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KINGDOM OF SAUDI ARABIA
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MADA verification
(SRS)

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Table of Contents

1 Introduction:

This document gives a complete description of the SRS documents.
also, provide purpose, list of definition, abbreviations and scope described clearly.

1.1 Purpose

purpose of this SRS documents is to cover all requirements for the "MADA Verifications" software, it will give also an explanation of the development of the system, interfaces, interactions etc.
In the first place of this document is to give the customer a clear image for this SRS document and his approval.

1.2 Scope

"MADA Verifications" is software system products will be a mobile application of mobile Banking verification operations, which helps people to verify their bank operations easier and faster, currently can run on Android platform, in the future will be able also on IOS platform and another OS.

1.3 Definitions, Acronyms, and Abbreviations

Term	Definitions
MV	Stands for MADA Verification application, which is a system to verify bank operations through mobile phones.

User	A client who's using the MV application.
Application store	the platform already installed on a mobile phone as a store of applications can be downloaded either free or at a cost.
Stakeholder	Any person who benefits from the system and who is not a developer.
SRS	Stands for software requirements specification.
Face ID	Is a technology capable of identifying or verifying a person from a digital image.
Fingerprint	Is a technology capable of identifying or verifying a person from a human finger.
OS	Stands for operating system.

1.4 References

- Wikipedia: https://en.wikipedia.org/wiki/Google_Play
- Wikipedia: https://en.wikipedia.org/wiki/Face_ID
- Ian Sommerville, Software Engineering 9th edition, Addison Wesley, 2010

1.5 Overview

The 2nd chapter of this SRS document gives an overview of the functionality of the product and describe the main functions that the system will do.

The 3rd chapter shows the Functional requirements in more details. It describes the services that the system should offer.

2 General description:

This section describes the general concept of our product and its requirements without going into details. The system will be explained how the product will communicate with other systems. It should be made those requirements easier to understand.

2.1 Product perspective

MV is a mobile application based. The application will be linked with banks systems. MV app will be used to verify banks operations while banks will make those operations, the bank will send a request to the app for verifying the operation. (see figure 1)

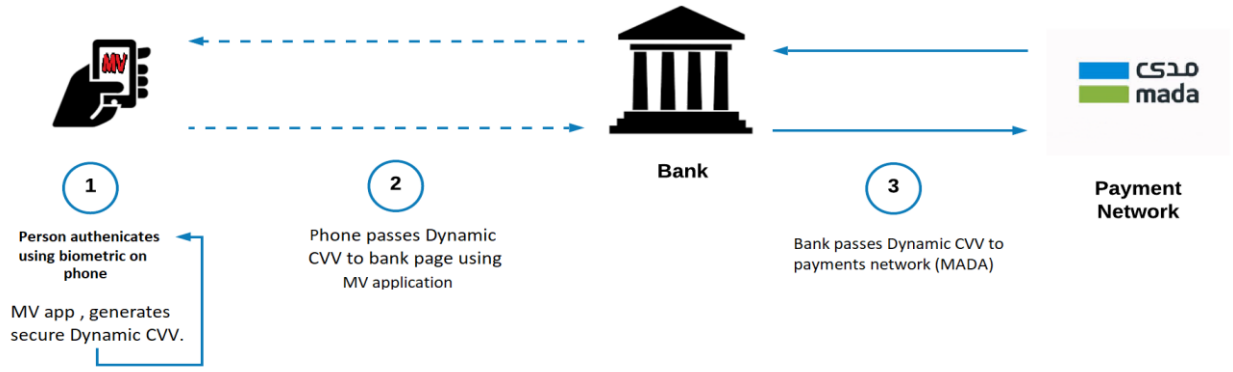

Figure 1: system overview

This figure shows the communication between these systems, our application will need somewhere to store the data, for this case we made MV database will only use to get data and modify data. All the databases communicate will go through the internet.

2.2 Product functions

The MV user can either add or remove banks cards to the application then he should link the card with his face ID or fingerprint using them for verify operations also the app will provide the flexibility of adding or removing either fingerprint or face ID, also user can add his email for following his operations. The application will be able to show card details and latest operations were execute also the app will provide complete privacy for these operations, and there are more and more settings can provide such as changing languages, allow notifications etc.

