STUDENTS RESULTS MANAGEMENT SYSTEM

Project Report

On

STUDENTS RESULTS MANAGEMENT SYSTEM

Submitted by

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CERTIFICATE

This is to certify that the project work titled "**STUDENTS RESULTS MANAGEMENT SYSTEM"** is a bonafied project work submitted by K.Sravya ,V.Lavanya,G.Neelima Devi,R.Hari Priya,SK.Akhila the department of COMPUTER SCIENCE AND ENGINEERING in partial fulfillment of requirements for the award of degree of Bachelor of Technology in Computer science and engineering for the year2020-2021 carried out the work under the supervision.

GUIDE

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HEAD OF THE DEPARTMENT

P.HARINADHA

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INDEX

Abstract

The purpose of “Students Result Managemenet System” is to auotmate the exsiting manual system by the helping of computerized equipments and full-fledeged computercomputer software fullfilling their requirements so that their valuable data or information can be stored with easy accessing and manupulation of the same.The required software and hardware are esayliy available and easy to work with.

“Students Result Managemenet System”,as described above can lead to error free,secure,reliable and fast mangement system.it can assit the users to concentrate on their other activities rather to concentrate on their records.Thus it will help organization in utilization resources the orgainization can maintain computerized records without redundant entries.Basically the project describes how to manage for good performance and better services for the clients.

This project contains three modules register/login module,Admin module,Student module.Admin module is used to create and manage the subjects and add the students and their results.Student module is used to provide the results of the students .

Register user can acces the database of the students.
Which will provide details of the subjects ,results which is useful for the students

Introduction

The Students Result Managements System has been developed to override the problems prevailing in the practining manual system .This software is supported to eliminate and in some cases reduce the haedships faced by this exisitng system. Moreover this system is designed for the particular need of the copmany to carry out operationd in a smooth and effective manner.

The Application is reduced as much as possibleto avoid errors while entering the data .It aloso provide error message while entering invalid data.No formal knowledge is needed for the user to use this system.Thus by this all it proves it is user friendly. Student Result Management System,as described above,can lead to error free,secure,reliable and fast management system.It can assist to the user to concentrate on the record keeping.Thus it will help organization in better utilization of resources.

Every student result management system has different student needs,therefore we design exclusive management system that are adapted to your managerial requirements. This is designed to assistent strategic planning and will help you to ensure that your organization is with the right level of information and details for future goals.These systems will ultimately allow you to better manage resources.

Purpose

The main pupose of the project on student result management system is to manage the details of student subject,semister,student .The project is totally bulit at administrative enda and thus only the administrator is guaranteed the access.The purpose of the project is to build an application program to reduce the manual work for managing the student result subject.It tracks all the details about the subject internals,externals,total.

Scope

The project student result management system may help collecting perfect management details in a very short time,the collection will be obvious ,simple and sensible.it will a person to know the management of past year perfectly vividly.it also helps in current all works relative to studen tresult mangement system.it will be also reduced the cost of collecting mangement anf collection procedure will go on smootly.

Requirement Specification

Software Requirements:

Front end	Html,css,bootstrap
Server Side Language	Python
Database Serever	SQLITE3,ORM
Web Browser	Firefox,chrome
Operating System	Ubuntu,windows,linux
Software	Django

SQLLITE3

- Python SQLITE3 module is used to integrate the sqlite database with python.
- It is standarized python DBI API 2.0 .
- It provides a straight forward and simple to use interface for interacting with sql databases
- There is nonedd to install this module seperately as it comes along with python after the 2.5X version.

ORM:Object Relational Mapping

- It is a technique for converting data between type system using object oriented programming language.
- This creates in ,effecte a virtual object database that can be used from within the programming.
- Object relational mapping is a technique that creates a layer between the language and the database.
- It helps programmers work with data without the OOP paradigm.

ADVANTAGES:

- The object relational data model allows its users to inherit objects ,tables etc.So that they can extend thier functionalities
- Inherited objects contains new attributes as well as the attributes that were inherited.
- The functionality of the system can be extended in object relational data model
- This can be achieved using complex data types as well as advanced concepts of object oriented model such as inheritance.

ANALYSIS AND DESIGN

Analysis:

The classification and tabulation transforned and the raw data collected into useful information by organizing and compiling the bits of data into graphically understandable manner and in the current research, it was done with the help of a UML (unified modeling language) modeling tool.

Design:

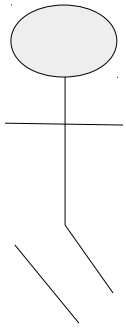
Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization. Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software.

The design activities are of main importance in this phase, because in this activity, decision ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and maintainability of the system.Design is the only way to accurately translate the customer’s requirements into finished software or a system.

Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data

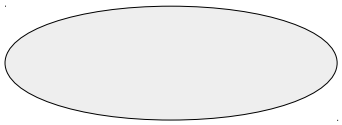
UML Diagrams:

Actor: A coherent set of roles that users of use cases play when interacting with the use cases.an observable result of value of an actor.



Use case:

A description of sequence of actions, including variants, that a system performs yields an observable result of value of an actor. actor diagram is drawned in a eclipse shape.



UML:

UML stands for Unified Modeling Language. UML is a language for specifying, visualizing and documenting the system. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built.The representation of the entities that are to be used in the product being developed need to be designed.

USECASE DIAGRAMS:

Use case diagrams model behavior within a system and helps the developers understand of what the user require. The stick man represents what's called an actor.

Use case diagram can be useful for getting an overall view of the system and clarifying that can do and more importantly what they can't do.

Use case diagram consists of use cases and actors and shows the interaction between the use case and actors.

