

# **A Mini Project Report**

**On**

**“STUDENT PERFORMANCE ANALYSIS SYSTEM”**

Submitted in partial fulfillment of the  
Requirements for the award of the degree of

**Bachelor of Technology**

**In**

**Computer Science & Engineering-  
Artificial Intelligence & Machine Learning**

**By**

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**MLR**

**INSTITUTE OF TECHNOLOGY**

**(UGC AUTONOMOUS)**

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**2022**

## **Department of Computer Science & Engineering- Artificial Intelligence & Machine Learning**

### **CERTIFICATE**

This is to certify that the project entitled “**Student Performance Analysis System**” has been submitted by **S Sai Krishna Reddy (20R21A6648)** in partial fulfillment of the requirements for the award of degree of Bachelor of Technology in Computer Science and Engineering (CSE-AIML) from Jawaharlal Nehru Technological University, Hyderabad. The results embodied in this project have not been submitted to any other University or Institution for the award of any degree or diploma.

**Internal Guide**

**Head of the Department**

**External Examiner**

## **Department of Computer Science & Engineering- Artificial Intelligence & Machine Learning**

### **DECLARATION**

I hereby declare that the project entitled “**Student Performance Analysis System**” is the work done during the period from **August 2022 to December 2022** and is submitted in partial fulfillment of the requirements for the award of degree of Bachelor of Technology in Computer Science and Engineering (CSE-AIML) from Jawaharlal Nehru Technology University, Hyderabad. The results embodied in this project have not been submitted to any other university or Institution for the award of any degree or diploma.

**S Sai Krishna Reddy**

**20R21A6648**

## **Department of Computer Science & Engineering- Artificial Intelligence & Machine Learning**

### **ACKNOWLEDGEMENT**

The satisfaction and euphoria that accompany the successful completion of any task would be incomplete without the mention of people who made it possible, whose constant guidance and encouragement crowned my efforts with success. It is a pleasant aspect that I now have the opportunity to express my guidance for all of them.

First of all, I would like to express my deep gratitude towards my internal guide

**Mrs. G. UMA MAHESWARI**, Assistant Professor, Department of CSE- Artificial Intelligence & Machine Learning for his support in the completion of my dissertation. I wish to express my sincere thanks to **Mr.K.SaiPrasad**, HOD, Department of CSE- Artificial Intelligence & Machine Learning for providing the facilities to complete the dissertation.

I would like to thank all my faculty and friends for their help and constructive criticism during the project period. Finally, I am very much indebted to my parents for their moral support and encouragement to achieve goals.

**S Sai Krishna Reddy**

**20R21A6648**

## **Department of Computer Science & Engineering-**

### **Artificial Intelligence & Machine Learning**

#### **ABSTRACT**

Almost every university have their own management system to manage the students records. Currently, even though there is a student management system that manages the students records no permission is provided for lecturers to access the system. This is because the access permission is only to top management such as Deans and Deputy Deans of Undergraduate and Student Development due to its privacy setting. Thus, this project proposes a system named Student Performance Analysis System (SPAS) to keep track of students result in the Faculty of Computer Science Artificial Intelligence and Machine Learning (CSE-AIML). The proposed system offer a predictive system that is able to predict the students performance in courses which not only in turns assists the lecturers from that particular department to identify students that are predicted to have bad performance in courses and lecturers can motivate them by giving several instructions and plays a major role in the development of their scores. Not only lecturers but also students can access their scores, analyze them and work hard accordingly. The proposed system offers student performance prediction through the rules generated via data mining technique. The data mining technique used in this project is classification, which classifies the students based on students grade of all the previous semesters as well as mid examinations.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 OVERVIEW**

Now-a-days, it's hard to identify students because of their results. We couldn't predict the problem of the student and analyze him and look after his studies so we came up with an idea called student performance analysis in which it detects the performance of the student and gives the report about a particular student by this the student can excel in the lacking subjects and teachers can also look after him and guide him and also the parents can also look at their child's performance using website(dashboard, remarks ).

### **1.2 PURPOSE OF THE PROJECT**

The purpose of this project is to create a web based application which analyzes the performance of the students result by using a machine learning model. It is also user friendly because I provide an interface to teacher and student as well as their parents based on a web based application by providing a dashboard that helps the particular student to know their weakness and the topics that they should improve to secure highest marks and for a parent to guide their child , it also benefits the teacher because here the model predicts the students marks and their weakness and update time to time to their particular teacher so that they can monitor the student and help them in improving their scores.

### **1.3 MOTIVATION**

Education had become a major scope for everyone if a student is studying intermediate he/her will be having many chapters and subjects which they couldn't identify themselves their weaknesses and strengths in that 2 years of span he couldn't manage the time for him/her to identify their own mistakes and the teachers couldn't point each and every child and look at their performance as it is very hard for them so by this issue I developed a model that is helpful for both student and teacher as well as their parents to look at them so I particularly focused on that issue and developed this project to save the time of students and help them achieve their goals That inspired us on building this particular model

## **CHAPTER 2**

### **LITERATURE SURVEY**

I conducted a thorough literature survey by reviewing existing systems for the student performance analysis system. Research papers, journals and publications have also been referred in order to prepare this survey.

#### **2.1 EXISTING SYSTEM**

##### **A. FACULTY SUPPORT SYSTEM (FSS)**

Shana and Venkatachalam have proposed a framework named Faculty Support System (FSS) which is low in cost as it uses cost effective open source analysis software, WEKA to analyze the student's performance in a course offered by Coimbatore Institute of Technology of Anna University. FSS is able to analyze the student's data dynamically as it is able to update the student's data dynamically with the flow of time to create or add a new rule. The update of the new rule is possible with the help from domain experts and the role is determined by data mining techniques such as classification techniques. Classification technique is used to predict the student's performance. Besides, FSS focus on the identification of factors that contribute to performance of students in a particular course.

