Student Information Management System

In this CodeIgniter-based project, a comprehensive CRUD (Create, Read, Update, Delete) system has been implemented to efficiently manage student-related information. The application provides a user-friendly interface for administrators to seamlessly perform various tasks related to student records. Through the Create functionality, administrators can input new student data, ensuring a streamlined process for adding individuals to the system.

The Read functionality allows users to easily retrieve and view student information, facilitating quick access to essential details. The Update feature enables administrators to modify existing records, ensuring that the system's data remains accurate and up-to-date. Additionally, the Delete functionality allows for the removal of outdated or irrelevant records, maintaining the integrity of the database.

The project employs the MVC (Model-View-Controller) architecture inherent to CodeIgniter, promoting code organization and maintainability. The utilization of CodeIgniter's built-in features, such as its active record implementation and form validation, enhances the application's security and performance. Overall, this CodeIgniter project offers a robust solution for efficiently managing student information through its intuitive CRUD system, catering to the specific needs of educational institutions or organizations requiring streamlined data management.

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INTRODUCTION:

The efficient management and organization of student information serve as foundational pillars in facilitating seamless administrative operations and fostering academic excellence. However, the prevalent reliance on archaic, paper-based record-keeping methods and disjointed digital spreadsheets presents formidable challenges. These challenges encompass data redundancy, inconsistent data integrity, limited accessibility, and an inability to swiftly adapt to the dynamic and evolving needs of educational institutions. Recognizing these limitations, this project embarks on a transformative journey towards architecting an innovative solution poised to revolutionize the management of student details within educational ecosystems.

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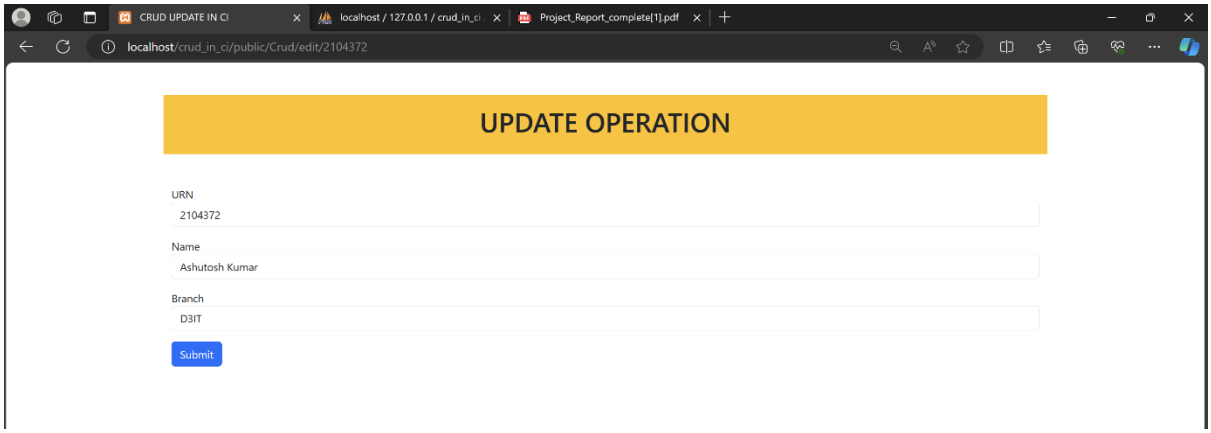

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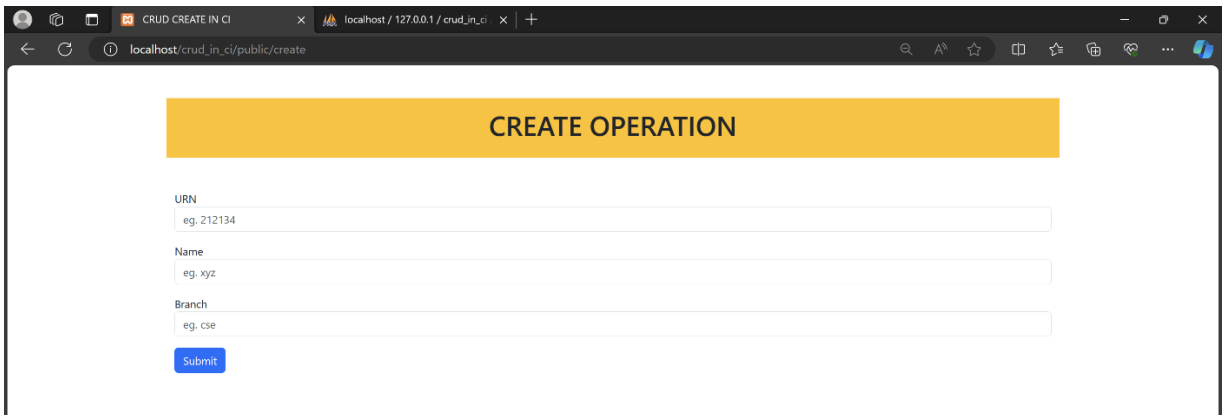


Objectives:

- Create a database schema to store student information.
- Implement CRUD functionality to manage student records.
- Design a user-friendly interface for administrators to interact with student data.
- Ensure data security and validation for user inputs.

