

# ONLINE INTELLIGENT TUTORING SYSTEM FOR IMPROVISING THE PERFORMANCE OF STUDENTS

Pranali S. Rokade<sup>1</sup> Dr.P.M. Jawandhiya<sup>2</sup>

Computer Science and Engineering PG student<sup>1</sup>

Pankaj Ladhhad Institute of Technology and Management Studies, Buldana.

**Abstract:** There is an increasing technical development in various teaching method systems. Some refer for PPT presentation, some refer for model based teaching and some may refer for field work teaching. But to enhance it more some intelligent tutoring system was also designed and a tremendous research work is going on this field. In this work, we proposed an intelligent tutoring system for teaching academic, universities courses and subjects. This intelligent tutoring systems target the students enrolled in the system here students learn the concepts which they want to know at their teaching environment like in the classrooms. Through which the student will be able to study the course and solve related problems. An evaluation of the intelligent tutoring systems was carried out and the results were promising.

**Keywords:** *Tutoring, Intelligent, Model based, PPT*

## I. INTRODUCTION

Online examinations contents providers to focus on making effective assessment questions and focusing on exam's feedback delivery to students. In the paper we show the techniques that are related to the elements of assessment process that are answers submission, computerized grading, and feedback after submission.

As the modern organizations are computers and automated are working as per the instructions, it becomes essential for the coordination of human beings, commodity and computers in a modern organization. The instructors, Students who are attending for online examination can communicate with the system through this project. Thus facilitating effective implementation and monitoring of various activities of Online Examinations like conducting Exams as per scheduled basis and delivering result to that particular user or a student. And the details of students who attempted Online Examination are maintained at administrator level.

Computers have been used in education for more than forty years. The computer-based training and computer-aided instruction consider as first systems that were using a computer in teaching. These systems were not specified for individual learner needs but it was for decisions that are concerning movements of students inside the scientific material, which was governed and in pre-planned form. Therefore, the capabilities of the learner have not been considered. Despite the efficiency of Computer-Based Training (CBT) and Computer Aided Instruction (CAI) systems in help to learners and it did not provide individual attention to students as a natural teacher (human) does. Therefore, for computer-based education system could provide this attention to the students, the system had to think in both the field and the learner itself also, this had encouraged research in the field of building intelligent tutoring systems. These systems offer flexibility in the presentation of scientific material and greater capacity to respond to student needs.[5] These systems are gaining intelligence property through their ability to offer educational decisions about how the learning process is going, as well as to acquire personality information of the learner. This allows a great degree of diversity by changing the system interactions with the student.

## II. RESEARCH METHODOLOGY

Whenever it comes to teaching areas it is the complete responsibility of teacher to make their student fulfill so as to adopt the changes in the running environment. For that the system is required to make up gradation and update of students. Analyzing of such a system is a need of future generation and makes student aware about the surroundings in terms of extracurricular activities and education. One should need to focus on the subject knowledge and technicality of the particular subject. And most important thing is to connect every student with the teacher for better understanding of subject knowledge.

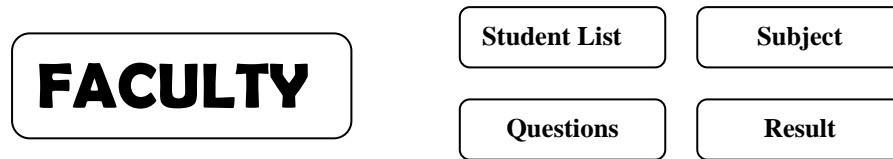
### 1. Proposed Work and Objectives:

#### Objective:

The aim of this thesis is to minimize the difficulties faced in learning of course subjects, such as giving more time to learn, remove fear, shyness from learner, demonstrating the specific subject as needed, available all time anywhere and also creating the suitable environment for studying.

**1.1 Proposed Methodology**

Following Module that will work in accordance with the topic:

**1.1.1 Faculty Registration:**

**Fig 1.Registration of faculty is done by Admin**

**1.1.2 Student Registration:**

**Fig 2. Registration of student is done by Admin**

In this project our main focus is on the student updates by quality based learning method and by virtue of which a category of questions was proposed to implement in terms of Simple Average and Hard questions so while the students appeared for test according to its previous records the system proposed a new set of question paper from simple, average and hard questions and the improvement of student will continue with the marks gain in that particular subject and it also reduce to time for consuming study.