##### **B. STUDENT PERFORMANCE ANALYSER (SPA)**

SPA is an existing secure online web-based software that enables educators to view the student's performance and keep track of the school's data. The SPA is a tool designed for analyzing, displaying, storing, and getting feedback of student assessment data. It is a powerful analyzer tool used by schools worldwide to perform analysis and display the analysis data once raw student data is uploaded into the system. The analysis is done by tracking the student or class to get the overall performance of the student or class. It helps to identify the students' performance which is below the expected level, at expected level or above the expected level. This would allow the educators or staff to identify the current students' performance easily. Other than that, it enables various kinds of students' performance reports such as progress reports and achievement reports to be generated.

### **C. INTELLIGENT MINING AND DECISION SUPPORT SYSTEM (INMINDS)**

InMinds helps Universiti Malaysia Sarawak (UNIMAS) to monitor the performance of various areas in every UNIMAS's departments. The system enables top and mid-management in UNIMAS to have a clear look on the areas that needed attention by looking at the figures, revenues and risks. The features, ease of use and flexibility provided by the system makes the performance analysis in UNIMAS to be performed in an ideal solution. Charts are provided by the system for ease of student performance's interpretation. From the reviews on these existing systems, useful techniques and features could be applied into the proposed system for a better system's performance. The WEKA is chosen as a tool for data mining because it is open source software.

## **2.2 LIMITATIONS OF EXISTING SYSTEM**

Concisely summarizing the disadvantages of the above implementations:

- In the existing system the students are not able to identify their weakness in their particular course as it is hard for them in this short span.
- In the existing system the teachers cannot observe each and every student and guide them to improve their scores .
- The parents will not be receiving any notification about their children's performance weekly and the child's study report is not being provided to them regularly.

## **CHAPTER 3**

### **PROPOSED SYSTEM**

#### **3.1 PROPOSED SYSTEM**

There are few features from the existing system that are employed during the design and implementation phase of the proposed system. These features and functionalities include the user interface for the students performance prediction, illustration displays and report generation.

A good user interface provides a user-friendly interface as it is easy to navigate and not complicated. Meanwhile, student performance prediction is included in the proposed system to make sure the objectives are achieved.

Furthermore, the generation of reports in Portable Document Format(PDF) and illustration displays such as charts in PDF makes student performance analysis easier.

#### **3.2 OBJECTIVES OF PROPOSED SYSTEM**

The objectives of the proposed system include the following:

- To analyze student performance.
- To identify his/her loopholes in a particular topic or subject.
- To collect a dataset of different students marks (subject wise).
- To classify the students according to their performance based on machine learning algorithms.
- Predicting their future performance based on previous examination scores.

#### **3.3 SYSTEM REQUIREMENTS**

Here are the requirements for developing and deploying the application.

##### **3.3.1 SOFTWARE REQUIREMENTS**

Below are the software requirements for the web application development:

1. The required language is python
2. Editor for HTML,CSS,Javascript and Python - PyCharm or VSCode
3. ML Libraries for Model Building
4. Google Chrome, Firefox, Microsoft Edge or Brave Browser with Extension Support

### **3.3.2 HARDWARE REQUIREMENTS**

Below are the hardware requirements for the web application development:

1. Operating System : windows
2. Processor : intel i3(min)
3. Ram : 4 GB(min)
4. Hard Disk : 250GB(min)

### **3.3.3 FUNCTIONAL REQUIREMENTS**

1. Collect the dataset of students performance based on the different sources
2. Classifying them based on several machine learning algorithms
3. After the classification the model identifies the marks of the students based on their performance in their previous examinations.
4. Then finally we get the dashboard of every student which consists of his weakness and his progress and the subjects that he has to improve.

### **3.3.4 NON-FUNCTIONAL REQUIREMENTS**

#### Reliability

- Regardless of the number of attempts the system should be able to accurately detect the performance of a student.
- System should be able to handle any exception properly.
- As for the output, the system should be able to provide a faster response.

### Scalability

- To produce better results, the system should identify the marks of every student and based on it it should be able to predict the future score of a particular student.
- The system must be able to cope up with any kind of updates in the model.

## 3.4 CONCEPTS USED IN THE PROPOSED SYSTEM

### DATA PREPROCESSING

**Preprocessing** is a data mining technique used to turn the raw data into a format that is both practical and effective.

### MACHINE LEARNING AND ITS TYPES

**Machine learning (ML)** is a branch of study devoted to comprehending and developing "learning" methods, i.e., methods that use data to enhance performance on a certain set of tasks.

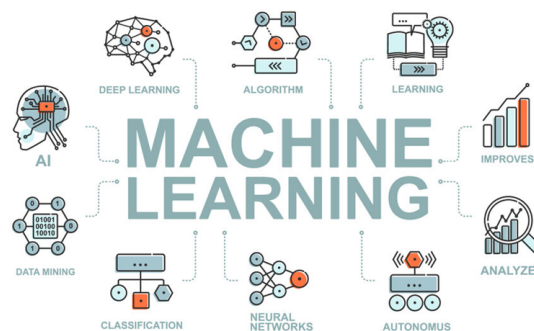


Figure 2: Types of Machine Learning

### CLASSIFICATION

In machine learning and statistics, classification is a supervised learning technique in which the computer program makes new observations or classifications based on the data that is provided to it. It is a method of classifying a set of data into groups. It may be used with both structured and unstructured data. Predicting the class of the provided data points is the first step in the procedure. The terms target, label, and classes are frequently used to describe the classes.