Methodology:

Technology Stack:

- CodeIgniter Framework: Chosen for its MVC architecture, simplicity, and scalability.
- PHP: Server-side scripting language for backend functionality.
- MySQL: Database management system for storing student information.
- HTML, CSS: Frontend development for a user-friendly interface.

Implementation Steps:

1.Database Design:

- Created a MySQL database with tables to store student details (e.g., URN, name, branch info, etc.).
- Ensured normalization and defined relationships among tables for efficient data retrieval.

2.CodeIgniter Setup:

- Installed and configured CodeIgniter on the server.
- Set up the necessary configuration files, including database configuration.

3.Model-View-Controller (MVC) Structure:

- Implemented the MVC architecture for organized development.
- Models handle interactions with the database.
- Views represent the user interface.
- Controllers manage the application flow.

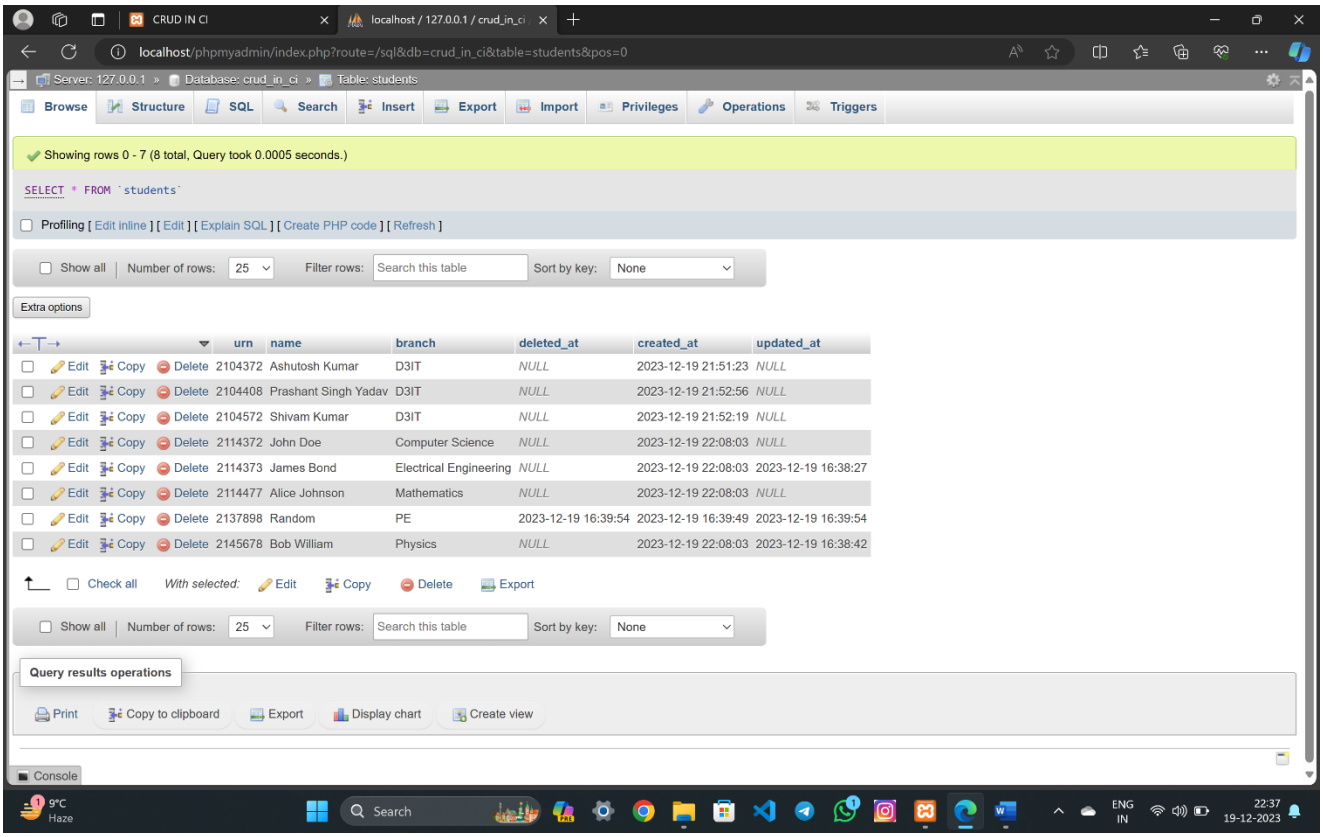
4.CRUD Operations:

- Created functions/methods within controllers and models for CRUD operations.
- Developed forms and interfaces for administrators to add, view, edit, and delete student records.