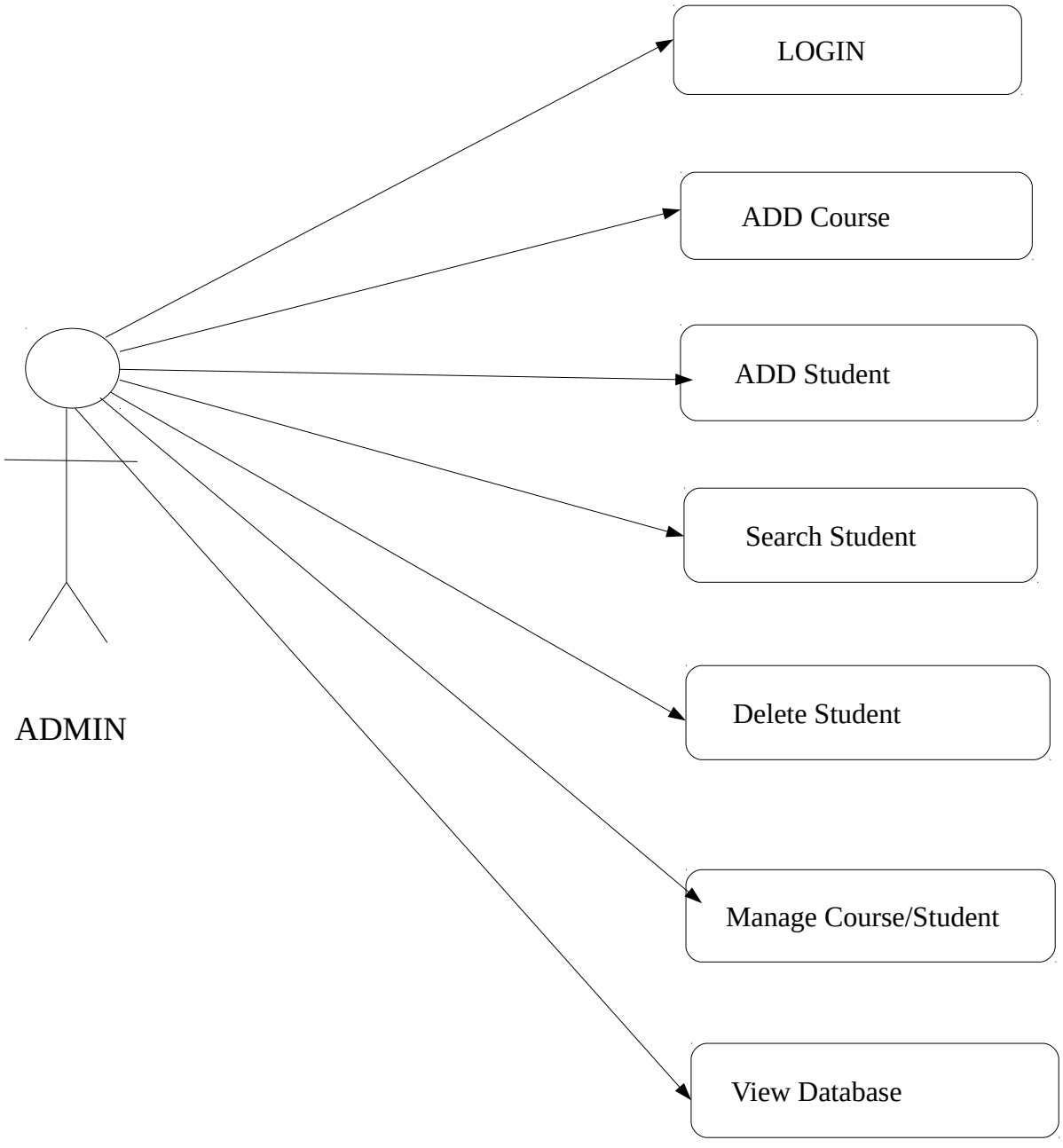
- The purpose is to show the interactions between the use case and actor.
- To represent the system requirements from user's perspective.
- An actor could be the end-user of the system or an external system.

USECASE DIAGRAM:

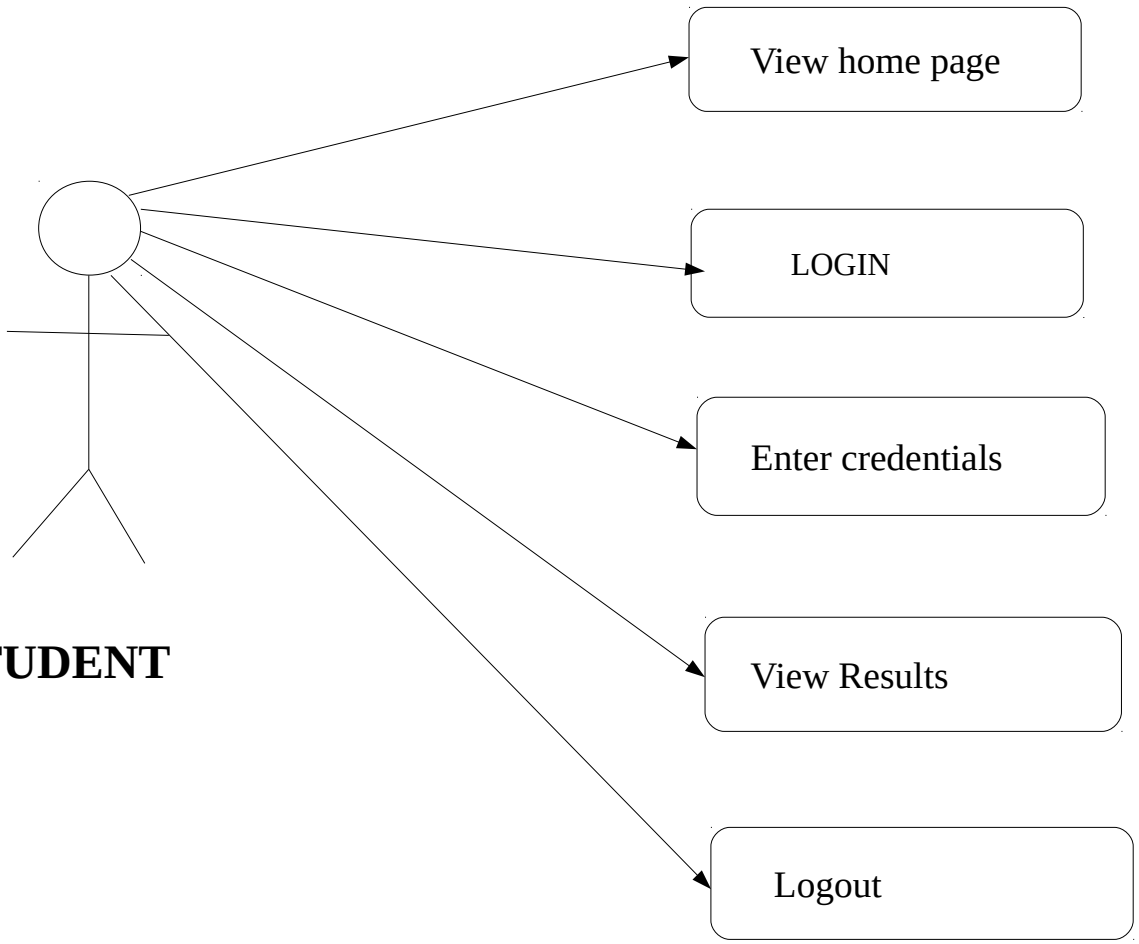
A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor – Sender, Secondary Actor Receiver.