## SUPPORT VECTOR MACHINE

The SVM technique is used to develop the optimum decision boundary or line that can divide n-dimensional space into classes, allowing us to quickly classify additional data points in the future. A hyperplane is the name given to this optimal decision boundary.

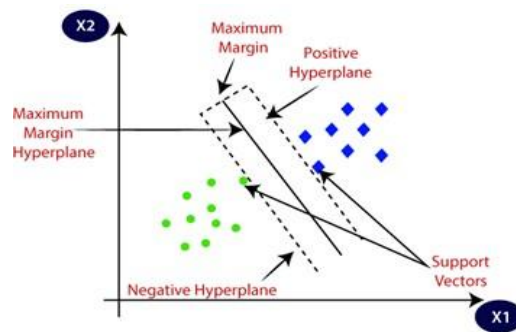


Figure 2: Representation of Support Vector Machine

### 3.4 DATA SET USED IN THE PROPOSED SYSTEM

The dataset consists of several students marks and his previous grades obtained

Datasets consist of a collection of previous marks.. The data pre-processing techniques are applied on the dataset to extract required features from the datasets that are used to classify the performance of the student .

## **CHAPTER 4**

### **SYSTEM DESIGN**

#### **4.1 COMPONENTS OR USERS IN THE PROPOSED SYSTEM**

##### **Admin**

Data pre-processing and extraction of required features are performed by the admin after collecting the dataset. To train the model or classifier, the admin uses the preprocessed dataset and a classification algorithm.

##### **ML Model/Classifier**

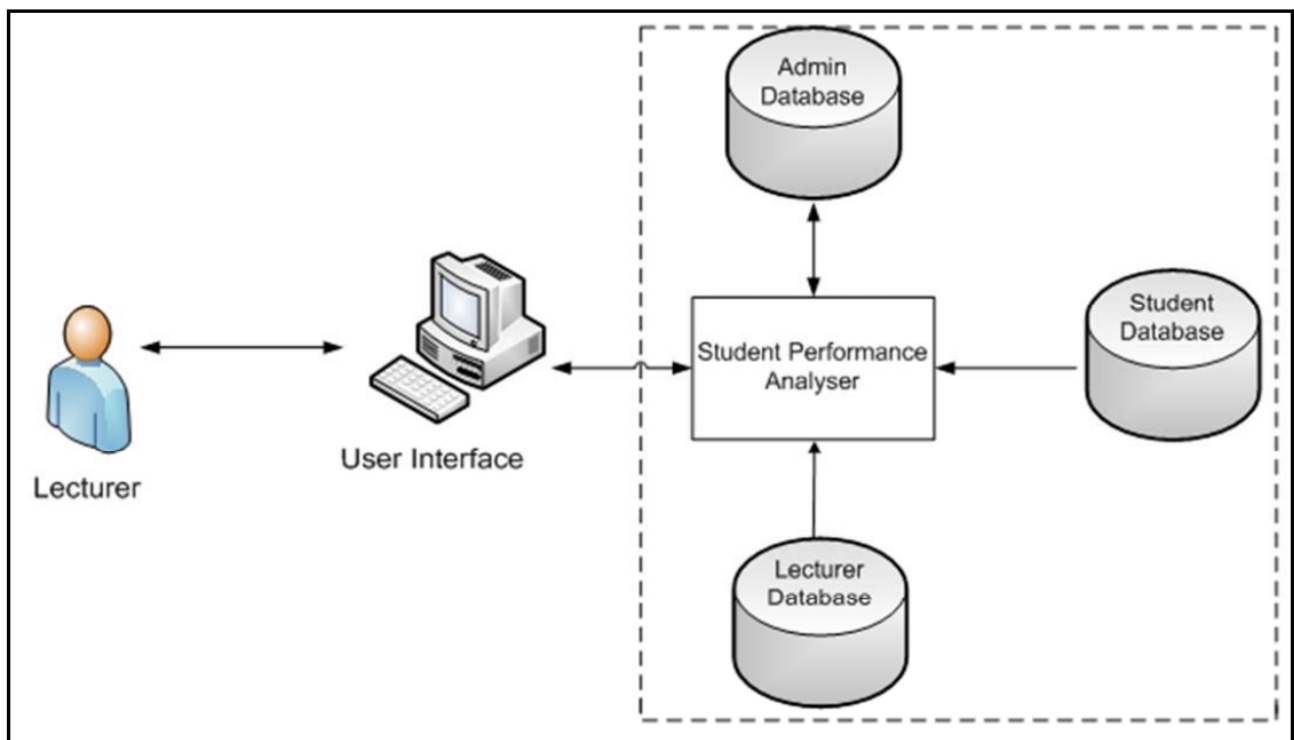
The admin creates the classification based on machine learning algorithms. The trained model is responsible for processing the end user's input data and delivering the final output to the end user by classifying the performance.

##### **End user**

The end user is the person who wants to know the performance of a particular student , they might be their parents or teachers or himself. The end user can observe the overall performance of each subject and they can be guided to improve themselves and predict his final score(future score) details into the web application created by the admin. After the classifier has completed the necessary processing, the final result is returned to the end user.

## 4.2 PROPOSED SYSTEM ARCHITECTURE

The designed machine learning model takes input from the students marks database by taking approval from the admin his/her future scores can predict, and based on their scores model can identify his weakness and can try to improve them , and it also shows the suggestion to the student that in which areas he is facing the difficulty not only student but also the teacher can view the performance of student. An architectural diagram outlines the system's components, their relationships, and system functionality. A huge dataset where the data is pre-processed, then it is classified using a machine learning algorithm and finally the model is trained. Users input the account data into the application. The final output is then sent to the user.