**1. Theoretical framework**

The software methodology followed in this project includes the object-oriented methodology and also the application system development methodologies. The outline of these methodologies is given below. Although there are a growing number of applications (such as decision support systems) that should be developed using an experimental process strategy like prototyping, a significant amount of new development work continue to involve major operational applications of broad scope. The application systems are large extremely structured. User task comprehension and developer task proficiency is some time high. These factors advice a linear or iterative assurance strategy. The most common methodology for this stage class of problems is a system development life cycle model in which each stage of development is well defined and has straightforward requirements for deliverables, feedback and logout. The system development life cycle is described in detail since it continues to be an appropriate methodology for a major part of new development work.

The basic plan of the system development life cycle is that there's a well-defined method by which an application is formed and developed and at last it is implemented. The life cycle provides structure to a creative process. To manage and control the development effort, it is necessary to know what should have been done, what has been done, and what has yet to be accomplished. The phrases within the system development life cycle provide a basis for management and control because they define segments of the flow of work, which can be identified for managerial purposes and specifies the documents or other deliverables to be produced in each phase.

The phases in the life cycle for information system development are described differently by different writers, but the primary differences are in the amount of necessity and manner of categorization of it. There is a general agreement on the flow of development steps as well as the necessity for control procedures at each stage.

The information system development cycle for an application consists of three major stages that are:

- Definition.
- Development.
- Installation and operation.

The first stage of the process, which defines the information requires for a feasible cost effective system. The requirements are then translated into a physical system of forms, procedures, programs etc., by the system design, computer programming and procedure development. The resulting system is tested and placed into operation. Because no system is ideal therefore there's invariably a necessity for maintenance changes. To complete the cycle, there should be a post audit of the system to judge however well it performs and how well it meets the cost and performance specifications. The stages of definition, development and installation and operation can therefore be divided into smaller steps or phrases that are follows:

Definition

Proposed definition : preparation of request for proposed applications.  
 Feasibility assessment : evaluation of feasibility and cost benefit of proposed system.  
 Information requirement analysis : determination of information needed.

Design

Conceptual design : User-oriented design of application development.  
 Physical system design : Detailed design of flows and processes in applications processing system and preparation of program

Development

Program development : coding and testing of computer programs.  
 Procedure development : design of procedures and preparation of user instructions.

Installation and operation

Conversion : final system test and conversion.  
 Operation and maintenance : Month to month operation and maintenance  
 Post audit : Evaluation of development process, application system and results of use at the completion of the each phase, formal approval sign-off is required from the users as well as from the manager of the project development.

