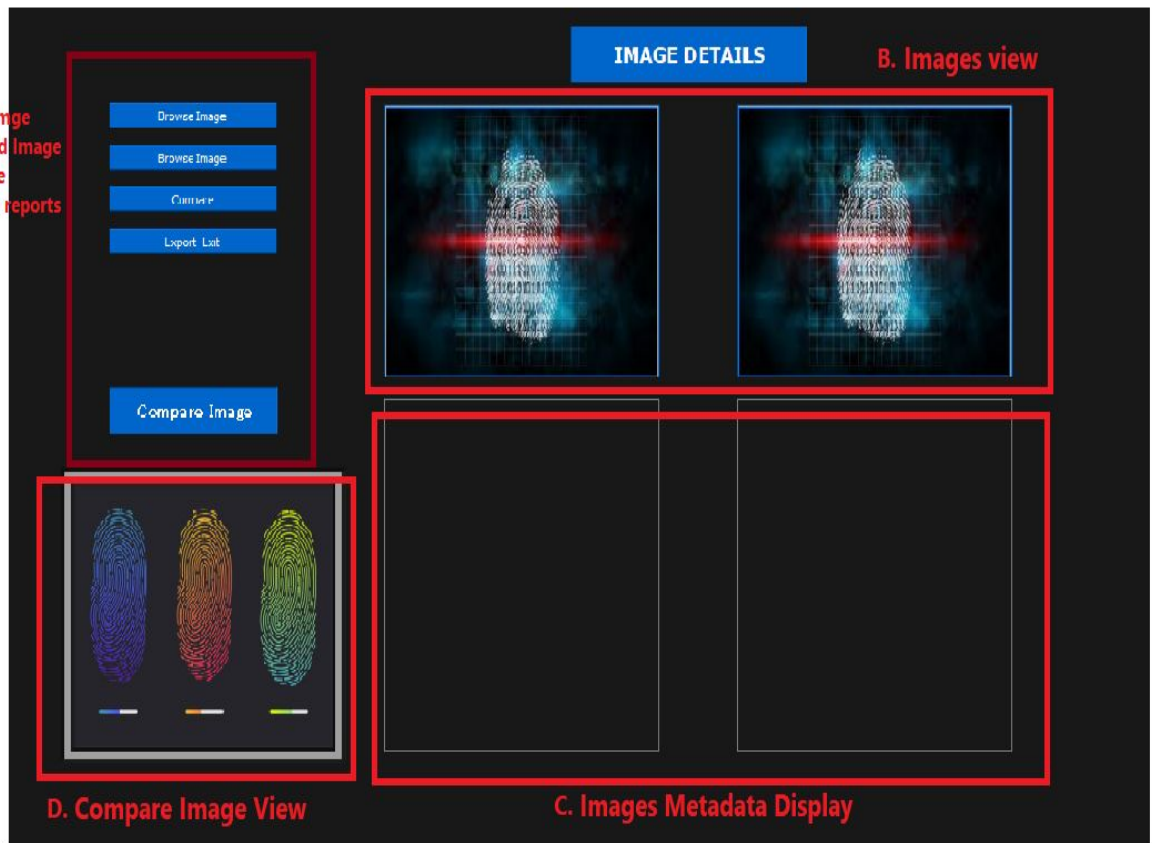
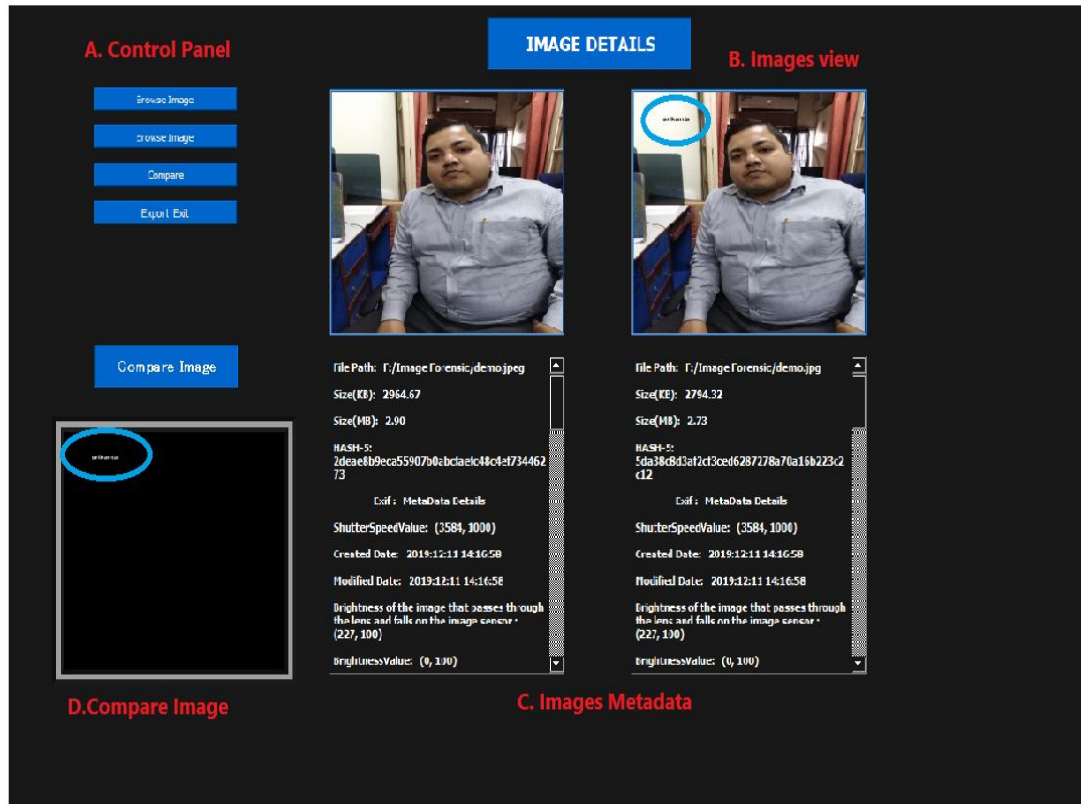


