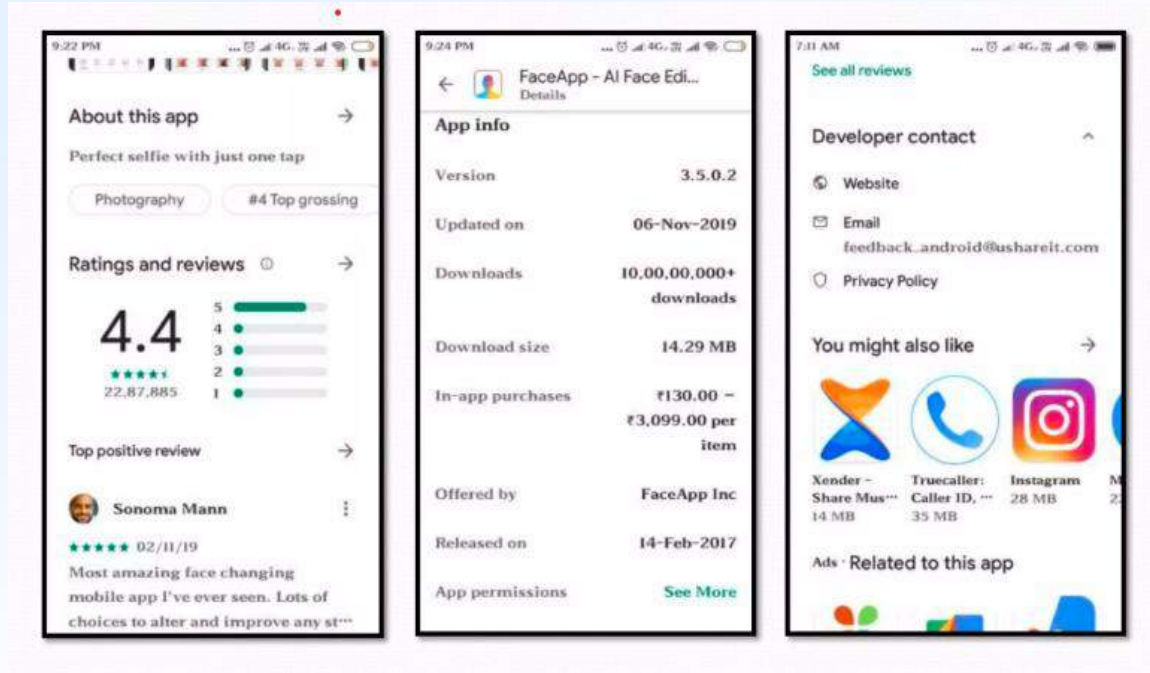


# Third step

- If necessary only then we need to install the app from unknown sources
- Such types of apps use our personal data which we would be giving as a credential by using these data the hackers can use it for black mailing and theft of data .
- We have to keep in mind that our phone is reminding us all the time when we are installing the app from unknown sources.
- We will be using our phones for social media apps like Facebook, Instagram, Snapchat etc. while doing this the hackers will send links regarding the offers whenever we open these links automatically our personal data will be sent to the owner of the link.



# Precaution Before Downloading



## Use these things when required



Mobile Data



Bluetooth



Wi-Fi



GPS

# Mobile Security Threats

- Data Leakage
- Network Spoofing(Unsecured WI FI)
- Social engineering
- Malicious Apps
- Improper Session Handling



