

# Project

”BrainWasher – a mathematical Quiz”

Note: correction & additions since last version are marked in  
Red inside this document.

# Process:

From a mobile app, the user will configure any number of structured mathematical quizz'es, which will be saved on a cloud fileshare.

The quizzes will be uploaded from the fileshare to a facebook page by a Media Specialist.

A function on the app, will generate the quizz content which will be returned as a matrix. The matrix will be published by the app as a formatted .png file, based on the configuration in the app.

# App environment:

1. The app is for internal use by employees of the company. Therefore It should be available for IOS only, as we all use Iphones.
2. We will develop a function to provide quiz numbers for the quiz. We prefer to do this in Python. So in fact we will deliver the function to you.
3. Programming languages can be: .net, c# or python – free choice. What is the optimum solution for this app? But the function should then be developed in the same language?
4. Please note that we can fill in a Retention period in the form on the next slide.

We did not provide any functionality for this input field. Here is how this should be treated:

Each time the app form is run, you should check the dates in the files names of the .png files, e.g. "2021-12-01\_01p" If this date is older than todays date minus the retention period, it should be deleted.

Example : Filename : "2020-12-01\_01p". Retention period : 365 days.

So when the app is run on 2022-12-01 or later, this file will be deleted from the fileshare.

# App fields:

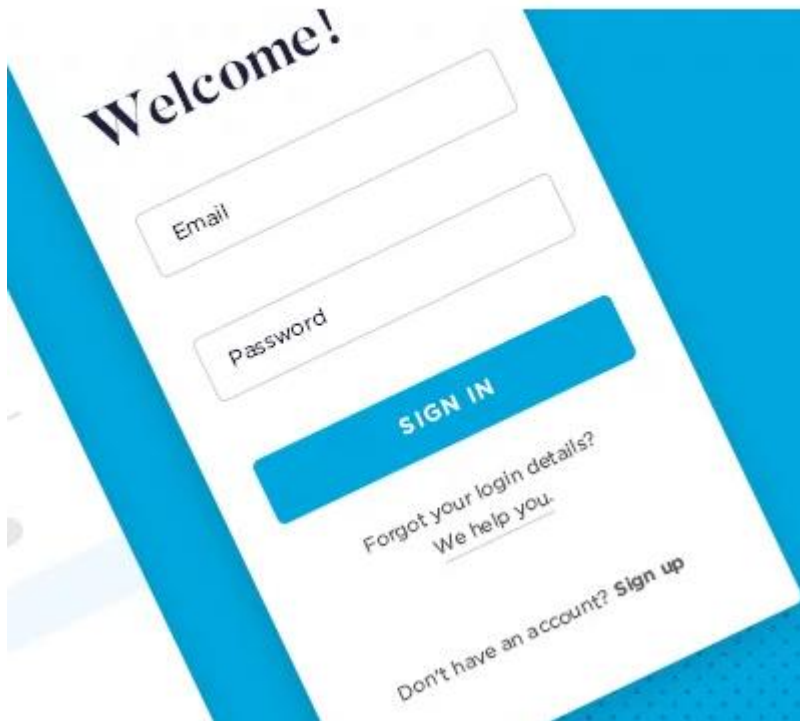
Input: A form containing the following inputs:

1. Quizz type: Sequential (s) or Progression (p) (drop down)
2. No. of Artifacts, default = 5 , Maximum = 100  
Naming: <date> <versionNumber><quizType> e.g. "20211211\_01p"  
Each new day, the version number will be reset to "01"
3. Level of difficulty : Green          Blue          Red          default: "Blue"
4. Background image: Solid (s) or Image (i)  
Choose file:<abc.jpeg> default: defaultimage.jpg  
Solid Background color;<color> (choose color from palette), default = Blue
5. Background transparency (0-100%), default = 0%
6. Font name, default = Ariel (Font drop down box)
7. Font color, default = White (Choose color from palette)
8. Font size, default = 25
9. Bold (Y/N), default = N
10. Minimum retention period = 270, default=270
11. Path / url to fileshare, default = https://...

