



Mobile Application user manual

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Abbreviation / acronym	Description
DE4A	Digital Europe for All
OS	Operating system
QR	(QR Code) Quick response code

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1 Introduction

1.1 Purpose of the document

The present document is an instructions manual for installing the mobile application for the project DE4A. This document has two main goals: first it defines the steps to be performed by the user to install, open, and use the different options of the DE4A app and second, it is a reference of the screenshots of the application flow.

This manual is limited to the audience of the DE4A Studying Abroad pilot.

1.2 Structure of the document

This document is divided into 2 main sections:

- ▶ Chapter 2 – steps to install the application in an Android mobile device
- ▶ Chapter 3 – The different steps, grouped by procedures, to use the mobile application

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Figure 2: Allow apps from this source option

Once this option is set, the user is able to install the app.

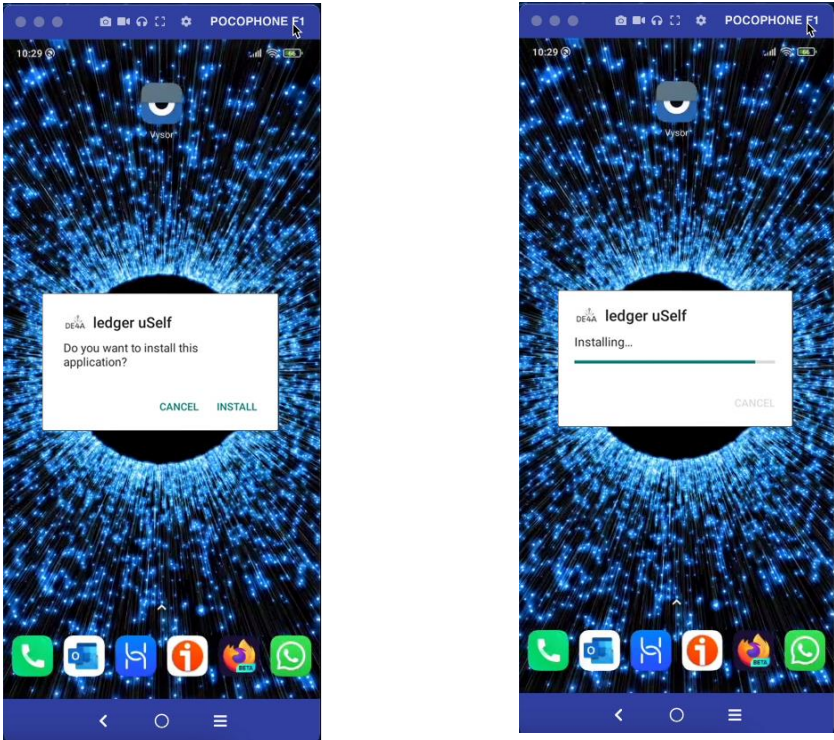


Figure 3: Application being installed

3 DE4A mobile application usage

The following sections describe the subsequent steps to be performed in order to obtain a Diploma from a data provider (e.g. university portal) and present it in a data consumer.

3.1 Open the App

First step is to click on the icon of DE4A Mobile app to open it. Once the app is open, the user has to login using her/his fingerprint on the device sensor to access to the main menu.

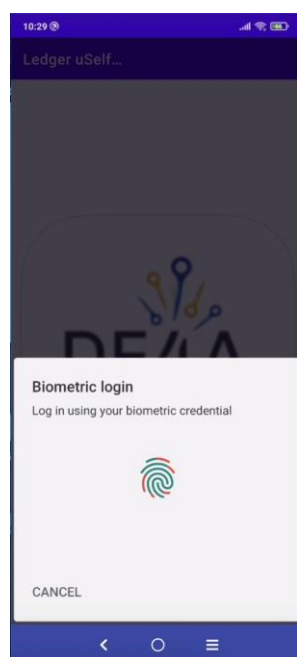


Figure 4: Fingerprint is required

If this unlock process is satisfied, the App will welcome the user with the following splash screen, notifying the authentication was successful:

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Figure 5: Splash screen

The flow continues to the main screen of the App, where the connections available are displayed. The App is ready to be used.

