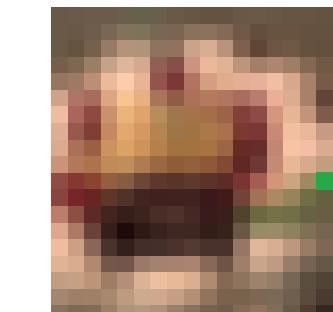
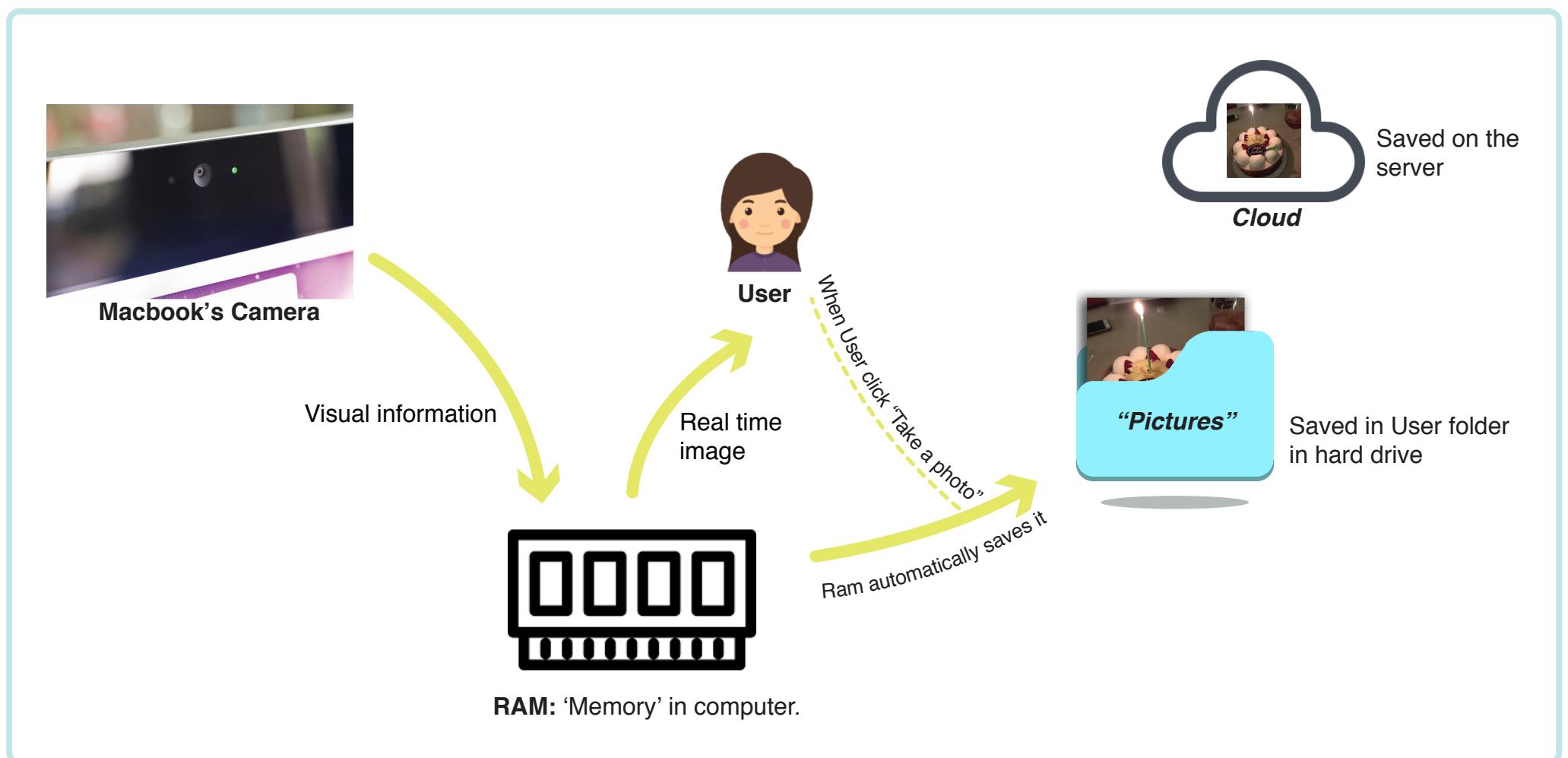