Buttons : Generate    Cancel    Exit

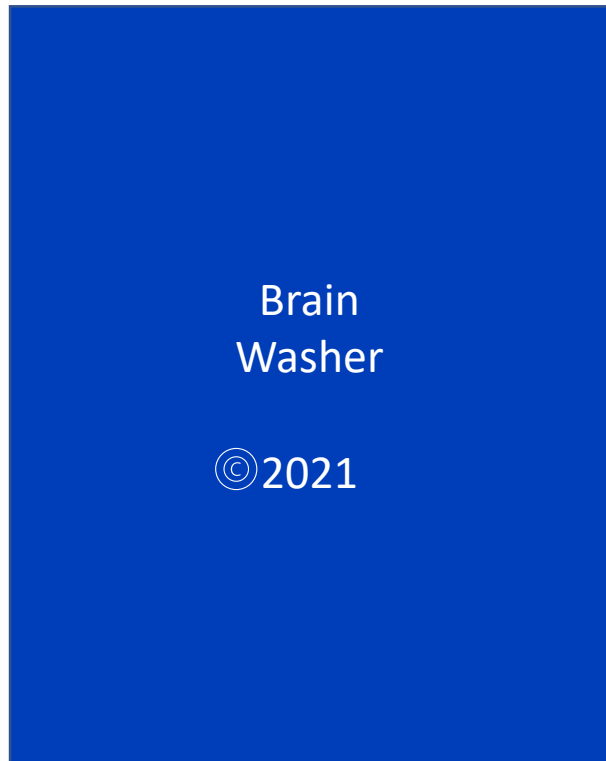
Warning : "Are you sure you want to generate 5 Artifacts?"    Yes    No , default = Yes  
Return message : "5 Artifacts successfully generated"

# App form layout



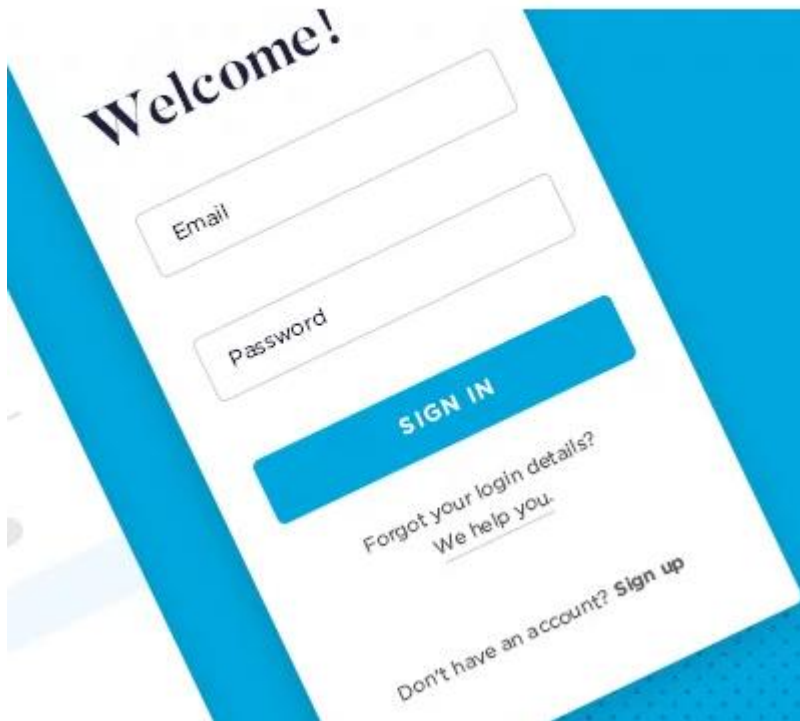
The form should be designed in a modern way like shown, e.g. with help texts within each field etc.