Use Case Diagrams:

Admin:



Student:


View home page
LOGIN
Enter credentials
View Results
Logout
STUDENT

ER Diagram:

The Entity-Relationship (ER) model was originally proposed by Peter in 1976 [Chen76] as a way to unify the network and relational database views. Simply stated theER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since Chen wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

- It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.
- It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.
- In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.

ER Notation:

There is no standard for representing data objects in ER diagrams. Each modeling methodology uses its own notation. The original notation used by Chen is widely used in academics texts and journals but rarely seen in either CASE tools or publications by non-academics. Today, there are a number of notations used; among the more common are Bachman, crow's foot, and IDEFIX. All notational styles represent entities as rectangular boxes and relationships as lines connecting boxes. Each style uses a special set of symbols to represent the cardinality of a connection. The notation used in this document is from Martin. The symbols used for the basic ER constructs are:

- **Entities** are represented by labeled rectangles. The label is the name of the entity. Entity names should be singular nouns.

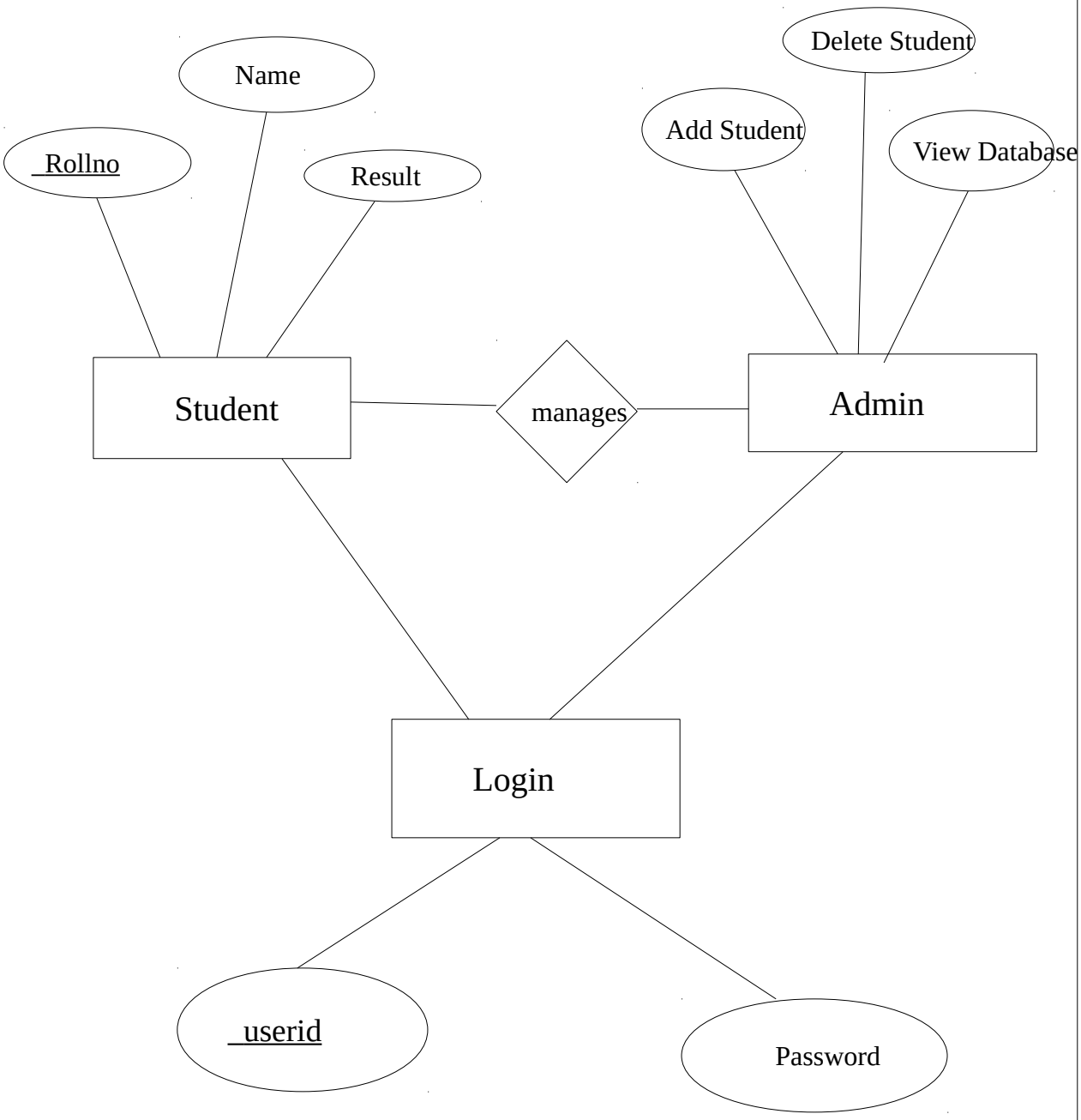
- **Relationships** are represented by a solid line connecting two entities. The name of the relationship is written above the line. Relationship names should be verbs.

- **Attributes** when included, are listed inside the entity rectangle. Attributes which are identifiers are underlined. Attribute names should be singular nouns.