Detailed information of the output getting from an image through this Application:

A. Button

1. Upload First Image
2. Upload Second Image
3. Compare Image
4. Save the image reports





Tags used by IFD0 (main image)			
Tag Name	Format	CompoNo	Desc.
ImageDescription	ascii string		Describes image
Make	ascii string		Shows manufacturer of digicam
Model	ascii string		Shows model number of digicam

Orientation	unsigned short	1	The orientation of the camera relative to the scene, when the image was captured. The start point of stored data is, '1' means upper left, '3' lower right, '6' upper right, '8' lower left, '9' undefined.
XResolution	unsigned rational	1	Display/Print resolution of image. Large number of digicam uses 1/72 inch, but it has no mean because personal computer doesn't use this value to display/print out.
YResolution	unsigned rational	1	
ResolutionUnit	unsigned short	1	Unit of XResolution(0x011a)/YResolution(0x011b). '1' means no-unit, '2' means inch, '3' means centimeter.
Software	ascii string		Shows firmware(internal software of digicam) version number.
DateTime	ascii string	20	Date/Time of image was last modified. Data format is "YYYY:MM:DD HH:MM:SS"+0x00, total 20 bytes. In usual, it has the same value of DateTimeOriginal(0x9003)
WhitePoint	unsigned rational	2	Defines chromaticity of white point of the image. If the image uses CIE Standard Illumination D65(known as international standard of 'daylight'), the values are '3127/10000,3290/10000'.
PrimaryChromaticities	unsigned rational	6	Defines chromaticity of the primaries of the image. If the image uses CCIR Recommendation 709 primaries, values are '640/1000,330/1000,300/1000,600/1000,150/1000,0/1000'.
YCbCrCoefficients	unsigned rational	3	When image format is YCbCr, this value shows a constant to translate it to RGB format. In usual, values are '0.299/0.587/0.114'.
YCbCrPositioning	unsigned short	1	When image format is YCbCr and uses 'Subsampling'(cropping of chroma data, all the digicam do that), defines the chroma sample point of subsampling pixel array. '1' means the center of pixel array, '2' means the datum point.
ReferenceBlackWhite	unsigned rational	6	Shows reference value of black point/white point. In case of YCbCr format, first 2 show black/white of Y, next 2 are Cb, last 2 are Cr. In case of RGB format, first 2 show black/white of R, next 2 are G, last 2 are B.

