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**Software Requirement Specification**

Smart quiz generation Web App

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1. Introduction
   1. Project detail

Definition

In this we create smart quiz app to take question bank from teacher

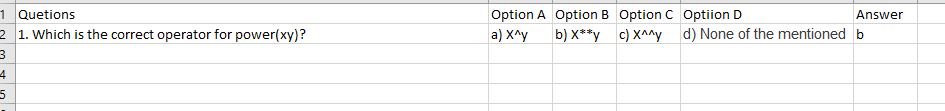
In the from of excel shit select randomly question and generate test for student.

* **Name of Project :**  Smart quiz generation web app

**Purpose:** Purpose of making this application is teacher easily conduct there exam on online platform in protected environment.

Aim:

* Planning To create firstly Web App then having in mind to build mobile app.
* But trying to make web app mobile friendly so we do not need mobile app.
* Quiz App Takes Scanned Images or digital Pdfs and converts them into excel sheet format(to structured data).
* In Excel sheet Format like below:



So we can easily store this structure data to our database.

**Technologies Proposed to Used:**

**For Web App-** Django Framework

**Front End Of Website :** Html , CSS , JavaScript .

**Backend:** Python

**Image Processing:** Computer Vision Library ( OpenCV )

**Database:** MySQL or SQLITE 3 or MongoDB

**Version Control:** Git-Hub and Git

**Some Other Techniques:**

* Face detection – harcascade files
* Id card Detection – yolo object -----

https://medium.com/@manivannan\_data/how-to-train-yolov3-to-detect-custom-objects-ccbcafeb13d2

* OCR – Optical Character Recognization
* PDF Reader packages
* Regex—Regular Expressions
* Pypdf library

**New Proposed Features:**

* Prostate mode( facial recognition, capturing photos after some interval of time, real time video recording of candidate)
* ID Card Detection or face detection verification before exam.
* Real time in frame candidate detection(tracing candidate movement in real time and gives warnings if candidate move outside frame)
* Also Check there are other persons in frame or not.
* Scrapping random mcqs from other websites.

1. Functional Requirement
   1. Registration

|  |  |
| --- | --- |
| Description | When user Enter into this site then he show welcome message and user has to select its type  i.e Teacher or Student |

2.1.1 Teacher

|  |  |
| --- | --- |
| Description | When teacher enter into this site then firstly he required to create its account ie. fill registration from then he login into system to entering uname and password. |

2.1.2 Student

|  |  |
| --- | --- |
| Description | Firstly student wants to register on system after that he login .to start exam take provided uname and password and sign in into specific exam and start exam. |

* 1. Forget password

|  |  |
| --- | --- |
| Description | The user can send link to the mail id to reset password. |
| input | Email id |
| Output | Reset link send to email id |
| Processing | By reset link we can easily change password and update store in database |

**3 Non-Functional Requirement**

**3.1 Performance requirement**

Better performance will be lead to better operating environment for better environment the user need high speed internet so that file uploading and all operation performs smoothly

**3.2 Objectives:** Smart quiz generation system

In the online education mode conducting MCQ based quiz is widely used. A system which reads the questions and answers from the hard copy document and converts it into digital form is to be developed. The application may read the text from word or pdf document and converts it into digital form. A complete mobile and web application is to be developed with the support for taking the online MCQ based quiz.

**E-R DIAGRAM Quiz system:**

Attempt

Quiz

Student

1 1

1

has

\*

Quiz question

Teacher

1 1

Made of

has

1

Subject

Question

\*

1

have

Question Bank

\* 1

contain

**Resources:**

<https://www.geeksforgeeks.org/extract-text-from-pdf-file-using-python/>

<https://opencv.org/>

**Extracting Pdf data to Excel Files:**

<https://docparser.com/blog/extract-data-from-pdf/>

<https://pythoninoffice.com/pdf-to-excel-with-python/>

**Medium Article on Python for Pdf**

<https://medium.com/@umerfarooq_26378/python-for-pdf-ef0fac2808b0>