**III. SCHEMATIC REPRESENTATION:**

**1. Diagram**

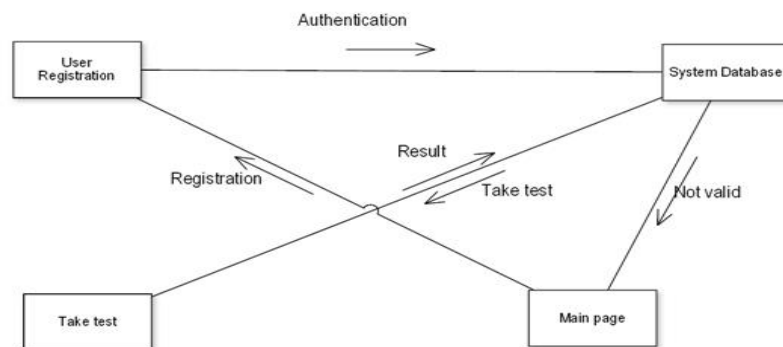


Fig 3. Flow diagram of the process

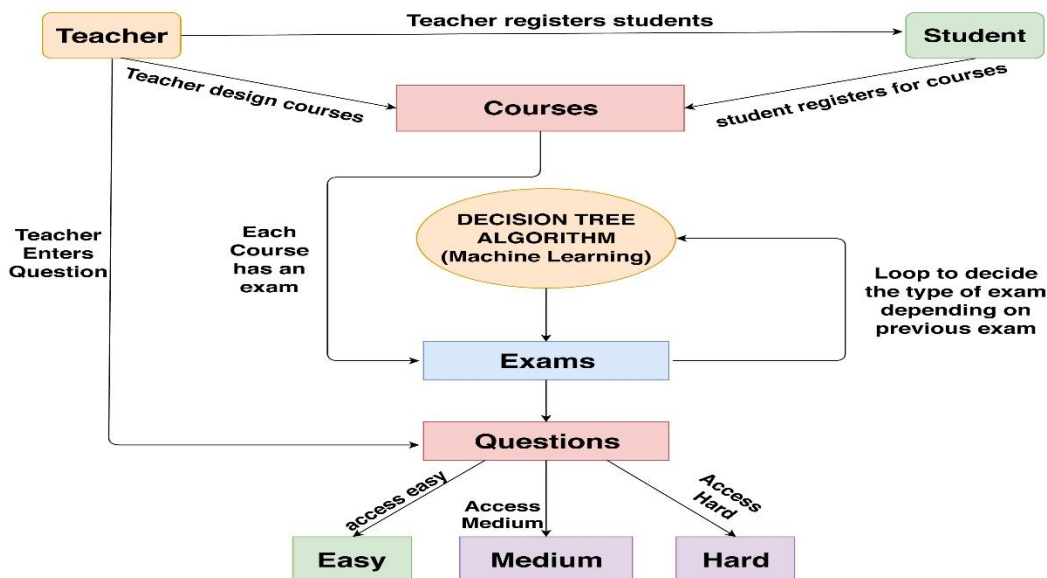


Fig 4.. Data Flow Diagram

IV. RESULTS

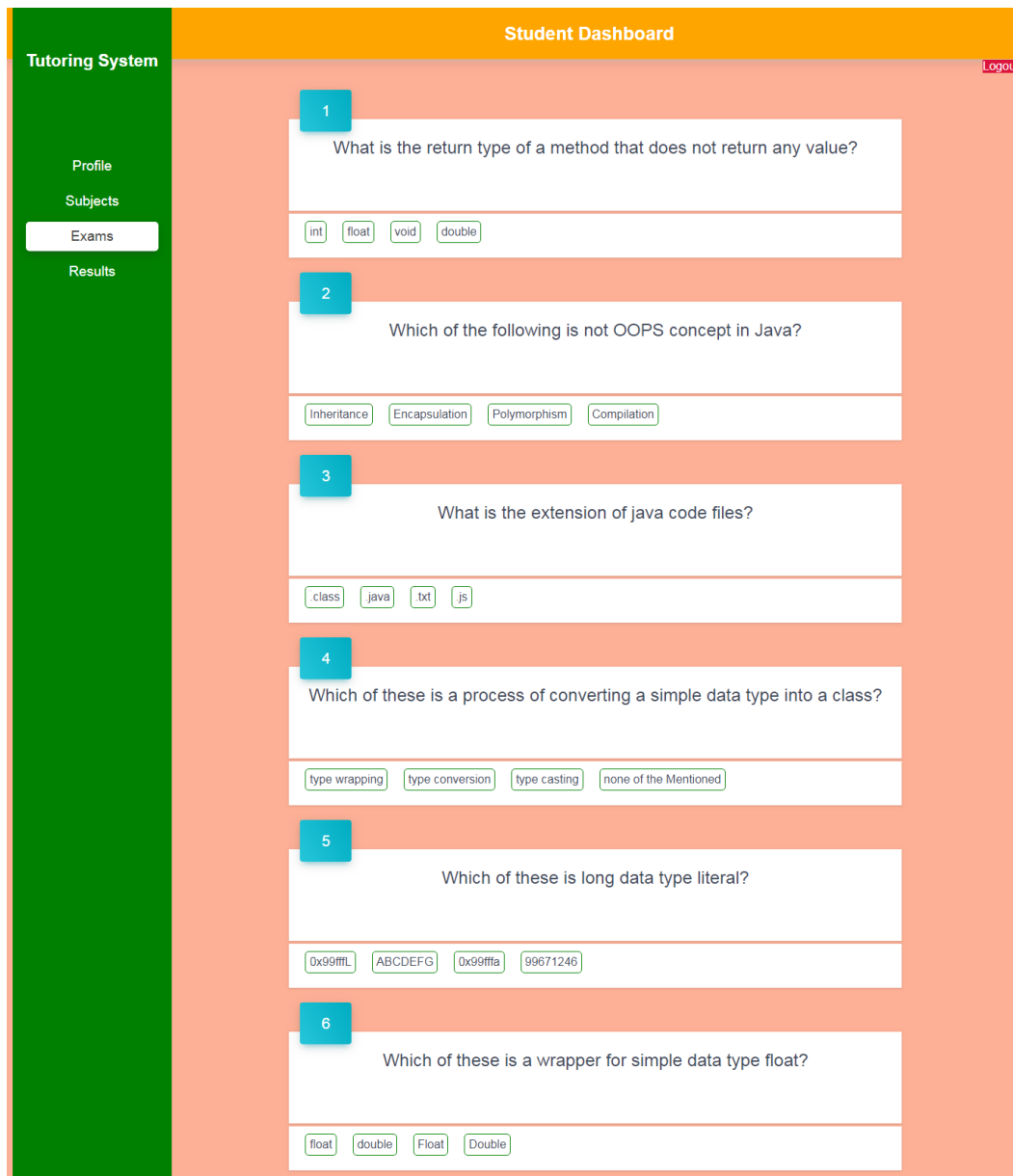


Fig 5.Student Exam Page

Tutoring System

Student Dashboard

Logout

Profile

Subjects

Exams

Results

Result Details

1)	Which of these class is used to make a thread?		correct
	Your Ans: Thread	Correct Ans: Thread	
2)	What is the return type of a method that does not return any value?		correct
	Your Ans: void	Correct Ans: void	
3)	Which of these class object can be used to form a dynamic array?		incorrect
	Your Ans: Vector	Correct Ans: ArrayList & Vector	
4)	Which of these methods is used to check for infinitely large and small values?		incorrect
	Your Ans: isNaN()	Correct Ans: isinfinite()	
5)	Which of these are selection statements in Java?		incorrect
	Your Ans: continue	Correct Ans: if()	
6)	Which of the following is a method having same name as that of it's class?		incorrect
	Your Ans: class	Correct Ans: constructor	
7)	Which of the below is invalid identifier with the main method?		correct
	Your Ans: private	Correct Ans: private	
8)	Which of these class relies upon its subclasses for complete implementation of its methods?		incorrect
	Your Ans: abstract class	Correct Ans: abstract class	