# App form layout

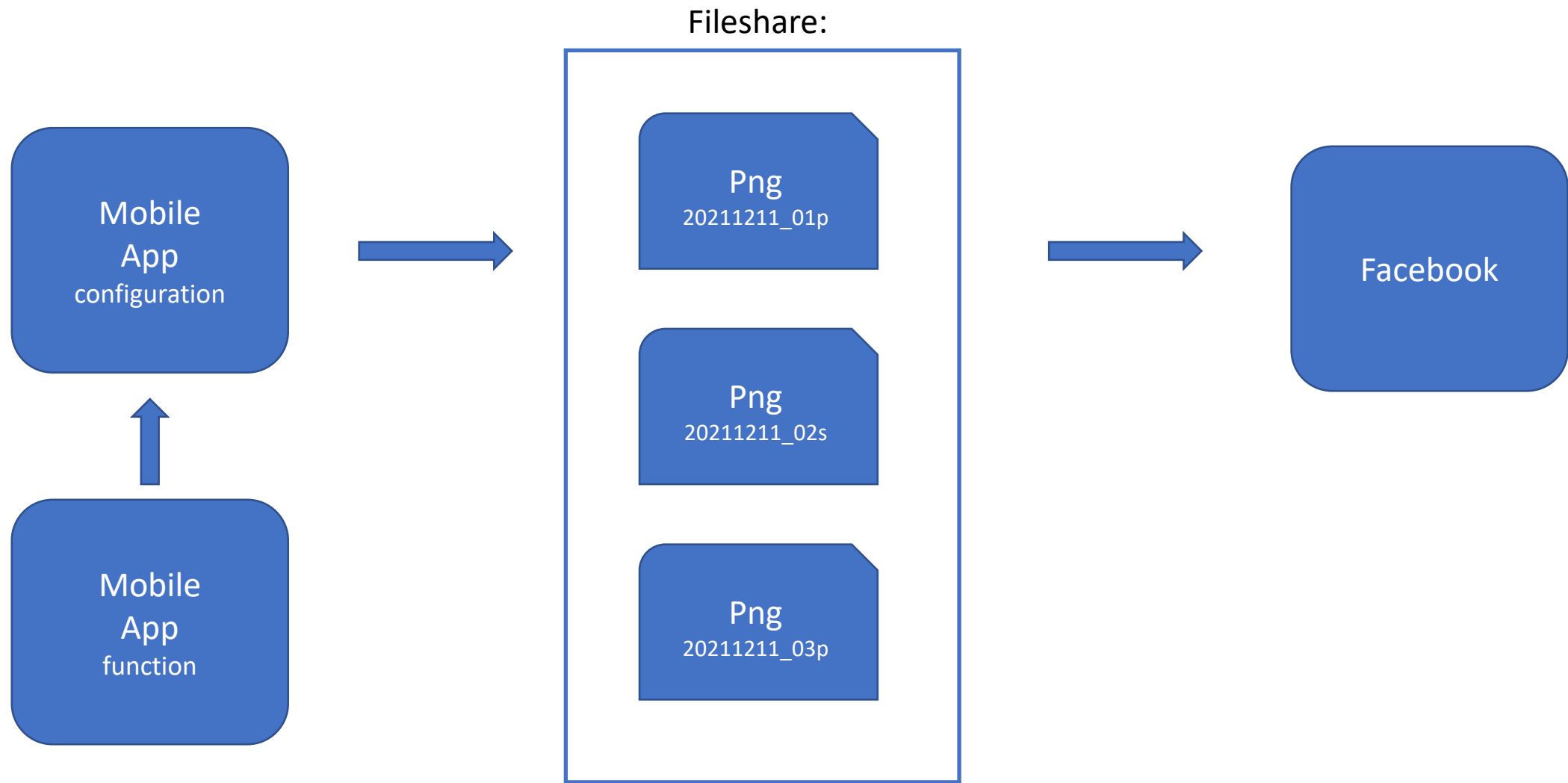


When the app is opened, the logo is flashed, then the form (see net slide) is started.

