

Student Performance in Exams

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1 INTRODUCTION

1.1 Overview

This era can popularly be known as the "Online era". Everything that we used to do with pen and paper is just one click away now. Predictive analysis is the process where the results of the future events are predicted with the given data about the circumstances. Here, in this project we have made the online documentation of students marks along with a few other personal data and we have built a model that predicts the grades of students.

1.2 Purpose

Lack of support at the right time can lead to disastrous situations. A support from the mentor at the right time can prevent the students from dropping out of school. This model can predict the grades of the students, by processing all the given data. This helps the mentors/instructors to identify the students, who are in need of help and reach out to them at the correct time.

2 LITERATURE SURVEY

2.1 Existing problem

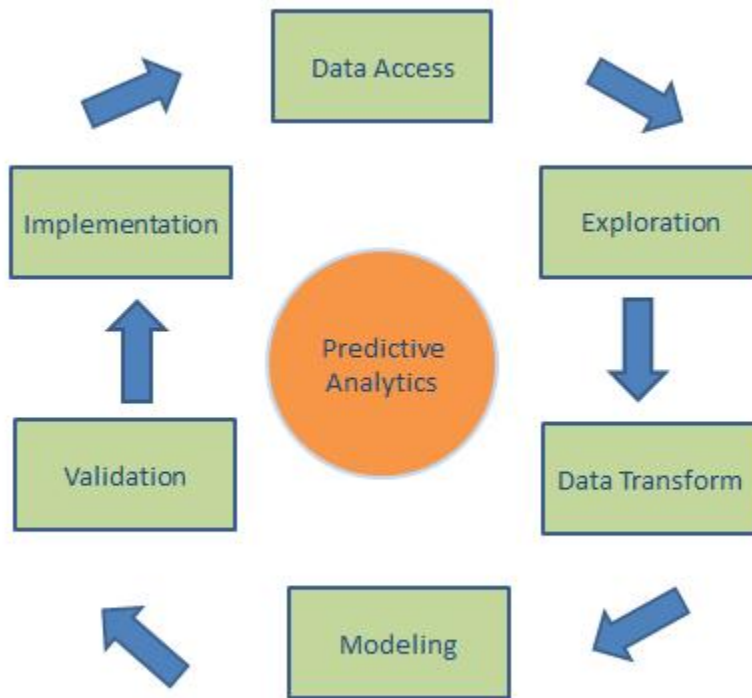
In the existing system teachers are supposed to calculate the grades manually and this not does not come handy when the students are at the crucial stage of their education.

2.2 Proposed solution

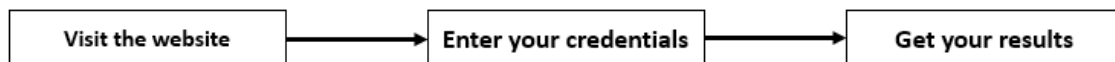
In the proposed system, a model is built by feeding and training it with the historical student data that is available. This model will then predict the grades of the students accurately even before they have taken up their tests.helps the teachers to track the students, who are in need of extra guidance.

3 THEORITICAL ANALYSIS

3.1 Block diagram



3.2 Hardware / Software designing



The User Interface is very simple and user friendly. The first step is to visit website, then enter all the required data that is asked there and on clicking the submit button, the page redirects to the result page, where the result is predicted.

4 EXPERIMENTAL INVESTIGATIONS

In this model, we have collected the datas like gender, race/ethnicity, parental education, lunch provided, test preparation and test score details. The average of all the tests is taken and the grades are calculated based on the average.

5 FLOWCHART



6 RESULT

The result of this project is, the prediction of grades of the students. Based on the historical data that we provide, the grades are predicted by the model. We have used predictive analysis technology along with the Naive-Bayes algorithm, to get an accuracy of 0.90

UI output Screenshot:

STUDENT PERFORMANCE IN EXAM

CHOOSE GENDER: MALE ▾

CHOOSE RACE: GROUP B ▾

PARENTS EDUCATION: Master's degree ▾

CHOOSE LUNCH: STANDARD ▾

TEST PREPARATION COURSE: DONE ▾

ENTER MATH SCORE

80

ENTER READING SCORE

70

ENTER WRITING SCORE

80

click

STUDENT PERFORMANCE IN EXAM

CHOOSE GENDER: FEMALE ▾

CHOOSE RACE: GROUP A ▾

PARENTS EDUCATION: Bachelor's degree ▾

CHOOSE LUNCH: STANDARD ▾

TEST PREPARATION COURSE: NONE ▾

ENTER MATH SCORE

ENTER READING SCORE

ENTER WRITING SCORE

click

GRADE B

7 ADVANTAGES & DISADVANTAGES

- The advantage of this model is that, the performance of the student

can be predicted well in advance with a good accuracy and the student can be put on the right track with guidance from the mentor.

- The disadvantage of the model is that, the results might change based on different external circumstances.

8 APPLICATIONS

The model can be deployed in schools and universities, and thus is used to track the performance of each student individually. This model can also be deployed to track the sports achievement of the individuals and help them to push themselves harder to break the records and achieve success.

9 CONCLUSION

The Student performance prediction model gives the accurate results, which helps the students with the right guidance at the crucial time and helps them achieve their goals. This can reduce the rate of drop outs from educational institutes and helps us to increase the literacy rate.

10 FUTURE SCOPE

The application, besides being used by the educational institutes for the purpose of tracking the performance of their students, can be used as a personalised application to track the growth individual selves and improve themselves in the area which they think they are lagging in.