DifferenceMaker™
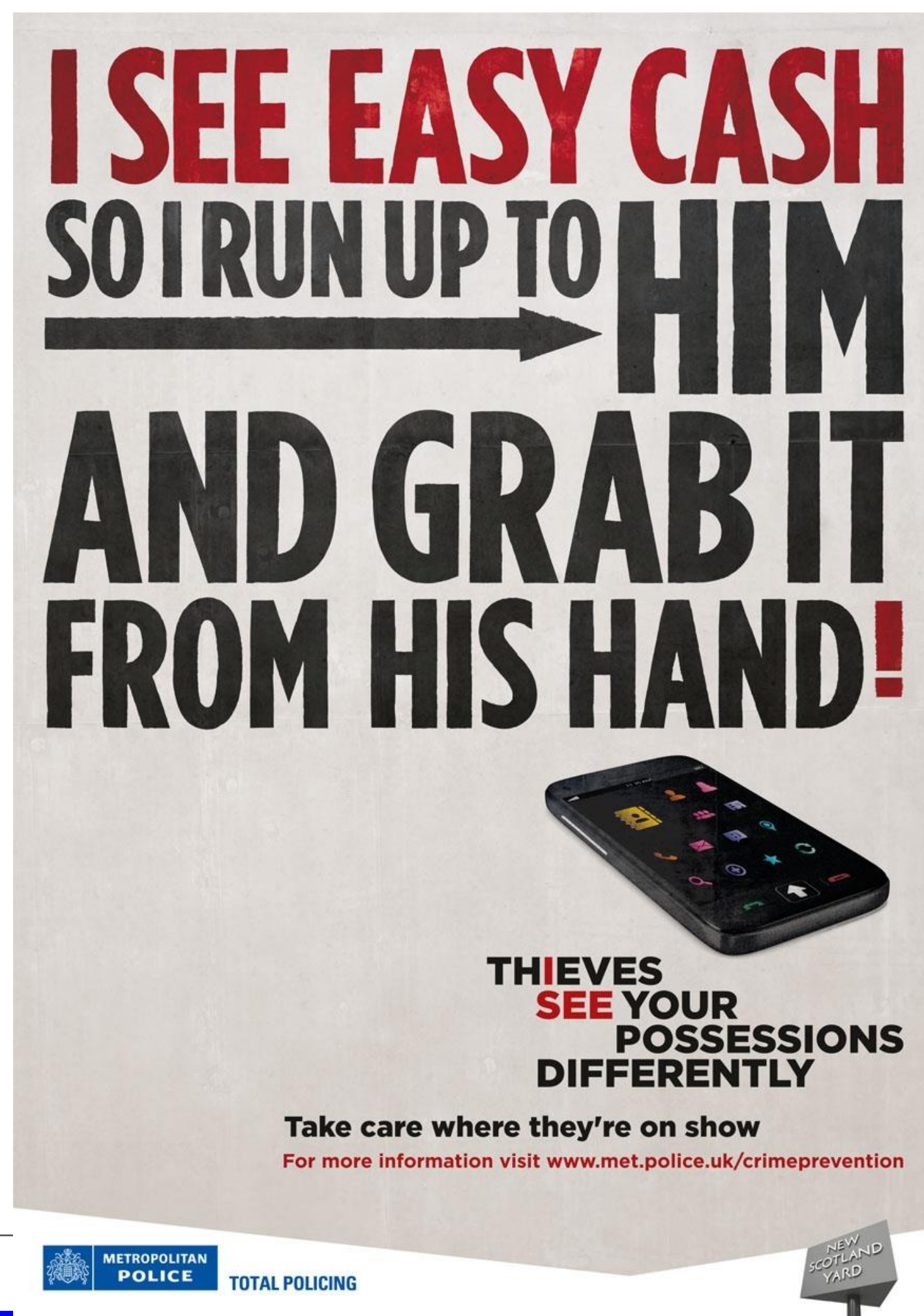EXPLORE PROBLEMS • CREATE SOLUTIONS • MAKE A DIFFERENCE

SCASE

Problem

In the recent times, there has been an increase in the number of phone thefts. We want to decrease that by introducing a secure case. Mobile makers fail provide enough security. Especially the older phones require an add-on to be secure from intruders. In our survey we discovered that generally people will buy add-ons instead of upgrading their existing phones. We want to provide them the opportunity to do so.

Your Phone:
the Next
ID Theft
Target

I SEE EASY CASH
SO I RUN UP TO HIM
AND GRAB IT
FROM HIS HAND!