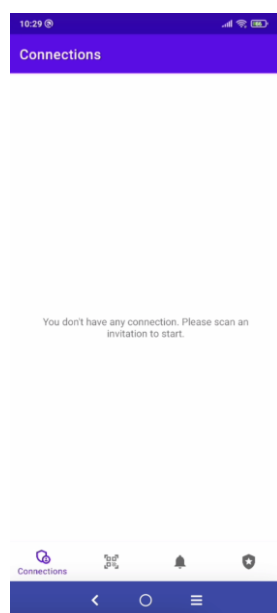


Figure 6: App ready. Connections available.

3.2 Establish a connection

In case there is no connections established, a message invites the user to scan an invitation to start. For that purpose, the user has to click on the Scanner option on bottom menu.

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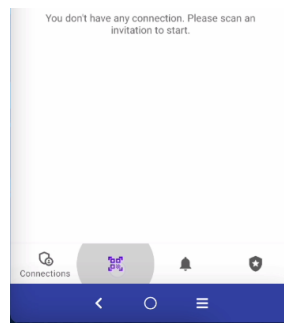


Figure 7: Scanner icon

Before continuing with the scanning process, the mobile OS will prompt a question to allow the App to access the camera, to take pictures and record video. The user must allow the App to do it for scanning the QR.

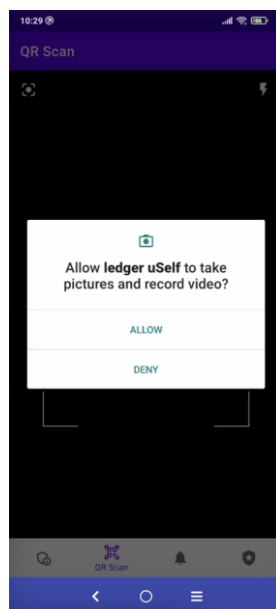


Figure 8: Camera permissions

Once the permission is granted, the App will open the camera to scan the QR Code containing the Data Provider Invitation. This QR Code is displayed in the evidence portal web page, after the proper identification.

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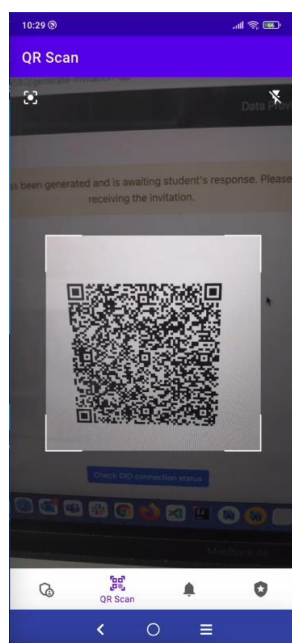


Figure 9: Scanning the QR Code on the webpage

If the QR code is correctly read, the connection has to appear in the App, with the information of the issuer and the date. See example details in following Figure 10:

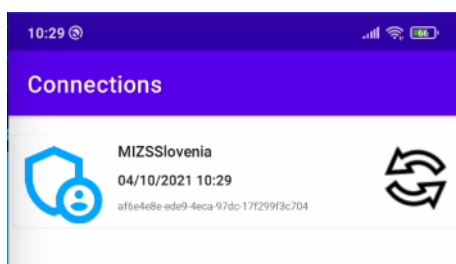


Figure 10: Connection invitation

If the user taps on the connection request, the detailed information will appear. It appears as unknown until the connection is accepted, as in the Figure 11.

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Figure 12: Connection established

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If the user taps on the connection already established, the details now appear on the next screen. If the user needs to know additional details, she/he could press the button “View details” on the bottom of the screen.