## 4.3 UML DIAGRAMS

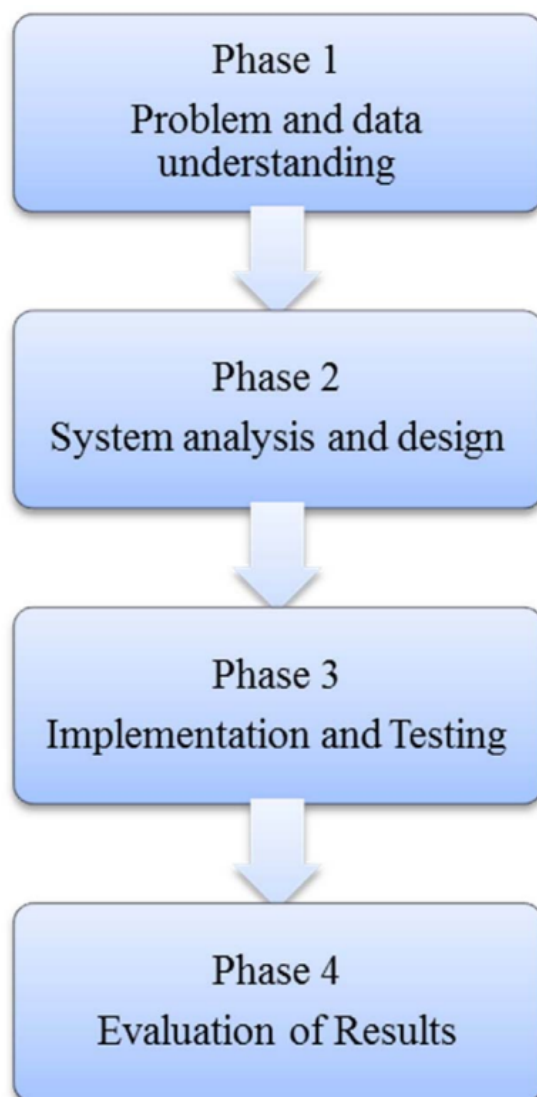
### 4.3.1 ACTIVITY DIAGRAM

The activity diagram provides a view of the behavior of the application by the sequence of the actions in a process.

Activity Diagram

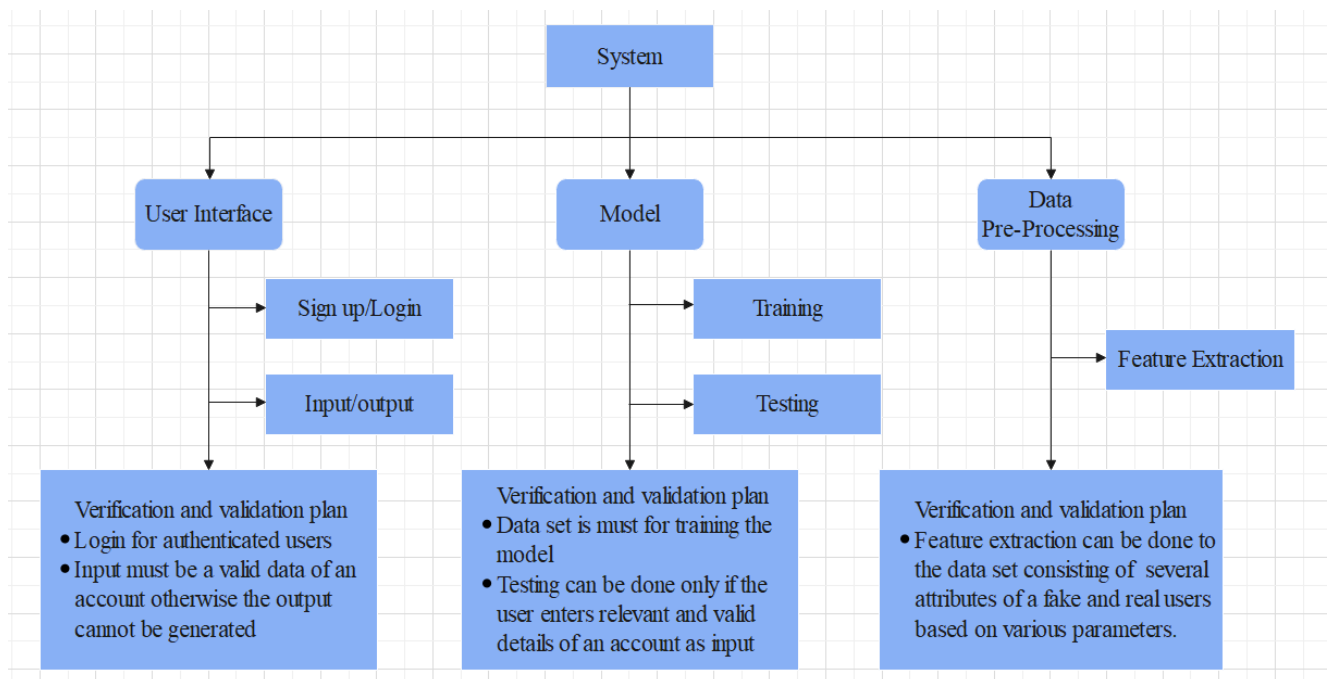
- Methodology

### METHODOLOGY



1. The initial state of the project includes providing students marks details.
2. The input marks details are passed to the model. The model is developed using classification algorithms and several machine learning algorithms.
3. The classifier does classification of students' performance and its is trained for several inputs and accuracy is increased.
4. The final output depends on their previous grades obtained by them:
  - If the students' previous grades are high then the future score is predicted high.
  - If the students previous scores are low then his weaknesses are shown and the ways to improve them future score is predicted low..

#### 4.4 MODULE DIAGRAM



The proposed system consists of three modules as mentioned in the above diagram.

