Admissions Portal: Streamlining Process

This presentation outlines the design and development of a web-based portal for IIT Goa to streamline process.

Project Overview

.

Objective

Create a streamlined COAP

portal for IIT Goa.

Enhance the applicant and admin

experience.

Scope

User-friendly and secure

interface.

Robust backend and efficient

data management.

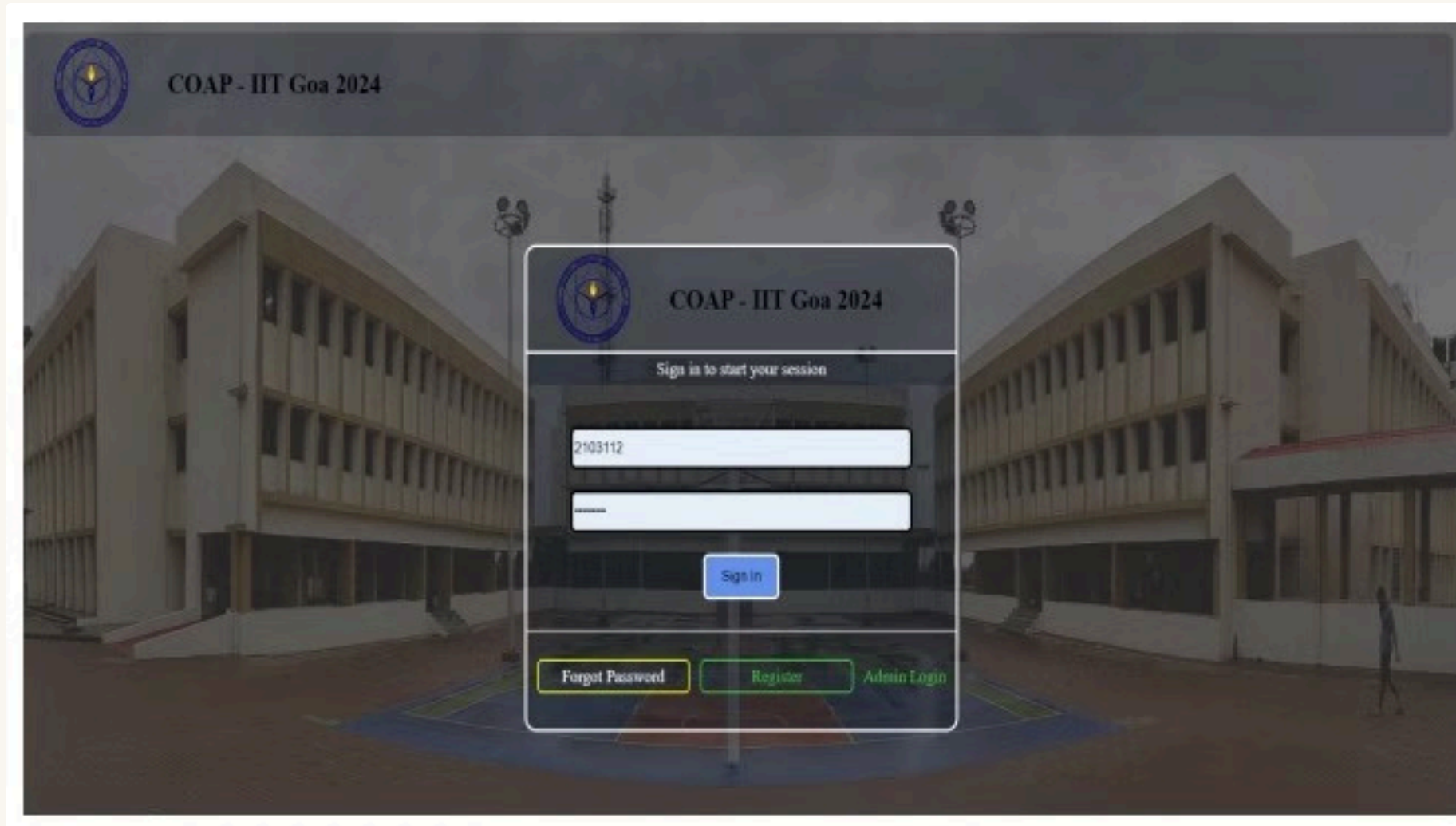# Technology Stack

Frontend
HTML, CSS, JavaScript, Bootstrap

Backend
Flask (Python)

Database
PostgreSQL

Frontend Development: Login Page Design

Responsive Design

Create a responsive login page with inputs for COAP Registration ID and password.