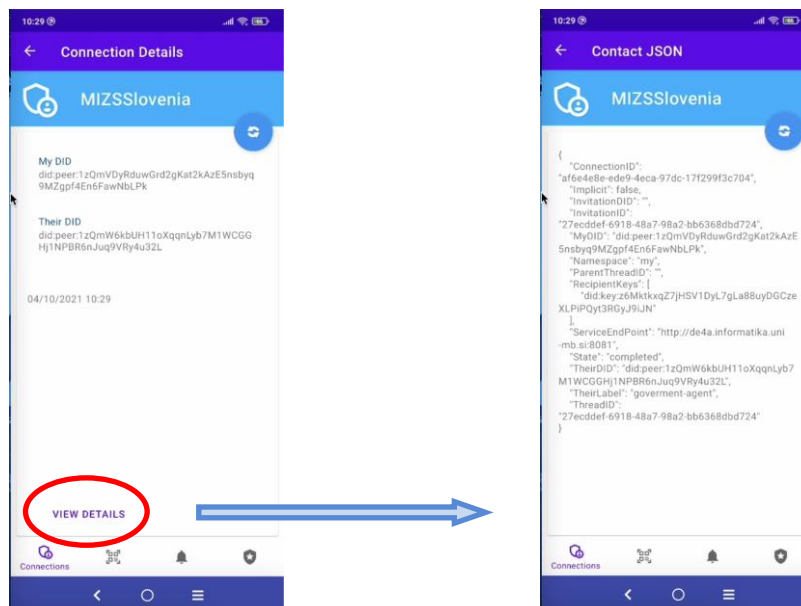
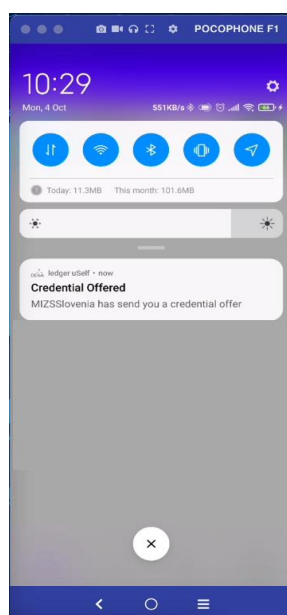


Figure 13: Connection details and raw values

3.3 Obtaining a Diploma

Once the invitation is accepted and the connection is established in the mobile app side, the evidence portal will send (automatically or by user intervention) a verifiable credential offer to the mobile device.

It will generate a notification on the mobile, as in the following figure:



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Figure 14: Notification of credential offered

The user has to tap on the notification and the following screen will appear:

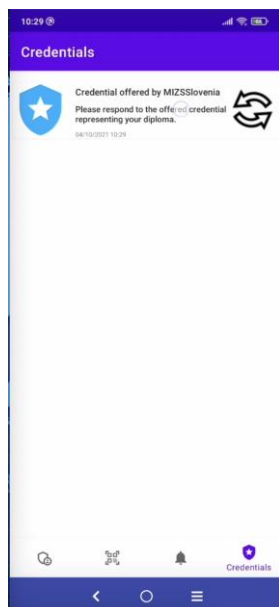


Figure 15: Credential offered to be accepted

If the user taps on this credential information banner to accept the offer, a new screen with the information of the credential that represents her/his diploma will appear and the button “Accept Credential” is enabled.

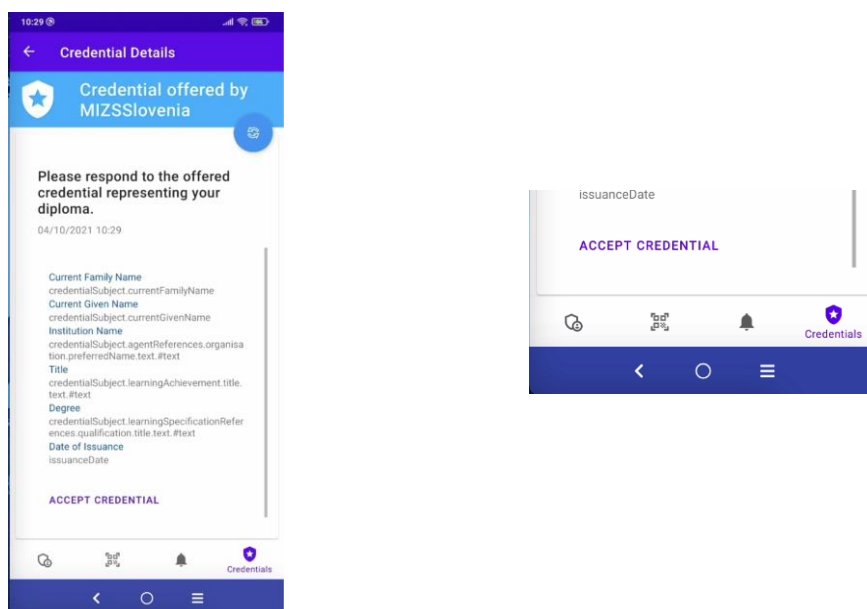


Figure 16: Credential offered details

In this screen (Figure 16) the user has to accept the credential offered by pressing the button “accept credential” after reviewing the information.

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Once it is accepted, the confirmation that the user accepted the offer will appear in the following screen, with the upper arrow in green, representing the offer acceptance has been sent to server.