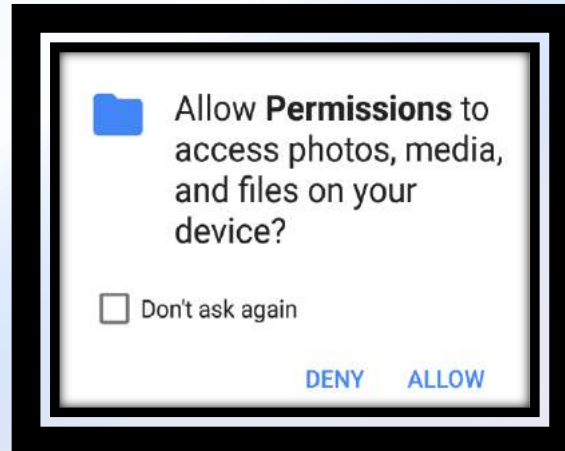
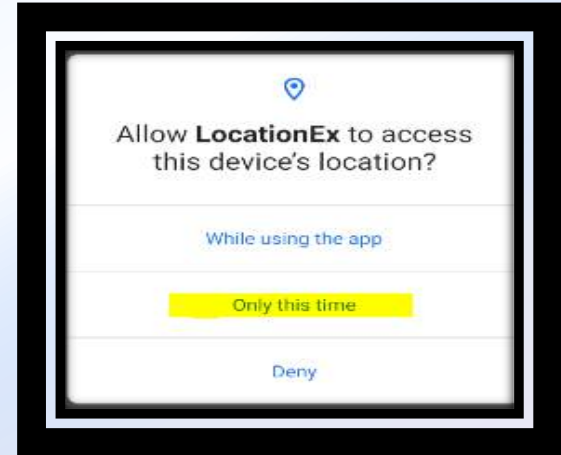
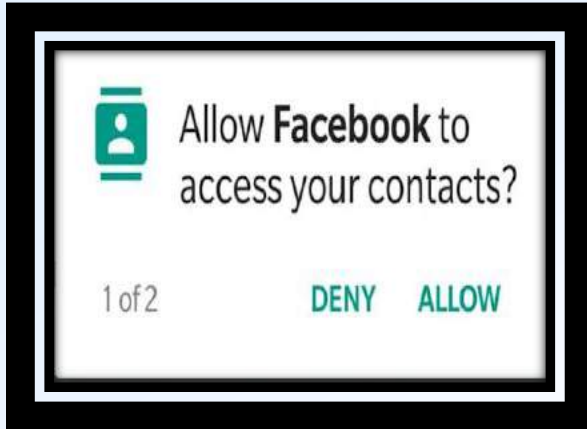


# Data Leakage

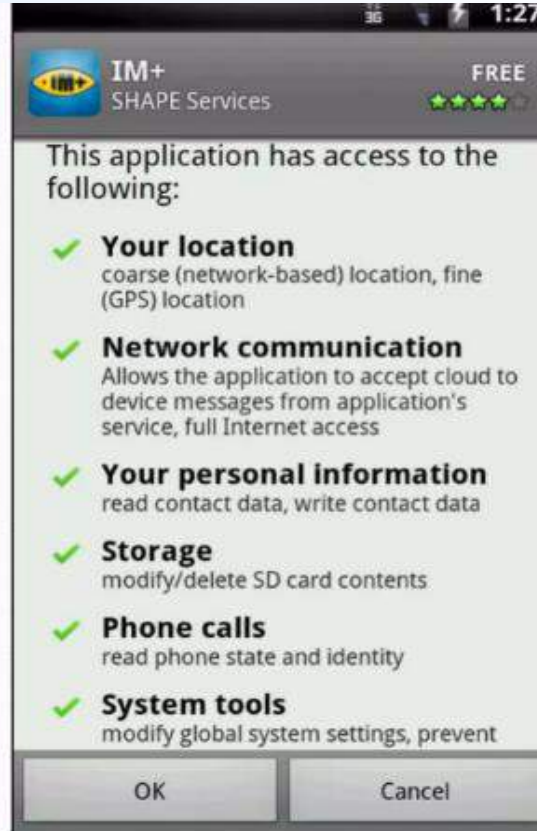
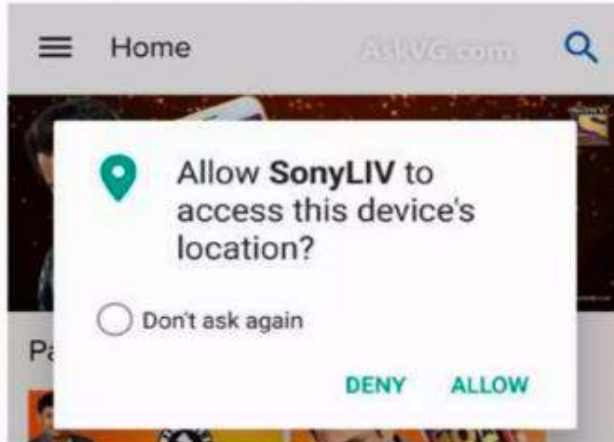