# App form layout

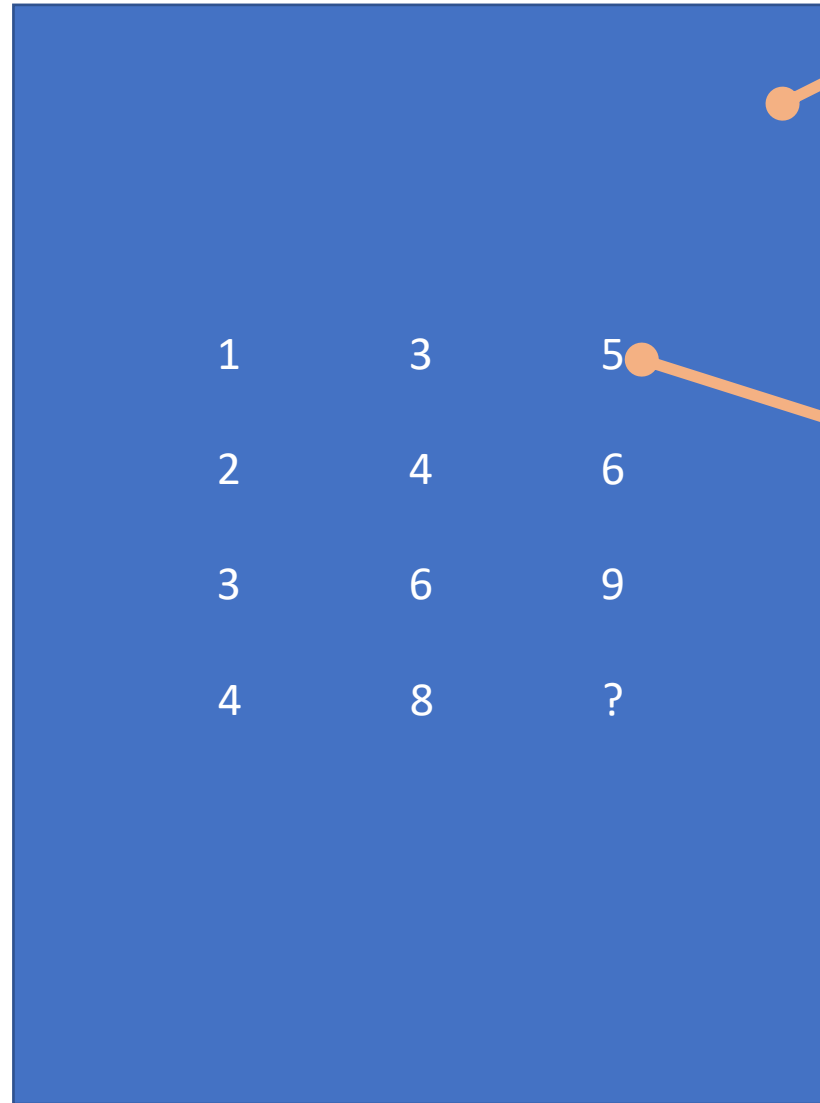


The form should be designed in a modern way like shown, e.g. with help texts within each field etc.





## Output: Progression quizz



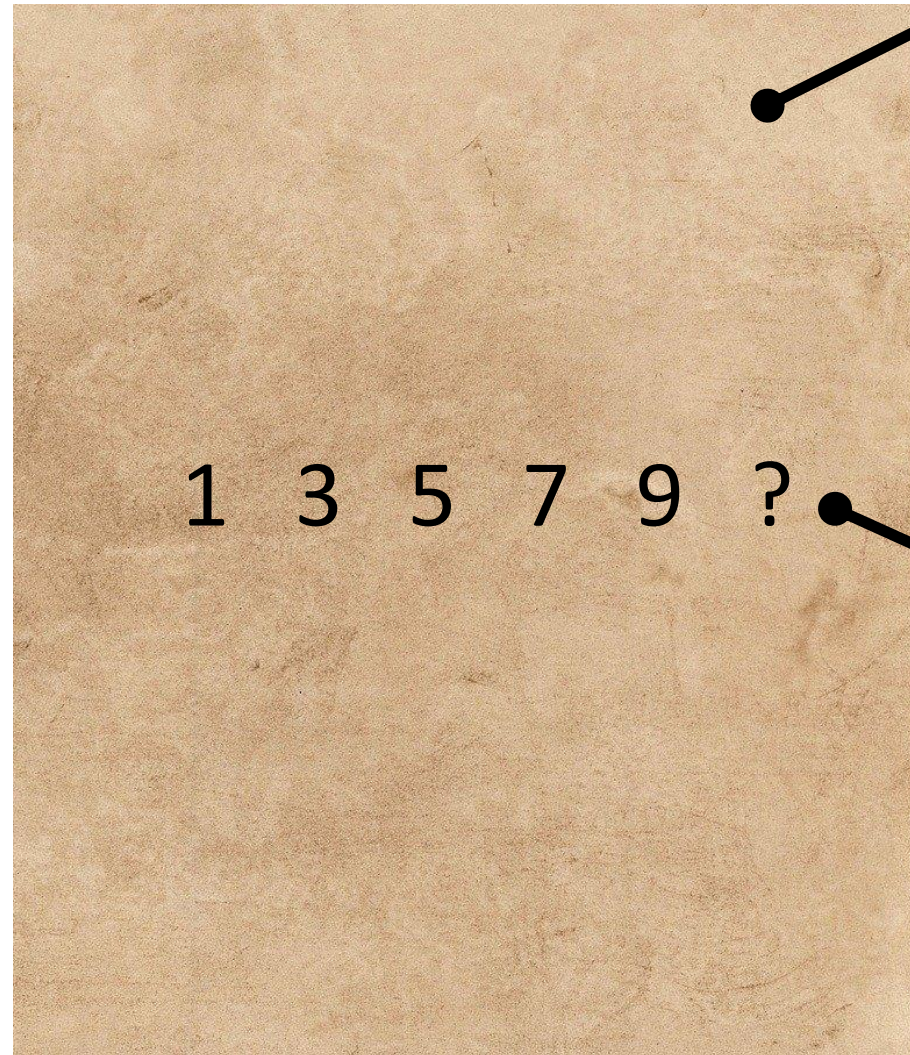
The diagram shows a blue rectangular box representing a quiz output. Inside the box is a 4x3 grid of numbers. Two orange lines with circular endpoints point to specific elements: one points to the top-right corner of the box, and the other points to the number '5' in the first row, third column.

1	3	5
2	4	6
3	6	9
4	8	?

Background color & transparency

Font name, size & color  
(Bold or Normal)

Output: Sequential quizz



Background Image & transparency

Font name, size & color  
(Bold or Normal)