

College Admission Management System

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Abstract

The College Admission Management System is designed to automate the process of managing student applications, course allocation, and merit-based admissions in an educational institution. It reduces manual workload, minimizes errors, and ensures transparent and efficient admission handling using Java, JDBC, and MySQL.

Objective

The main objective of this project is to develop a software application that streamlines the college admission process. It handles student registration, course management, merit list generation, and final admission approvals through an easy-to-use interface.

Tools and Technologies Used

- Programming Language: Java
- Database: MySQL
- Connectivity: JDBC (Java Database Connectivity)
- IDE: NetBeans
- Interface: Java Swing (GUI)

System Requirements

- Hardware: Intel i3 or higher processor, 4GB RAM minimum
- Software: Windows/Linux OS, JDK 8 or later, MySQL Server, NetBeans IDE

System Design

The system is divided into two main modules: Student Module and Admin Module.

- Student Module: Allows students to register, submit applications, and view admission status.
- Admin Module: Manages courses, evaluates applications based on merit, and publishes admission lists.

The application connects to a MySQL database using JDBC and stores all student, course, and application details.

Database Design

Database Name: college_admission_db

Table 1: user














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<input type="checkbox"/> 1	id 	int			No	None		AUTO_INCREMENT	 Change  Drop  More
<input type="checkbox"/> 2	username	varchar(200)	utf8mb4_0900_ai_ci		No	None			 Change  Drop  More
<input type="checkbox"/> 3	password	int			No	None			 Change  Drop  More
<input type="checkbox"/> 4	name	varchar(200)	utf8mb4_0900_ai_ci		No	None			 Change  Drop  More

Table 2 applications

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
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<input type="checkbox"/>	3	stu_name	varchar(200)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	4	gurdian_name	varchar(200)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	5	dob	varchar(20)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	6	email	varchar(100)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	7	phone	varchar(15)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	8	gender	varchar(10)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	9	address	varchar(200)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	10	sub1	int			No	None			Change Drop More
<input type="checkbox"/>	11	sub2	int			No	None			Change Drop More
<input type="checkbox"/>	12	sub3	int			No	None			Change Drop More
<input type="checkbox"/>	13	sub4	int			No	None			Change Drop More
<input type="checkbox"/>	14	percent	int			No	None			Change Drop More
<input type="checkbox"/>	15	stream	varchar(20)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	16	status	int			No	None			Change Drop More

Table 3 MeritLists

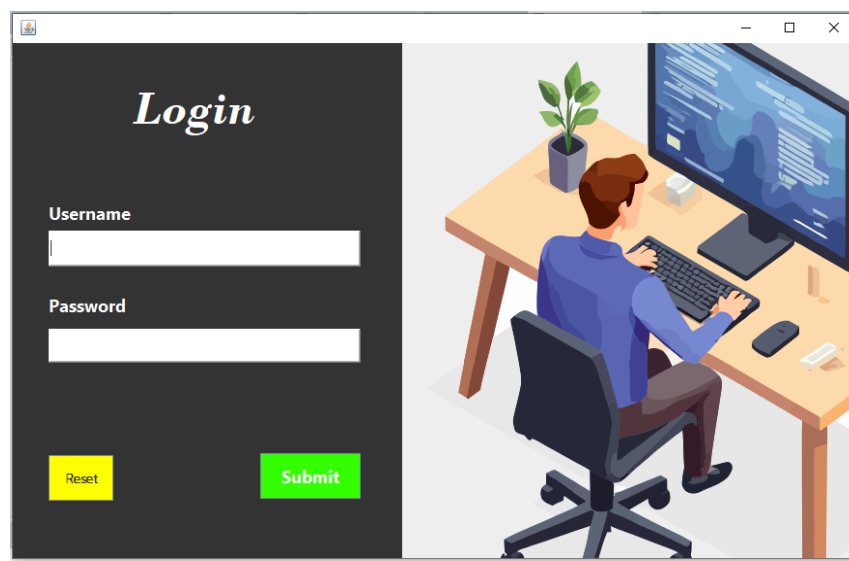
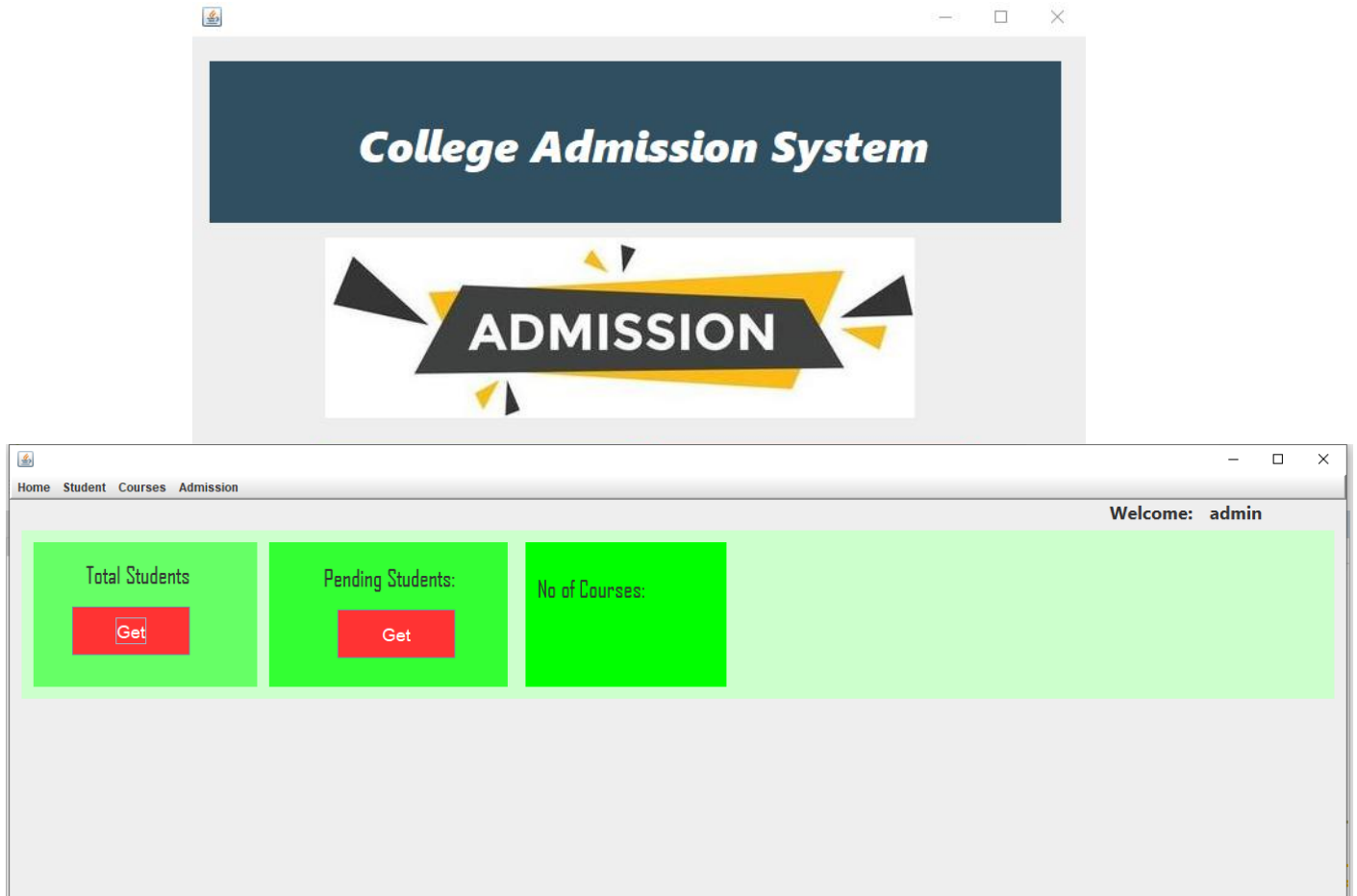
	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
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<input type="checkbox"/>	2	application_id	varchar(20)	utf8mb4_0900_ai_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	3	stu_name	varchar(100)	utf8mb4_0900_ai_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	4	stream	varchar(50)	utf8mb4_0900_ai_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	5	percent	float			Yes	NULL			Change Drop More
<input type="checkbox"/>	6	merit_rank	int			Yes	NULL			Change Drop More
<input type="checkbox"/>	7	status	varchar(20)	utf8mb4_0900_ai_ci		Yes	Selected			Change Drop More