- These are typically free apps found in official app stores that perform as advertised, but also send personal and potentially corporate data to a remote server, where it is mined by advertisers or even cybercriminals.
- Apps pose a real problem for mobile users, who give them sweeping permissions, but don't always check security.

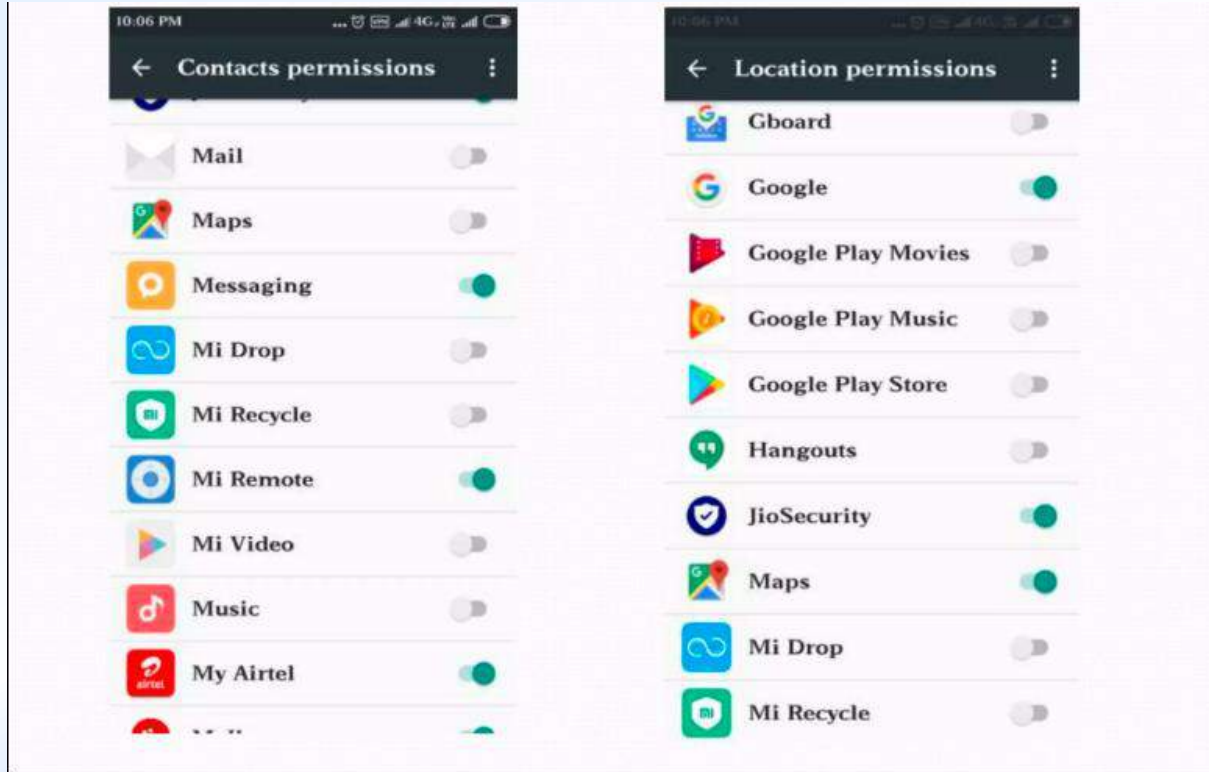
# Allow App Permission



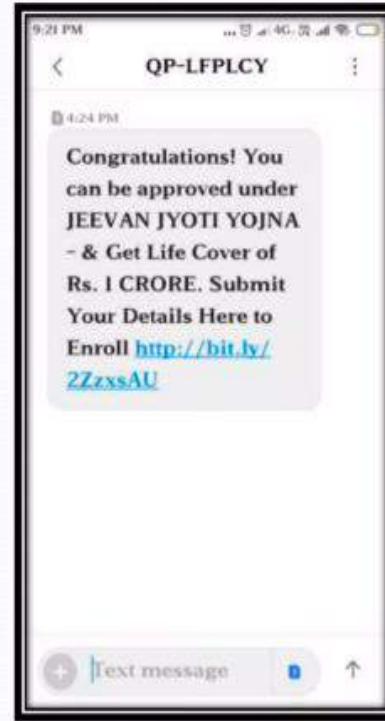
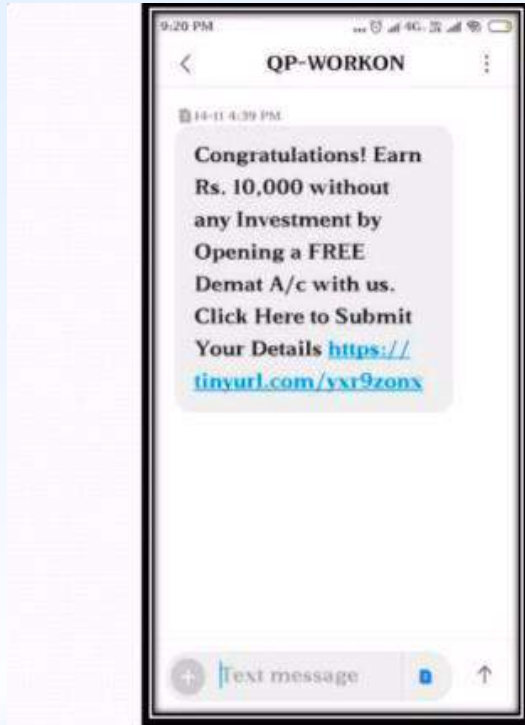
# Allow App Permission & Access



# Contact and Location Permission



# Unwanted Links



# Unwanted Messages



# Unauthorized Links

## SMS Phishing Attack Examples



The image displays four examples of SMS phishing attacks on smartphones:

- Example 1:** A message from Walmart congratulating a shopper for winning a \$2000 Walmart Gift Card. It includes a link to [www.WalmartClick.com/prize.html](http://www.WalmartClick.com/prize.html).
- Example 2:** A message claiming the recipient's entry from last month has won. It asks to go to <http://buggyboy.com/3/c> and enter the winning code "2233" to claim a \$3000 Best Buy Gift Card.
- Example 3:** A message claiming the recipient has been selected for a \$2000 Amazon Gift Card. It asks to enter the code "Free" at <http://www.Amazon.com/wm> to claim a price of \$50 left.
- Example 4:** A message claiming a card #256385XXXXXX has been temporarily deactivated. It asks the customer to call 205-358-5689 to activate it.

# Unauthorized Links

Quickpass - Your password has just expired - To reset your password follow this link: <https://app.getquickpass.com/>

Update your password

You need to update your password because this is the first time you are signing in, or because your password has expired.

