

Ubiquitous and Mobile Computing

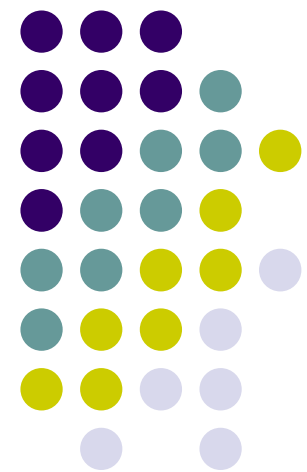
CS 528: Location Locker

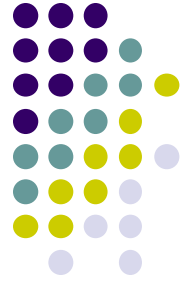
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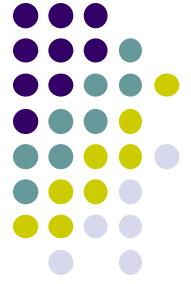




Introduction

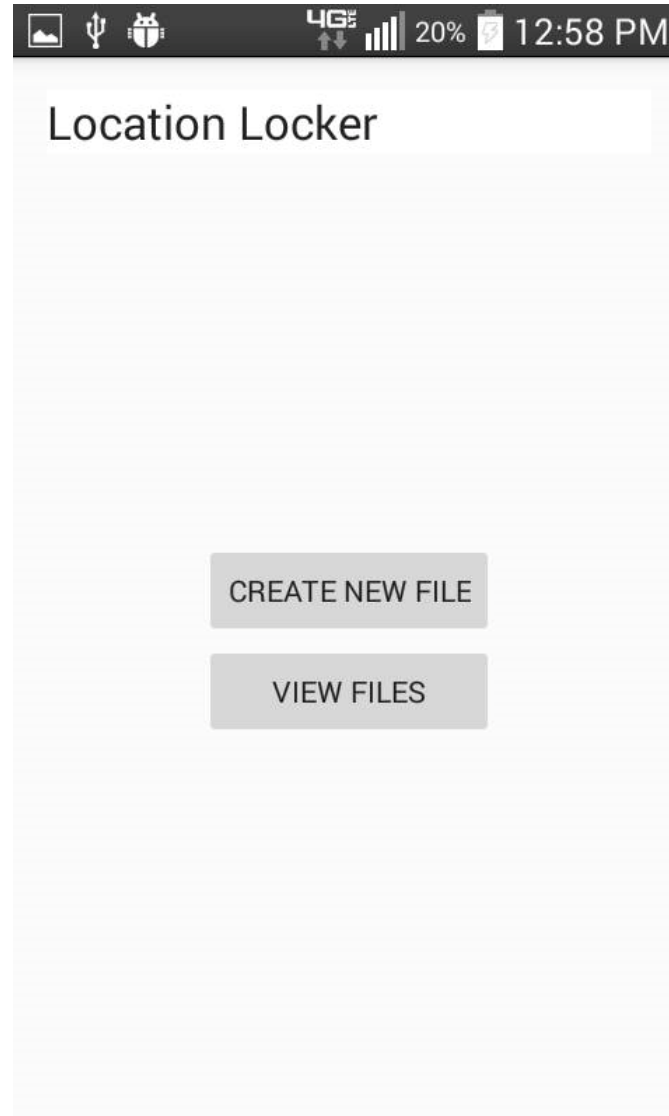
- Security is a major concern in our modern technological society.
- Our application would protect files from unauthorized access by preventing the files from being accessed when not in a particular location
- Due to the accuracy of GPS systems in current smartphones, we can keep documents secure within a 10 meter radius
- Just a proof of concept

Methodology



- We created an Android application with the ability to
 - Create/edit/delete Documents in a database
 - Lock Documents based on locations
 - Provide notifications when the user is near certain locations
 - Transfer a file between phones

Implementation–Front Screen



Implementation–Add/edit file view



12:59 PM 20%

Enter a Title

- Set as Notification
- Set as locked file
- Set as regular file

Enter information....

SAVE & CLOSE

1:00 PM 21%

Title 1

- Set as Notification
- Set as locked file
- Set as regular file

information

SAVE & CLOSE

1:02 PM 21%

Locked

- Set as Notification
- Set as locked file
- Set as regular file

test

SAVE & CLOSE

test rest testing trust best

q w e r t y u i o p

a s d f g h j k l

↑ z x c v b n m ↵

!/?# 12 ⚙️ ⌂ , . ↵

Implementation–File list view



1:01 PM

Notifications

Title: titlw
UUID: d0e0f565-09ce-4fe7-a6f5-d184d4c76fd4

Title: Title 1
UUID: 8c7faedd-146e-4cfe-994e-4d3504aa2713

Title: titlw

Location-Locked Documents

Regular Documents

Title: bskdbrk
UUID: ad2a87c2-3b6c-4102-99cb-bdcd054d86ea

Title: bonded
UUID: d2c12cfb-aba9-42f9-b895-cae91c64d8bc

1:03 PM

Notifications

Title: titlw
UUID: d0e0f565-09ce-4fe7-a6f5-d184d4c76fd4

Title: Title 1
UUID: 8c7faedd-146e-4cfe-994e-4d3504aa2713

Location-Locked Documents

Title: Locked
UUID: 7f932fc5-4d24-43ef-9920-6ea3a110981c

Regular Documents

Title: bskdbrk
UUID: ad2a87c2-3b6c-4102-99cb-bdcd054d86ea

Title: bonded
UUID: d2c12cfb-aba9-42f9-b895-cae91c64d8bc

Future Works

- Sending files via the Internet
- Semantic Locations
- Improvements to the UI



Questions?

