

Introduction

a. overview - a brief description about project.

During our's short-term internship in Aravali Bridge on Data Analysis - virtual internship we have given a project to develop a web application using IBM Cognos Analytics. A web application is an application program that is stored on a remote server and delivered over the internet through a browser interface. we are instructed to do a comprehensive analysis on a data given to us to analyse it in various sections. By using IBM Cognos Analytics we have created unique and informative visualization. In our web app we need to provide a dashboard, story and a report based on our analysis. For the development/creation of web app we have used HTML Code and some web integration.

our term project to create a web application on the basis of our analysis in our project. our project title is: unleashing the potential of our youth - A student performance analysis.

Unleashing the potential of our youth: A

Student performance analysis

Introduction:

A Country's growth is strongly measured by quality of it's education system. Today it is recognized as an industry and like any other industry it facing challenges. The major challenges of higher education being decrease in students success rate and their leaving a course without completion.

Analysis student work is an essential part of collect and examine student work. Many factors can influence a student performance, include the influence of the parent's education background, test preparation and so on.

The dataset contains the marks secured by 1000 student's from a school. The analysis aims to understand the influence of important factors such as parental education.

Advantages and Disadvantages of Student Performance Analysis

Advantages:

- Can be used to assess from multiple perspectives
- Using a student-centered design can promote student motivation
- Can be used to assess transfer of skills and integration of content
- Engages student in active learning
- Encourage time on academics outside of class
- Can provide a dimension of depth not available in classroom
- Can promote student creativity
- Can place faculty more in a mentor role than as judge
- Can be summative & formative
- Can be embedded with courses
- Can adapt course assignments

Disadvantages:-

- usually the most costly approach.
- time consuming and labor intensive to design and execute for faculty and student.
- must be carefully designed if used to document attainment of student learning outcomes.
- Ratings can be made subjective.
- Require careful training of raters.
- inter-rater reliability must be addressed.
- production costs may be prohibitive for some and hamper reliability.
- sample of behaviour or performance may not be typical, especially if observers are present.

Specify the business problem

A business problem can be defined as any hurdle, situation, or variation that leads to a difference between the desired objective and accomplished results. Some problems present themselves, while others require in-depth analysis of the organization.

- gain great insight into target markets
- Enhance decision-making capabilities
- Create targeted strategies and marketing campaigns.
- improve operational efficiency and minimize risk
- identify new product and service opportunities.

The identification of a problem holds tremendous value, once identified, rectify problem efficiently. Some issues are involved in business.

Business Requirements

Business Requirement, also known as Stakeholder Requirement Specification (SRS), describes the characteristics of a proposed system from the viewpoint of the system and user like a consumer. products, systems, software and processes are ways of how to deliver satisfy, it meet business requirements.

- gathering Stakeholder Requirements
- Categorizing Stakeholder Requirements
- Analysing and interpreting requirements
- Documenting requirements.

Literature survey:

A literature survey is an overview of the previous published works on a topic. The term can refer to a full scholarly paper or a section of a scholarly work such as article. Either way literature survey is supposed to provide researcher with general image of the existing knowledge on the topic.

A good literature survey can ensure a proper research & theoretical framework.

- identifying the finding in each study that answer your research questions (aim)
- Condensing and summarizing these finding
- grouping the finding thematically into categories that speak to your research questions.

Social and business impact:

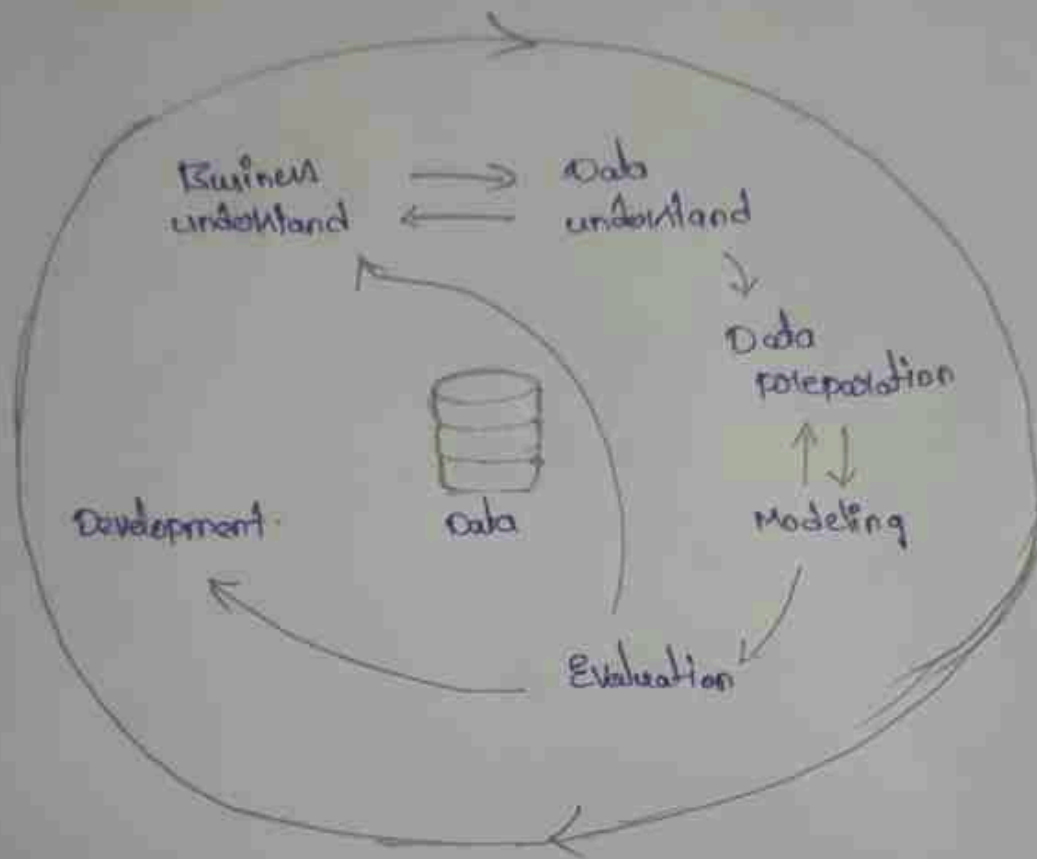
Social impact is a significant change that positively addresses a pressing injustice or challenge such as climate change, human right or the education gap.

When business and organisations establish social impact initiatives, the difference is felt beyond the communities the effort's activities touch.

- gender equality promotion
- climate change mitigation
- public health enhancement
- Community development
- Human right's protection.

THEORETICAL ANALYSIS

a) Block diagram.



Conclusion:

This brings us to end to the student performance prediction. Let us review our work. First we start by defining our problem statement. Looking into the algorithms we were going to use and the regression implementation chart table. Then we move on to practically implementing the identification and regression algorithms moving forward. We compared the performance of these models. That proved that it works best for student performance prediction problems.

The key takeaways from this student performance are

- identify of student performance is important for many institutions
- Linear regression gives better accuracy compare to other regression problems
- Linear regression is the best fit for the problem.