

# ONLINE TRYOUT SYSTEM FOR UNIVERSITY ENTRANCE EXAMINATION (OTS)

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## ABSTRACT

*For the preparation step into a college, a student generally taking a course or independent studying at home. But to measure his ability all students generally have to take a tryout which performed by party of school or institution. Needed a medium which can be used to assist student do self-supporting tryout.*

*For that, we try to make an application based on web which can enable student do self-supporting tryout by online, so that the student can do analysis to himself often because it can be accessed whenever and wherever. Beside that also enhanced information major. It helps students which generally confuse in determining such majors matching with his ability. This application enable student to do several times tryout. Tryout can be done individually and also group.*

**Keywords:** online tryout, entrance examination

## 1. INTRODUCTION

After graduate from Senior High School, a student must prepare himself to go through higher level that is by continuing study in the College. Perhaps this matter must be prepare seriously in order to pass in incoming test of College. This matter can be overcome with autodidact at home, following tuition learning and try of previous tryout.

Besides trying try out questions, a student must be able to measure their ability by knowing what College that in accordance with tryout results that he received

To facilitate the students in studying tryout questions for the College entrance examination then was built a Tryout Online System. This system is expected increase the studying interest and readiness of the students in facing the competition in the College entrance examination with did tryout independent in an online manner. Beside that the student could see several information of university major that in accordance with their tryout value based on the grade of university previously.

## 2. TRYOUT

In the following will be explained about the definition and several systems tryout available previously

### 2.1 Definition

Tryout was a mechanism that was used as an exercise for the student before implement the actually exam. Whereas, Tryout System for Incoming Test at University was a test (tryout) that was held to know the student's ability in entering a certain College

In this discussion we will discuss tryout that was used for the College entrance examination, especially tryout that was applied in an online manner.

### 2.2 Several Tryout Systems which Available Previously

1. Manual Tryout for preparation SPMB  
Tryout that implement manually, usually was held by a studying guidance or was done manually at home.
2. Several Tryout systems which available previously
  - a. Try out online *Salemba Group*[1]  
Done by choosing the package and the interest field of the tryout last year, without the random process
  - b. Gunadarma online tryout[2]  
The registration was done collectively. The tryout questions presented randomly
  - c. *Primagama Online Try out 2004*[3]  
The student must choose the tryout group (SPMB the day 1, SPMB the day 2), the interest field (IPA, IPS). Done the rank score. The student only could do tryout once and no timer.

## 3. TRYOUT ONLINE SYSTEM

In the following will be explained about the systems analysis, use case diagram, physical data model, class diagram and the implementation

### 3.1 Analysis System

The available user was in this Tryout system divided into three types of users there are:

- **Committee**  
Was assigned to manage system, especially in manage of the tryout questions and their attributes.
- **Student**  
The student was the user that will do tryout. In this application was gotten 2 (two) kind of student, that are: individual user and user group.  
Individual user was user that registered in the system as an individual, whereas user group was user that was registered into the certain group
- **Teacher**  
The teacher was assigned to manage of user group's data, including the registration and the management value of user group.

There are some main processes that were received in this application, such as:

- **Registration**  
This function was used to manage the registration data of the student (individual user) and the teacher. With this function then will be received by the status of the different user accessed the system
- **Online Tryout**  
This function was used to manage the process of the exam that was done in online.
- **Scoring**  
This function was used to count the exam value which have been followed by the student in online  
The Results directly will be presented after user was finished did tryout beside that the students will get some information major of university that in accordance with the obtained value
- **Timing**  
This function was used to time limitation of the tryout.

