**A PROJECT REPORT ON**

**“Electronic Thesis and Dissertation”**

FOR

**GMIT**

SUBMITTED IN PARTIAL

FULFILLMENT OF INTERNSHIP PROJECT

UNDER THE GUIDEDANCE OF

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27.8.2018

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**Abstract**

Electronic Thesis and Dissertation System is a work submitted in support of candidature for a doctorate or master’s degree. Electronic version of theses and dissertations are called ETDs. This system is kind of Education website. In our system, users can search theses and dissertations of CU (Mdy) by Year, and can see abstract of the thesis, author name, supervisor name, degree and the major. Users can also search books and theses of Otago University and Global ETD for more references.

For admin Panel, admins can insert, data into database, delete and retrieve data for database. Users can use our system with both smart phones and computers. For Front End, the system was implemented using material design (HTML, CSS).For Back End, this system was implemented using javascript and jQuery. And we also used Firebase Hosting and Database.

**i**

**ACKNOWLEDGEMENT**

First of all, we would like to express our very great appreciation to **U Kyaw Zwa Soe**, Rector of Computer University (Mandalay).

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We also deeply thank to our director **U Ravi Chhabra**, CEO of GMIT, for his patient training to gain experience in modern software development and trust to give us.

And then greatly thank to our supervisor **Dr. Ei Ei Mon**, Computer University (Mandalay), for her valuable guidance and patient supervisor, presentation and correctness of the project.

We especially thanks to our parents and all our friends for providing encouragement and giving us a great support during internship program.

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**DECLARATION**

We declare that this project report or part of was not a copy of a document done by any organization, university any other institute or a previous student project group at Computer University (Mandalay) and was not copied from the Internet or other sources.

Project Details

|  |  |
| --- | --- |
| Project Title | Electronic Thesis and Dissertation System |
| Project ID | GMIT Company Internship |

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**Chapter 1**

**Introduction**

* 1. **Introduction**

Nowadays, modern technologies are sharply developed. And most of the people widely use internet with mobile phones and computers for various purposes. Most of the universities around the world use online libraries. In that libraries, students can search books at every time and everywhere. It can save time and energy.

Our project ETD (Electronic thesis and dissertation), it mainly focuses to search easily theses and dissertations of Computer University (Mandalay) at one place. In our project, students can search theses with their abstracts from 2008 to 2016.

In our ETD project, students can also search theses reference books and global theses and dissertations from other universities around the world for various fields and major.

The aims of our ETD project is to save time and energy, to reduce paper works and familiar with electronic library.

**1**

**1.2 Background of the System**

**1.2.1 What is a firebase hosting?**

The production-grade web content hosted for developers is called as firebase hosting. With the help of hosting, you can quickly and easily deploy web apps or content to the CDN (Global content delivery network) using a single command. Firebase hosting gives you a fast, secure, and reliable way to host your app’s static assets such as HTML, CSS, Javascript, and media files. It is very easy process in Firebase because it contains Custom domain support, and Global CDN. Whether you are sending a simple application landing page or a complex Progress Web App. Hosting gives you the infrastructure, features, and manage static website.

**1.2.2 What is a firebase database?**

A database is a collection of information that is organized so that it can be easily accessed, managed and updated. Data gets updated, expanded and deleted as new information is added.

The Firebase Realtime Database is a cloud-hosted database. Data is syned across all clients in realtime, and remains available when your app goes offline. Data is stored as JSON and synchronized in realtime to every connected client. When you build cross-platform apps with our iOS, Android, and JavaScript SDKs, all of your clients share one Realtime Database instance and automatically receive updates with the newest data. By utilizing this feature of Firebase, there is no necessity to make your own database. Firebase handles all the components that usually come along with creating a backend for applications. It gives an adaptable, expression-based rules language to define how your data should be organized and when information can be perusd from or composed to. When you point your app to the proper data source in Firebase, it will retrieve the data in real-time.

**2**

**1.3 Objectives of the project**

* To save time for searching thesis guideline and thesis information
* Helping students be better prepared as knowledge workers
* To develop university digital library services and infrastructure
* Increasing sharing and collaboration among university and students
* Enhancing access to university research

**Scope of Proposed System**

The proposed project of Electronic Thesis and Dissertation is prescribed as follow;

* Manage Home, ThesisResource, Publisher, Admin, Search, Learn More
* View Home
* View ThesisResource
* View Publisher
* View Admin
* View Learn More

**3**

**CHAPTER 2**

**METHDOLOGY**

**2.1 Requirement Analysis**

Requirement analysis is the process of deriving for modifying requirements of existing system. We get information of data from 2008 year to 2016 year we use in this project from Computer University(Mdy) library**.**

**2.2 Software Selection**

**Choose Programming Language**

We would like to use HTML, CSS, Javascript, jQuery, material design lite in my project because there are a lot of benefits to pick up languages in our windows form application.

