



Continuing Education Program
Center for Computing and Information Technology
Fakultas Teknik Universitas Indonesia

COLLEGE LIBRARY DATABASE

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Class : 1SC5

FAKULTAS TEKNIK UNIVERSITAS INDONESIA

CEP CCIT-FTUI

PROJECT ON

SCHOOL LIBRARY

Developed by

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The logo for NIIT (National Institute of Information Technology) is displayed in a bold, blue, serif font. The letters are thick and blocky, with a slight shadow effect.

COLLEGE LIBRARY

Batch Code : 1SC5

Start Date : 19th Of September 2016 End Date: 12nd Of October 2016

Name of Faculty: Mr. M. Faruq Nuruddinsyah, S.Kom

Names of Developer :

1. Muhammad Jaya W.
2. Haycal Rayhansyah
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Date of Submission: 12nd Of October 2016



CERTIFICATE

This is to certify that this report titled “College Library Database” embodies the original work done by Muhammad Jaya W, Haycal Rayhansyah and Sheilla Israfany Irlia in partial fulfillment of their course requirement at NIIT.

Coordinator:

Mr. M. Faruq Nuruddinsyah, S.Kom

ACKNOWLEDGEMENT

Assalamualaikum Wr. Wb.

Praise GOD Almighty, for His courtesy writing about College Library Database as an effective medium of communication can be completed.

The objective of this report is to provide an overview of how the College Library Database can be useful for many students.

Depok, September 2016

Author

SYSTEM ANALYSIS

System summary: College Library Database is System to manage or arrange data about college library. If anyone is want to see the arrangement of College Library, then they can see database access already made by the library. This system facilitates all related inividu college libraries ranging from librarian to borrowers in library books

Schematic Diagram Of The Database

Database Name: College Library

Number Of Table : 8

1. Book Category
2. Book Condition
3. Book Return
4. Book Transaction
5. Books
6. Empoyee
7. Librarian
8. Student

DATABASE DESIGN

Database Name : College Library

Table Design

Database Name : College Library

Field Name	Data Type	Width	Description
Book_Code	Text	4	Code of Book
Title	Text	200	Title of Book
ISBN	Text	90	Internation Series Book Number
Release_Year	Text	4	Release Year of Book
Book_Condition	Text	10	Condition of Book
Category_Code_of_Book	Text	9	Category of Book Code
Publisher	Text	200	Name of Publisher
Author	Text	200	Name of Author
Stock	Number	Long Integerbook	Stock of Number

Field Name	Data Type	Width	Description
Employee_Code	Text	8	Code of Employee
Employee_Name	Text	255	Name of Employee
Employee_Address	Text	255	Address of Employee
Date of Birth	Date / Time	Date / Time	DOB
Employee_Gender	Text	255	Gender of Employee
Contact	Text	12	Contact of Employee

Employee

Field Name	Data Type	Width	Description
Transaction_Code	Autonumber	Long Integer	Code of Transaction
Book_Code	Text	4	Code of Book
Return_Estimation_Date	Date/Time		Estimation Date of Return
Return_Date	Date/Time		Date of Return
Fine	Currency		Fine Per Day

Book Return

Field Name	Data Type	Width	Description
Student_Code	Text	13	Code of Student
Student_Name	Text	255	Name of Student
Student_Address	Text	255	Address of Student
Student_Active_Status	Yes/No		Active Status of Student
Class	Text	255	Class of Student
Student_Gender	Text	255	Gender of Student

Student

Field Name	Data Type	Width	Description
Category_Code_of_Book	Text	4	Category of Book Code
Book_Category	Text	255	Category of Book
Book_Description	Text	255	Short Description of Book Category
Fine_Per_Day	Currency		Fine Per Day

Book Category

Field Name	Data Type	Width	Description
Transaction_Code	Text	6	Code of Transaction
Transaction_Number	Text	5	Transaction Number
Librarian_Code	Text	7	Code of Librarian
Return_Estimation_Date	Text	6	Code of Transaction
Student_Code	Text	13	Code of Student
Employee_Code	Text	8	Code of Employee

Book Transaction

Field Name	Data Type	Width	Description
Librarian_Code	Text	7	Code of Librarian
Librarian_Name	Text	255	Name of Librarian
Librarian_Address	Text	255	Address of Librarian
DOB	Date / Time	Date / Time	DOB
Librarian_Gender	Text	255	Gender of Librarian
Contact	Text	255	Contact of Librarian