### 3.2 Architecture System

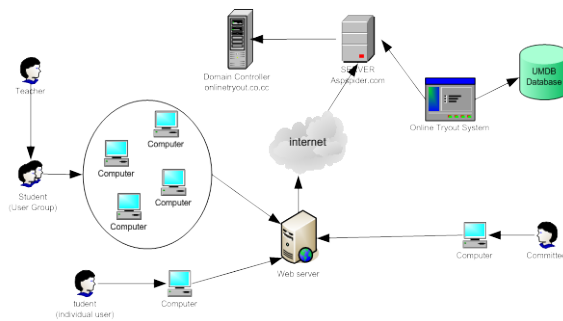


Figure 1. Architecture System of Online Tryout

In the architecture system of the Tryout Online Application for the College Entrance Examination was depicted in figure 1. about the interaction between the actor, the Committee, the teacher and the Student in the network of the internet in the stages accessing the system that was applied into one server in this case asp spider.com

### 3.3 Use case Diagram

Use case was a representation of the dialogue between the actor and the application, in the form of the transaction or the activity that could be done by the actor to the application. Along with was the diagram use case from the Tryout Online System for the College Entrance Examination.

In use case of the OTS for College Entrance Examination depicted in figure 2 about action that could be done by the actor, the Committee, the Teacher and the Student which give the respond in accordance with the aim of his production.

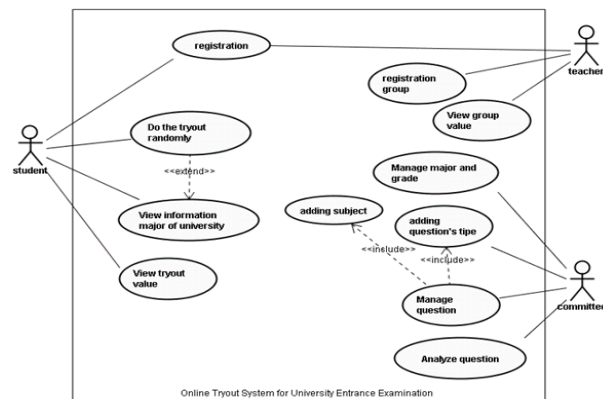


Figure 2. Use case diagram of try out system

### 3.4 Physical Data Model

Data model OTS for the Entrance Examination College in figure 3. It depicts Physical Data Model of Tryout Online Application.

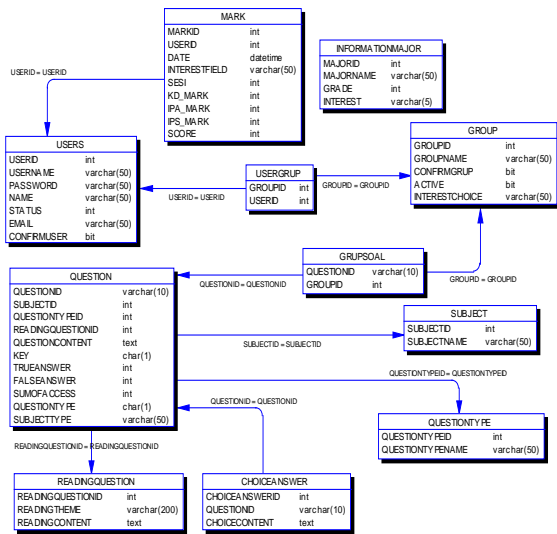


Figure 3. Physical Data Model of Tryout Online Application

### 3.5 Implementation

Along with this was the implementation of interface which have been studied in the chapter 3. Pictures in the implementation of interface below was the picture of the application which running in web browser mozilla firefox.

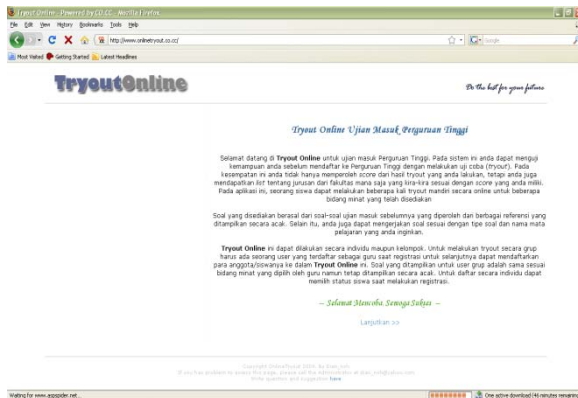


Figure 4. Interface of main page

- Implementation of the page login
- Along with this was interface of the page login



Figure 5. Interface of login

- Implementation of the registration page
- Along with this was interface page of the registration. There are 2 (two) types of user in form of the registration that is the student and the teacher.

