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Consulting & Services

Presenting

Online TestMate

online
Testmate

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Background:

Online examinations, sometimes referred as e-examinations, are the examinations conducted through the internet or in an intranet (if within the Organization) for a remote candidate(s). Most of the examinations issue results as the candidate finish the examination, when there is an answer processing module also included within the system.

These examinations are conducted as open-book type examinations. Candidate is given a limited time to answer the questions and after the time expiry the answer paper is disabled automatically and answers is sent to the examiner.

The examiner will evaluate answers, either through automated process or manually and the results will be sent to the candidate through email or made available in the web site.

There are advantages and disadvantages in online examinations. The main advantage is that it can be conducted for remote candidates and evaluation of answers can be fully automated for MCQ questions and other essay type questions can be evaluated manually or through automated system, depending on the nature of the question s and the requirements. Also online examinations can be conducted at any time and does not incur higher cost as traditional exam scenario as there is no paper work involved (eg: printing exam papers, prepare paper admissions etc) , there is no invigilators, also no need of arrangement of exam centers. When comparing with traditional exam scenario the cost for an online examination will be almost zero after the online exam system is establishment and if maintenance cost is not considered.

The disadvantage of the e-examination is the inability of invigilating. There are methodologies used in these examinations, when registering candidates and presentation of questions, so that

to test candidates knowledge and skills. However with a limited time, candidate is not capable of totally depend on the reference materials or a supporting person

ABSTRACT:

Online TestMate System is basically intended at developing software for providing an Online Test System. We will be developing this software because of the following reasons:

- Presently, if the teachers conduct any objective test, they have to check the answer sheets manually which is time consuming.

- Students cannot do practice of attempting objective question papers.

- Generation of results manually might result in errors.

The Online TestMate System will be overcoming the above mentioned problems and will be providing the following features.

- There will be a real time testing environment.

- Test creation will become easier which will be including incorporation of new questions and deletion and modification of already existing questions periodically.

- Paper pattern which includes duration of test, number of questions of various levels and marking scheme; will have flexibility, i.e. faculty will have such options.

- Results and the answers will be displayed instantaneously just after the completion of test.

- The records of the students will be updated in their profile after the completion of their test for future references.

- There will be different level of questions in the paper so that the judgment of student's knowledge can be done efficiently.

- There will be zero paper work.

- Depending upon the type of user, our project will be divided into 3 parts namely, Student, Faculty and Administrator.

- The students will have to get themselves registered before they proceed further.
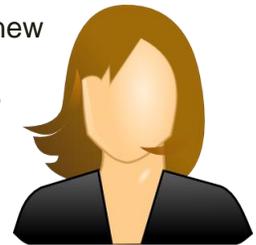
INTRODUCTION

Online TestMate System will provide a basis for effective fulfillment of conducting online tests as a replacement for the paper based tests which are conducted during the internals in the college. It is generic software which is not specifically for single Institution but can be used by any college, school or institute. The only necessary condition for the usage of this software is that there should be following users:

- **Administrator**: He is the person who will be responsible for maintaining the whole system. He will have access to the profile of every student which will give the record of the performance of that student in various tests he gave. He will be provided with the effective test system supervision.

- **Faculty**: He is the person who will be responsible for incorporating new questions of different levels in the database. He will be given options for modifying as well as deleting the already existing questions. Further, he will be supposed to decide the question paper pattern, the marking scheme and the duration.

- **Student**: He is the person who will be appearing in the test which will be conducted online by the faculty. He will know his result instantaneously. Also, he will get the answers of the paper. Before all this, he will have to register himself or fill login-id and password if already registered.

PROBLEM DOMAIN

There are certain problems prevailing presently while conducting tests which are as follows:

- Right from making test papers, conducting test and giving results; everything has to be done manually.

- The faculties need to keep record of questions of various levels of different subjects manually.

- If any question needs to be removed, it has to be cut as it can't be deleted.

- If faculty feels like modifying any question or any of its options, then he will have to write the whole question again and cut the previous one.

- Checking of answer sheets and generation of results has to be done manually which is time consuming and sometimes leads to errors.

- Further, results and answers can't be obtained instantaneously.

- A lot of paper work is involved.

- Performance reports have to be maintained manually for future references. The objectives of the proposed work include:

- To provide an online test environment for the students.

- Updation.

- To provide means for effective test system supervision to the administrator.

- To provide instant results and answers of the test paper to the students.

SOLUTION DOMAIN

- **REQUIREMENTS**

1.1. FUNCTIONAL REQUIREMENTS

We are aiming at providing an online test system which facilitates the creation of test in an online environment. It provides the following features:

- Easy to use GUI (Graphical User Interface).

- Student, teacher authentication by assigning unique password for each.

- Separate question bank for each subject.

- Providing student with an online test.

- Instant display of results and automatic record updation.