JavaScript Validation

Enforce minimum and maximum character limits for ID and password fields.

Session Management

Check session storage on page load and use cookies for 1-hour login persistence.

Backend Features

Functionalities

User authentication and session management

Data storage and retrieval in PostgreSQL

API Endpoints

/login: Authenticate users

/register: Register new applicants

/changepassword: Update user passwords

COAP Registration - IIT Goa

ONLINE applications are invited for Admission to M. Tech Programme at IIT GOA starting from Autumn Semester of Academic Year: 2023-24. (July 2023)

Fill The Details For F

Personal Details:

77022

11 - 04 - 2003

8328635436

Registration Page Implementation

HTML Structure
Define the layout and structure of the registration page with form inputs and a registration button.

CSS Styling
Use inline styles to define text color, alignment, and visual hierarchy for key elements.

JavaScript Functionality
Validate required fields and use the fetch API to send registration data to the backend.

Security:

- – SHA-256 Password Hashing
- – Parameterized Queries to Prevent SQL Injection

IIT GOA
INDIAN INSTITUTE OF TECHNOLOGY GOA
भारतीय प्रौद्योगिकी संस्थान गोवा

Dashboard

Applicant Details

Logout

Applicant Details

Full Name as in GATE	kASTHALA AGUSTEEN	Application No 77022	Date of Birth	Date of Birth
Admission No	Admission No	Mobile Number 8328635436	Email devarapagaarun34@gmail.com
Category Choose...	PwD Status	PwD Status	EWS Status	EWS Status
Gender	Gender		

Gate 2021 Details

Rank	Rank	Roll No	Roll No	Score	Score
Discipline	Discipline		

Features:

- Personal Information Form
- GATE Scores and Academic Details
- - Certificate Upload Section

Dynamic Features:

- - Auto-fill Based on User Data
- - Save and Final Submit Options

Validation:

- - Email and Mobile Number Formatting
- - File Type and Size Validation

IIT GOA
INDIAN INSTITUTE OF TECHNOLOGY GOA
भारतीय प्रौद्योगिकी संस्थान गोवा

2103112

- Dashboard
- Applicant Details
- Logout

Dashboard

Admission No: 213213	Application No: 213	Category: OBC
Degree 7th Sem CGPA: 1	Degree 7th Sem Percentage: 21	Degree 8th Sem CGPA: 2
Degree 8th Sem Percentage: 21	Degree Branch: CSE	Degree Institute: IIT GOA
Degree Passing Date: 2024-10-02	Degree Qualification: BTECH	GATE 2021 Discipline: 1221
GATE 2022 Discipline: CSE	GATE 2023 Discipline: ME	Date of Birth: 31-07-2004
Email Id: DEVARAPAGAARUN34@GMAIL.COM	EWS Status: YES	Gender: MALE
HSSC Exam Date: 2024-10-02	HSSC Percentage: 12	Mobile Number: 8302863543
Name of the Applicant: D ARUN KUMAR	PWD Status: YES	GATE 2021 Rank: 213
GATE 2022 Rank: 213	GATE 2023 Rank: 123	COAP Registration ID: 2103112
GATE 2021 Roll No: 123213	GATE 2022 Roll No: 123312	GATE 2023 Roll No: 123123
GATE 2021 Score: 213	GATE 2022 Score: 12	GATE 2023 Score: 1221
SSC Board: 123	SSC Date: 2024-10-02	SSC Percentage: 21

