# Exercises

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|  | This is an exercise on design patterns using Object Oriented stuff.  There is an assumption that you have a notice of the things below:   * Class (Base and child thru inheritance), Abstract Class, Abstract Method, Method, Property, Indexer, Interface, Public and Private, ….   The goal of this exercise is create a correct design, that solves the wanted behaviour of the application.  I’ve assume that you already did the Fuzzy Duck and Ducky Fuzz exercise, to discover the design pattern (Strategy Pattern) used there.  I want the classes that define the objects, behaviours and the test routines, to prove the functionality works and is adaptable. |
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## Exercise Camera

You have a cell phone with a camera and that camera is used to take pictures. Photos can be taken, edited, saved and shared (in that order) using an app on the cell phone.

There are several strategies to share photos.

There are several ways to edit photos.

* A cell phone camera app can take a photo.
  + All cell phones apps do this in the same way.
  + Show a message in the debug window that a photo is taken.
* A cell phone camera app can save a photo.
  + All cell phones apps do this in the same way.
  + Show a message in the debug window that the photo is saved.
* A cell phone camera app can edit a photo.
  + The way of doing this varies depending on the cell phone app that is installed on the cell phone.
* You have cell phones with a basic camera app to edit photos.
  + Show a message on the console window.
* You have cell phones with a special camera app to edit photos.
  + Show a message on the console window and beep.
* The cell phone with basic camera app shares by default with SMS.
* The cell phone with special camera app shares by default with Whatsapp.
* There are several ways to share a saved photo with the camera app.
  + You can email the photo.
    - Show a message in the debug window that a photo is sent by mail.
  + You can WhatsApp (using social media) the photo.
    - Show a message in the debug window that a photo is sent by WhatsApp.
  + You can text by SMS the photo.
    - Show a message in the debug window that a photo is sent by text message.
* The test routine creates 2 cell phones with a camera app.
  + One with a basic camera app.
  + One with a special camera app.
  + For both cameras you ask on the console how the photos taken will be shared
    - Typing a “E” means, you share by email.
    - Typing a “T” means, you share by text message.
    - Typing a “W” means, you share by WhatsApp.
  + For both cameras you:
    - Take a photo.
    - Edit a photo.
    - Save a photo.
    - Share a photo.