- Options for administrator like: login creation for student and teacher, access the results etc.

- Options for teachers like: test creation, deciding paper pattern, updation of question bank, setting marking scheme.

1.2. NON-FUNCTIONAL REQUIREMENTS

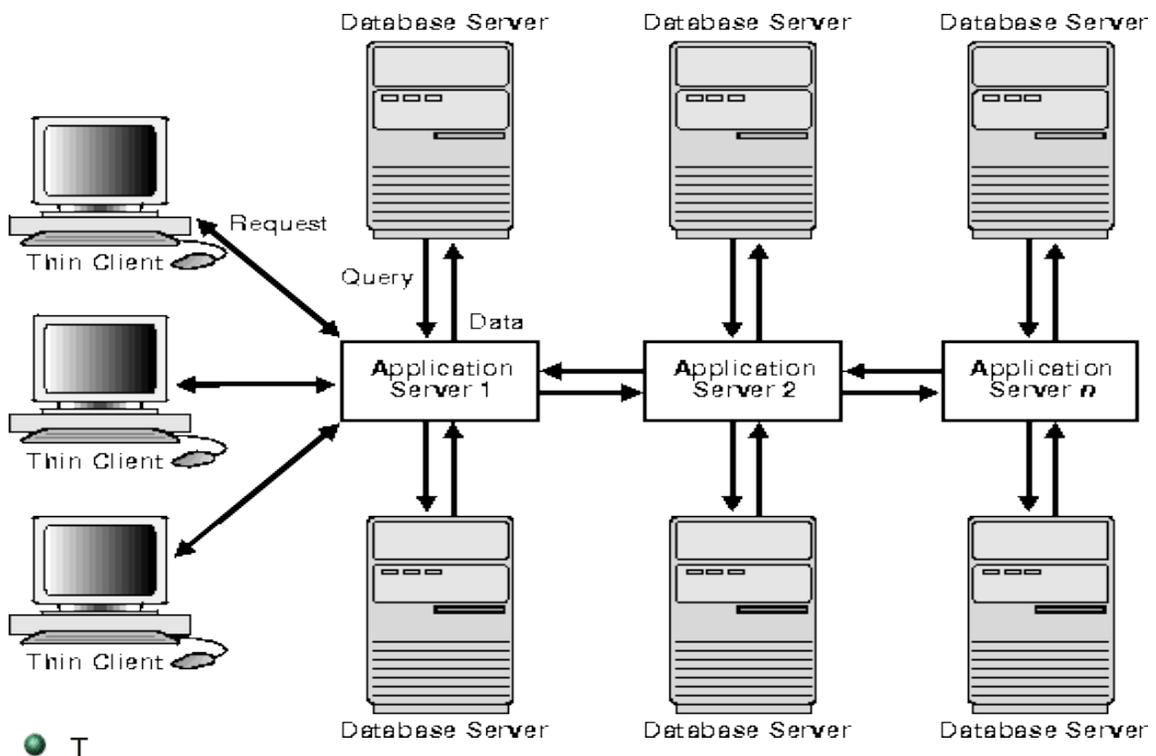**Scalability:** The software should run on every system. There is no such provision of license.

Performance: There should be fast result computing and the software should be less error-prone.

✛ ARCHITECTURE

The architecture followed is Database Server Architecture which is also called two-tier architecture or Client Server Architecture.

In this system, the client workstation is responsible for managing the user interface, including presentation logic, data processing logic and business rules logic. The database server is responsible for database storage, access and processing.

Using this architecture, we can assure several advantages:

- T

he communication load is reduced as less data is sent across the LAN.

- User authorization, integrity checking, data dictionary maintenance, and query and update processing are all performed in one location, on the database server Architure.

SYSTEM DOMAIN

- 4.1 TOOLS

  - PHP is used as an Integrated Development Environment.

- 4.2 TECHNOLOGY

  - My SQL as database

- 4.3 PLATFORM

  - Windows XP onwards will support the software

- 4.5 HARDWARE SPECIFICATIONS

  - Minimum RAM should be 512MB.

APPLICATION DOMAIN

The Online TestMate System is having the following scope:

- It can be used by the institute itself for conducting objective tests of various subjects.

- It is generic software, so it can be used by various other institutes, schools and colleges.

- The students nowadays face so many competitive exams which are objective. So they can prepare themselves by using this software personally.

- Even if the faculty doesn't want to conduct test online, then he can at least keep question bank and modify it by using this software.

This will have a great impact on real life of students and teachers in following ways:

- The students will get used to in giving objective tests. So they will develop an approach of attempting objective papers which will help them out in various competitive exams.

- Time of faculty and students will be saved.

- Errors will be reduced greatly.

- Paper work by the faculties will not have to be done.

- Various institutes/schools can use it for conducting tests in various subjects.

