CONTINUING EDUCATION PROGRAM –

CENTER FOR COMPUTING AND INFORMATION TECHNOLOGY

FACULTY OF ENGINEERING

UNIVERSITY OF INDONESIA

**CCIT Library Application System**

3SC4

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UgiIspoyoWidodo

Faculty : Mrs. Emma Yulianti, S.T, MM

**Faculty of Engineering**

**University of Indonesia**

**PROJECT ON**

*CCIT Library Application System*

Developed By

Name :*AndikaSaputra*

*UgiIspoyoWidodo*

Reg. No.:

NIIT

**CCIT Library Application System**

Batch Code :

Start Date : *October 18, 2015* End Date: *October 29 , 2015*

Name Of The Coordinator :*Mrs. Emma Yulianti, S.T, MM*

Name Of Developer :*AndikaSaputra*

*UgiIspoyoWidodo*

Date Of Submission :*October 29, 2015*

NIIT

**CERTIFICATE**

This is to certify that this report, titled***CCIT Library Application System***embodies the original work done by***Andika SaputraandUgiIspoyoWidodo***in partial fulfillment of their course Requirement at NIIT.

Coordinator: ***Mrs. Emma Yulianti, S.T, MM***

**ACKNOWLEDGEMENT**

The Project presentation opportunity we have with CCIT-FTUI is a great change for learning and professional development. Therefore, we consider ourselves very lucky as we are provided with an opportunity to be a part of it. We are also grateful for having a change to meet so many wonderful people and professionals who led us through this project period.

Bearing in mind, we would like to express our deepest gratitude and special thanks to Mrs. Emma Yulianti, S.T, MM of CCIT-FTUI faculty who is spite of being extraordinarily busy with his duties, took time out to hear, guide and keep us on the correct path and allowing us to carry out our project until completion.

Our project assignment won’t be as good as it is now without any help, feedback and suggestion that were given to us by our friends within the campus. So, we would also like to say thank you to all of them. We will strive to use grained skills and knowledge in the best possible way, and we will continues to work on the improvements, in order to attain desired career objective.

**SYSTEM ANALYSIS**

**System Summary :**

The Continued development of the times, the use of electronic goods more and more in used. As in the process of borrowing books in the library, first when we borrow books at the library, surely the process is done manually by means of written in the books, but now can use the application on computer. Therefore, we made CCIT Library Application System.

CCIT Library Application System is an application library that aims to manage data libraries in the CCIT and aimed at student CCIT itself. In this project we make 2 application, namely : CCITLibrary.exe are devoted to Librarians, and PengunjungCCIT.exe are devoted to visitors who want to borrow a book.

**HARDWARE AND SOFTWARE REQUIREMENTS**

**Hardware:**

Intel® Core ™ i3-4005U CPU @1.70Ghz 1.70 Ghz 32bit

Installed Memory (RAM) 2Gb

Hard Drive 500GB

**Operating System:**Windows 7 Ultimate

**Software:**

* Visual Studio 2010 Ultimate
* SQL Server Developer 2005
* Cristal Report For Visual Studio

**INDIVIDUAL PROJECT SCHEDULE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***S.No*** | ***Activity Description*** | ***Planned Of Completion*** | ***Actual Date*** | ***Responsibility*** | ***Remarks*** |
| *1.* | *Creating Login form& Menu Utama Form* | *18th*  *October 2015* | *18th*  *October*  *2015* | *UgiIspoyoWidodo* |  |
| *2.* | *Creating Buku form* | *24th*  *October 2015* | *25th*  *October 2015* | *AndikaSaputra* |  |
| *3.* | *Make a validation* | *25th*  *October 2015* | *26th*  *October 2015* | *AndikaSaputra* |  |
| *4.* | *Crating Member form* | *26th*  *October 2015* | *26th*  *October 2015* | *UgiIspoyoWidodo* |  |
| *5.* | *Creating Peminjaman form & Admin form* | *27th*  *October 2015* | *27th*  *October 2015* | *AndikaSaputra / UgiIspoyoWidodo* |  |
| *6.* | *Creating Report* | *28th*  *October 2015* | *28th*  *October 2015* | *AndikaSaputra / UgiIspoyoWidodo* |  |
| *7.* | *Finishing* | *29th*  *October 2015* | *29th*  *October 2015* | *AndikaSaputra / UgiIspoyoWidodo* |  |

