Quality Assessment for Alinma Bank App

Section Code: 373
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Outlines

01 Introduction

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04 Codacy static analysis

05 MobSF security analysis

06 Coclusion

01

Introduction

Problems faced

Purpose and goals

Static tools analysis

For code style issues

Figure1 : Codacy logo

For security issues

Figure2: MobSF logo

02

Manual Analysis

Manual Analysis

- Indentation

- Identifier

- Variable style

CamelCase

- Comments

- Documentation

03

Design Analysis

Graphical User Interface (GUI) Analysis

Figure1 : Alinma Bank Log-in Page

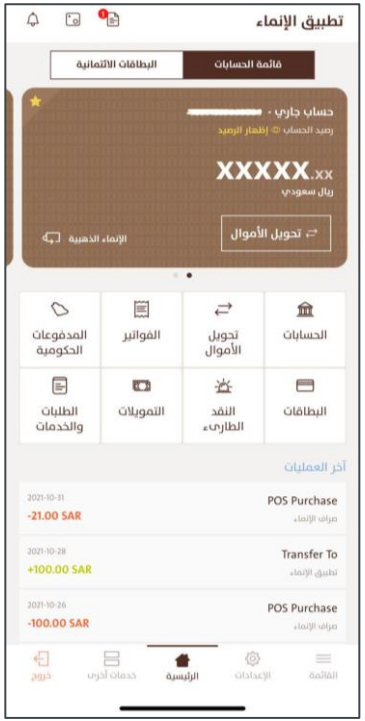

Figure 2: Alinma home page

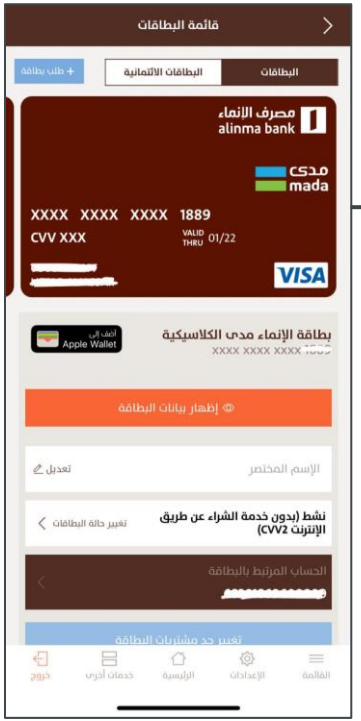

Figure 3: Credit card information

"match between the system and the real world"

heuristic

Design Principles

1. Cohesion
2. Coupling
3. Single Responsibility Principle (SRP)
4. Don't Repeat Yourself (DRY)

04

Codacy Static Analysis

Codacy

Consist of built-in tools

1

PMD static analysis tool

2

CheckStyle static analysis tool

checkstyle

Codacy analysis

Code style

Error prone

05

MobSF Security Analysis

Mainfest Analysis

Cleartext network traffic

Content Provider

Broadcast Receiver

Application Permissions

android.permission.WRITE_EXTERNAL_STORAGE

android.permission.ACCESS_COARSE_LOCATION

android.permission.ACCESS_FINE_LOCATION

android.permission.CAMERA

</>Code Analysis

Files may contain hardcoded sensitive information like usernames, passwords, keys etc.

Write/Read into External Storage.

Execution with Accessing Privileges (root).

Insufficient Cryptography; CBC mode and MD5

06

Conclusion

Students

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The End