Librarian

Validation Performed

VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Code of book Must be Sorted	Primary Key Constraint
Book Code should start with B followed by 3 digits	Check Constraint
ISBN should be filled by unique numbers, like 3 digits - 3 digits - 4 digits - 2 digits - 1 digit	Check Constraint
Release year should be filled with digits of year	Check Constraint
Book Condition should be filled with "Excellent" Or "Good" Or "Normal" Or "Bad" Or "Worst"	Check Constraint
Code of Book Should Start with CB followed by 2 digits	Check Constraint
Book	
VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Employee_Code Must be Sorted	Primary Key Constraint
Code of Employee should start with EMPO followed by 4 digits of number	Check Constraint
Employee_Age must be entered >0	Check Constraint
Gender only Contains Male or Female	Check Constraint
Contact	Check Constraint
Employee	
VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Transaction_Code Must be Sorted	Primary Key Constraint
Code of Transaction should be filled with TR followed 4 digits of number	Check Constraint
Transaction Number should be filled with TR followed by 3 digits of number	Check Constraint
Book Code should start with B followed by 3 digits	Check Constraint
Book Return	
VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Category_Code_of_Book Must be Sorted	Primary Key Constraint
Category Code of Book Should Start with CB followed by 2 digits	Check Constraint
Book Category "Religion" Or "Science" Or "Social Science" Or "Linguistic" Or "History"	Check Constraint
Book Category	

VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Student_Code Must be Sorted	Primary Key
Code Student should start "M" with followed 12 digits number	Check Constraint
Student_Active_Status	Checklist Yes/No
Student Gender only Contains Male or Female	Check Constraint
Student	
VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Teacher_Code Must be Sorted	Primary Key
Code of Teacher should start with "G" followed by 8 digits numbers	Check Constraint
Teacher_Age must be entered >0	Check Constraint
Gender only contains Male or Female	Check Constraint
Contact	Check Constraint
Book Codition	
VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Transaction_CodeMust be Sorted	Primary Key Constraint
Code of Transaction should be filled with TR followed 4 digits of number	Check Constraint
Transaction Number should be filled with TR followed by 3 digits of number	Check Constraint
Code of Libraian should start with LIBR followed by 3 digits of number	Check Constraint
Code of Student should start "M" with followed 12 digits number	Check Constraint
Code of Teacher should start with "G" followed by 8 digits numbers	Check Constraint
Code of Employee should start with EMPO followed by 4 digits of number	Check Constraint
Book Transaction	
VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Librarian_Code Must be Sorted	Primary Key Constraint
should start with LIBR followed by 3 digits of number	Check Constraint
Name_of_Librarian Should filled by name	Check Constraint
Gender only Contains Male or Female	Check Constraint
Librarian	

VALIDATION REQUIRED	METHOD USE FOR VALIDATION
Librarian_CodeMust be Sorted	Primary Key
Code of Employee should start with LIBR followed by 3 digits of number	Check Constraint
Gender only Contains Male or Female	Check Constraint
Contact	Check Constraint

Librarian

Query Used

Query Name	Query Type	Description	Tables / Queries Used
Book Query	Simple Query	This query describe about Book	Book Code, Title, ISBN, Release Year, Book Condition, Category Code of Book, Publisher, Author, Stock
Employee Query	Simple Query	This Query describe about Employee	Employee Code, Name, Address, DOB, Gender, Contact
Librarian Query	Simple Query	This Query describe about Librarian	Librarian Code, Name, Address, DOB, Gender, Contact
Students Query	Simple Query	This Query describe about Student	Student Code, Name, Address, Status active, Class, Gender, DOB

Form Used

Form Name	Form Type	Description	Table/Query Used
Book_Return	Columnar	This form describe about Book Return	Book Return
Book_Transaction	Columnar	This form describe about Book Transaction	Book Transaction
Books	Columnar	This form describe about Books	Books
Employee	Columnar	This form describe about Employee	Employee
Libraian	Columnar	This form describe about Librarian	Librarian
Main Menu	Columnar	This form describe about Borrow The Books	Books, Loaned Books, Book Transaction, Book Return, Employee, Librarian, Teacher, Student
Student	Columnar	This form to show describe about Student	Student

REPORTS OUTLINE

Report Name	Report Type	Description	Tables / Queries Used
Books	Columnar	Book_Code, Book_Code, ISBN, Realese_Year, Book Condition, Category_Code_of_Book, Publisher, Author, Stock.	Tabel
Employee	Columnar	Employee_Code, Employee_Name, Employee_Address, Date of Birth, Employee_Gender, Contact	Tabel
Librarian	Columnar	Librarian_Code, Librarian_Name, Libraian_Address, Date of Birth, Librarian_Gender, Contact	Tabel
Student	Columnar	Code_of_Student, Name_of_Student, Address_of_Student, Date of Birth, Gender, Class, Active Status of Student	Tabel

CONFIGURATION

Hardware : PC compatible with an Intel Dual Core, 1 GB RAM, and 1GB of Hard disk space

Operating System : Microsoft Windows 7

Software : Microsoft Access 2016

PROJECT FILE DETAILS

S.No	File Name	Remarks
1	College Library.accdb	Microsoft Office Access 2016 database that contains tables,queries, foms and reports