**CLASS DIAGRAM**



**DATABASE DESIGN**

**Database Name :**CCIT\_Library

Number of Table : 8

Table Name :

1. Tb\_Admin
2. Tb\_Buku
3. Tb\_Kategori
4. Tb\_Member
5. Tb\_Peminjaman
6. Tb\_Peminjaman\_Details
7. Tb\_Rak
8. Tb\_Temp\_Peminjaman

**TABLE DESIGN**

**Database Name :**CCIT\_Library

**Tb\_Admin :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *id\_admin* | *Varchar* | *5* | *Id of admin* |
| *nama* | *Varchar* | *50* | *Name of admin* |
| *Jenis\_kelamin* | *Varchar* | *7* | *Gender of admin* |
| *Jenis\_admin* | *Varchar* | *50* | *Type of admin* |
| *telepon* | *Varchar* | *50* | *Telephone of admin* |
| *password* | *Varchar* | *50* | *Password of admin* |
| *status* | *Varchar* | *50* | *Status of admin* |

**TABLE DESIGN**

**Database Name :**CCIT\_Library

**Tb\_Buku :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *id\_buku* | *Varchar* | *5* | *Id of admin* |
| *judul\_buku* | *Varchar* | *100* | *Name of admin* |
| *pengarang* | *Varchar* | *50* | *Gender of admin* |
| *penerbit* | *Varchar* | *50* | *Type of admin* |
| *jumlah\_halaman* | *Varchar* | *50* | *Telephone number of admin* |
| *bahasa* | *Varchar* | *50* | *Password of admin* |
| *deskripsi\_singkat* | *Varchar* | *50* | *Status of Admin* |
| *id\_rak* | *Varchar* | *5* | *Gender of admin* |
| *id\_kategori* | *Varchar* | *5* | *Type of admin* |
| *tgl\_terbit* | *Varchar* | *50* | *Telephone number of admin* |
| *stok* | *Varchar* | *50* | *Status of Admin* |

**TABLE DESIGN**

**Database Name :**CCIT\_Library

**Tb\_Buku :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *id\_buku* | *Varchar* | *5* | *Id of admin* |
| *judul\_buku* | *Varchar* | *100* | *Name of admin* |
| *pengarang* | *Varchar* | *50* | *Gender of admin* |
| *penerbit* | *Varchar* | *50* | *Type of admin* |
| *jumlah\_halaman* | *Varchar* | *50* | *Telephone number of admin* |
| *bahasa* | *Varchar* | *50* | *Password of admin* |
| *deskripsi\_singkat* | *Varchar* | *50* | *Status of Admin* |
| *id\_rak* | *Varchar* | *5* | *Gender of admin* |
| *id\_kategori* | *Varchar* | *5* | *Type of admin* |
| *tgl\_terbit* | *Varchar* | *50* | *Telephone number of admin* |
| *stok* | *Varchar* | *50* | *Status of Admin* |

**TABLE DESIGN**

**Database Name :**CCIT\_Library

**Tb\_Kategori :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *Id\_kategori* | *Varchar* | *5* | *Id of Category* |
| *Kategori\_buku* | *Varchar* | *50* | *Category of Book* |

**Tb\_Member :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *Id\_member* | *Varchar* | *5* | *id of Member* |
| *NIM* | *Varchar* | *50* | *NIM of Member* |
| *Nama* | *Varchar* | *50* | *Name of Member* |
| *Kelas* | *Varchar* | *50* | *Class of Member* |
| *Jurusan* | *Varchar* | *50* | *of Member* |
| *alamat* | *Varchar* | *100* | *Address of Member* |
| *No\_telp* | *Varchar* | *50* | *Telephone of Member* |
| *Jenis\_kelamin* | *Varchar* | *9* | *Gender of Member* |

**TABLE DESIGN**

**Database Name :**CCIT\_Library

**Tb\_Peminjaman :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *Id\_peminjaman* | *Varchar* | *5* | *Id of rent* |
| *Id\_member* | *Varchar* | *5* | *Id of member* |
| *Id\_buku* | *Varchar* | *5* | *Id of buku* |
| *Tgl\_peminjaman* | *Varchar* | *50* | *Date of borrowed* |
| *Tgl\_pengembalian* | *Varchar* | *50* | *Date of* |
| *pinalty* | *Varchar* | *50* | *Pinalty* |
| *Id\_admin* | *Varchar* | *5* | *Id of admin* |