* HTML describes the structure of Web pages using markup.
* CSS can control the layout of multiple web pages all at once. It describes how HTML elements are to be displayed on screen, paper, or in other media.
* Javascript is a high-level and interpreted programming language.
* JQuery is a fast, small, and feature-rich JavaScript library.
* Material Design Lite makes more liberal use of grid-based layouts, responsive animations and transitions, padding, and depth effects such as lighting and shadows.
* They are readily available and easy to access.

**4**

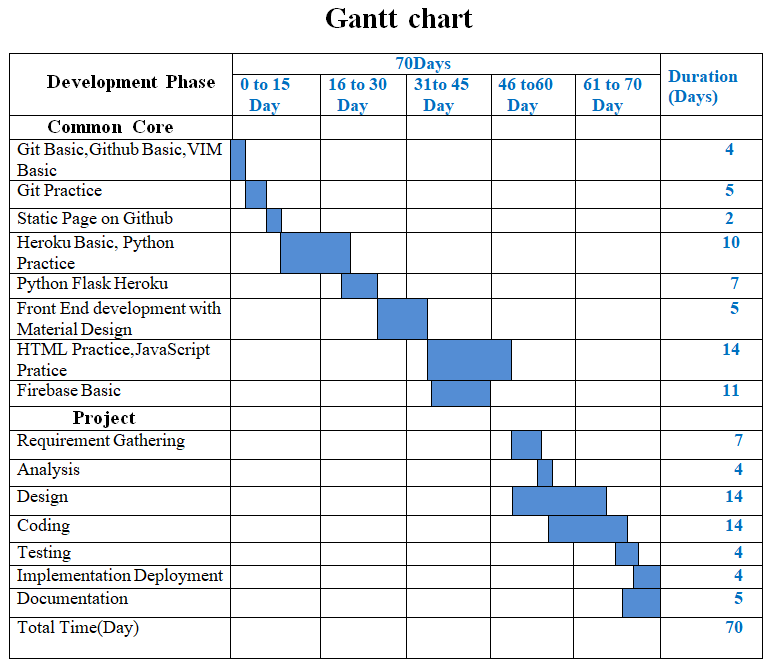
**Software Requirements**

* Firebase Database
* Submit Text 3
* Git bash

**Hardware Requirements**

* Internet Access
* PC with Windows OS
* Mobile Phone

**2.3 Project Plan**

In understanding the system requirements and testing some features, we work together. UI/UX, Developer and testing and documentation, we work together. User Access Level/Access to pages, Project Manager and System analysis are discussed about the systems to understand the user.