THIEVES
SEE YOUR
POSSESSIONS
DIFFERENTLY

Take care where they're on show
For more information visit www.met.police.uk/crimeprevention

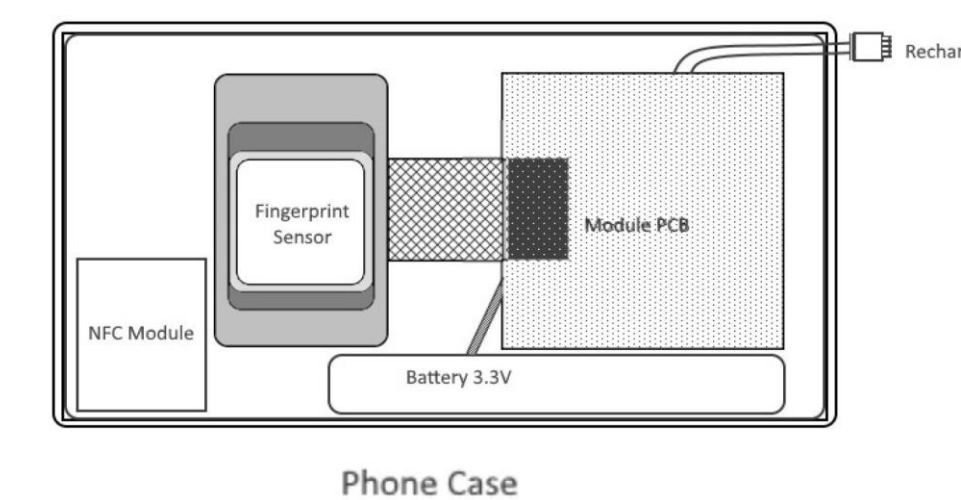METROPOLITAN POLICE   TOTAL POLICING

Opportunity

Most older mobile phone users still don't have the access to fingerprint scanner in a way we want to provide to them. Talking to the mobile users of the existing models with the finger print facility, 9 out of 10 people gave positive reviews as to how this feature benefitted them in saving time and with the ease of access to their own devices but with security of phone data. People using models before 2015 and with phones which do not have this facility have all expressed a positive desire to have this facility and believe that it will increase the security of their phone data.
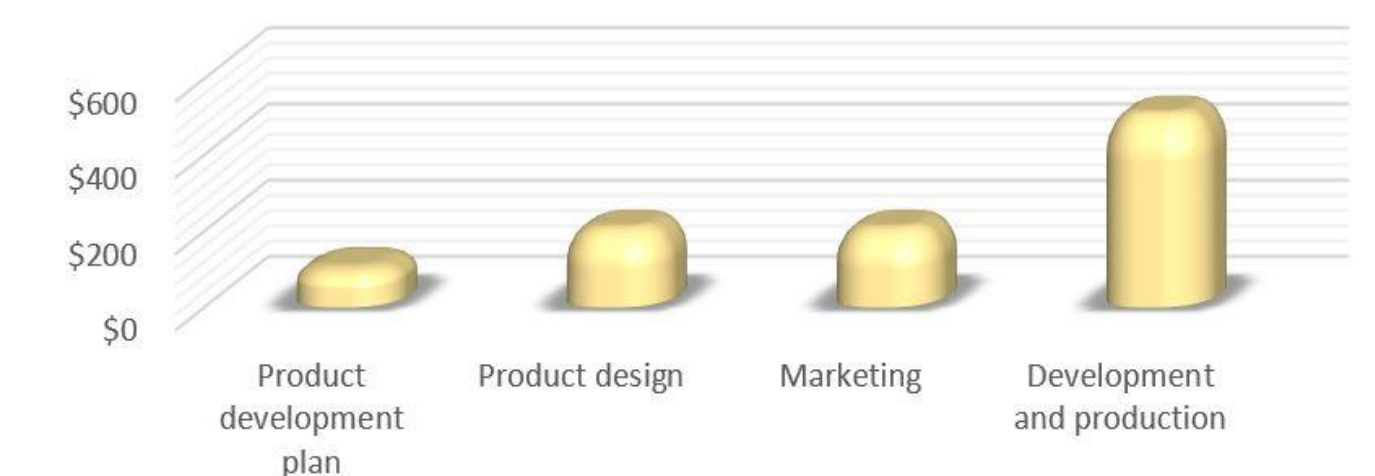
Solution

Basically, the solution is a smartphone case with fingerprint security and impenetrable casing. Basic password and PIN based security are becoming obsolete, and we need to look towards more secure ways of identification. The targeted customers are the ones owning phones purchased before 2013-2015. Current solution in the market is effective but is not available to all customers. Most older mobile phone users still don't have the access to fingerprint scanner in a way we want to provide to them.