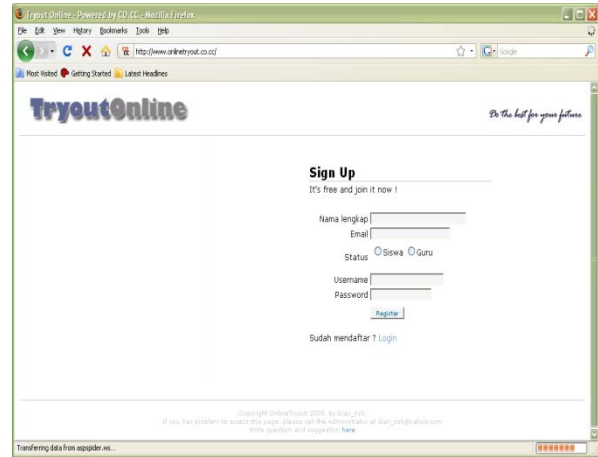


Figure 6. Interface of the registration page

- Implementation page of the Question Form
- There are 3(three) type of form such as: Form A (the dual choice normally), Form B (the dual choice of the complex), Form C (the dual choice of cause and effect) as shown in figure 7. Interface of the question form C.

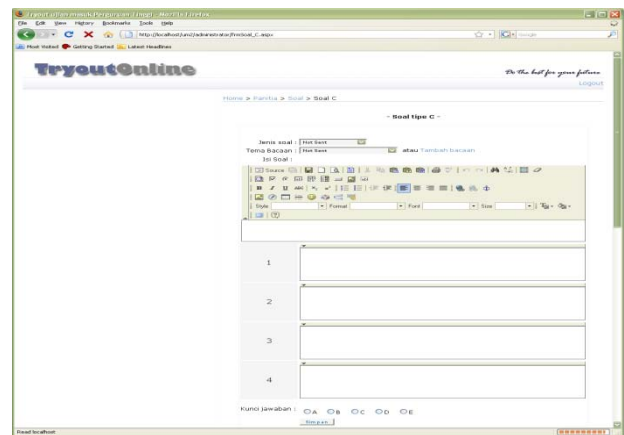


Figure 7. Interface of the question form C

- Implementation page of the try out questions
- Presenting contents of try out question in a random as shown in figure 8 Interface of the registration page.

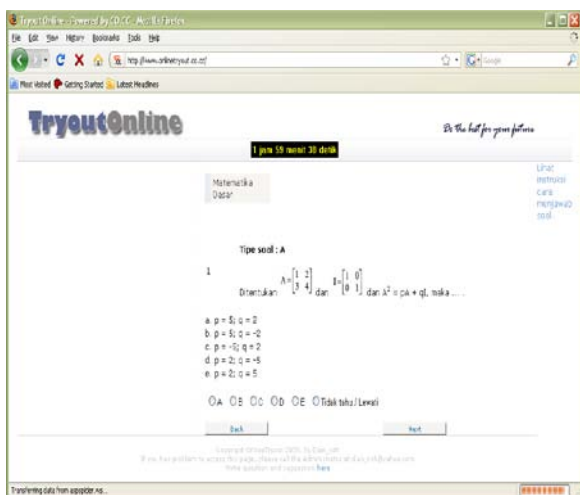


Figure 8. Interface of the registration page

#### 4. TESTING AND RESULTS

- Tryout Online Application based on ASP.NET was successful implemented in an online at <http://www.onlinetryout.co.cc>
- Participants who were involved in the test in online around 21 peoples, that are:
  - 1 person as Committee
  - 2 person as Teacher
  - 18 person as Student
- Testing process  
The testing in this application done by using the computer that played a role as server and client.