**Figure (2.1) Project Plan**

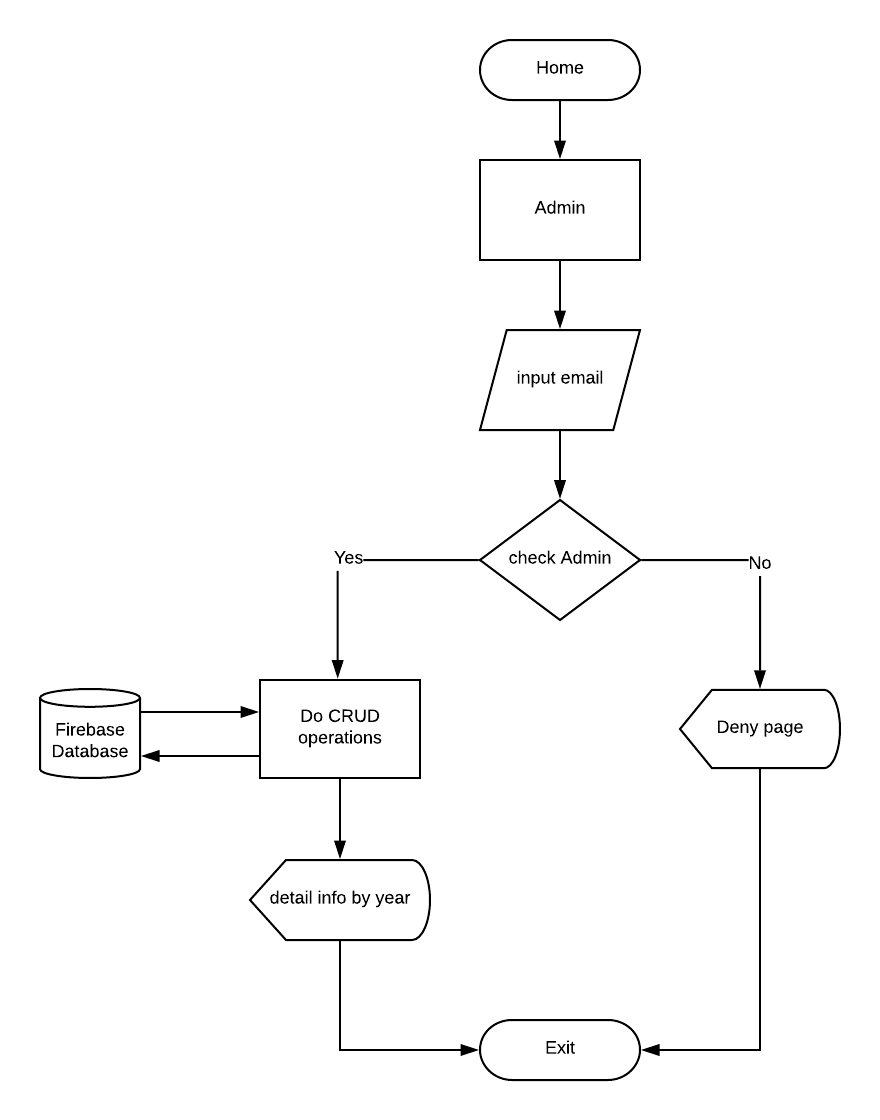
**5**

**CHAPTER 3**

**PROJECT DEVELOPMENT**

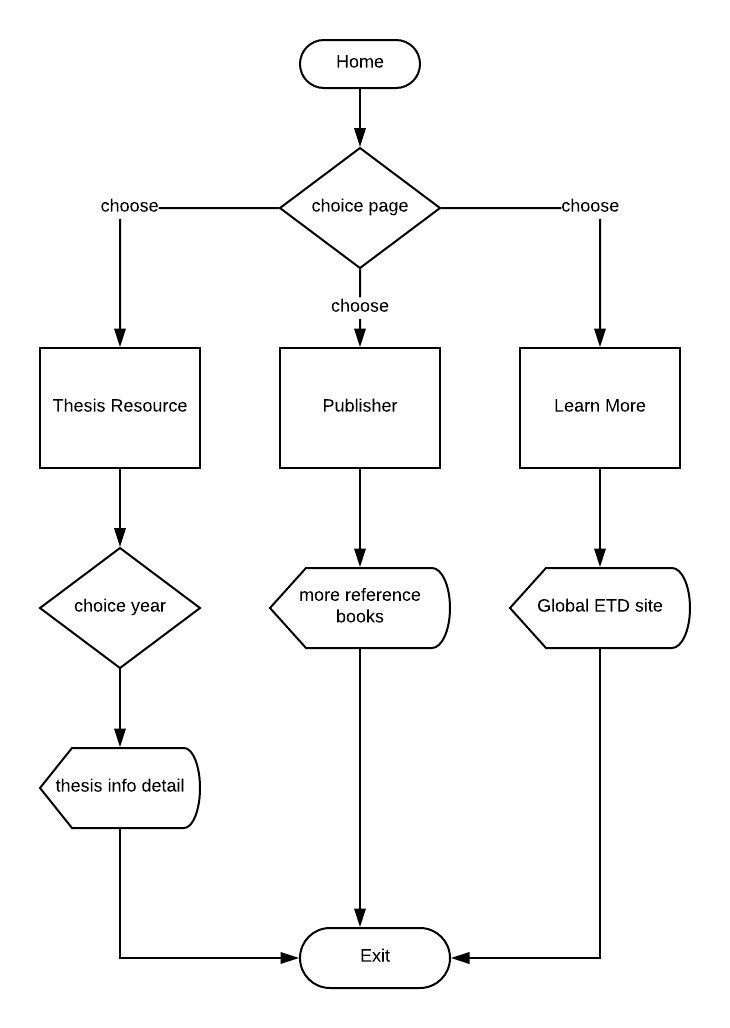
**3.1 Design**

**3.1.1 Flow Chart Diagram**

****

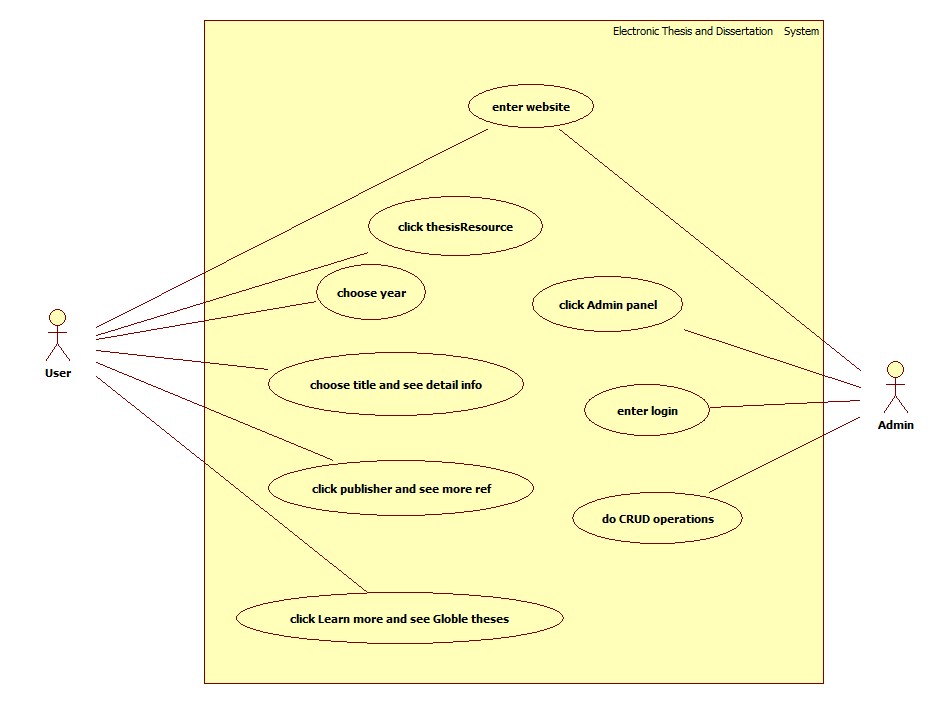
**Figure (3.1) Flowchart Diagram For Admin**

**6**