Applicant and Dashboard Page

Dashboard Interface

1

Personal Details Form

2

GATE Examination Details

3

Academic Details

4

5

Certificate Upload Section
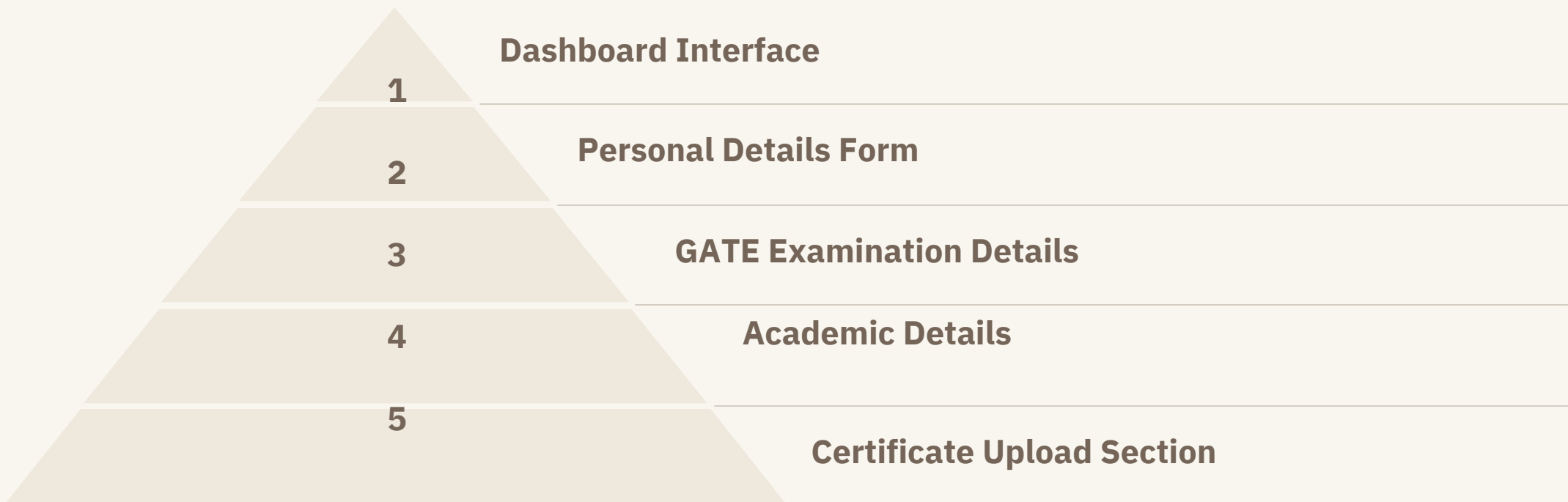
Admin Login Page

