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# GetGrade

The most effective, fastest, and most accurate way to grade tests



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# .Overview

Get grade of the multiple choice tests, quizzes, and assessments instantly by using your Android smartphone's camera as a scanner.



# .Our aim

“GetGrade” application is designed to help teachers for checking question exams and also generate instant exam report by scanning answer sheets with phone camera.





## .Splash & Logotype

Application welcomes users with splash activity, where in the center of the activity located logotype of the application.

Besides, the meaning of logotype is the same as the application works.

Skip



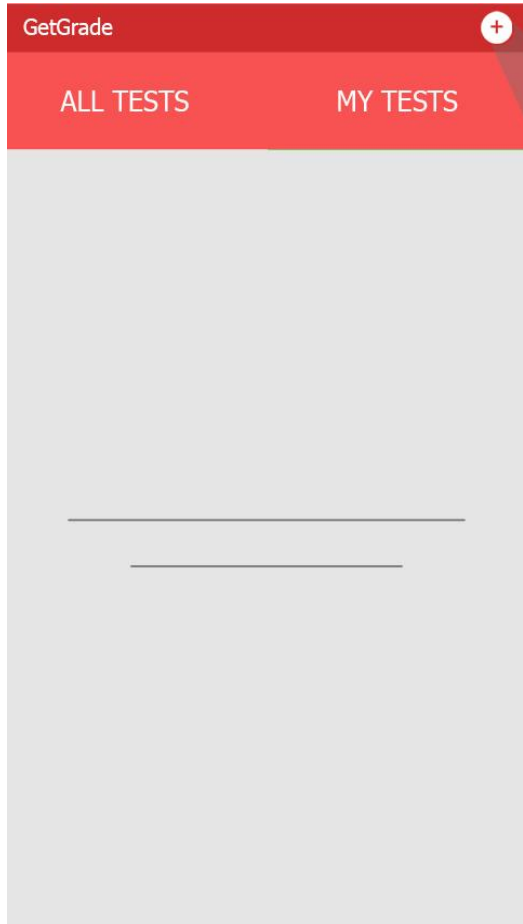
## .Tutorial

In the next step, application shows the little manual of using our application, with explanation and screens.

### CREATE TEST

Tap the floating button, to create a new test.

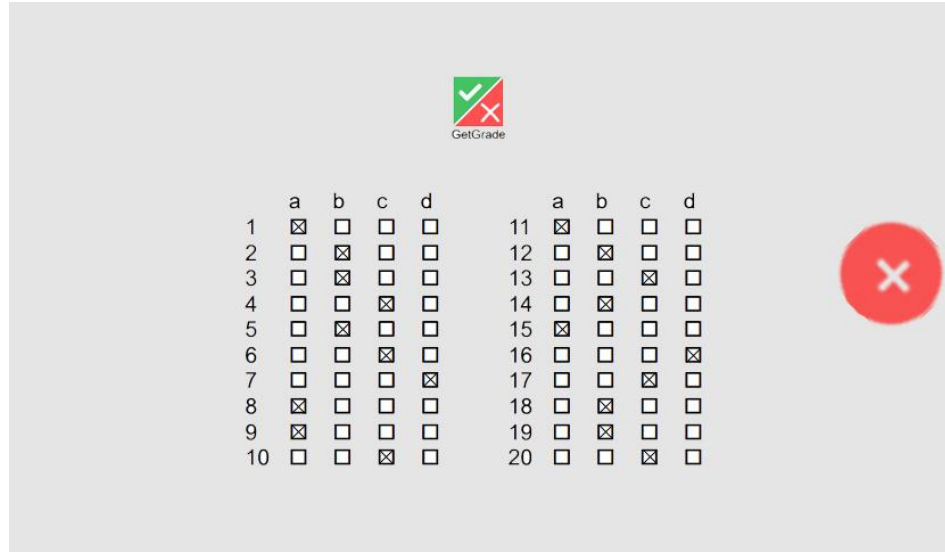




## .Adding & Tests

- Application supports ability to add new test by clicking button “+”. The addition button opens camera.
- Here users can choose two tabs: “ALL TESTS” and “MY TESTS”; The first tab displays all active tests regardless of the user who created them. And in the second tab displays only tests created by a registered user.

# .Scanning

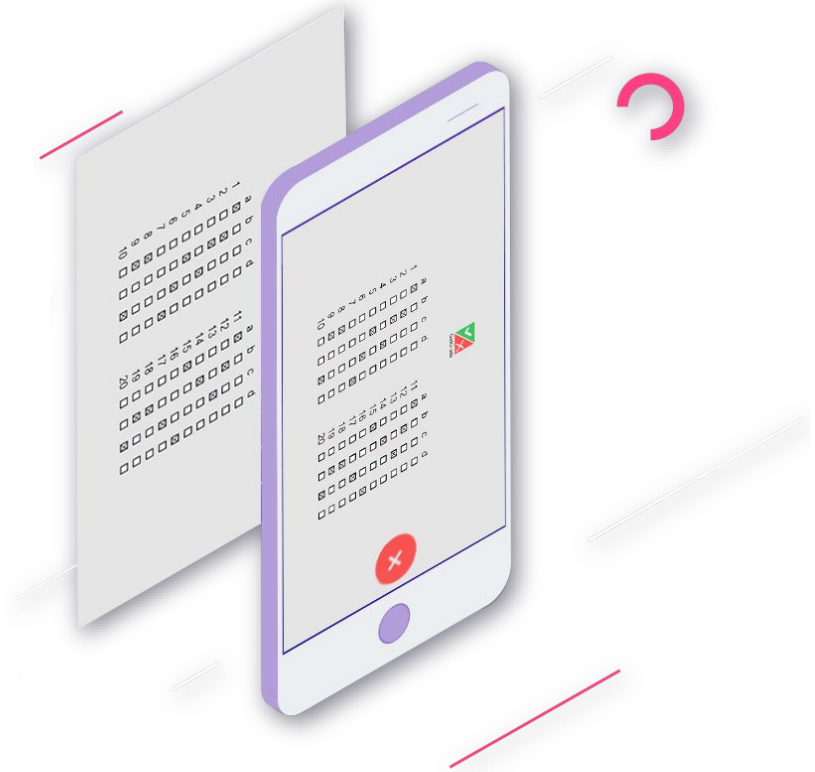


After opening the camera, application will start algorithm which will find automatically boxes with chosen answer.

And after the successful recognition, user will be able to choose CLOSE, SAVE, RESHOOT buttons for future manipulations.

# .Image processing

- Adaptive binarization of input in gray with a block size of 15 pixels and 40 contrast to average (Imgproc.adaptiveThreshold).
- Morphological filter to create thicker dark objects by erosion 5 x 5 pixels (Imgproc.erode).
- Sort the segments from top to bottom and from left to right.
- Eliminate scattered segments, those whose area is more than 50% different from the area more often.
- Restore the gray segments.
- Fill in the Test Type object with the appropriate questions and options.
- Convert to color.
- Check if this is a stable reading. And repeat the same reading at least 3 times in a row.







## .Test Cards & Checking

Application supports ability to add new test by clicking button “+”.

The addition button opens camera.