- User Interface
- ML Model
- Data Pre-Processing

## **USER INTERFACE**

The functions in the user interface module includes users registering/signing before doing any operations. Once the user registers, their details will be stored in the database. This module allows only the authenticated users to login and output can only be generated if the input data or details entered by the user is valid. The output determines the class of an account.

## **DATA PRE-PROCESSING**

Data normalization technique is used on the dataset, which removes the sophisticated noise, before analyzing them. Feature extraction is the major functionality of the data pre-processing module where various features are extracted from the dataset consisting of attributes of fake and real accounts that is used to train the model.

## **ML MODEL**

The model uses the dataset after feature extraction for the purpose of training. After the model is trained, the input data from the user is taken as test data to determine the class of the account.

## CHAPTER 5

### IMPLEMENTATION

#### 5.1 Source Code

##### Importing Libraries

```
import sklearn
import pandas as pd
import numpy as np
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
from sklearn.preprocessing import OneHotEncoder, LabelEncoder
import matplotlib.pyplot as plt
import warnings
warnings.filterwarnings("ignore")

df = pd.read_csv('MyDrive/data.csv')
df.head()

df.columns

df = df[df['Subject Code'] == 16]
df_1 = df.drop(columns = ['College Code', 'Roll', 'Roll no.', 'Subject Code'])
df_1['Gender'] = df_1['Gender'].replace("Female", "F")
df_1['Gender'] = df_1['Gender'].replace("Male", 'M')
df_1.head()

df_1.isnull().sum()

df_1.dropna(inplace=True)
```

```
df_1.isnull().sum()
```

```
df_1.head()
```

```
enc = LabelEncoder()
```

```
enc.fit(['M', 'F'])
```

```
enc.classes_
```

```
df_1['Gender'] = enc.transform(df_1['Gender'])
```

```
df_1.head()
```

```
X = df_1[['1st', '2nd', '3rd', '4th', 'Gender']]
```

```
y = df_1[['5th']]
```

```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2, random_state = 42)
```

```
print(X_train.shape, X_test.shape, y_train.shape, y_test.shape)
```

```
model = LinearRegression()
```

```
model.fit(X_train, y_train)
```

```
model.score(X_test, y_test)
```

```
y_pred = model.predict(X_test)
```

```
plt.plot(range(len(y_test)), y_test, color = 'b')
```

```
plt.plot(range(len(y_pred)), y_pred, color = 'g')
```

```
# plt.legend()
```

```
plt.show()
```

```
from sklearn.metrics import mean_absolute_error, mean_squared_error
```

```
mae = mean_absolute_error(y_true=y_test, y_pred=y_pred)
```

```
mse = mean_squared_error(y_true=y_test, y_pred=y_pred)
```

```
rmse = mean_squared_error(y_true=y_test, y_pred=y_pred, squared=False)
```



```

print("MAE:",mae)
print("MSE:",mse)
print("RMSE:",rmse)

def getInput():
    sem1 = float(input("Enter your 1 Semester CGPA: "))
    sem2 = float(input("Enter your 2 Semester CGPA: "))
    sem3 = float(input("Enter your 3 Semester CGPA: "))
    sem4 = float(input("Enter your 4 Semester CGPA: "))
    return sem1, sem2, sem3, sem4

# import ipywidgets as widgets
sem1, sem2, sem3, sem4 = getInput()
# gender = widgets.Dropdown(
#     options = [("Male", 1), ("Female", 0)],
#     description = "Gender: "
# )
# gender
g = int(input("Enter 1 - 'Male' or 0 - 'Female': "))
res = model.predict([[sem1, sem2, sem3, sem4, g]])
print(f'Our Prediction of your 5th Semester is {res[0][0]}')

```

## HTML CODE:

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <meta http-equiv="X-UA-Compatible" content="ie=edge">

  <title>MLr instituite.</title>

  <link rel="stylesheet" type="text/css"
href="https://cdn.jsdelivr.net/npm/slick-carousel@1.8.1/slick/slick.css" />

  <link href="styles.css" type="text/css" rel="Stylesheet" />

  <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>

  <script src="https://kit.fontawesome.com/95dc93da07.js"></script>

  <script type="text/javascript"
src="https://cdn.jsdelivr.net/npm/slick-carousel@1.8.1/slick/slick.min.js"></script>

  <script src="https://kit.fontawesome.com/d6b57f948d.js" crossorigin="anonymous"></script>

</head>

<body>

  <div id="header-hero-container">

    <header>

      <div class="flex container">

        <a id="logo" href="#"></a>

        <nav>

          <button id="nav-toggle" class="hamburger-menu">
```

```
<span class="strip"></span>
```

```
<span class="strip"></span>
```

```
<span class="strip"></span>
```

```
</button>
```

```
<ul id="nav-menu">
```

```
<li><a href="#" class="active">Home</a></li>
```

```
<li><a href="login.html">login</a></li>
```

```
<li><a href="#programs">Programs</a></li>
```

```
<li><a href="#how-it-works">Start learning</a></li>
```

```
<li><a href="#contact">Contact us</a></li>
```

```
<li id="close-flyout"><span class="fas fa-times"></span></li>
```

```
</ul>
```

```
</nav>
```

```
</div>
```

```
</header>
```

```
<section id="hero">
```

```
<div class="fading"></div>
```

```
<div class="hero-text">
```

```
<h1>Learning is "a process that leads to change"</h1>
```

```
<p>The world is changing, and we need India to be ready. We're here to ensure that everybody in India - kids,
```

```
girls and differently abled, everybody -
```

```
have access to the knowledge they need to thrive/prosper in this digital world.</p>
```

```
</div>
```

```
</section>
```

```
</div>
```

```
<section id="how-it-works">
```

```
<div class="container">
```

```
<h2>How It Works</h2>
```

```
<div class="flex">
```

```
<div>
```

```
<span class="fas fa-solid fa-globe"></span>
```

```
<h4>Enroll free Bootcamp.</h4>
```

```
<p>Your kid will get an overview of what he'll be learning throughout the course. The coach will take your kid
```