2.3 User characteristics

The only user of the MV application is banks customer, a customer is anyone who has a bank account, the only skill needed by him is the ability to use smartphones further, he does not need to have wide knowledge about technology. That means he should have simple knowledge.

2.4 General constraints:

At the beginning we decide to run our application on Android smartphones, so one of the constraints is our product only works on Android OS. The App will run only on Google play platform which means there are other constraints which are the app not able to run on IOS platform or Windows platform for now. The system is designed especially for those who have local bank account further, the app must have internet access. User smartphone should support either face ID or fingerprint.

3 Specific requirements

3.1 Functional requirements

3.1.1 Adding new bank card:

Function	Adding a new bank card to the application.
Description	The user will be able to add his bank card.
Inputs	Bank card information.
Source	Bank card information will be taken from the user.
Outputs	An email sent from MV to the user, the card successfully added
Destination	MV database.
Action	User should add his bank card to the application by open the app and go with add a new bank card button.
Requirements	User should download MV application.
Pre-Condition	Card ID length correct and other specific information.
Post-Condition	None.
Side effects	None.

3.1.2 Removing bank card:

Function	Removing a bank card from the application.
Description	The user will be able to remove his bank card from the application.
Inputs	None.
Source	MV database.
Outputs	An email sent from MV to the user, card removed.
Destination	None.
Action	User should remove his bank card from the application by open the app and press remove bank card button.
Requirements	User should have at least one card.
Pre-Condition	Check if there is a card in MV app or not.
Post-Condition	None.
Side effects	None.

3.1.3 Adding fingerprint:

Function	Adding fingerprint to MV application
Description	The user will be able to add his fingerprint to the application.
Inputs	A human finger will be scanned as input.
Source	Fingerprint data will be read from fingerprint sensor
Outputs	None.
Destination	MV application.
Action	User should add his fingerprint to the application by open the app and press add fingerprint button.
Requirements	Smartphone must have fingerprint sensor.
Pre-Condition	None.
Post-Condition	None.
Side effects	None.

3.1.4 Adding Face ID:

Function	Adding Face ID to MV application.
Description	The user will be able to add his Face ID to the application.
Inputs	Human Face will be scanned as input.
Source	Face ID data will be taken from facial recognition sensor.
Outputs	None.
Destination	MV application.

Action	User should add his Face ID to the application by open the app and press add Face ID button.
Requirements	Smartphone must have a facial recognition sensor.
Pre-Condition	None.
Post-Condition	None.
Side effects	None.

3.1.5 Show bank card details:

Function	Show bank card details from the application.
Description	The user will be able to see his bank card details by the application.
Inputs	None.
Source	Card details data will be taken from MV database.
Outputs	Card details.
Destination	MV application.
Action	User should see his bank card details from the application by open the app and press card details button.
Requirements	Card should be added.
Pre-Condition	Card must be existing on MV database.
Post-Condition	None.
Side effects	None.

3.1.6 Show latest operations:

Function	Show the latest operations from the application.
Description	The user will be able to see the latest operations from the application.
Inputs	None.
Source	Latest operations data will be taken from MV database.
Outputs	Latest card operations.
Destination	MV application.
Action	User should see the latest bank operations was verifying by MV application from opening the app and go to the latest operations option.
Requirements	Card should be added.
Pre-Condition	Card must be existing on MV database.
Post-Condition	None.
Side effects	None.

3.2 Non-Functional requirements

Our team takes care to follow the systems of national banks for its trustiness and to achieve the top of the standards of the quality in performance, so they follow the instructions of Saudi Monetary Agency and Ministry of Finance.

There are Non-Functional requirements we took care of it such as:

- Verifying card information such as card id, Dynamic CVV, expire date etc.
- Code will be written by Java language because it is known for its power in making Android application.
- Build secure environment for all bank operations.

4 Conclusion

At the end of this SRS document, we covered a complete description of MV application starting up with product perspective, user characteristics and ending of Product functions. An overview of what system should do and how the system will do. In future, we are planning to run this project on other platforms, for instance, IOS and Windows OS.