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Pridicting Student Performance Using Personalized Analytics

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Abstract: ***These days' data mining is an emerging trend, which is presently used in different areas especially in student educational and learning analytics. It is very hard and time consuming to analyze data and finding the hidden information manually. To improvise educational data mining, clustering will be used in the paper. As we need to improvise performance as well as unambiguousness of obtained models. We have used 84 under-graduate student data and grouped students according to their final marks they achieved in the course and this we have done by using clustering approach. The result which we get shows that the clarity of specific model is much better than the general model and the unambiguousness of the model is also increase.***

Keywords: Clustering, Educational data mining, learning analytics.

I. INTRODUCTION

Instructive data mining (edm) and learning analytics and knowledge (lak) concentrate on information and examination in training, instructing, and learning, proposing instructive needs and undertaking amazing exploration into the models, strategies, advancements, and effect of investigation. the essential thought behind the process mining is concentrating on learning from occasion logs recorded by a data framework. epm intends to (i) develop finish and smaller instructive process models that can recreate all watched conduct, (ii) to check whether the displayed conduct coordinates the watched conduct, and (iii) to venture data separated from the logs which is onto the model, so as to make the unexpressed learning unequivocal and also to encourage better comprehension of the procedure. the consequences of epm can be utilized to improve comprehension of the fundamental instructive procedures, to create suggestions and guidance to understudies, to give criticism to either understudies, instructors or/and scientists, to recognize learning challenges ahead of schedule, to assist understudies with particular learning inabilities, with improving administration of learning items, and so on.; however vitally, unraveling the troubles that understudies of various ages indicate that while they learn in situations which are very psychologically and metacognitively requesting learning like hypermedia or computer based learning environments . the consequences of epm can be utilized to improve comprehension of the fundamental instructive procedures, to create suggestions and guidance to understudies, to give criticism to either understudies, instructors or/and scientists, to recognize learning challenges ahead of schedule, to assist understudies with particular learning inabilities, with improving administration of learning items, and so on.; however vitally, unraveling the troubles that understudies of various ages indicate when learn in very psychologically and metacognitively requesting learning situations like hypermedia or computer based learning.

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II. MOTIVATION

Machine learning can help to improve the education system in the near future. Customizable learning experience. By introducing machine learning in schools, the traditional methods of learning with physical books will be transformed into e-learning. Also, the teacher will never again need to keep the records of each student, so, we motivated that is any facility that can help us that In fact, the machine will be capable to deliver the concepts and establish goals for each student. The aim of this feature is to help a teacher to follow and observe each student in the class.

III. PROBLEM DEFINITION

To develop a system which will enable system analyst to manage intelligent test and then provide students an interface from where they can browse and answer the questions and then the system will apply machine learning techniques to provide analyst a knowledge base from where he can take intelligent decisions.

IV. OBJECTIVES AND SCOPE

1) To provide a platform for the system analyst where he can manage intelligent skill test and based on that collect important data of students.

2) To apply machine learning techniques on the test results to predict student performance so that the system analyst can take intelligent decision.

3) To provide students with questions based on different level in one single test so that the analyst can collect more knowledge base about student to apply analysis.

The scope of our system is based on cloud. The system is only allocate the predicting student performance according the location of the system which is depend on the performance of the User. The admin is allocated to user according to their student performance and location which can be manages by the Admin and Officer in the System.

V. PROPOSED SYSTEM

To overcome the drawbacks of an existing system, We Proposed new system which is an ‘’Predicting Student Performance Using Personalized Analytics “This system provides the predicting student System according to the test types with the help of mobile application. So by using this System the problems related to the situation are solve so easily. Using this system the performance slot is automatically save according to the user selection. This system is used in such a places where the performance slots are difficult to find Ex. City mall, Municipal Corporation, Schools, Near Banking Area also, Bus stations, Railway Stations etc. this places have more traffics that occurring by the vehicles. So the system provides the Predicting Student using mobile application.