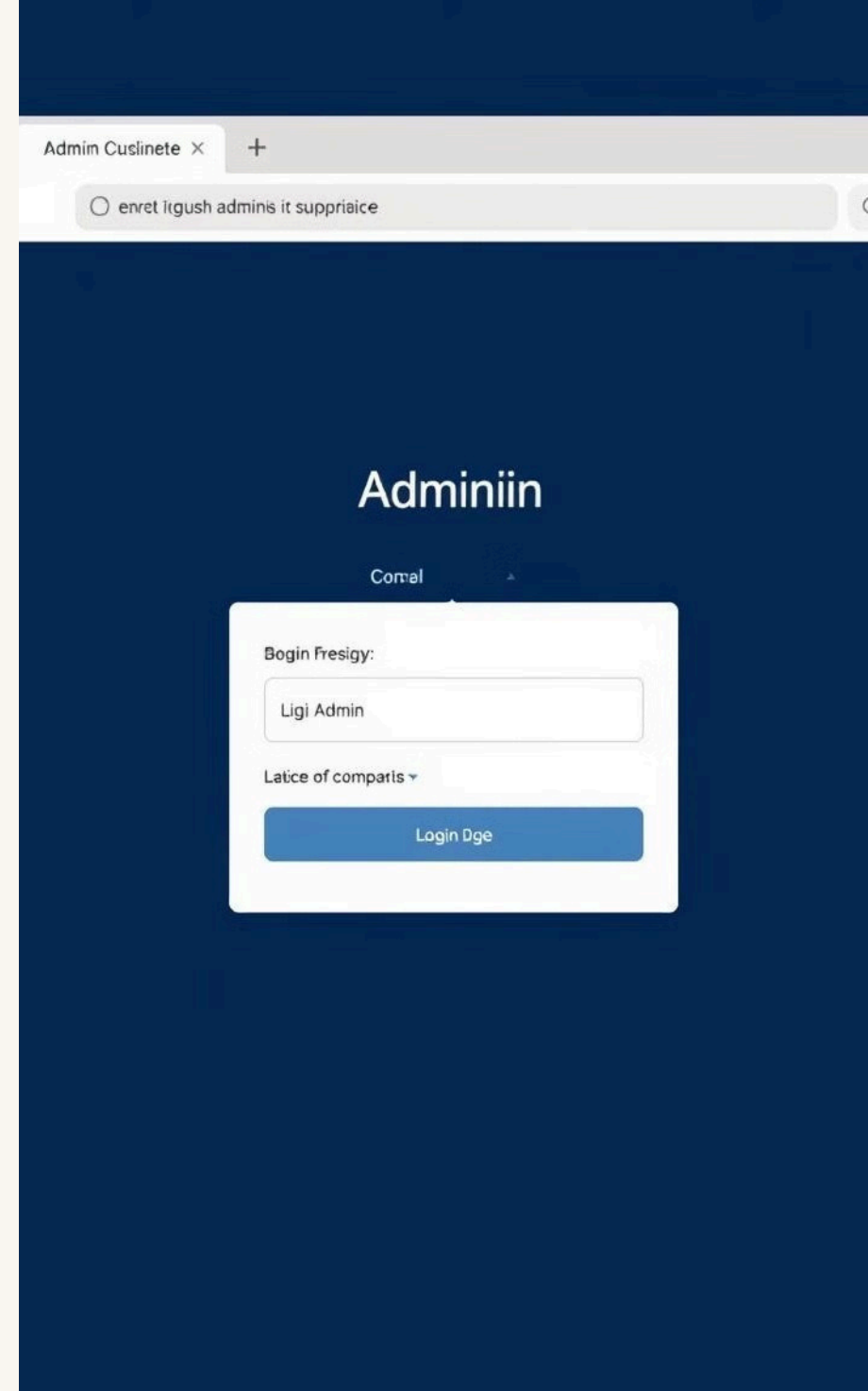## Admin Credentials
Capture user inputs for adminid and adminpass.

API Integration
Send inputs as JSON to the server endpoint /admin_login using a POST request.

Session Persistence
Check for the adminLoggedIn cookie on page load and redirect to the dashboard if found.

Admin Dashboard for Applicant Management

1   Applicant Profile Management

2   Eligibility Criteria Filtering

3   Actions and Functionality

- Features:
- – Filter Applicants by Eligibility Criteria
- – View and Manage Profiles
- – Certificate Preview and Download

- Current Progress:
- – Implemented CPI Threshold Filtering
- – Designed Profile Layouts with Dynamic Data
- – Integrated PDF Certificate Handling

Password Change Page

1 **Input Fields**
COAP Registration ID, New Password, Confirm Password

2 **Validation**
Password match, COAP Registration ID presence.

3 **Backend Request**
Send request to
"**http://127.0.0.1:5000/changepassword**" for password
update.

4 **Response Handling**
Display success message or error in the console.

Backend Development: Flask-Based System

1

User Registration

2

User Login

3

Change Password

4

Store Applicant Details

Project Conclusion

This project aimed to create a robust and efficient web-based portal for IIT Goa to manage the COAP process. The portal successfully combines frontend and backend technologies to ensure a user-friendly experience for applicants and administrators.

DONE BY

D. ARUN KUMAR
K. JOHN AUGUSTEEN

UNDER THE SUPERVISION OF

PROF. SATYANATH BHAT