```
in an amazing learning experience
```

```
where the kid will be introduced to the concepts of Coding and Artificial Intelligence.</p>
```

```
</div>
```

```
<div>
```

```
<span class="fas fa-solid fa-splotch"></span>
```

```
<h4>Schedule your class.</h4>
```

```
<p>This is an online teaching platform and we always believe in the flexibility of our students. So we let you
```

```
decide the time of your class.
```

```
You just have to schedule your class and sit back. A coach will be waiting for you at the desired time..</p>
```

```
</div>
```

```
<div>
```

```
<span class="fas fa-solid fa-users-line"></span>
```

```
<h4>Finally start Learning.</h4>
```

```
<p>There you are - in your Demo class. It's that simple. Enroll, schedule and wait for your class. In the demo
```

```
class the coach will give an overview of all the concepts the student will be learning in the program. It will be a 1:1 teacher - student live video class..</p>
```

```
</div>
```

</div>

</div>

</section>

<section id="programs">

<div class="container">

<h2>Programs</h2>

<div id="properties-slider" class="slick">

<div>



<div class="property-details">

<p class="price">edison</p>

<span class="beds">Aged above 23</span>

<span class="baths">12 weeks</span>

<p>Time for serious coding! Kids learn JS/HTML. Create their own apps and websites.

They will build chatbots, using AI technology</p>

</div>

</div>

<div>



<div class="property-details">

<p class="price">edison</p>

<span class="beds">Aged above 23</span>

<span class="baths">18 weeks</span>

<p>Time for serious coding! Kids learn JS/HTML. Create their own apps and websites.

They will build chatbots, using AI technology</p>

</div>

</div>

<div>

```


  <div class="property-details">
    <p class="price">edison</p>
    <span class="beds">Aged above 20</span>
    <span class="baths">4 weeks</span>
    <p>Time for serious coding! Kids learn JS/HTML. Create their own apps and websites.
      They will build chatbots, using AI technology</p>
  </div>
</div>

```

```

<div>
  
  <div class="property-details">
    <p class="price">edison</p>
    <span class="beds">Aged above 13</span>
    <span class="baths">12 weeks</span>
    <p>Time for serious coding! Kids learn JS/HTML. Create their own apps and websites.
      They will build chatbots, using AI technology</p>
  </div>
</div>

```

```

<div>
  
  <div class="property-details">
    <p class="price">edison</p>
    <span class="beds">Aged above 23</span>
    <span class="baths">16 weeks</span>
    <p>Time for serious coding! Kids learn JS/HTML. Create their own apps and websites.
      They will build chatbots, using AI technology</p>
  </div>

```

```

</div>
  <div>
    
    <div class="property-details">
      <p class="price">edison</p>
      <span class="beds">Aged above 20</span>
      <span class="baths">19 weeks</span>
      <p>Time for serious coding! Kids learn JS/HTML. Create their own apps and websites.
        They will build chatbots, using AI technology</p>
    </div>
  </div>
  <div>
    
    <div class="property-details">
      <p class="price">edison</p>
      <span class="beds">Aged above 19</span>
      <span class="baths">10 weeks</span>
      <p>Time for serious coding! Kids learn JS/HTML. Create their own apps and websites.
        They will build chatbots, using AI technology</p>
    </div>
  </div>
</div>

  <button class="rounded">View All Programs Available</button>
</div>
</section>

<section id="splcourse">
  <div class="container">

```

<h2>special courses</h2>

<p class="large-paragraph">learn new skills that are mostly important to your future </p>

<div class="flex">

<div class="card">



<h3>Web development Full course</h3>

<p>contents u will learn - <b>Aged above 23</b> </p>

<ul>

<li>intro to html</li>

<li>css</li>

<li>javascript</li>

<li>bootstrap</li>

<li>animation</li>

</ul>

<button class="rounded">Enroll</button>

</div>

<div class="card">



<h3>Python from scratch</h3>

<p>the basic programming language to excell in your area - <b>Aged above 21</b></p>

<ul>

<li>introduction to python</li>

<li>operators</li>

<li>loops</li>

<li>working with problems</li>

<li>dynamic programming</li>

</ul>



```

<button class="rounded">Enroll</button>
</div>
<div class="card">
  
  <h3>Game designing</h3>
  <p>contents u will learn - <b>Aged above 20</b></p>
  <ul>
    <li>intro to html</li>
    <li>css</li>
    <li>javascript</li>
    <li>bootstrap</li>
    <li>animation</li>
  </ul>
  <button class="rounded">Enroll</button>
</div>
<div class="card">
  
  <h3>Android development</h3>
  <p>contents u will learn - <b>Aged above 19</b></p>
  <ul>
    <li>intro to html</li>
    <li>css</li>
    <li>javascript</li>
    <li>bootstrap</li>
    <li>animation</li>
  </ul>
  <button class="rounded">Enroll</button>
</div>
<div class="card">

```

```


<h3>Graphic designing</h3>
<p>contents u will learn - <b>Aged above 20</b></p>
<ul>
  <li>intro to html</li>
  <li>css</li>
  <li>javascript</li>
  <li>bootstrap</li>
  <li>animation</li>
</ul>
<button class="rounded">Enroll</button>
</div>
<div class="card">
  
  <h3>Game designing</h3>
  <p>contents u will learn - <b>Aged above 14</b></p>
  <ul>
    <li>intro to html</li>
    <li>css</li>
    <li>javascript</li>
    <li>bootstrap</li>
    <li>animation</li>
  </ul>
  <button class="rounded">Enroll</button>
</div>
</div>
</div>
</section>

```