Table 4 students

<input type="checkbox"/>										Drop More
<input type="checkbox"/>	2	stu_name	varchar(200)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	3	stream	varchar(200)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	4	percent	varchar(10)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	5	merit_rank	varchar(10)	utf8mb4_0900_ai_ci		No	None			Change Drop More
<input type="checkbox"/>	6	application_id	varchar(120)	utf8mb4_0900_ai_ci		No	None			Change Drop More

Implementation

The system is implemented using Java Swing for the GUI. JDBC is used for database connectivity. PreparedStatements ensure secure and efficient database access. The admin can view student data in a JTable and generate merit lists automatically based on academic performance.



ENROLL NEW STUDENT

Student Name

Gurdian Name

Date of Birth

Email ID

Phone Number

Gender

Male

Address

Application ID

APP-81F91A18

Add Marks

Subject 1

Subject 2

Subject 3

Subject 4

%

Percentage:

Apply for Stream:

Science

Close

Clear

Register

Close

ID	Application ID	Student Name	Gurdian Name	Date of Birth	Email	Ph	Gender	Address	Percent(%)	Status
2	APP-FE52820E	Rick Mondal	Sailen Mondal	1998-08-11	rick@gmail.com	7896325412	Male	Jujersaha	55	0
3	APP-1590D2BC	Suraj Yadev	Samir Yadev	2000-10-26	suraj@gmail.com	8569325685	Male	TaraTala,Kolkata	77	0
4	APP-FD911006	Sagar Dey	Suman Dey	2001-10-20	sagar@gmail.com	8658585964	Male	Nabanna,Howrah	89	0
5	APP-4D811606	Sukumar Mondal	Sailen Mondal	2000-01-10	sukumar@gmail.c...	9999999999	Male	Howrah	64	0

Search Student (Application No):

SearchUpdateDelete

Merit List Generator

Sci-75% Com.-60% Arts.-55% Bio-Sci-65% CS-75% Voc.-60%

Generate Merit ListGet MeritList PDF

Close

Admission Form

Select Stream
Computer Science

ID	Application ID	Name	Stream	Percent(%)	Merit Rank	Status
30	APP-FD911006	Sagar Dey	Computer Science	89.0	1	Eligible
31	APP-1590D2BC	Suraj Yadev	Computer Science	77.0	2	Eligible

Student NameApplication IDStreamPercentage (%)

Sagar DeyAPP-FD911006Computer Science89.0

Merit Rank

1

☒ Admission Complete

Submit

Close

Conclusion

The College Admission Management System successfully automates and simplifies the admission process. It minimizes human intervention, improves accuracy, and provides a scalable solution for managing academic admissions.

References

1. Java Programming for Beginners – Oracle Documentation
2. MySQL Database Reference Manual
3. JDBC Tutorials – Oracle Official Guide
4. NetBeans IDE Official Documentation