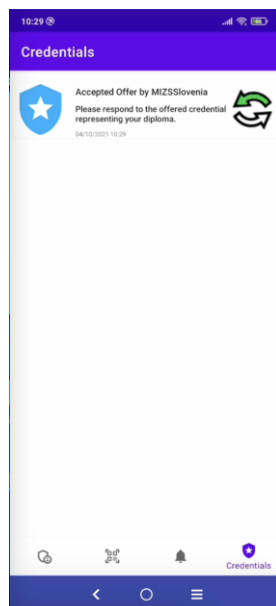


Figure 17: Accepted offer details

Noting that the user has accepted the credential offered but not the Verifiable Credential (i.e. Diploma) itself. Now the evidence portal will send the credential after receiving this offer acceptance, and the mobile app will display that the credential is issued by setting the lower arrow to green. The following screen displays the current situation:

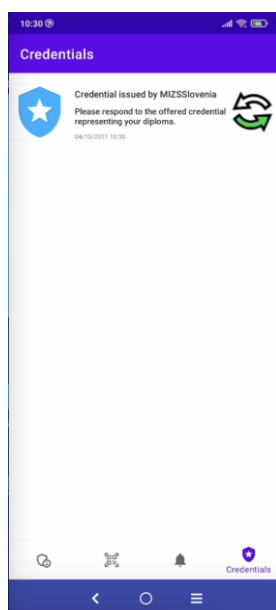


Figure 18: Credential issued by Data Provider

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In this step, the user could provide a name to this credential by tapping on the credential banner. A text box will prompt for a name for this credential. See Figure 19

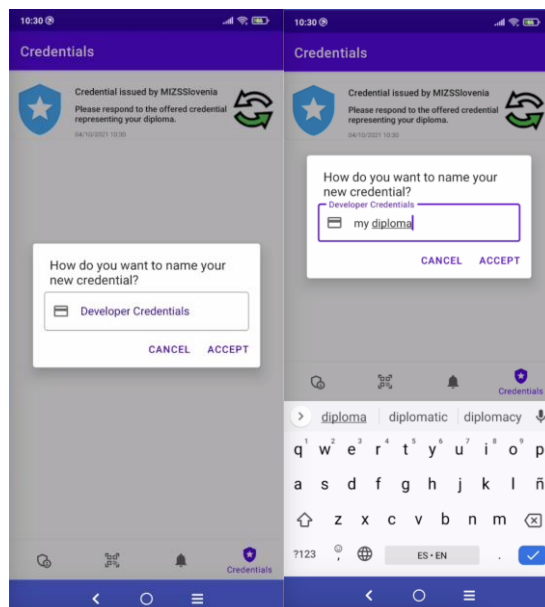


Figure 19: Introduce a name for the credential

Once the user taps on the Accept button, the credential will be stored in her/his mobile device with the name provided under the Credentials menu (see bottom menu in Figure 20)