- **Cardinality** of many is represented by a line ending in a crow's foot. If the crow's foot is omitted, the cardinality is one.

Existence is represented by placing a circle or a perpendicular bar on the line. Mandatory existence is shown by the bar (looks like a 1) next to the entity for an instance is required. Optional existence is shown by placing a circle next to the entity that is optional.

ER DIAGRAM:


Delete Student
Name
Add Student
View Database
Rollno
Result
Student
manages
Admin
Login
userid
Password

Implementation and System Testing

After all phase have been perfectly done, the system will be implemented to the server and the system can be used.

System Testing:

The goal of the system testing process was to determine all faults in our project .The program was subjected to a set of test inputs and many explanations were made and based on these explanations it will be decided whether the program behaves as expected or not. Our Project went through two levels of testing.

1. Unit testing

2 .Integration testing

Unit Testing:

Unit testing is commenced when a unit has been created and effectively reviewed .In order to test a single module we need to provide a complete environment i.e. besides the section we would require The procedures belonging to other units that the unit under test calls Non local data structures that module accesses .A procedure to call the functions of the unit under test with appropriate parameters.

1. Test for the admin module

Testing admin login form-This form is used for log in of administrator of the system. In this form we enter the username and password if both are correct administration page will open otherwise if any of data is wrong it will get redirected back to the login page and again ask the details.

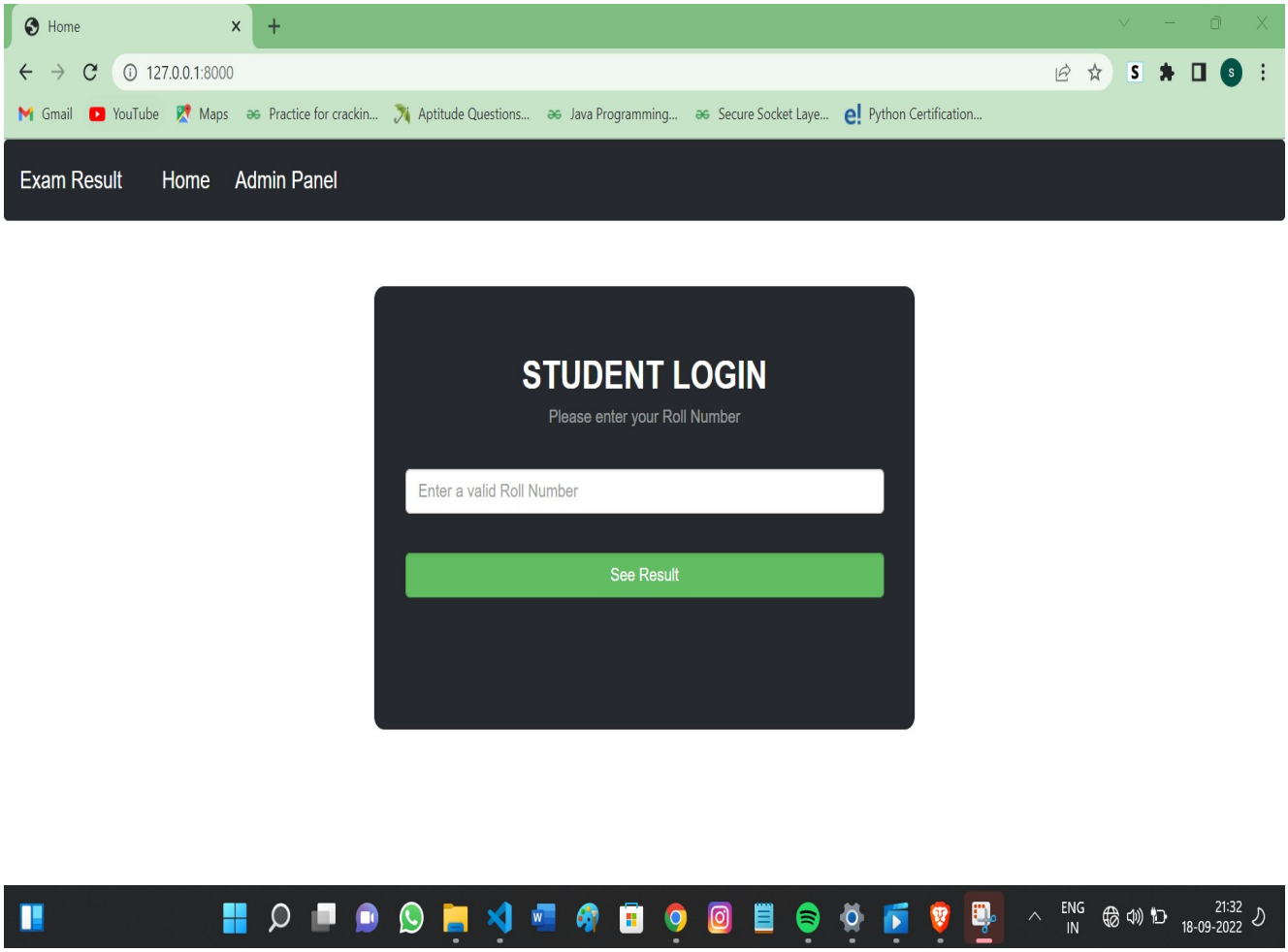
Integration Testing:

In the Integration testing we test various combination of the project module by providing the input.