EXPECTED OUTCOME

The following outcome is expected from the Online TestMate System:

- Real time online testing environment.

- It should provide means for effective test system supervision to administrator.

- Question papers must be generated with proper marking scheme and time duration.

- Results must come instantly after the completion of test.

- Result must be incorporated into the record of student for future references.

- The faculty must be able to incorporate new questions, delete or modify old ones if needed.

- There should be a provision for the faculty for designing question paper, so that he can set time duration, marking scheme and paper pattern.

Proposed Methology

Login Module:

There is having three types of users in this portal:

- Login as Admin

- Login as Faculty

- Login as User

Login as Admin:

- ☑ Before login

  - ❖ Admin will get the user Interface for Signup for new user

  - ❖ Auto I'd & password generate

  - ❖ Admin will get the user Interface of User id

  - ❖ Admin will get the user Interface of User pw

☑ After Login

After Login Admin can do the following functionalities

- Manage user
- User Permission
- Result
- Resetting

☑ **Manage user:**

❖ Create New User

❖ View user (Edit. Delete Active/Inactive)

☑ Create New User

   ❖ User name

   ❖ Fathers name

   ❖ Address

   ❖ Mobile no

   ❖ Email id

   ❖ Qualification

   ❖ Propose(banking , railway, ssc, opsc, IAS,OAS, others)

   ❖ Upload photo

   ❖ Validity setting of user id(from calendar to calendar)

When admin will submit all the data then roll no & password will be auto generate then admin can take a print out of the profile of user with user I'd and password.

☑ View user

   ❖ User name

   ❖ User id /pw

   ❖ Date of reg./expiry

   ❖ Active /inactive & edit, delete row

   ❖ Contact

- ❖ Email id

- ❖ propose

- ❖ Address

- ❖ Photo

- ❖ Print out

☑ View questions for admin

The Question will show the admin and admin can view the questions set

☑ **User Permission**

The admin will set the user permission for security purpose.

☑ **View Results**

- ❖ Date wise

- ❖ Monthly wise

- ❖ Roll no wise

- ❖ Name wise

- ❖ Print out

☑ **Resetting**

- ❖ Reset password of admin

- ❖ Reset password of user

Login as Faculty:

☑ Before login

- ❖ User will get the user Interface for Signup for New Faculty

- ❖ Auto I'd & password generate(Admin approval require and auto id & pw generate)

- ❖ Admin will get the user Interface of User id

- ❖ Admin will get the user Interface of User pw

☑ After login

- ❖ Manage questions

- ❖ Manage set

☑**Manage Questions:**

❖ Add questions

❖ Edit questions

❖ View questions

☑ **Add questions**

❖ Exam type (select or create)

❖ Sub type (select or create)

❖ Select set(select or create, question limit should be fixed here by paper wise)

❖ Select paper(select or create)

❖ Direction

❖ Questions

❖ Answer

❖ Solutions

❖ Submit

Remark: image type question should be inserted. By browse or copy paste.

☑ **Edit questions**

❖ Exam type

❖ Sub type

❖ Select set

❖ Select paper

❖ Search questions no.

❖ Edit questions

❖ Submit

☑ **View questions**

Faculty can view the questions after prepare.

☑**Manage set**

❖ Create set

- ❖ Set provide to individual
  - ☑ **Create set**
    - ❖ Exam type (select or create)
    - ❖ Sub type (select or create)
    - ❖ Set name (create)
  - ☑ **Set provide**

Admin can provide separate set to individuals by ticking check box otherwise user can use all set

User Panel

- ☑ Before login
  - ❖ User will get the user Interface for Signup for New User
  - ❖ Auto I'd & password generate (Admin approval require and auto I'd & Password generate)
  - ❖ User will get the user Interface of User id
  - ❖ User will get the user Interface of User pw
- ☑ After login
  - ❖ Start exam
  - ❖ My profile(editable)
  - ❖ Previous exam
  - ❖ Reset
- ☑ Start exam
  - ❖ Introduction
  - ❖ Term & condition
  - ❖ Agree
  - ❖ Go
  - ❖ Select all the things like exam type subtype,set.
  - ❖ Start
  - ❖ Then countdown start

❖ User can start from any upper paper

❖ Submit

❖ Result instantly

Conclusion

The conventional examination system where the students have to travel examination centers or take proctored exams. Online TestMate system takes the advantage of internet technologies to conduct exams and results are published without any delay. Almost every project is subjected to change depending on the client's requirements. The system and the architecture of the proposed system is a compatible one, so addition of new modules can be done without much difficulty. Since this module has its unique properties it can extend further to make this system a complete one. The application was implemented and tested with real data and were found to be error free. Also, the system is protected from any unauthorized access .All the necessary validations are carried out on this project, so that any kind of users can make use of this application and necessary messages makes them conscious of the error they have made.

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thank you!