



Somaiya Vidyavihar University
K. J. Somaiya College of Engineering
Department of Computer Engineering

Batch: B1 Roll No.: 16010121045

Experiment No. 10

Title: Report writing on legal issues and ethics with respect to some case study.

Objective: Report writing on legal issues and ethics with respect to some case study.

CO	Outcome
CO5	Interpret legal and ethical issues in security

Books/ Journals/ Websites referred:

<https://www.fonearena.com/blog/410888/nothing-chats-removed-google-play-privacy-issues.html>

A Case Study on the Nothing Chats App from the company Nothing.

Group Details:

16010121045 – Pargat Singh Dhanjal

16010121043 – Vishrut Deshmukh

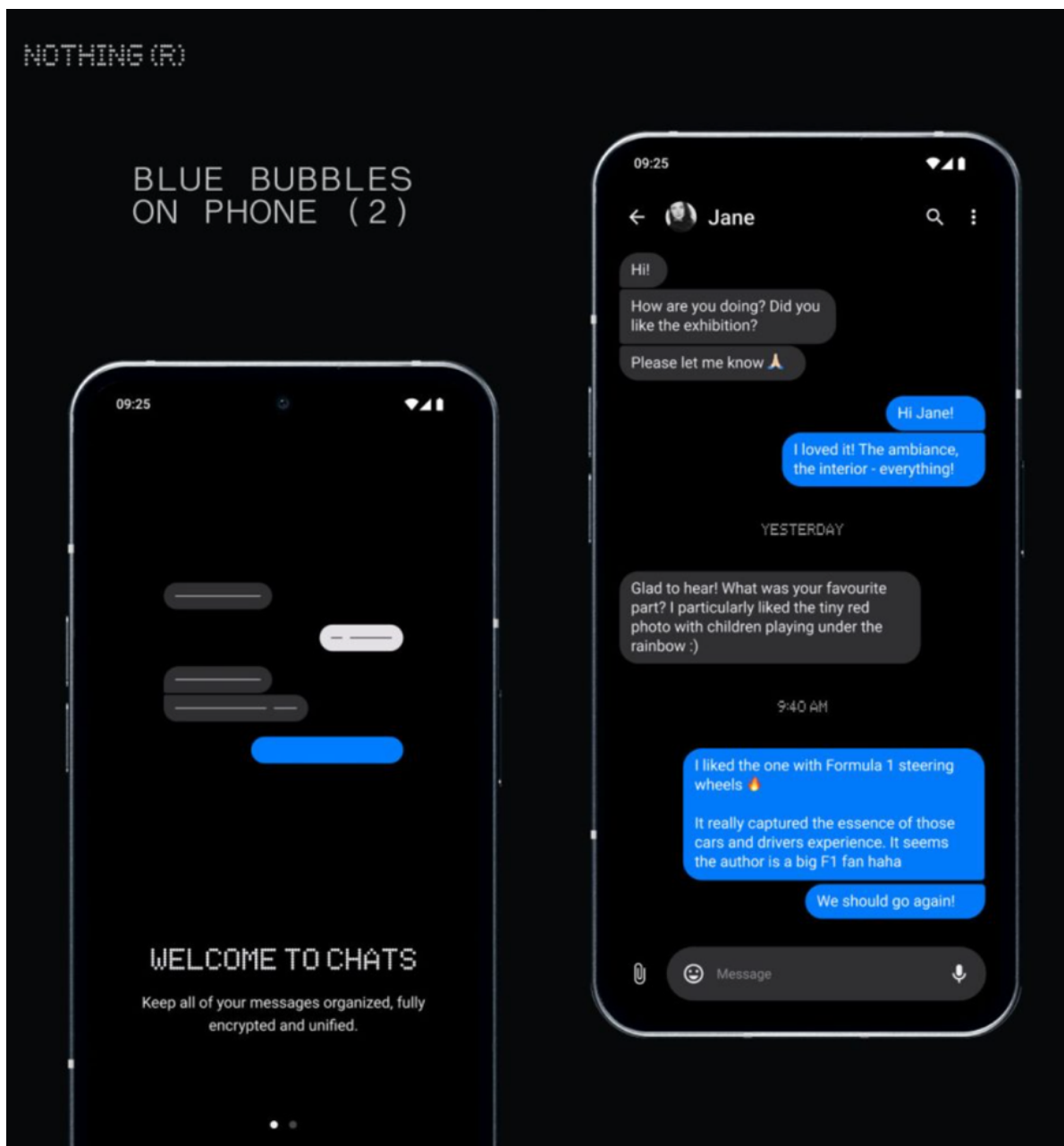
16010121051 – Meet Gala



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1. Coding Project Scenario:

Hypothetical Scenario: Your group is tasked with developing the "Nothing Chats" app for Nothing Phone users, allowing them to message iMessage users. The app, powered by the Sunbird messaging platform, is aimed at providing seamless communication across different messaging platforms. However, Sunbird's platform has been found to have security vulnerabilities, including sending crucial credentials over unencrypted channels and storing messages on their servers without robust encryption.