Copyright	ascii string		Shows copyright information
ExifOffset	unsigned long	1	Offset to Exif Sub IFD

Tags used by Exif SubIFD			
Tag Name	Format	CompoNo	Desc.
ExposureTime	unsigned rational	1	Exposure time (reciprocal of shutter speed). Unit is second.
FNumber	unsigned rational	1	The actual F-number(F-stop) of lens when the image was taken.
ExposureProgram	unsigned short	1	Exposure program that the camera used when image was taken. '1' means manual control, '2' program normal, '3' aperture priority, '4' shutter priority, '5' program creative (slow program), '6' program action(high-speed program), '7' portrait mode, '8' landscape mode.
ISOSpeedRatings	unsigned short	2	CCD sensitivity equivalent to Ag-Hr film speedrate.
ExifVersion	undefined	4	Exif version number. Stored as 4bytes of ASCII character (like "0210")
DateTimeOriginal	ascii string	20	Date/Time of original image taken. This value should not be modified by user program.
DateTimeDigitized	ascii string	20	Date/Time of image digitized. Usually, it contains the same value of DateTimeOriginal(0x9003).
ComponentConfiguration	undefined		Unknown. It seems value 0x00,0x01,0x02,0x03 always.
CompressedBitsPerPixel	unsigned rational	1	The average compression ratio of JPEG.
ShutterSpeedValue	signed rational	1	Shutter speed. To convert this value to ordinary 'Shutter Speed'; calculate this value's power of 2, then reciprocal. For example, if value is '4', shutter speed is $1/(2^4)=1/16$ second.

ApertureValue	unsigned rational	1	The actual aperture value of lens when the image was taken. To convert this value to ordinary F-number(F-stop), calculate this value's power of root 2 (=1.4142). For example, if value is '5', F-number is $1.4142^5 = F5.6$.
BrightnessValue	signed rational	1	Brightness of taken subject, unit is EV.
ExposureBiasValue	signed rational	1	Exposure bias value of taking picture. Unit is EV.
MaxApertureValue	unsigned rational	1	Maximum aperture value of lens. You can convert to F-number by calculating power of root 2 (same process of ApertureValue(0x9202)).
SubjectDistance	signed rational	1	Distance to focus point, unit is meter.
MeteringMode	unsigned short	1	Exposure metering method. '1' means average, '2' center weighted average, '3' spot, '4' multi-spot, '5' multi-segment.
LightSource	unsigned short	1	Light source, actually this means white balance setting. '0' means auto, '1' daylight, '2' fluorescent, '3' tungsten, '10' flash.
Flash	unsigned short	1	'1' means flash was used, '0' means not used.
FocalLength	unsigned rational	1	Focal length of lens used to take image. Unit is millimeter.
MakerNote	undefined		Maker dependent internal data. Some of maker such as Olympus/Nikon/Sanyo etc. uses IFD format for this area.
UserComment	undefined		Stores user comment.
FlashPixVersion	undefined	4	Stores FlashPix version. Unknown but 4bytes of ASCII characters "0100"exists.
ColorSpace	unsigned short	1	Unknown, value is '1'.
ExifImageWidth	unsigned short/long	1	Size of main image.
ExifImageHeight	unsigned short/long	1	
RelatedSoundFile	ascii string		If this digicam can record audio data with image, shows name of audio data.