```

<section id="the-best">
  <div class="flex container">
    
    <div>
      <h2>CODING BOOTCAMP FOR STUDENTS </h2>
      <p class="large-paragraph">Brought to you by India's First Coding Bootcamp - <b>THE
HACKING SCHOOL </b></p>
      <p><b> Coding is the new literacy</b>
        According to a research from NASA, the kids creativity is at its peak during this age i.e 6-14.
        "NOW" is the perfect time to introduce your kid to the coding culture .</p>
      <ul>
        <li>An early coding is an instrument for future</li>
        <li>your child learned the classes with more excitement</li>
        <li>Placeat maxime animi minus</li>
        <li>Placeat maxime animi minus</li>
        <li>Placeat maxime animi minus</li>
      </ul>
      <button class="rounded">Schedule your demo class</button>
    </div>
  </div>
</section>
<section id="services">
  <div class="container">
    <h2 class="white">Always learn something NEW!</h2>
    <div class="flex">
      <div>
        <div class="fas fa-solid fa-award"></div>
        <div class="services-card-right">
          <h3 class="white">Limitless Creativity</h3>

```

<p>Kids learn the fundamentals of coding and can apply on the go to build their very own unique game and product.

Play. Learn. Build. (or) Play. Code. Create..</p>

<a href="#">Learn More</a>

</div>

</div>

<div>

<div class="fas fa-sharp fa-solid fa-gears"></div>

<div class="services-card-right">

<h3 class="white">Develop A 21st Century Skill set</h3>

<p>Learn to code, because problem solving is a very rewarding skill —

There won't be any industry or sector that won't be utilising the power of code..</p>

<a href="#">Learn More</a>

</div>

</div>

<div>

<div class="fas fa-chart-line"></div>

<div class="services-card-right">

<h3 class="white">Translating Ideas Into Products</h3>

<p>Kids apply the concepts they learn immediately with our product based learning approach,

therefore getting their hands dirty with code from day one. Create your own Apps, Games, Websites, Chatbots and many more!</p>

<a href="#">Learn More</a>

</div>

</div>

\$(document).scroll() => {