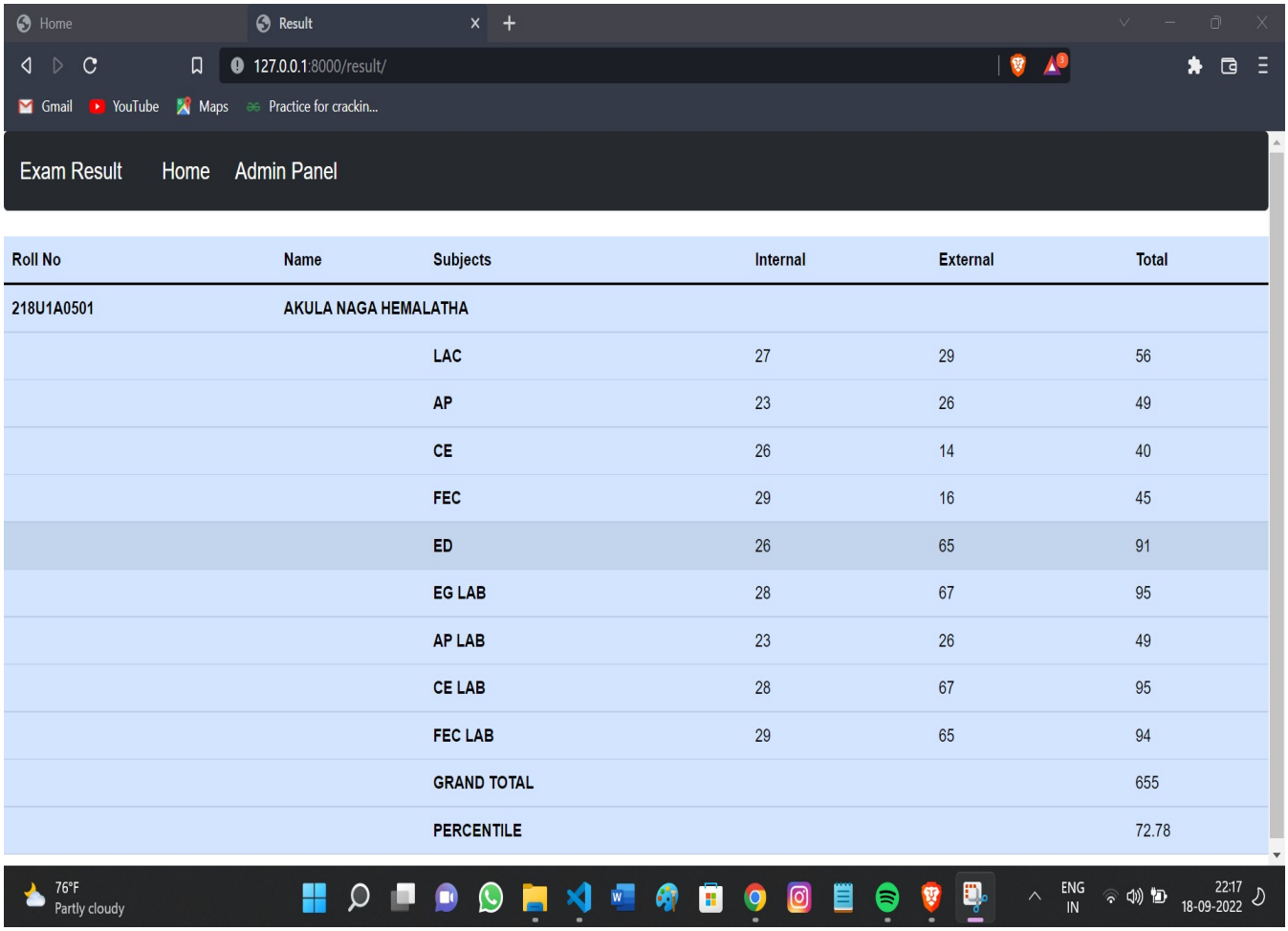
The primary objective is to test the module interfaces in order to confirm that no errors are occurring when one module invokes the other module.

Evaluation

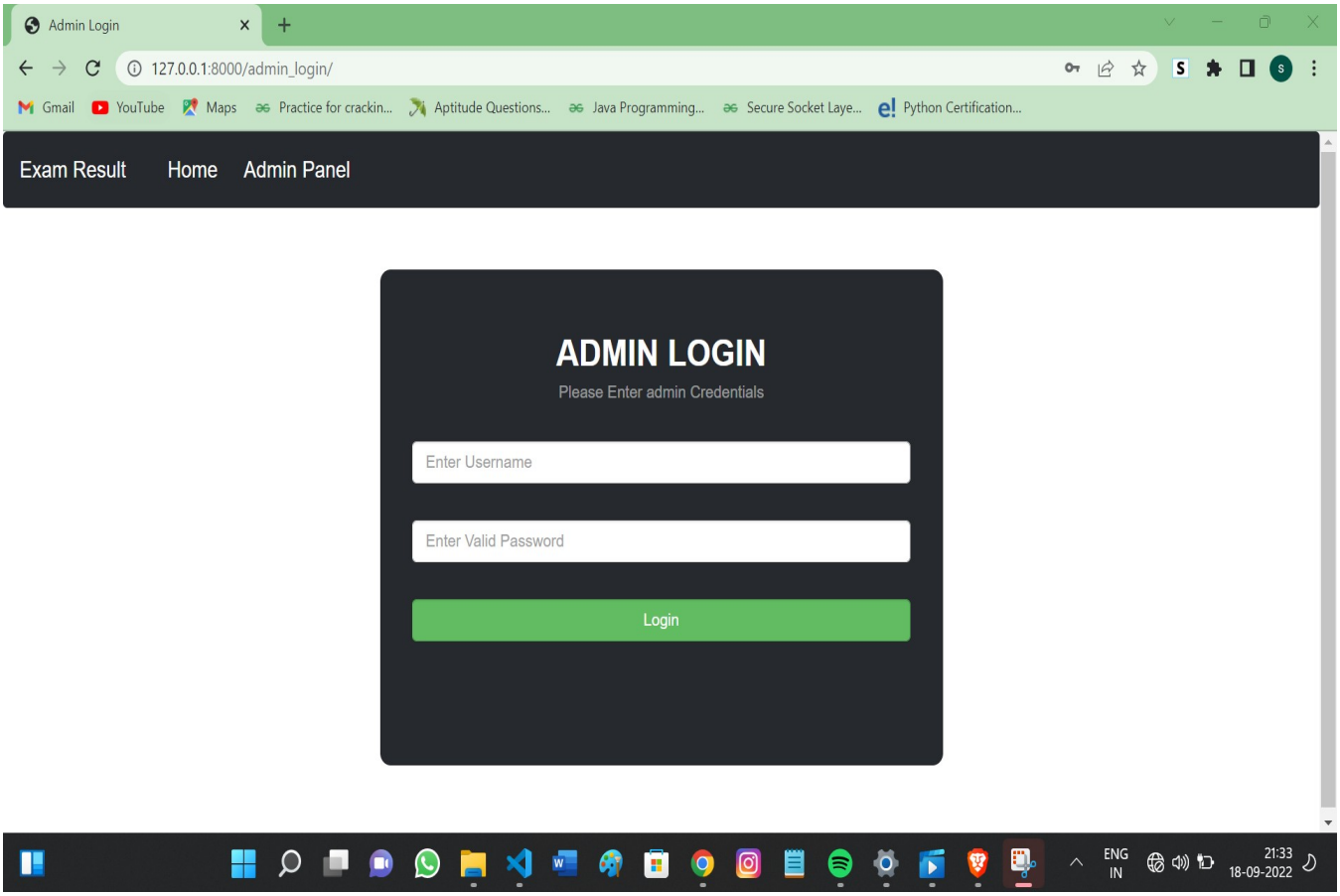
STUDENT LOGIN:



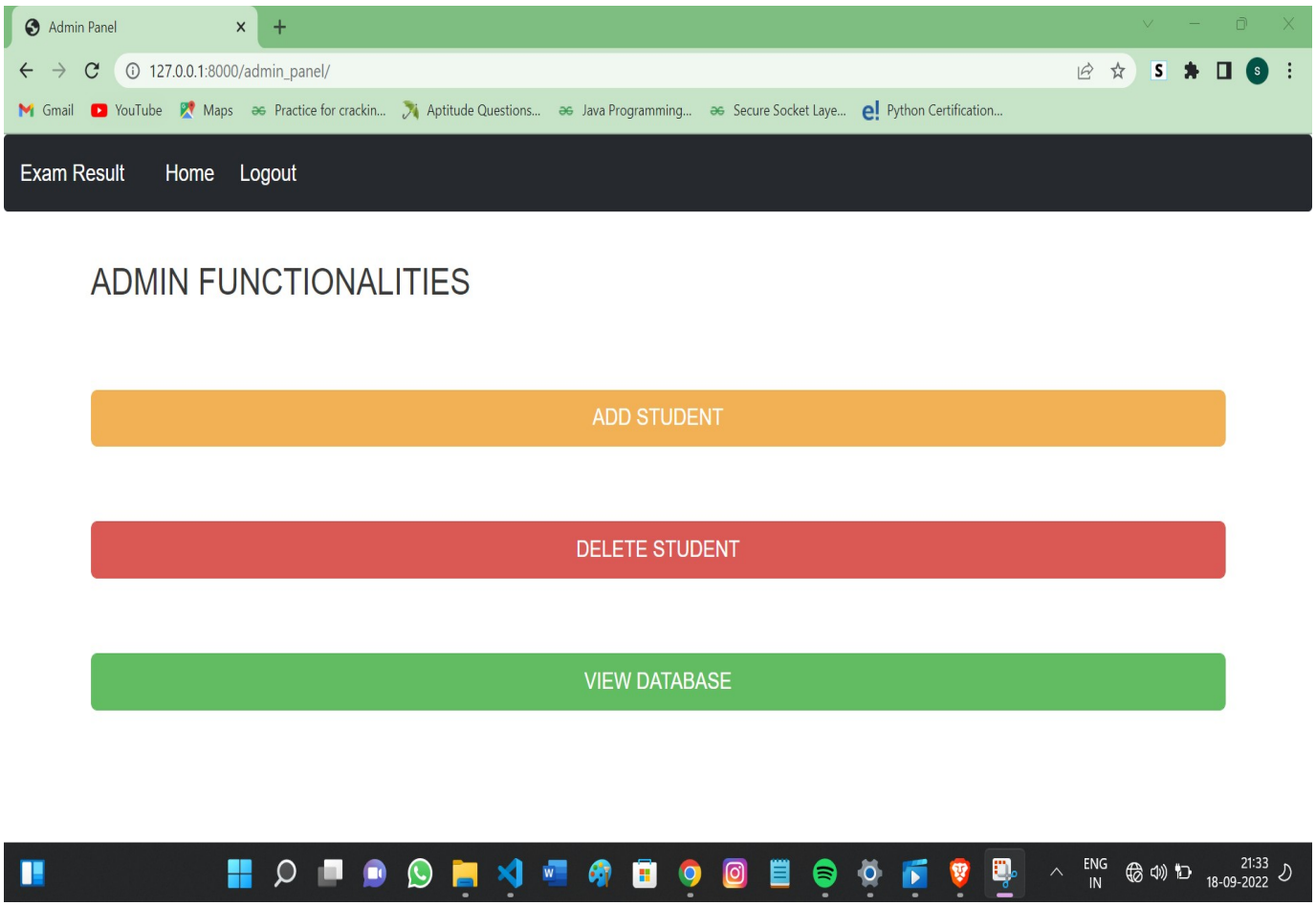
STUDENT RESULT:



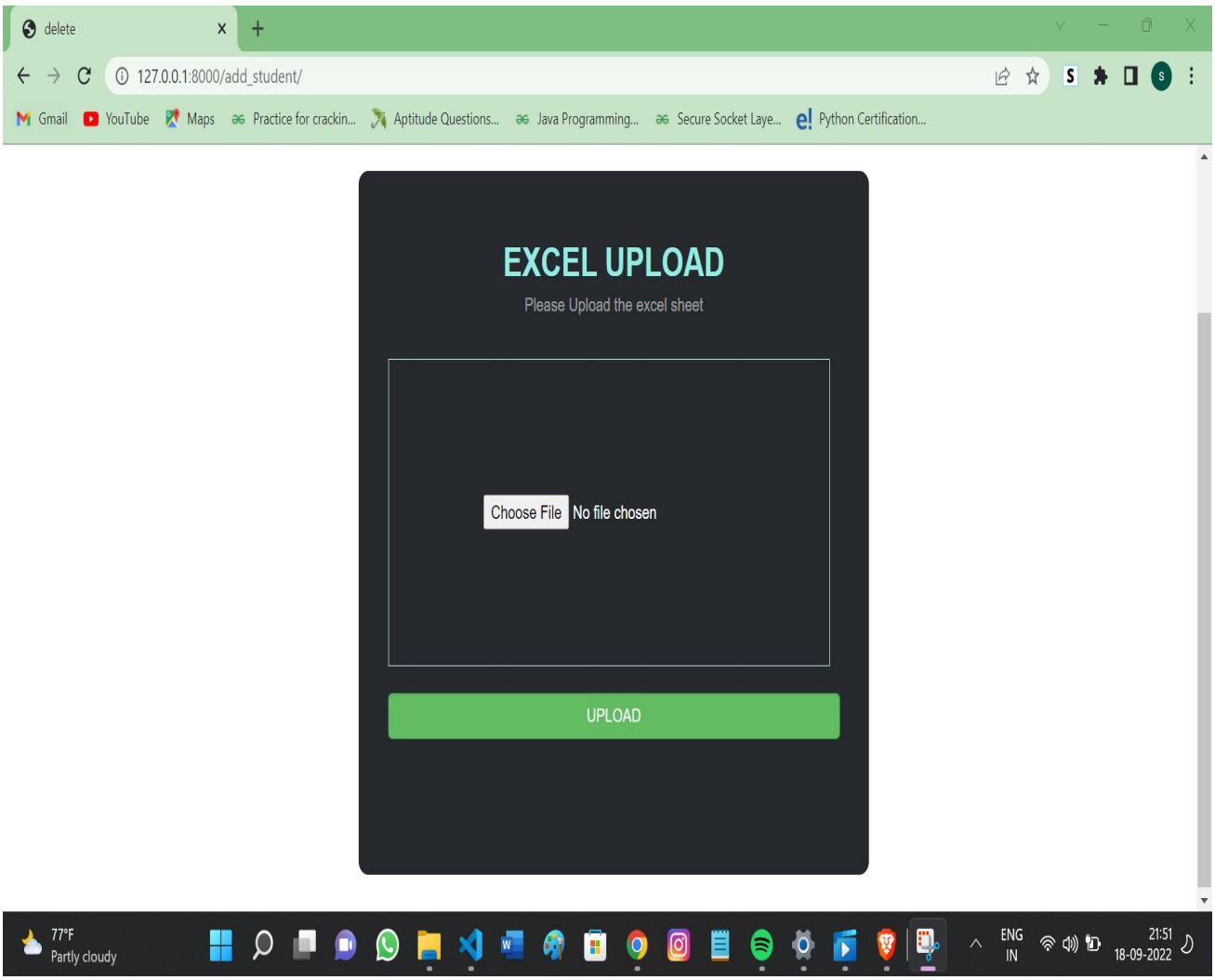
ADMIN LOGIN:


Admin Login
127.0.0.1:8000/admin_login/
Gmail
YouTube
Maps
Practice for crackin...
Aptitude Questions...
Java Programming...
Secure Socket Laye...
Python Certification...
Exam Result
Home
Admin Panel
ADMIN LOGIN
Please Enter admin Credentials
Enter Username
Enter Valid Password
Login
ENG
IN
21:33
18-09-2022

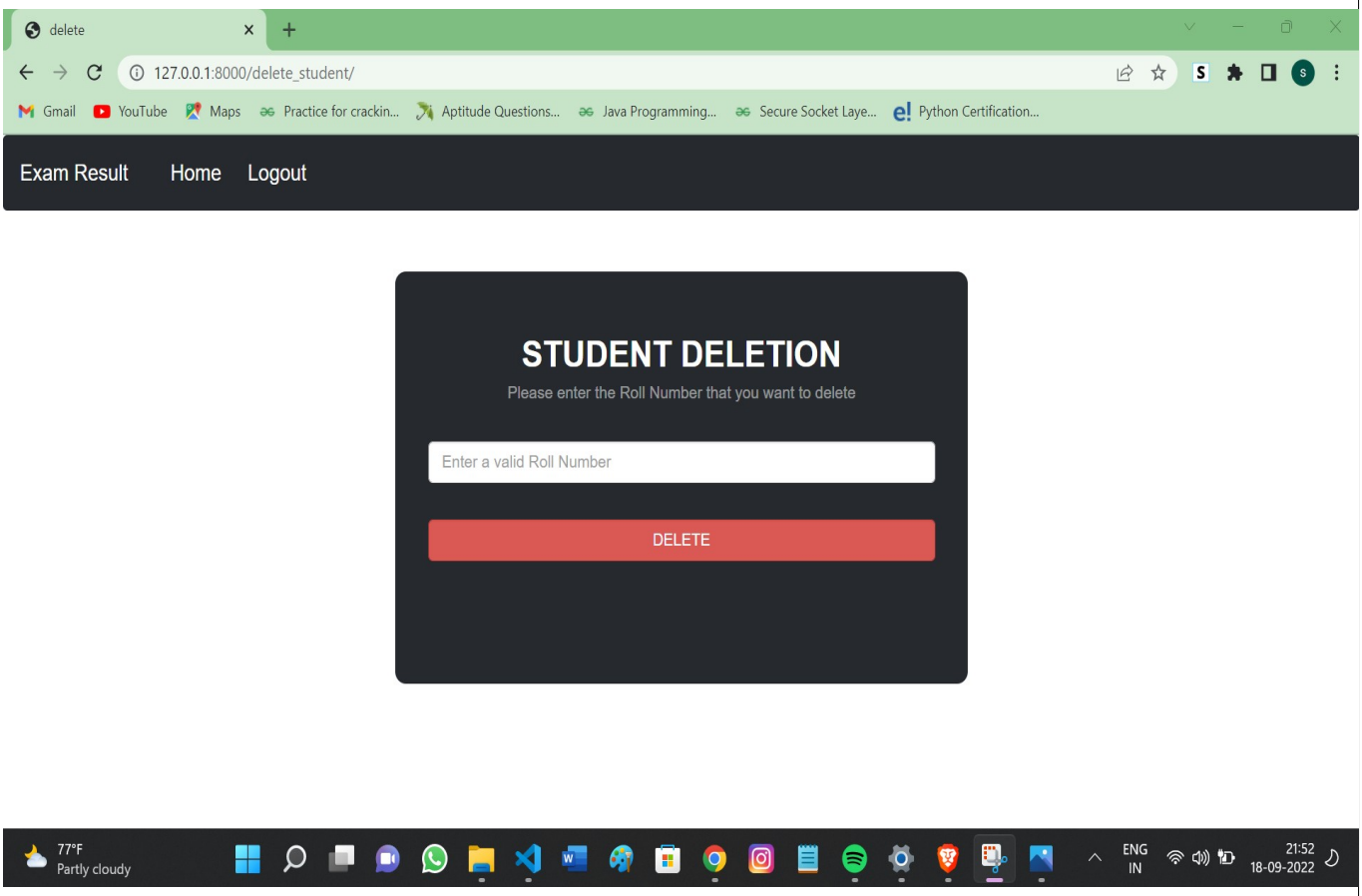
ADMIN FUNCTIONALITIES:



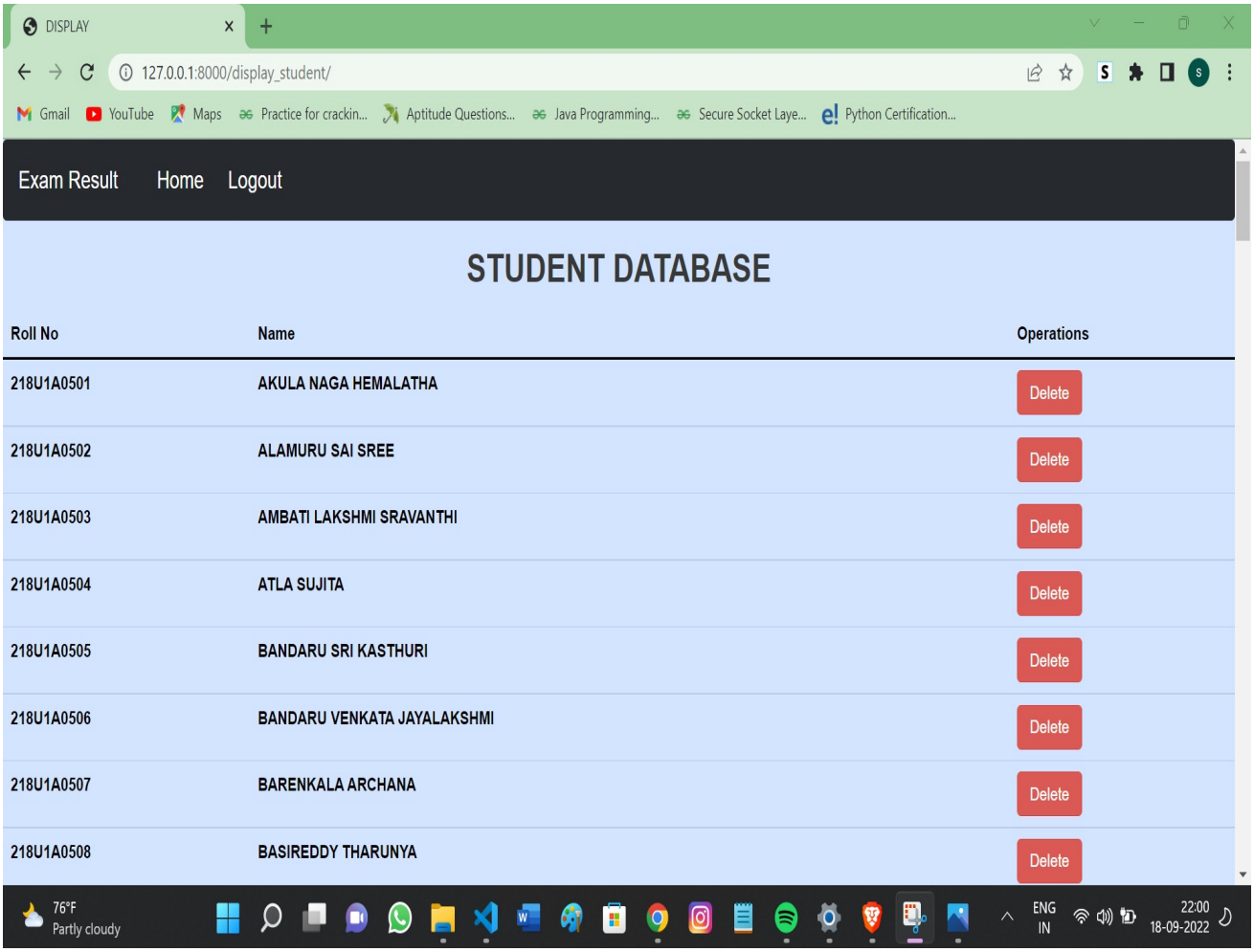
ADD STUDENT:


delete
127.0.0.1:8000/add_student/
Gmail
YouTube
Maps
Practice for crackin...
Aptitude Questions...
Java Programming...
Secure Socket Laye...
Python Certification...
EXCEL UPLOAD
Please Upload the excel sheet
Choose File
No file chosen
UPLOAD
77°F
Partly cloudy
ENG
IN
21:51
18-09-2022

STUDENT DELETION:



VIEW DATABASE:



Conclusion

The present research was based on the computerization and the implementation of a sophisticated Web-Based Student Result Management System for the Catholic University of Mozambique. The main objective was to enhance and automate the management and declaration of students' results using a computerized system. A well-defined, efficient, controlled and managed information system or software based on web technology storing, processing and providing information through the internet.

And the objectives were achieved by following a process model such as system analysis, design and system implementation. The system analysis was composed of two activities, requirement determination and structuring. The first activity focused on the collection of data or requirements through structured interview, work environmen to bservation and by collecting procedures and other written documents. And the latter,performed the modelling of the collected data and processes, transforming it into UML diagrams with the aid of a UML modelling tool, Astah into a graphically understandable manner. Just as structured analysis uses DFDs (Data Flow Diagrams) to model data and processes, systems analysts use UML to describe Object Oriented systems, on which the current system is based. UML is independent of any specific programming language and can be used to describe business processes and requirements generally. Finally, the implementation or coding of the proposed system was based on the software architecture standard, MVT using Python programming language, which is based on the object-oriented paradigm.

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