barry@xxxxxxxxxx

Current password

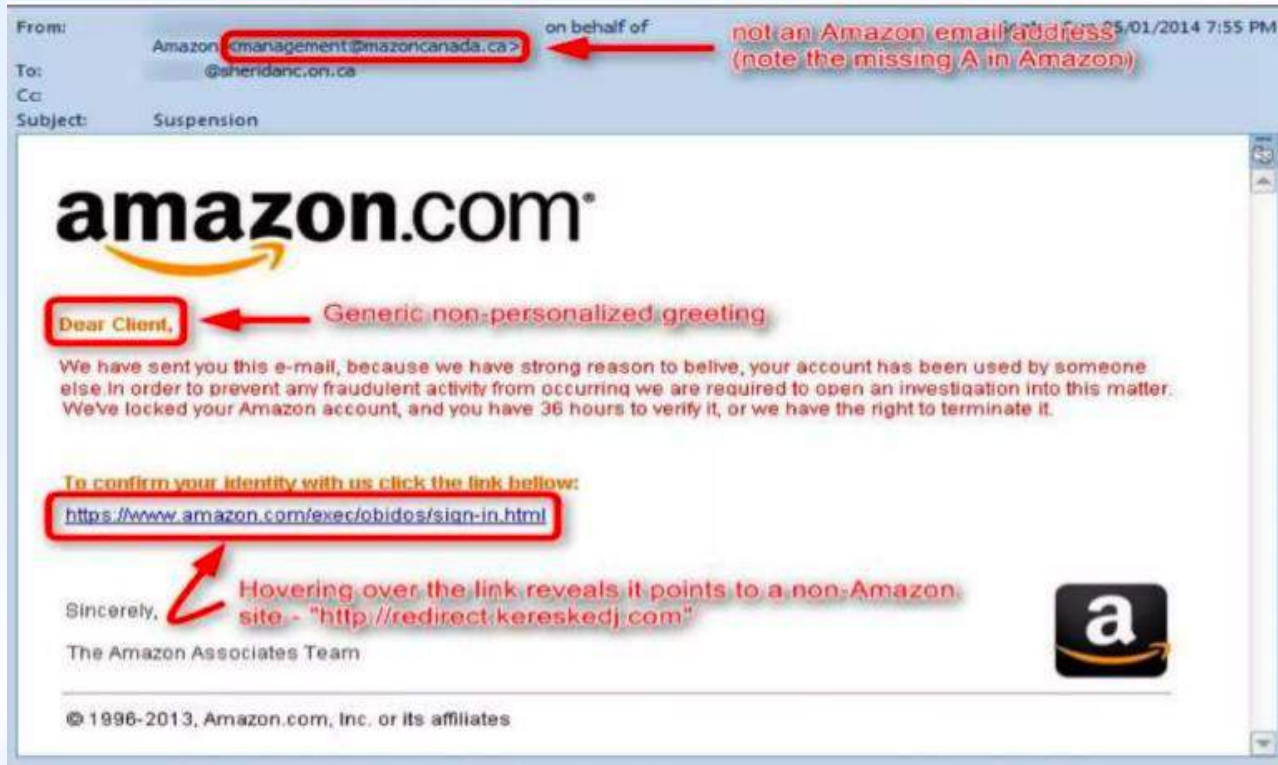
New password

Confirm password

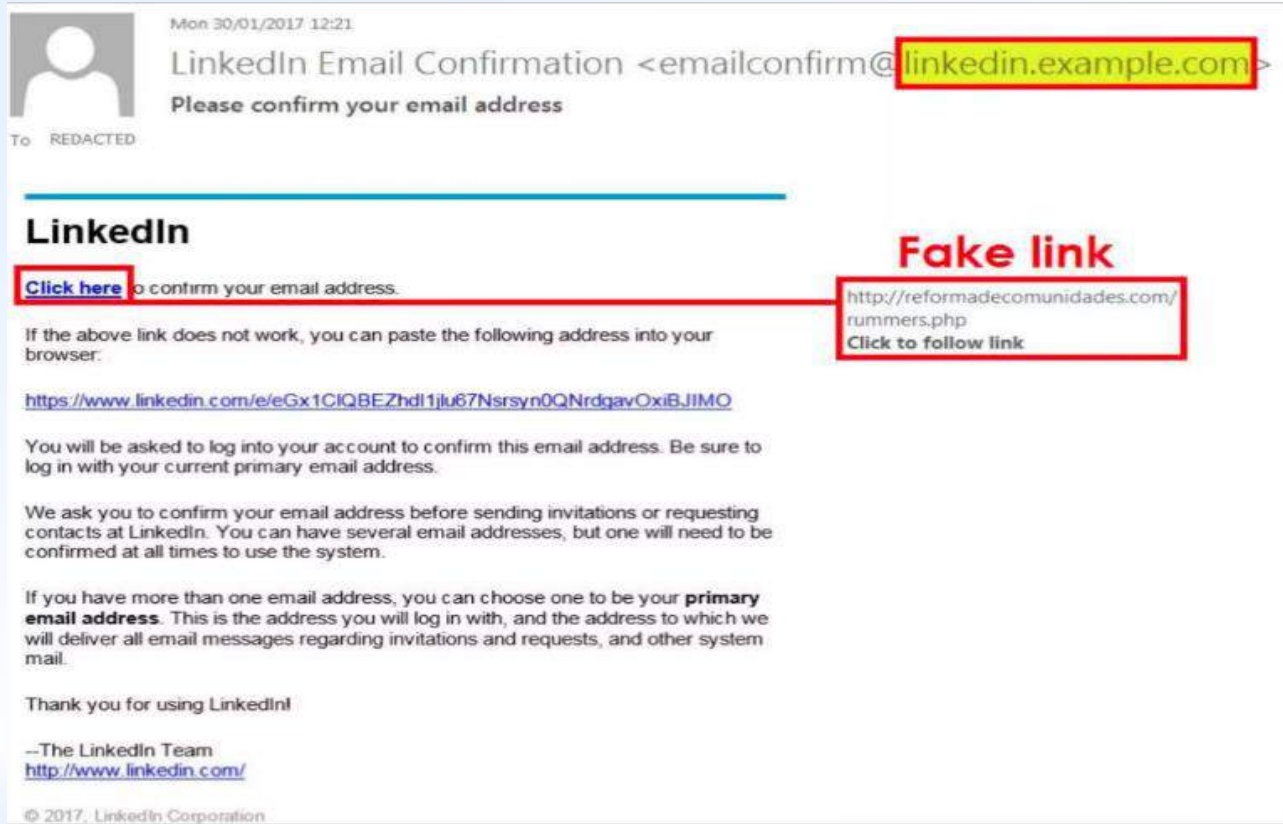
Update password and sign in



# Unauthorized web links



# Unauthorized web links



Mon 30/01/2017 12:21

LinkedIn Email Confirmation <emailconfirm@**linkedin.example.com**>

Please confirm your email address

To REDACTED

---

## LinkedIn

**Click here** to confirm your email address.

If the above link does not work, you can paste the following address into your browser:

<https://www.linkedin.com/e/eGx1CIQBEZhd1jlu67Nrsyn0QNrdgavOxiBJIMO>

You will be asked to log into your account to confirm this email address. Be sure to log in with your current primary email address.

We ask you to confirm your email address before sending invitations or requesting contacts at LinkedIn. You can have several email addresses, but one will need to be confirmed at all times to use the system.

If you have more than one email address, you can choose one to be your **primary email address**. This is the address you will log in with, and the address to which we will deliver all email messages regarding invitations and requests, and other system mail.

Thank you for using LinkedIn!