5.User Interface Design:

- Designed a user-friendly interface using HTML, CSS.
- Implemented validation for user inputs to ensure data integrity.

My Database



OUR VIEW

CRUD OPERATIONS IN CODEIGNITER

All Students

Add New Student

Student URN	Student Name	Student Branch	Created At	Updated At	Operations
2104372	Ashutosh Kumar	D3IT	2023-12-19 21:51:23	NULL	Edit Delete
2104408	Prashant Singh Yadav	D3IT	2023-12-19 21:52:56	NULL	Edit Delete
2104572	Shivam Kumar	D3IT	2023-12-19 21:52:19	NULL	Edit Delete
2114372	John Doe	Computer Science	2023-12-19 22:08:03	NULL	Edit Delete
2114373	James Bond	Electrical Engineering	2023-12-19 22:08:03	2023-12-19 16:38:27	Edit Delete
2114477	Alice Johnson	Mathematics	2023-12-19 22:08:03	NULL	Edit Delete
2145678	Bob William	Physics	2023-12-19 22:08:03	2023-12-19 16:38:42	Edit Delete

Delete Operation Done

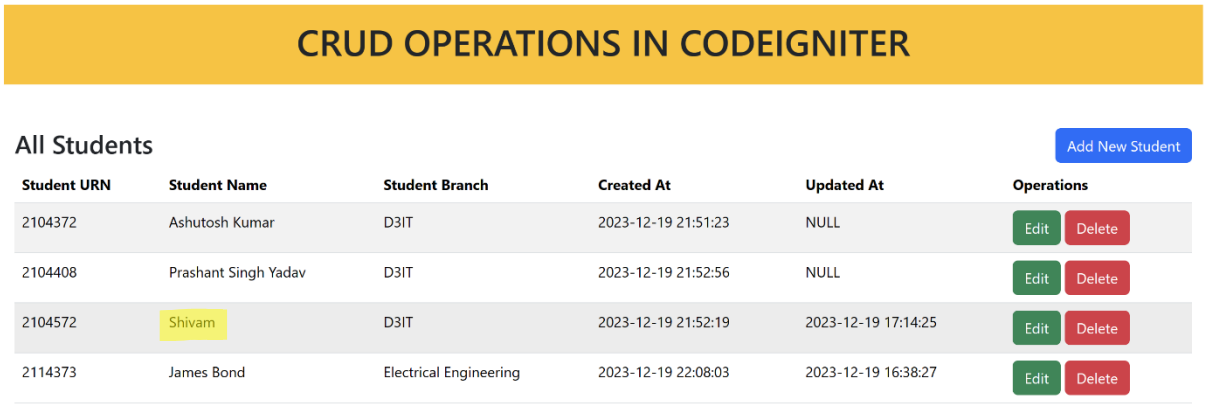
CRUD OPERATIONS IN CODEIGNITER

All Students

Add New Student

Student URN	Student Name	Student Branch	Created At	Updated At	Operations
2104372	Ashutosh Kumar	D3IT	2023-12-19 21:51:23	NULL	Edit Delete
2104408	Prashant Singh Yadav	D3IT	2023-12-19 21:52:56	NULL	Edit Delete
2104572	Shivam Kumar	D3IT	2023-12-19 21:52:19	NULL	Edit Delete
2114373	James Bond	Electrical Engineering	2023-12-19 22:08:03	2023-12-19 16:38:27	Edit Delete

After Editing We have changed Student Name



Results and Discussion:

The developed application successfully fulfils the objectives outlined in the project. Key outcomes include:

- Functional CRUD Operations: Administrators can easily create, read, update, and delete student records through an intuitive web interface.
- Database Management: The database schema efficiently stores and manages student details, ensuring data integrity and scalability.
- User-Friendly Interface: The application provides a clean and responsive user interface for seamless interaction.

Conclusion:

The project demonstrates the successful implementation of a student management system using CodeIgniter, enabling efficient handling of student details. The application provides an intuitive interface for administrators to manage student records securely. Further enhancements could involve additional features such as user authentication, advanced search functionalities, and report generation capabilities.

REFERENCES:

- **CodeIgniter Documentation**: https://codeigniter.com/user_guide/
- **Bootstrap Documentation**: https://getbootstrap.com/

GITHUB REPOSITORY LINK:

Repository: https://github.com/Ashutosh-IT/mini_project.git