# Application Data Model

System HW04\_ Isla Yeon

## Brief

When the Photo Booth application is launched, the camera on the device is activated and detects real-time images. By receiving visual information from the camera at the RAM memory, it shows real-time images to the user. When the user takes a photo, the application saves the visual information from RAM on the hard drive as an image file. The image file is rendered in a compressed bitmap format. Each pixel consists of 3 bytes with a pair of HEX values for each R, G, and B, and these values are stored in binary format.



## 1. Camera

Macbook's camera detects real-time images.

## 2. Application

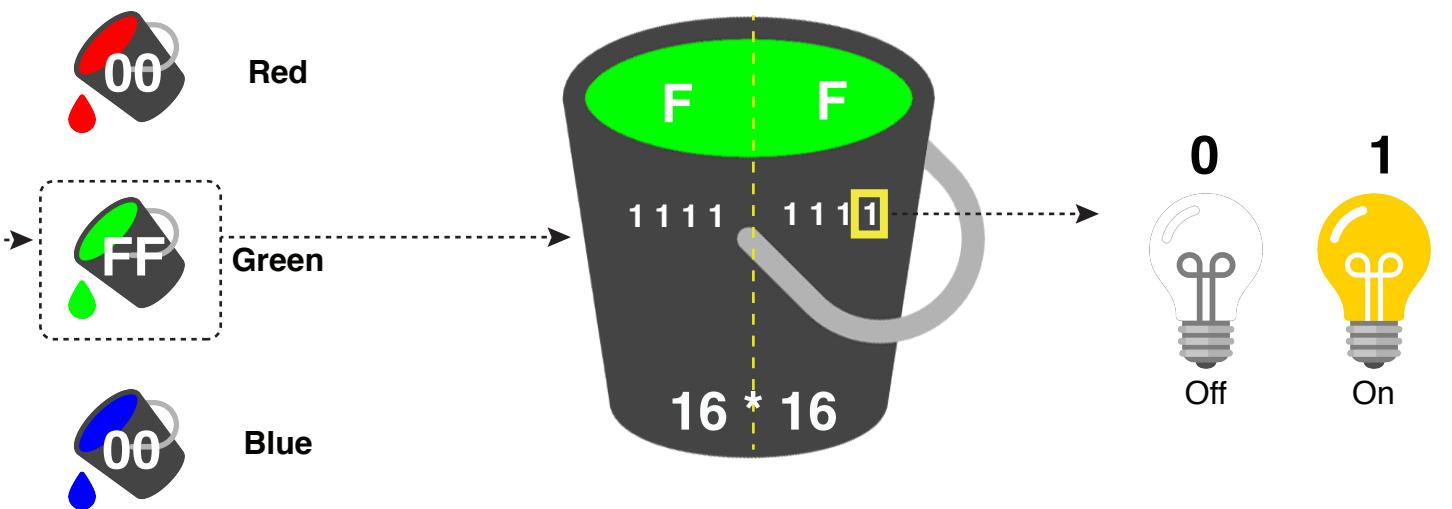
Photo Booth creates an image file from the visual information captured by the camera.

## 3. Image file

The image file is in a compressed bitmap format such as JPEG.

## 4. Matrix form

The image contains the data for each pixel consisting of color values.



## 5. Data in HEX

Each pixel is 3 bytes, with one byte for each color, R, G, and B. Each color is expressed in two-digit HEX values which could have 256 different combinations.

## 6. Paint Buckets

Each paint bucket can have 256 possible values expressed in two-digit HEX. Each digit is expressed in four binary digits.

## 7. Data as bit

Binary digit has two values; 0 or 1. Non-value for 0, otherwise 1.