ELE 470 - Kesako ?
Description of the project

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1 Introduction

Kesako ? is a new kind of audioguide for museums and other expositions. The purpose of the project is to get information about artworks by scanning QR Code. Indeed, each QR Code is linked to a painting, a photography, or more generally an artwork.

2 Functionalities

With this application, a user can :
- Scan a QRCode to get more information about an artwork
- See the last 5 scanned artworks

If I have time, I will develop these extra functionalities :
- Audio description of the artwork (that can be triggered by the user)
- Rating system (the user will be able to rate the artwork)
- Translation in several languages

3 Methods

3.1 What is QR Code ?

QRCode is the trademark for a type of barcode which consists of black pixels arranged in a square pattern on a white background. The advantages of using QRCode are :
- open-source technology

– big community
– free to use
– fast to read

There is a library ZXing, which allow the reading of QR Codes (http ://-code.google.com/p/zxing/).

3.2 Where are the information about the artworks ?

The informations about the artworks will be stored in an XML file, which will be read at the launch of the application. XML is better to use in order to keep the application the more generic as possible. Indeed, XML is a very widespread technology, each museum can feed the application with its own file. The structure of the XML file would be the following :

```
<artwork>
        <qrcode>URL Generated by the QRCode</qrcode>
        <title>Title of the artwork</title>
        <desc>Description of the artwork</desc>
</artwork>
```

As you can see on the models section below, we also show a picture of the artwork. In order to have a small XML file, we can read the media files (photo, audio description) using the url generated by the QRCode.

4 Organization

The project will be cut into three steps :
– Reading of QR Code
– Reading of the XML file
– Development of the functionalities (filling the view with the information associated with the scanned QRCode . . .)

5 Models

These interfaces are not fixed, but the two screens give a general idea of the design of the future app.

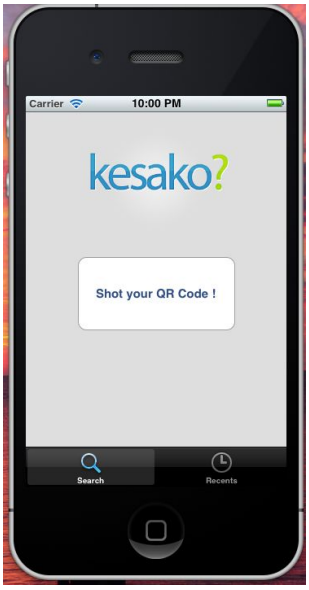

FIGURE 1 – Scanning of the QRCode using the iPhone's camera

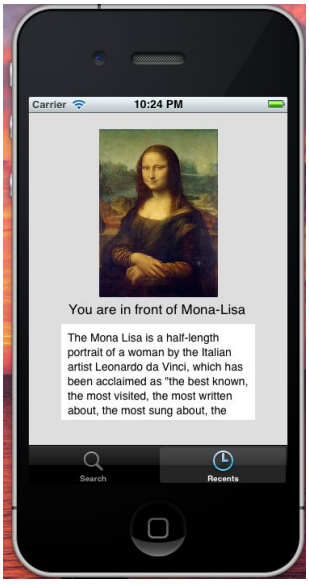

FIGURE 2 – Second view of the application, information about the artwork associated with the scanned QRCode