Project Report:

### College Admission Management System

## **Introduction:**

A **College Admission Management System** that automates and streamlines the admission process for educational institutions. It allows students to apply for admission online and administrators to manage student applications efficiently.

## **Abstract:**

The **College Admission Management System** is a software project developed to simplify the college admission process for students and administrators. This system allows students to fill out applications online and see college admission list. It also enables college administrators to review applications, approve or reject candidates, and manage student records efficiently. The main goal of the project is to reduce manual paperwork and make the admission process faster, more accurate, and user-friendly.

## **Tool Used:**

* **Programming Language:** Java
* **Frontend:** HTML, CSS, Bootstrap
* **Backend:** JDBC / Spring Boot / JPA/Spring web/Spring security
* **Database:** MySQL
* **IDE:** IntelliJ IDEA
* **Version Control:** Git & GitHub

## **Steps Involved in Building the Project:**

### **🔹 Step 1: Create the Project**

* **Use Spring Initializr**
* Go to: https://start.spring.io
* Fill in:
  + **Project:** Maven
  + **Language:** Java
  + **Spring Boot:** Choose latest stable
  + **Group:** e.g., com.studentApplication
  + **Artifact:** e.g., studentApplication
  + **Name:** studentApplication
* Add dependencies:

1. Spring Web
2. Spring Data JPA
3. MySQL Driver
4. Spring Boot DevTools
5. Spring Security, Thymeleaf

* Click **Generate**, and it will download a .zip file.
* Extract it and open it in IntelliJ IDE.

### **🔹 Step 2: Configure application. Properties**

* 1. spring.application.name=student
  2. spring.datasource.url=jdbc:mysql://localhost:3306/studentdb
  3. spring.datasource.username=root
  4. spring.datasource.password=root
  5. server.port=8080
  6. spring.jpa.properties.hibernate.show\_sql=true
  7. spring.jpa.hibernate.ddl-auto=update
  8. debug=true
  9. spring.thymeleaf.cache=false

### **Step 3: Create the Model (Entity Class):**

Student, Course, Applications, User, User Roles

### **Step 4: Create Repository:**

Create repository for each Entity: Student Repository, User Repository, Course Repository.

### **Step 5: Create Service Layer:**

Create service for each repo to handle Service logics.

### **Step 6: Create Controller:**

Create student, Course, Applications, and user controller to handle CRUD operations and redirect pages.

### **Step 7: Run Application:**

### **Step 8: Add Frontend:**

### **Step 9: Implement role based login and logout with spring security.**

### **Step 9: Create Admin Panel For management of students, courses, applications.**

### **Step 10: Create Admission List and implement logic for Download CSV.**

## **Conclusion:**

The College Admission Management System simplifies and digitizes the admission process, making it faster and more efficient.  
Built with Spring Boot, it ensures scalability, reliability, and ease of future enhancements.

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