9)	What is JVM?		incorrect
	Your Ans: Interpreter	Correct Ans: Interpreter	
10)	Which of this interface is implemented by Thread class?		incorrect
	Your Ans: Connections	Correct Ans: Runnable	
11)	What is the Java 8 update of PermGen?		incorrect
	Your Ans: Tenured Space	Correct Ans: Metaspase	
12)	Arrays in Java are implemented as?		incorrect
	Your Ans: variable	Correct Ans: object	
13)	Which of these keywords cannot be used for a class which has been declared final?		incorrect
	Your Ans: extends	Correct Ans: abstract	
14)	Which of these methods must be made static?		incorrect
	Your Ans: run()	Correct Ans: main()	
15)	Which of these keywords can be used to prevent inheritance of a class?		incorrect
	Your Ans: class	Correct Ans: final	
16)	When does method overloading is determined?		correct



**Fig 6. Student Result page**

## V. DISADVANTAGES

1. A lot of copies of question papers have to be made.
2. A lot of tabulation work for each subject results.

## VI. ADVANTAGES

1. Easily possible to rectify the students in Simple, Average and Brilliant.
2. Easily understandable at student and faculty level.
3. System helps students in learning and also reduce time for consuming study.
4. The System has adequate scope for modification in future if it is necessary.

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