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Ethical and Legal Scenarios:

- **Ethical Dilemma:** The ethical concern arises when integrating with Sunbird's platform despite known security vulnerabilities, risking users' privacy and data security.

```
~ curl https://monarch.sunbirdapp.com:8888 -v
* Trying 142.44.140.136:8888...
* Connected to monarch.sunbirdapp.com (142.44.140.136) port 8888 (#0)
* ALPN: offers h2,http/1.1
* (304) (OUT) TLS handshake, Client hello (1):
* CAfile: /etc/ssl/cert.pem
* CApath: none
* LibreSSL/3.3.6: error:1404B42E:SSL routines:ST_CONNECT:tls1 alert protocol version
* Closing connection 0
curl: (35) LibreSSL/3.3.6: error:1404B42E:SSL routines:ST_CONNECT:tls1 alert protocol version
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* Connected to monarch.sunbirdapp.com (142.44.140.136) port 8888 (#0)
> GET / HTTP/1.1
> Host: monarch.sunbirdapp.com:8888
> User-Agent: curl/8.1.2
> Accept: */*
>
< HTTP/1.1 403 Forbidden
< X-Powered-By: Express
< Content-Type: text/html; charset=utf-8
< Content-Length: 10
< ETag: W/"a-qyuRAXLHphLMY3db4EZegpQ1XTM"
< Date: Thu, 16 Nov 2023 05:21:55 GMT
< Connection: keep-alive
* Connection #0 to host monarch.sunbirdapp.com left intact
Forbidden.
~
```

- **Legal Concerns:** Transmitting user credentials without encryption may violate data protection laws, and storing messages without adequate security measures could lead to legal liabilities in case of data breaches.

Kishan Bagaria @KishanBagaria

texts team took a quick look at the tech behind nothing chats and found out it's extremely insecure

it's not even using HTTPS, credentials are sent over plaintext HTTP

backend is running an instance of BlueBubbles, which doesn't support end-to-end encryption yet

@nothing · Nov 15

Evangelidis @AkisEvangelidis · Nov 15

ing Chats - Messages are end-to-end encrypted on any servers - once a message is delivered, it c ed locally from your personal device.

```
{
  "name": "gmail.com",
  "token": "ic101JSuzIINiIsIntpZCIG"
}
```

```
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12:16 AM · Nov 18, 2023 · 620.1K Views



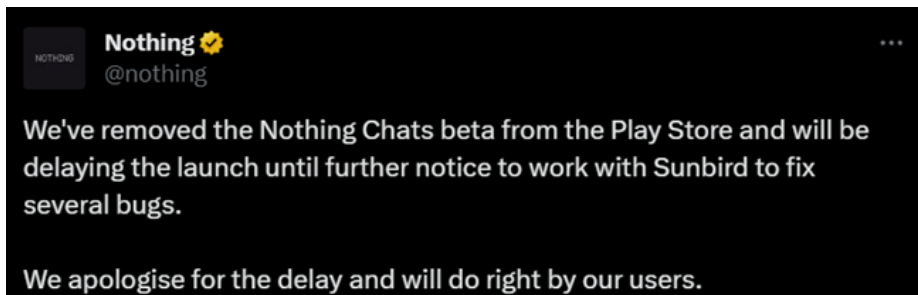
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2. ACM Case Studies and Analysis:

We can consider hypothetical scenarios based on common ethical violations in software development, such as privacy breaches, data security issues, and misrepresentation of security measures.

3. Ethical Decision Making Model:

- a. **Ethical Dilemma:** Integrating with Sunbird's platform despite known security vulnerabilities.
- b. **Stakeholders:** Users of Nothing Chats, Nothing Phone company, developers, Sunbird, regulatory authorities.
- c. **Options:**
 - 1. Proceed with the integration, knowing the security risks.
 - 2. Find alternative messaging platform providers with better security practices.
 - 3. Delay the project until Sunbird addresses the security issues.
 - 4. Inform users about the risks and let them decide whether to use the app.
- d. **Decision:** Opt for option 3: Delay the project until Sunbird addresses the security issues.





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4. Alignment with ACM Code of Ethics:

ACM Code of Ethics Principles:

- Principle 1: General Moral Imperatives - Uphold the integrity and dignity of the profession.
- Principle 2: Professional Responsibilities - Ensure products meet high standards of quality and reliability.
- Principle 3: Professional Leadership - Promote public understanding of computing and its consequences.
- Principle 4: Professional Integrity - Be honest and trustworthy.

Alignment:

- Delaying the project aligns with principles of professionalism, integrity, and responsibility by prioritizing user safety and the reputation of the profession over expedient development.

5. Fixing Legal and Ethical Compliance:

To fix the scenario and ensure legal and ethical compliance:

- Work closely with Sunbird to address the security vulnerabilities before proceeding with integration.
- Implement robust encryption protocols for transmitting user credentials and storing messages.
- Conduct regular security audits and updates to ensure ongoing compliance with legal and ethical standards.
- Transparently communicate security measures and risks to users, empowering them to make informed decisions about using the app.