--The LinkedIn Team  
<http://www.linkedin.com/>

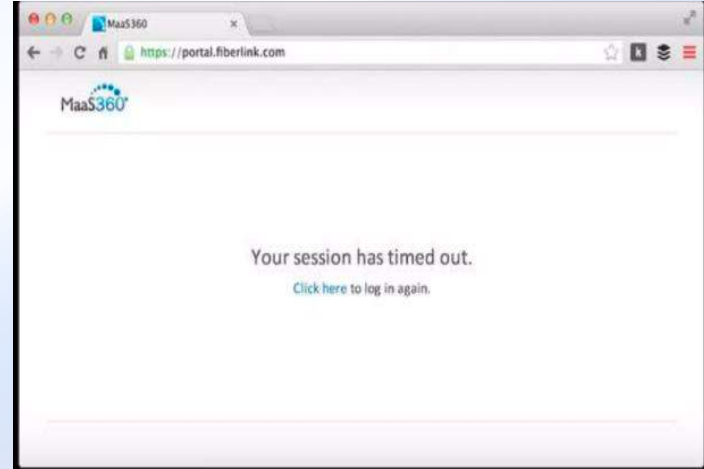
© 2017, LinkedIn Corporation

**Fake link**  
<http://reformadecomunidades.com/rummers.php>  
Click to follow link

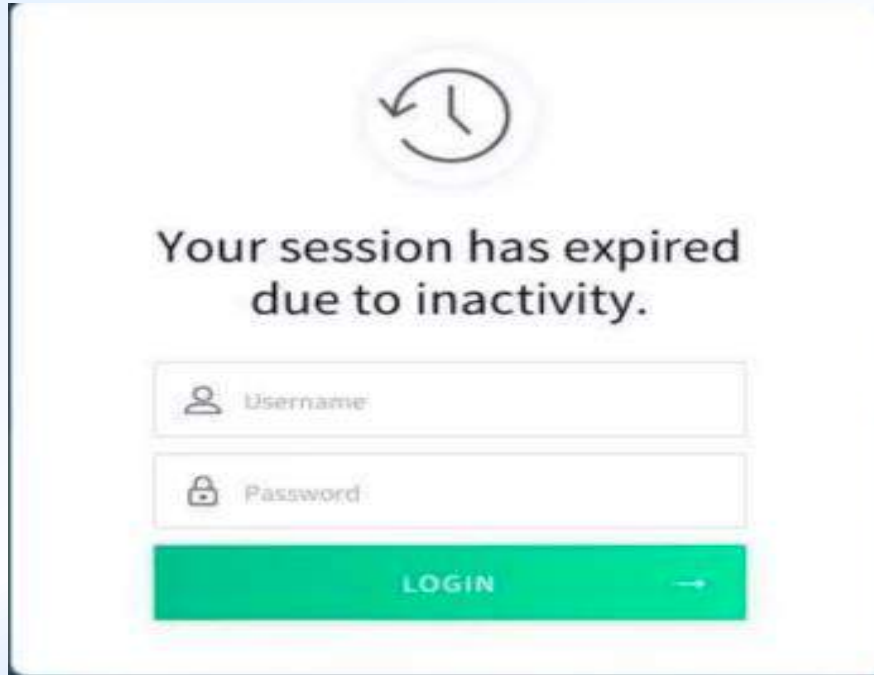
# Improper Session Handling



- **Improper session handling occurs when the session token is unintentionally shared with the adversary during a subsequent transaction between the mobile app and the backend servers**



# Improper Session Handling



A screenshot of a web application interface. At the top center is a circular icon of a clock with a curved arrow pointing back to the start, indicating a session timeout. Below the icon, the text "Your session has expired due to inactivity." is displayed in a bold, black font. Underneath this message are two input fields: the first is labeled "Username" with a person icon, and the second is labeled "Password" with a lock icon. At the bottom of the form is a green button with the text "LOGIN" and a right-pointing arrow.

# What we have learnt ?



- Smart phone and its usage
- Smart Phone Applications
- How to use Calculator ?
- Uses of the camera
- How to connect internet on smartphone ?
- Internet in every day life
- Mobile security



# How We Protect Information?

## People

- Training, Education, Awareness, Monitoring

## Process

- Governance, Oversight, Policy, Reporting

## Technology

- Anti-malware
- Strong passwords, Logging/monitoring

## Which is the weakest link?