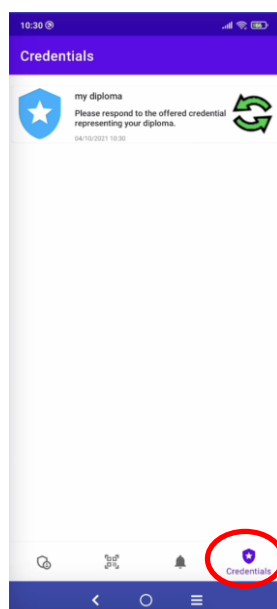


Figure 20: Credentials stored in the mobile device

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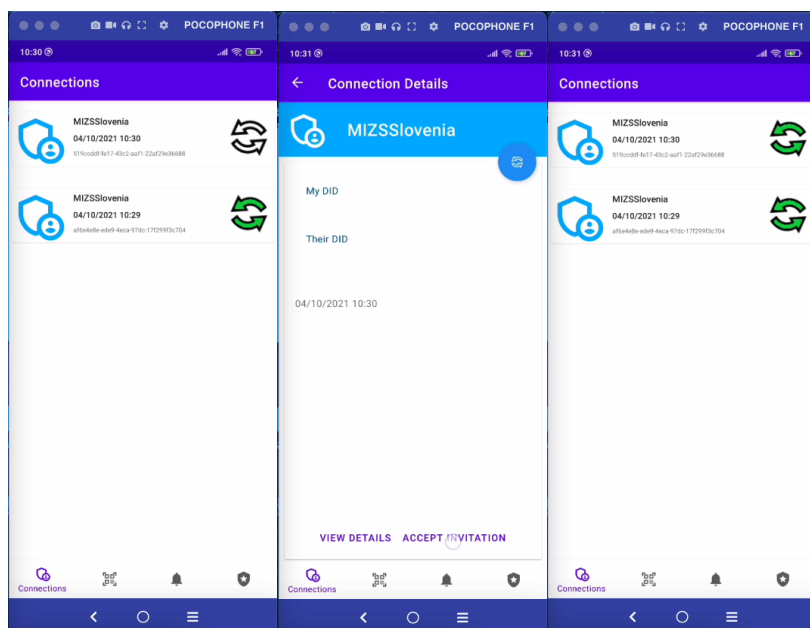
It is in this Credentials menu where all the credentials from the user can be found and can be checked at any moment by tapping in each credential. The details screen will be like the following screen:



Figure 21: Show the details of the credential

3.4 Present a Diploma

In this section, it will be explained how to present a credential when required in a data consumer portal using DE4A mobile app. For this purpose, a new connection must be established with the data portal where the credential has to be presented. For this procedure, the steps are the same as explained in section 3.2 .



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Figure 22: New connection established before presenting diploma

Once the portal of the data consumer sends the credential request (automatically or by user intervention), the mobile device will receive a notification.

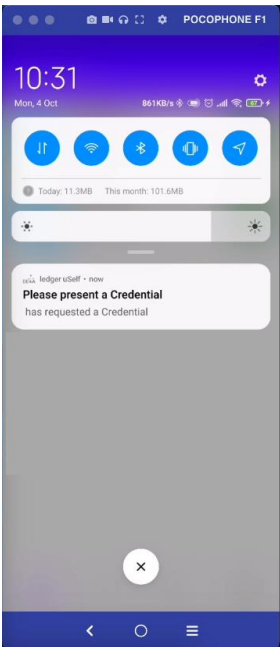


Figure 23: Notification of credential request

When the user taps on the notification, the Notifications menu of the App will appear, displaying all the notifications. See Figure 24

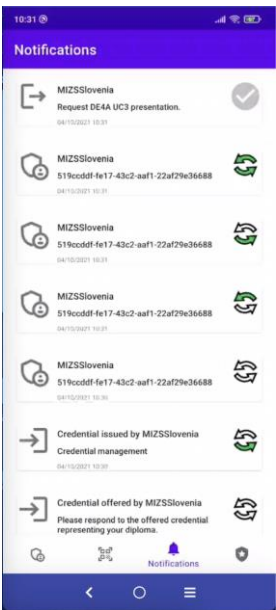


Figure 24: Notification history on bottom menu

The user has to tap on the credential request notification to check the request details and the requester information, as the Figure 25 shows:

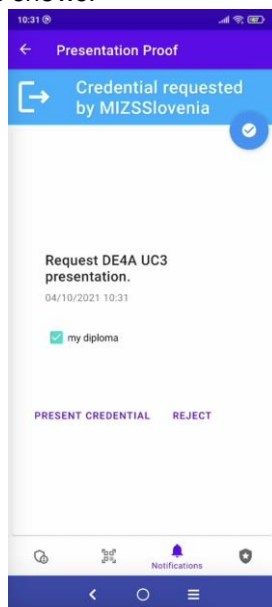


Figure 25: Notification of credential request

Select the credential to be presented among the credentials available and tap on “Present Credential” button to send the credential proof to the Data Consumer. In case the user prefers to cancel the request, tap on “Reject” button to abort the operation.

After presenting the credential, the app will show the notification screen again displaying the notification with green icon.

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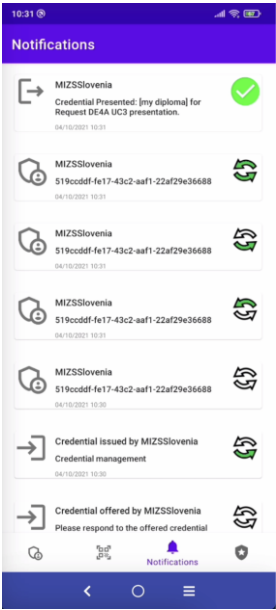


Figure 26: Credential Presentation sent

The Data Consumer portal shall receive the verifiable proof.

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