**Tb\_Peminjaman\_detail :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *Id\_peminjaman\_detail* | *Varchar* | *5* | *Id of details rent* |
| *Id\_member* | *Varchar* | *5* | *Id of member* |
| *status* | *Varchar* | *20* | *Status of rent* |

**TABLE DESIGN**

**Database Name :**CCIT\_Library

**Tb\_Rak :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *Id\_rak* | *Varchar* | *5* | *Id of shelf* |
| *Nama\_rak* | *Varchar* | *50* | *Name of shelf* |

**TABLE DESIGN**

**Database Name :**CCIT\_Library

**Tb\_Temp\_Peminjaman**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Width*** | ***Description*** |
| *Id\_peminjaman* | *Varchar* | *5* | *Id of admin* |
| *Id\_member* | *Varchar* | *5* | *Id of member* |
| *Id\_buku* | *Varchar* | *5* | *Id of book* |
| *Tgl\_peminjaman* | *Varchar* | *50* | *Date of borrowed* |
| *Tgl\_pengembalian* | *Varchar* | *50* | *Date of* |
| *pinalty* | *Varchar* | *50* | *penalty* |
| *Id\_admin* | *Varchar* | *5* | *Id of admin* |

**VALIDATIONS PERFORMED**

**Tb\_Admin**

|  |  |
| --- | --- |
| ***Validations Required*** | ***Method Used For Validations*** |
| *id\_Admin, nama, jenis\_kelamin, jenis\_admin, telepon, password, status* | *Not Null when Fill in data On Application* |
| *Id\_Admin* | *Primary key constraint* |
| *telepon* | *Must be in NUMBER* |

**Tb\_Buku :**

|  |  |
| --- | --- |
| ***Validations Required*** | ***Method Used For Validations*** |
| *id\_Buku, judul\_buku, pengarang, penerbit, jumlah\_halaman, bahasa, deskripsi\_singkat, id\_rak, id\_kategori, tgl\_terbit, stok* | *Not Null when Fill in data On Application* |
| *Id\_Buku* | *Primary key constraint* |
| *Jumlah\_halaman and stok* | *Must be in NUMBER* |

**Tb\_Kategori :**

|  |  |
| --- | --- |
| ***Validations Required*** | ***Method Used For Validations*** |
| *Id\_kategori* | *Primary key constraint* |
| *kategori\_buku and id\_kategori* | *NOT NULL when filled in Application* |

**VALIDATION PERFORMED**

**Tb\_Member :**

|  |  |
| --- | --- |
| ***Validations Required*** | ***Method Used For Validations*** |
| *id\_Member, NIM, nama, kelas, jurusan, alamat, no\_telp, jenis\_kelamin,* | *Not Null when Filled data in Application* |
| *Id\_Member* | *Primary key constraint* |
| *NIM, no\_telp* | *Must be in NUMBER* |
| *nama* | *Character min = 3 character* |
| *kelas* | *Character min = 4, max =6* |

**Tb\_Peminjaman :**

|  |  |
| --- | --- |
| ***Validations Required*** | ***Method Used For Validations*** |
| *Id\_Peminjaman, id\_Member, id\_Buku, id\_Peminjaman, id\_Pengembalian, Pinalty, id\_admin* | *Not Null when Filled data in Application* |

**Tb\_Peminjaman\_Details :**

|  |  |
| --- | --- |
| ***Validations Required*** | ***Method Used For Validations*** |
| *Id\_Peminjaman\_detail, id\_Member, Status* | *Not Null when Filled data in Application* |
| *Id\_Peminjaman\_detail* | *Primary key constraint* |

**VALIDATION PERFORMED**

**Tb\_Rak :**

|  |  |
| --- | --- |
| ***Validations Required*** | ***Method Used For Validations*** |
| *Id\_Rak* | *Primary key constraint* |
| *Nama\_rak and id\_rak* | *Not Null when Filled data in Application* |

**Tb\_Temp\_Peminjaman :**

|  |  |
| --- | --- |
| ***Validations Required*** | ***Method Used For Validations*** |
| Id\_Peminjaman, id\_Member, id\_Buku, id\_Peminjaman, id\_Pengembalian, Pinalty, id\_admin | *Not Null when Filled data in Application* |

**Logical flow diagram representing the control flow of System Administration Library for CCIT Student**



**LOGICAL FLOW DIAGRAM**