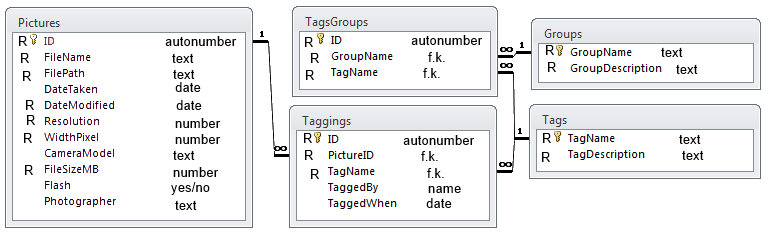
Information Systems and Data Management 5 solution

## Exercise Relational databases

**Pictures’ archive**



All primary keys are, obviously, R and index(no duplicates)

DateTaken, CameraModel, Flash and Photographer may be unknown, especially for pre-digital pictures.

Photographer contains name and lastname. This is a simplification, as such unstructured information should not appear in a database (a photographers table would be ideal). Same thing for TaggedBy.

HeightPixel is not included, as it can be determined from Resolution and WidthPixel (note: in case you put it in the exam, it was not considered an error, as technical knowledge of digital pictures is not required by this course)

FileName is Index(No Duplicates). FilePath and DateTaken are Index(Duplicates OK).

Table validation rule for table Pictures: DateTaken is either Null or <= DateModified

Validation rule for field Width in table Pictures: >0

Query involving two tables: which pictures were tagged with yesterday?

Summary query: what is the average resolution of pictures taken in 2011?

## Exercise Theoretical questions

**SSD**TRUE  FALSE  is a USB pendrive  
TRUE  FALSE  means Standard Saving Device  
TRUE  FALSE  size 250 GB is easily found on the market

TRUE  FALSE  is faster than an hard disk of the same size

**Copyleft software**

TRUE  FALSE  may be modified

TRUE  FALSE  may be modified and the modified version may be distributed  
TRUE  FALSE  may be modified and the modified version may be distributed for a little payment  
TRUE  FALSE  is proprietary

**This file is saved using an open proprietary data format**TRUE  FALSE  document exam.doc  
TRUE  FALSE  document exam.docx  
TRUE  FALSE  webpage home.html

TRUE  FALSE  picture holiday.gif

**If you copy a link from directory XYZ to directory ABC**

TRUE  FALSE  you move the original file

TRUE  FALSE  you copy the original file

TRUE  FALSE  the link in directory ABC will not work

TRUE  FALSE  it is not possible to do it, Windows will forbid it

**UMTS 3G**TRUE  FALSE  is a mobile connection  
TRUE  FALSE  is faster than GPRS

TRUE  FALSE  requires line of sight

TRUE  FALSE  is a technology which offers a minimum band guaranteed

**You are decrypting a secret message**

TRUE  FALSE  with private key  
TRUE  FALSE  with public key

TRUE  FALSE  the key you are using is yours

TRUE  FALSE  the key you are using belongs to the message’s author

**Encrypting one of your files, for your personal use only,**

TRUE  FALSE  private and public keys are the same

TRUE  FALSE  can be done with a compression program

TRUE  FALSE  can be done with a PDF creation program

TRUE  FALSE  must be done if it contains sensitive data

**Using digital signature has benefits over handwritten signature when**

TRUE  FALSE  signing many identical documents

TRUE  FALSE  signing documents without a computer in front

TRUE  FALSE  checking authenticity of signature after several years

TRUE  FALSE  a non-expert is trying to check authenticity

**If you receive on your personal email account an email from paolo.colettiunibz.it**

TRUE  FALSE  you are sure it comes from Paolo Coletti  
TRUE  FALSE  you are sure it comes from an unibz account  
TRUE  FALSE  you are sure it comes from unibz mailserver   
TRUE  FALSE  you are sure that its content has not been seen by anybody

**These files must be included in a backup**

TRUE  FALSE  your email archive, if you download your emails on a mail reader

TRUE  FALSE  your holiday’s pictures

TRUE  FALSE  your degree’s thesis

TRUE  FALSE  videos of Coletti’s lessons

**A Denial of Service attack**

TRUE  FALSE  enters the target computer

TRUE  FALSE  is a virus

TRUE  FALSE  requires millions of connections

TRUE  FALSE  is usually done against home users