```

let scrollTop = $(document).scrollTop();
if (scrollTop > 0) {
    navMenu.addClass('is-sticky');
    logo.css('color', '#000');
    headerElem.css('background', '#fff');
    navToggle.css('border-color', '#000');
    navToggle.find('.strip').css('background-color', '#000');
} else {
    navMenu.removeClass('is-sticky');
    logo.css('color', '#fff');
    headerElem.css('background', 'transparent');
    navToggle.css('border-color', '#fff');
    navToggle.find('.strip').css('background-color', '#fff');
}
headerElem.css(scrollTop >= 200 ? {
    'padding': '0.5rem',
    'box-shadow': '0 -4px 10px 1px #999'
} : {
    'padding': '1rem 0',
    'box-shadow': 'none'
});
$(document).trigger('scroll');
});
</script>
</body>
</html>

```

## CHAPTER 6

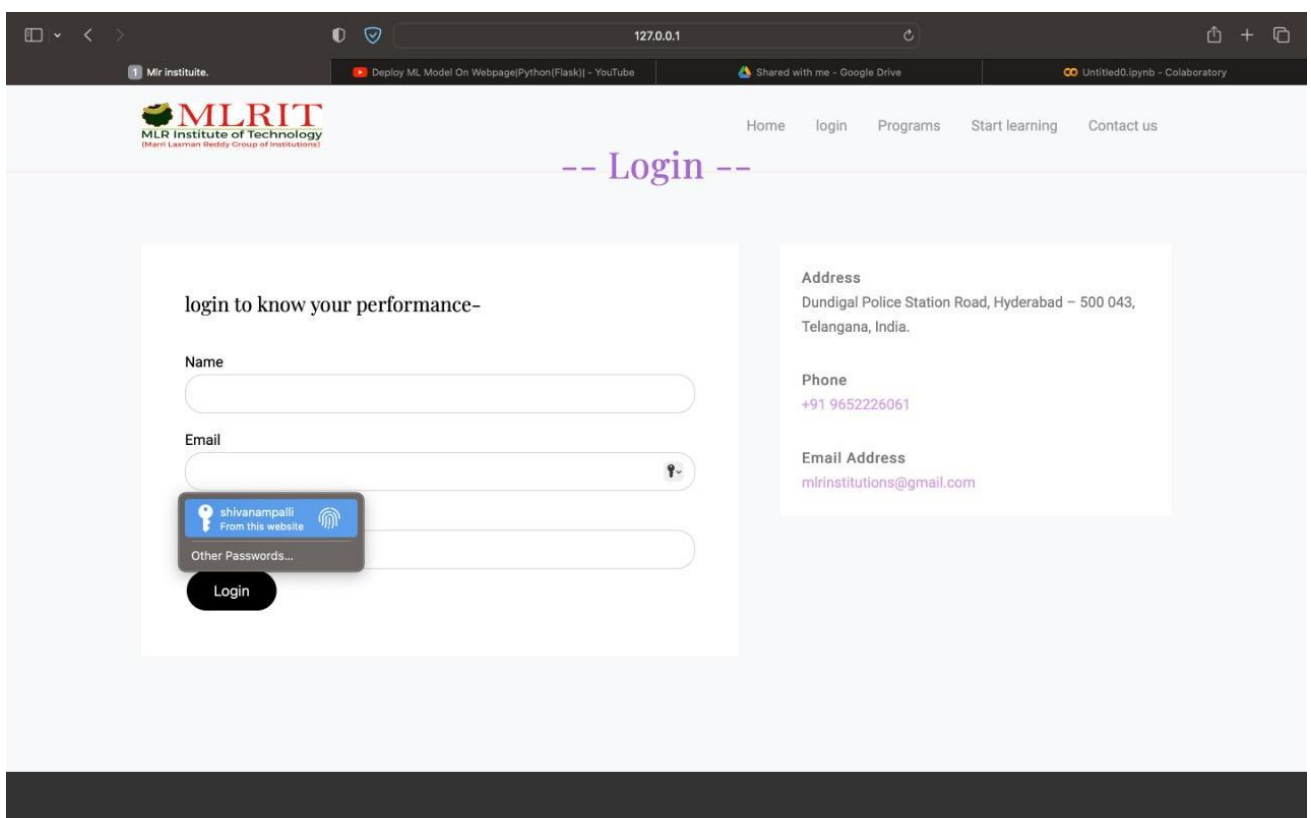
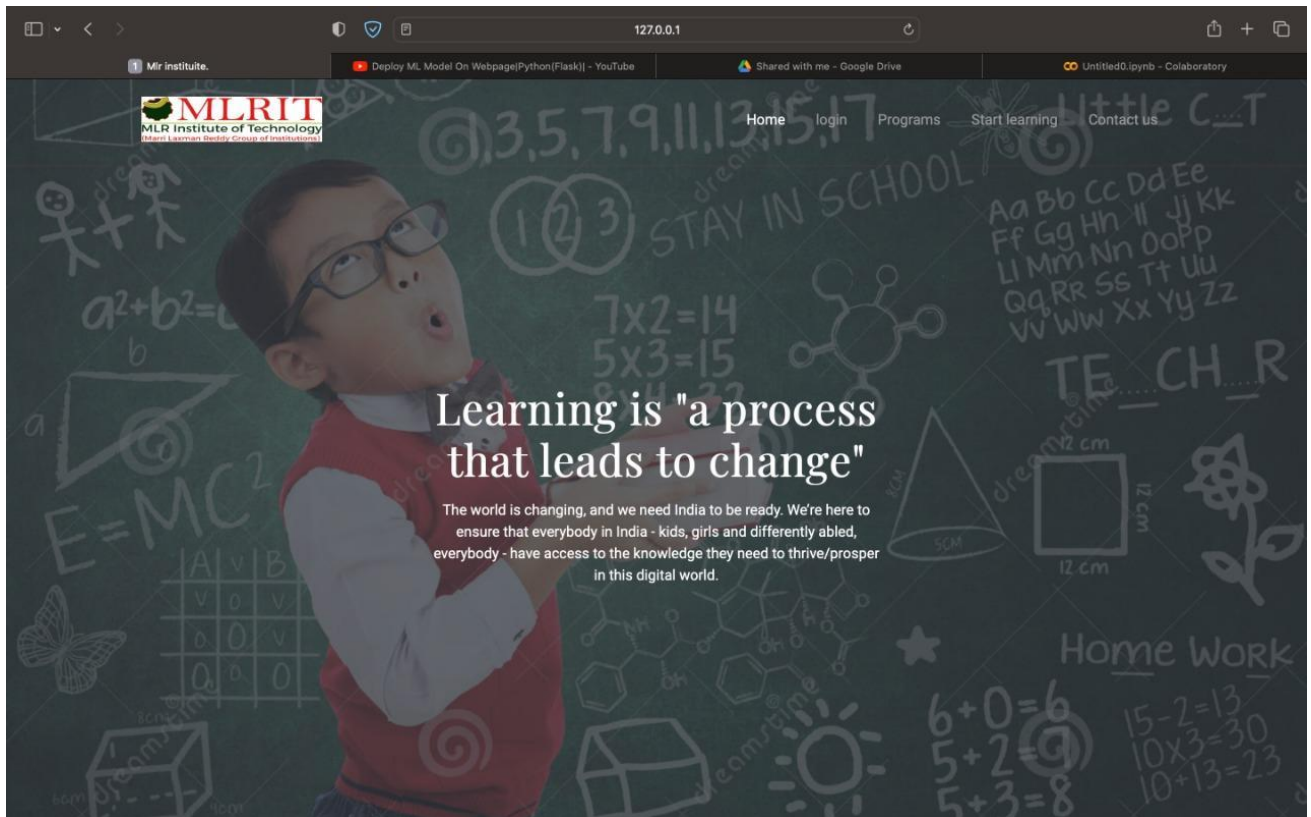
### RESULTS

✓  
32s



```
# import ipywidgets as widgets
sem1, sem2, sem3, sem4 = getInput()
# gender = widgets.Dropdown(
#     options = [("Male", 1), ("Female", 0)],
#     description = "Gender: "
# )
# gender
g = int(input("Enter 1 - 'Male' or 0 - 'Female': "))
res = model.predict([[sem1, sem2, sem3, sem4, g]])
print(f"Our Prediction of your 5th Semester is {res[0][0]}")
```

```
Enter your 1 Semester CGPA: 8.4
Enter your 2 Semester CGPA: 7.9
Enter your 3 Semester CGPA: 7.3
Enter your 4 Semester CGPA: 7.9
Enter 1 - 'Male' or 0 - 'Female': 1
Our Prediction of your 5th Semester is 8.212495800496797
```



## **CHAPTER 7**

### **CONCLUSION**

In conclusion, this project concentrates on the development of a system for student performance analysis. The main objective of this project is that it assists the lecturers in conducting student performance analysis and also helps the lecturers in identifying the students that are predicted to score low grades in the course. Other than that the SPAS assists lecturers to retrieve information of their students performance throughout the semester and allows the lecturers to forward the result of the students to their parents every week in the form of Portable Document Format(PDF).



## REFERENCES

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[4] V. Kumar, and A. Chadha, “An empirical study of the applications of data mining techniques in higher education”, International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 2, No..3, 2011, pp. 80-84.