Recharge

Fingerprint Sensor

Module PCB

NFC Module
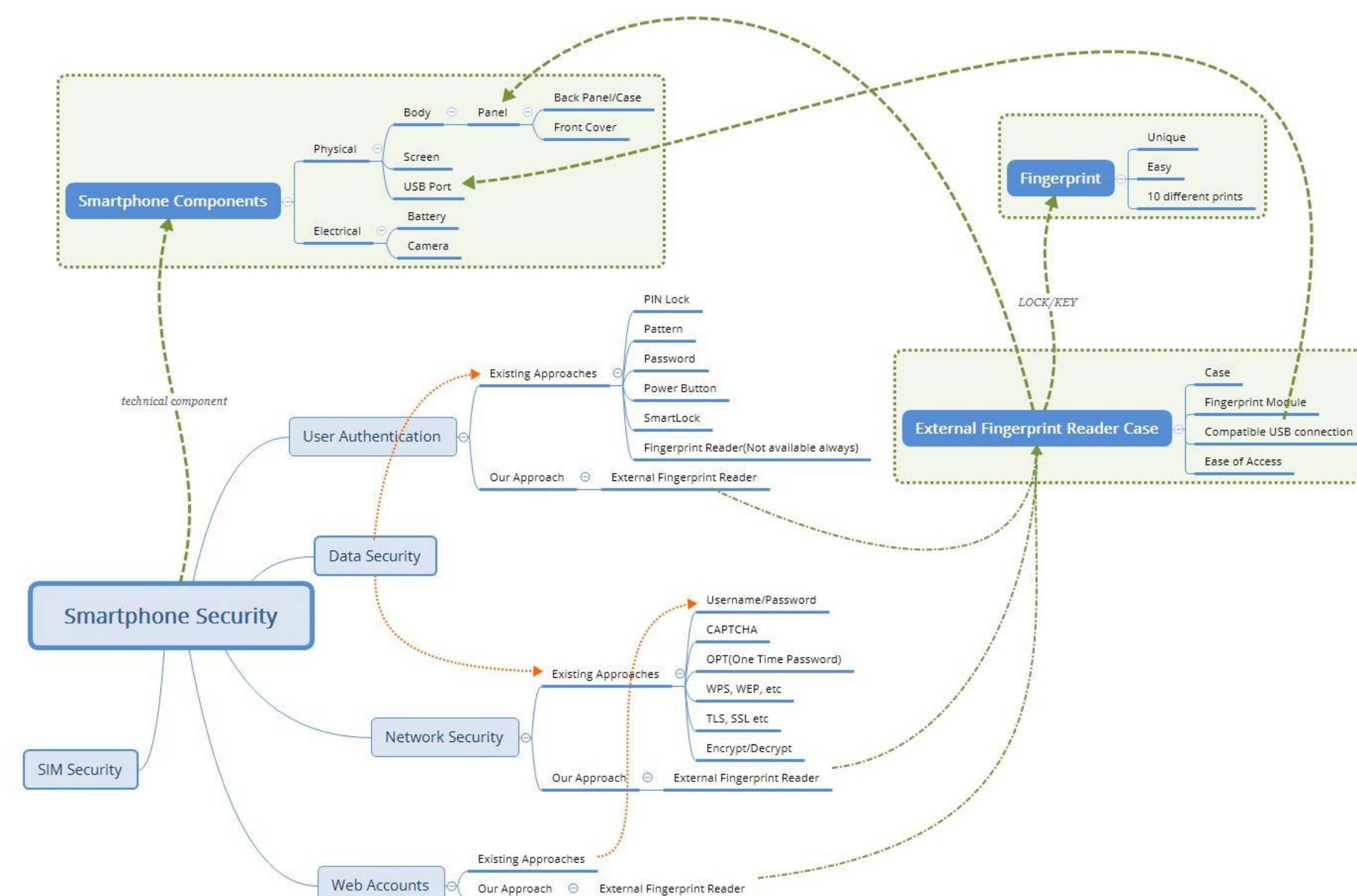
Battery 3.3V

Phone Case

Resources

- Parts:
  - ✓ Fingerprint sensor
  - ✓ NFC Module or USB
  - ✓ Battery
  - ✓ Cable extensions
  - ✓ PCB
  - ✓ Outer Cover
- Team details:
  1. We are designing & developing the product.
  2. Our team can only commit a few weekends on this project.
  3. We are confident to build the prototype and we are confident in the product.

Resources and Feasibility

$600	
$400	
$200	
$0	

Product development plan   Product design   Marketing   Development and production

Pictures, Graphics, Charts, Tables, etc.

Body   Panel   Back Panel/Case
Physical   Front Cover
Screen
Smartphone Components   USB Port
Battery
Electrical   Camera

Unique
Fingerprint   Easy
10 different prints

LOCK/KEY

PIN Lock
Pattern
Password
Existing Approaches   Power Button
SmartLock
Fingerprint Reader(Not available always)
User Authentication
Our Approach   External Fingerprint Reader

Case
Fingerprint Module
External Fingerprint Reader Case   Compatible USB connection
Ease of Access

technical component

Data Security

Smartphone Security

Username/Password
CAPTCHA
OPT(One Time Password)
Existing Approaches   WPS, WEP, etc
TLS, SSL etc
Encrypt/Decrypt
Network Security
Our Approach   External Fingerprint Reader

SIM Security

Existing Approaches
Web Accounts   Our Approach   External Fingerprint Reader

Team Member Names, Majors, and Years in School

Samartha K V (CSE)

Monisha Raja (CSE)

Tanik R Prasad (ECE)