Table 1. Hardware and Software Specifications

Hardware	<b>Tryout Online</b> Prosesor : Intel Pentium Dual-Core CPU 1.60GHz Memory : 2 GB
Software	<b>Tryout Online</b> Operating System : - Windows XP SP2 - Professional Edition DBMS : SQL Server 2005 Web browser : Firefox 3.0.8

- Results

The Tryout results have been done online, shown in Table 2 Tryout results.

Table 2. Tryout Results

USER	DATE	BM	NEXT	N_KD	N_IPA	N_IPS	SCORE
a	6/6/2009 11:10	IPA	4	154	86		240
b	6/6/2009 11:54	IPS	4	131		-50	81
c	6/6/2009 13:09	IPS	4	105		78	183
d	6/6/2009 13:40	IPC	4	94	80	-6	IPA = 174 IPS = 88
e	6/7/2009 7:32	Persamaan garis	4	4			2
f	6/7/2009 8:48	IPS	1				kosong
g	6/8/2009 9:25	Matrik	4				4
h	6/8/2009 17:09	Persamaan garis	4				2
i	6/10/2009 11:23	IPC	1				kosong
j	6/10/2009 12:54	IPS	4	43		-22	21
k	6/11/2009 3:47	IPS	1				kosong
l	6/16/2009 22:27	IPA	4	51	4		55
m	6/17/2009 3:32	IPS	4	-3		77	74
n	6/17/2009 4:27	IPS	4	36		89	125
o	6/17/2009 14:21	IPA	4	50	17		67
p	6/18/2009 11:16	IPA	1				kosong

**Information :**

- Date : The date of the implementation tryout
- BM : The interest field was chosen by the student
- Next : The status of the Tryout session
  - 4 : status of complete session
  - Beside 4 : status of session not complete
- N\_KD : basic's score
- N\_IPA : Science's score
- N\_IPS : Social's score
- Score : cumulative score

From the above table, around 16 students who had done the election of the interest field, but only 2 students who were not registered yet or chose one of the interest fields.

For the empty score, it means that the student have not do the try out of the interest field that was chosen or have not finished all the session for the interest field that was chosen. The session was easier user in doing all the tryout questions, there are:

- IPA has 2 session (*basic science and science*)
- IPS has 2 session (*basic and social*)
- IPC has 3 session (*basic, science and social*).

The application of this session aimed for adopting the exam system that was in the field.

#### 5. CONCLUSIONS & SUGGESTIONS

In the following will be explained about conclusion and suggestion from the application of the

tryout online system College Entrance Examination that was made.

## 5.1 Conclusion

The Tryout application online have succeeded in carrying out functions of the requirement user especially in the process of the Tryout implementation. So, it expected to become a system that could help the students continue education to The College. Several functions that succeeded in being carried out in part:

- a. The tryout questions have succeeded presented in several types of questions, among them: the dual choice normally, the dual choice of the complex, the dual choice of cause and effect was based on the route or the interest field that was chosen by the student
- b. The Question has succeeded presented by random based on the group, the type of the question and their respective number the subject that was determined previously.
- c. The system has succeeded in scoring of the questions that was answered by the student based on the scoring criterion that was determined
- d. The student got university information and majors that were appropriate based on the tryout result which have been done and the interest field which have been selected by the student.
- e. The system could analysis the question that was answered by user take the form of so often this question was accessed, how many the student answered true and how many answered wrong.
- f. The system succeeded in carrying out the limitation time of the questions with applied cut down timer. If time was finished, the results automatically generated or continued to the following session.
- g. The System successful to present questions by random with the same weight for user group.
- h. By the try out online, it will give big opportunity of the prospective student to the College.

## 5.2 Suggestion

Following are suggestion to make system better:

1. To facilitate the mobilisation of the student, better if the similar application was made

based on mobile. So that the student easier to access.

2. To complete the application of Tryout Online, the question supplies were preferably increased
3. It need a method to set the same questions wouldn't appear for same user.

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