



# Automatic OMR Answer Sheet Evaluation using Efficient & Reliable OCR System

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**Abstract:** In today's modern world of technology when everything is computerized, the Evaluation exercise of examining and assessing the educational system has become absolute necessity. Today, more emphasis is on objective exam which is preferred to analyze scores of the students since it is simple and requires less time in the examining objective answer-sheet as compared to the subjective answer-sheet. This paper proposes a new technique for generating scores of multiple-choice tests which are done by developing a technique that has software based approach with computer & scanner which is simple, efficient & reliable to all with minimal cost. Its main benefit to work with all available scanners, In addition no special paper & colour required for printing for marksheet. To recognize & allot scores to the answer marked by of the student's Optical character recognition technique is executed here.

**Keywords:** Multiple Choice, analyze, evaluate, Optical Character Recognition.

## I. INTRODUCTION

In today's global world, the multiple-choice examination is a vital phenomenon of academic system. Multiple-choice test is used in almost all important exam to determine student's academic excellence. Every year thousands of students take such tests in which they answer by highlighting option in OMR sheets. These exams conducting institutions uses a high complex machine for scoring MCQ paper, these machines are very costly and it needs a highly skilled worker who can manage such machine effectively. These institutes deploy costly OMR software along with complex equipment to analyze & provide scores to the OMR sheets. Thus, small organizations and training institutes cannot use such process of providing scores to such OMR Sheets. They use manual process of grading OMR test responses of a student is time consuming. The importance of our small initiative is that we could build a computer based software that will save precious time by providing simple as well as cost effective solution which is highly reliable & efficient by having a OCR approach.

The software might do the some of below mentioned activities:

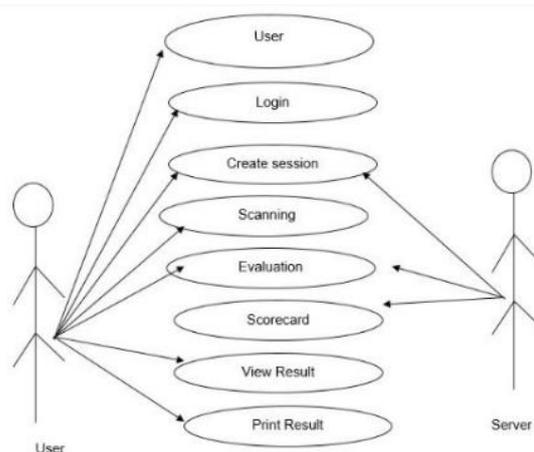
- Examine the OMR answer sheet,
- Detect feedback i.e. response for each question.
- Compare student answer with master key which will be already saved in database.

Thus, our goal is to create a technique that can be executed with computer & scanner with a software program that will provide scores to these uniquely designed Multiple choice exam with questions having four options for each question & only one correct answer per question can be chosen by the student. The software will examine to detect the response of each question of the paper by matching

with accurate option which is already saved in database. OpenCV will be implemented to facilitate image processing with designed software program for decoding the answer.

## II. PROPOSED SYSTEM

Various methods of paper correction are available in the education system till date. The most basic method is manual paper correction. In this the system, the MCQ question paper are evaluated manually by the evaluator and then marks are entered in to the system. This process becomes challenging if the number of answer sheets are large. Today lots of competitive exams which are academic, governmental as well as in private sector are conducted. These exams have multiple choice questioning. Thus, a program need to be implemented as a simple software tool.





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