ExifInteroperabilityOffset	unsigned long	1	Extension of "ExifR98", detail is unknown. This value is offset to IFD format data. Currently there are 2 directory entries, first one is Tag0x0001, value is "R98", next is Tag0x0002, value is "0100".
FocalPlaneXResolution	unsigned rational	1	CCD's pixel density.
FocalPlaneYResolution	unsigned rational	1	
FocalPlaneResolutionUnit	unsigned short	1	Unit of FocalPlaneXResolution/FocalPlaneYResolution. '1' means no-unit, '2' inch, '3' centimeter.
SensingMethod	unsigned short	1	Shows type of image sensor unit. '2' means 1 chip color area sensor, most of all digicam use this type.
FileSource	undefined	1	Unknown but value is '3'.
SceneType	undefined	1	Unknown but value is '1'.

Tags used by IFD1 (thumbnail image)			
Tag Name	Format	Compono	Desc.
ImageWidth	unsigned short/long	1	Shows size of thumbnail image.
ImageLength	unsigned short/long	1	
BitsPerSample	unsigned short	3	When image format is no compression, this value shows the number of bits per component for each pixel. Usually this value is '8,8,8'
Compression	unsigned short	1	Shows compression method. '1' means no compression, '6' means JPEG compression.

PhotometricInterpretation	unsigned short	1	Shows the color space of the image data components. '1' means monochrome, '2' means RGB, '6' means YCbCr.
StripOffsets	unsigned short/long		When image format is no compression, this value shows offset to image data. In some case image data is striped and this value is plural.
SamplesPerPixel	unsigned short	1	When image format is no compression, this value shows the number of components stored for each pixel. At color image, this value is '3'.
RowsPerStrip	unsigned short/long	1	When image format is no compression and image has stored as strip, this value shows how many rows stored to each strip. If image has not striped, this value is the same as ImageLength(0x0101).
StripByteConunts	unsigned short/long		When image format is no compression and stored as strip, this value shows how many bytes used for each strip and this value is plural. If image has not stripped, this value is single and means whole data size of image.
XResolution	unsigned rational	1	Display/Print resolution of image. Large number of digicam uses 1/72inch, but it has no mean because personal computer doesn't use this value to display/print out.
YResolution	unsigned rational	1	
PlanarConfiguration	unsigned short	1	When image format is no compression YCbCr, this value shows byte aligns of YCbCr data. If value is '1', Y/Cb/Cr value is chunky format, contiguous for each subsampling pixel. If value is '2', Y/Cb/Cr value is separated and stored to Y plane/Cb plane/Cr plane format.
ResolutionUnit	unsigned short	1	Unit of XResolution(0x011a)/YResolution(0x011b). '1' means inch, '2' means centimeter.
JpegIFOffset	unsigned long	1	When image format is JPEG, this value show offset to JPEG data stored.

JpegIFByteCount	unsigned long	1	When image format is JPEG, this value shows data size of JPEG image.
YCbCrCoefficients	unsigned rational	3	When image format is YCbCr, this value shows constants to translate it to RGB format. In usual, '0.299/0.587/0.114' are used.
YCbCrSubSampling	unsigned short	2	When image format is YCbCr and uses subsampling(cropping of chroma data, all the digicam do that), this value shows how many chroma data subsampled. First value shows horizontal, next value shows vertical subsample rate.
YCbCrPositioning	unsigned short	1	When image format is YCbCr and uses 'Subsampling'(cropping of chroma data, all the digicam do that), this value defines the chroma sample point of subsampled pixel array. '1' means the center of pixel array, '2' means the datum point(0,0).
ReferenceBlackWhite	unsigned rational	6	Shows reference value of black point/white point. In case of YCbCr format, first 2 show black/white of Y, next 2 are Cb, last 2 are Cr. In case of RGB format, first 2 show black/white of R, next 2 are G, last 2 are B.