VI. SYSTEM REQUIREMENTS SPECIFICATION

A. Hardware Requirments:

Hardware	Specification
Processor	Intel Pentium 4 Onwards
Hard Disk	As per OS500MB of free Hard-disk space
RAM	512 MB

B. Software Requrements:

Software	Specification
Operating System	Windows XP ,Windows 7 etc.
Developing Tool	Net beans IDE, Android Studio
Database	MYSQL 5.0

VII. System Design

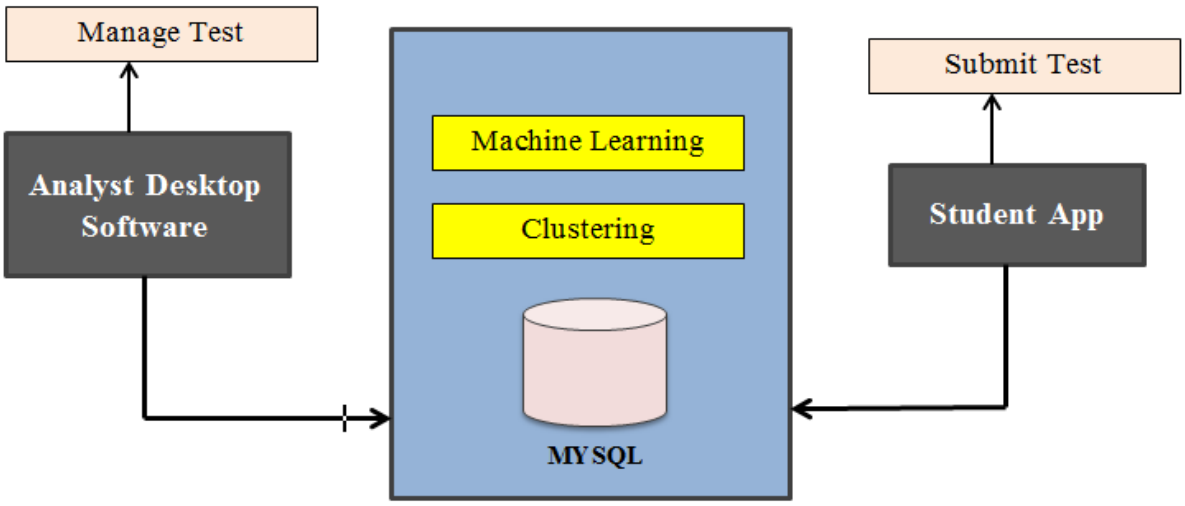

Fig-1-System Architecture

There are three main components in the System.

1] Admin
2] Student
3] Server

Android application for predicting student

1] Admin:

The Admin can login to the system. The Admin will manage the infected student dataset. The Admin will manage the remedy related to various performance.

2] Student:

The student will capture image of infected exam. The Capture record is then send the server for analysis.

3] Server:

At the server side the processing on the in fected student will be done. In the first student processing phase, the processing will applied on the infected student record to remove the noise from the record. Then the record will

Segmented in to blocks of 8pixels in segmentation phase and the processing one ach block will carry out. Then record his to gram will generate in histogram Generation phase. The his to gram is a 2 dimensional matrix in which the value of

Each block will store. The histogram is store dandused for comparison. Then the distance measure equations will use to evaluate similarity between two input sets. Then the found result will return to the top

VIII. DIAGRAMS

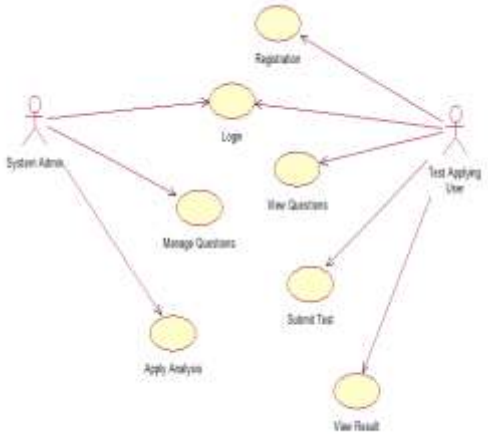

Fig-2-Use Case

The above diagram issues case diagram for admin in which admin can Add questions, Update questions, View and Analysis the result.

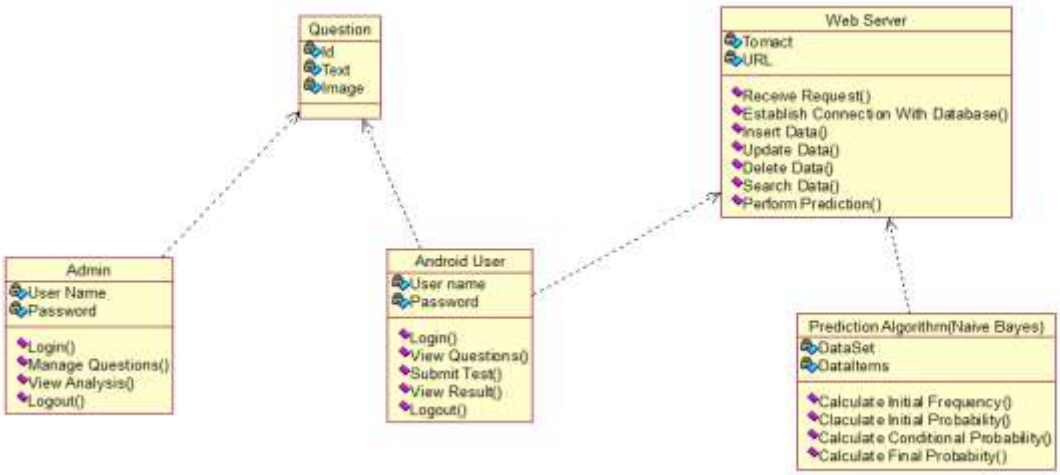

Fig-3-Class Diagram

The above diagram is the class diagram for our system in which Admin, questins Analysis, quistns, Dataset, Farmer App User and Server are the classes in Which Admin uses Data set and access quistns details also uses lquistins Details The image analysis is is done by server. Then student can use this app which provided by server.

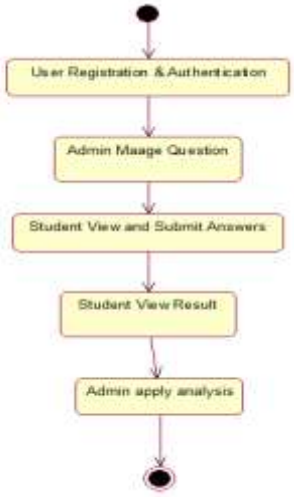

Fig-4-State Diagram for Admin

The above diagram is the State diagram for admin where admin authentication will be done then record management will done, then Admin view analysis.

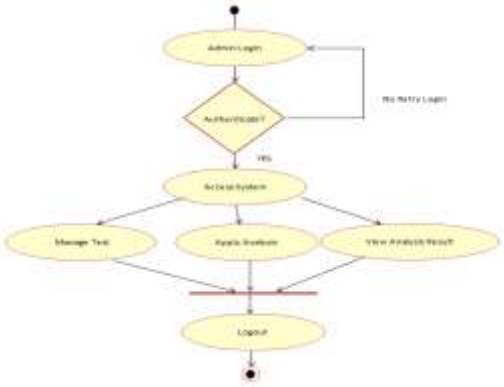

Fig-5-Activity Diagram for Admin

The above diagram is the activity diagram for admin where admin authentication is check if it correct then Accesssyste can view the dataset, manage student, view analysis result.

IX. IMPLEMENTATION

The image captured from the android Smart phone or any other digital camera may contain no is such as very sharp corners, dust particles etc. This noise in the image may reduce the Analysis accuracy sousing the blurring technique were move the noise from the image. To blur the image we use Windowing technique (3*3).The technique takes the average of surrounding in pixels and assigns the value the image is firsts called infixed dimensions to make Processing fast. The image is then segmented that is divided into block of 8 Pixels and the processing is applie don this blocks.

REFERENCE

1. Asmaa Elbadrawy, University of Minnesots. Zhiyun Ren, George Mason University. Prediction student performance using personalize analytics.
2. Agoritsa Polyzou, University of Minnesots. Mackenzie Sweeney, George Mason University. Prediction student performance using personalize analytics.
3. George Karypis, University of Minnesota. Prediction student performance using personalize analytics.
4. Akansha Mishra ASET, Amity University. Educatioal data mining and learning analysis
5. Rashi Bansal ASET, Amity University. Educational data mining and learning analysis
6. Dr. Shailendra Narayan Singh ASET, Amity University. Educational data mining and learning analysis.