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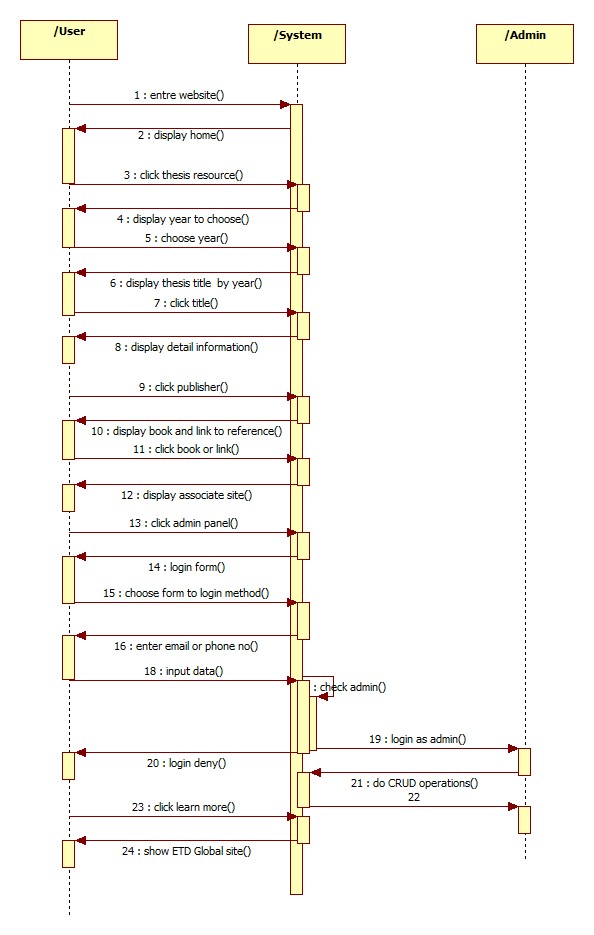
**Figure (3.2) Flowchart Diagram For User**

**7**

****

**Figure (3.3) UseCase Diagram For ETD**

**8**

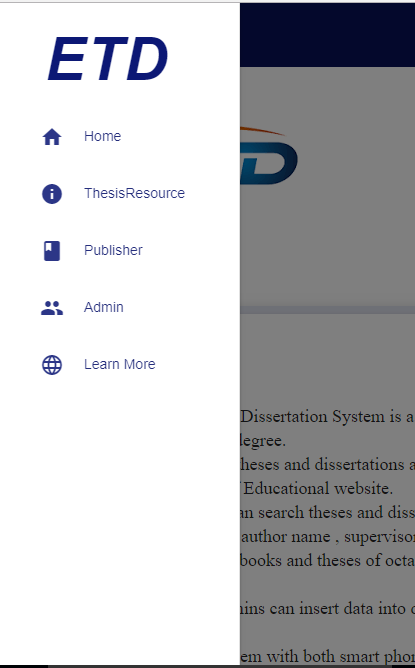
****

**Figure (3.4) Sequence Diagram For ETD**

**9**

**3.1.4 ETD Function**

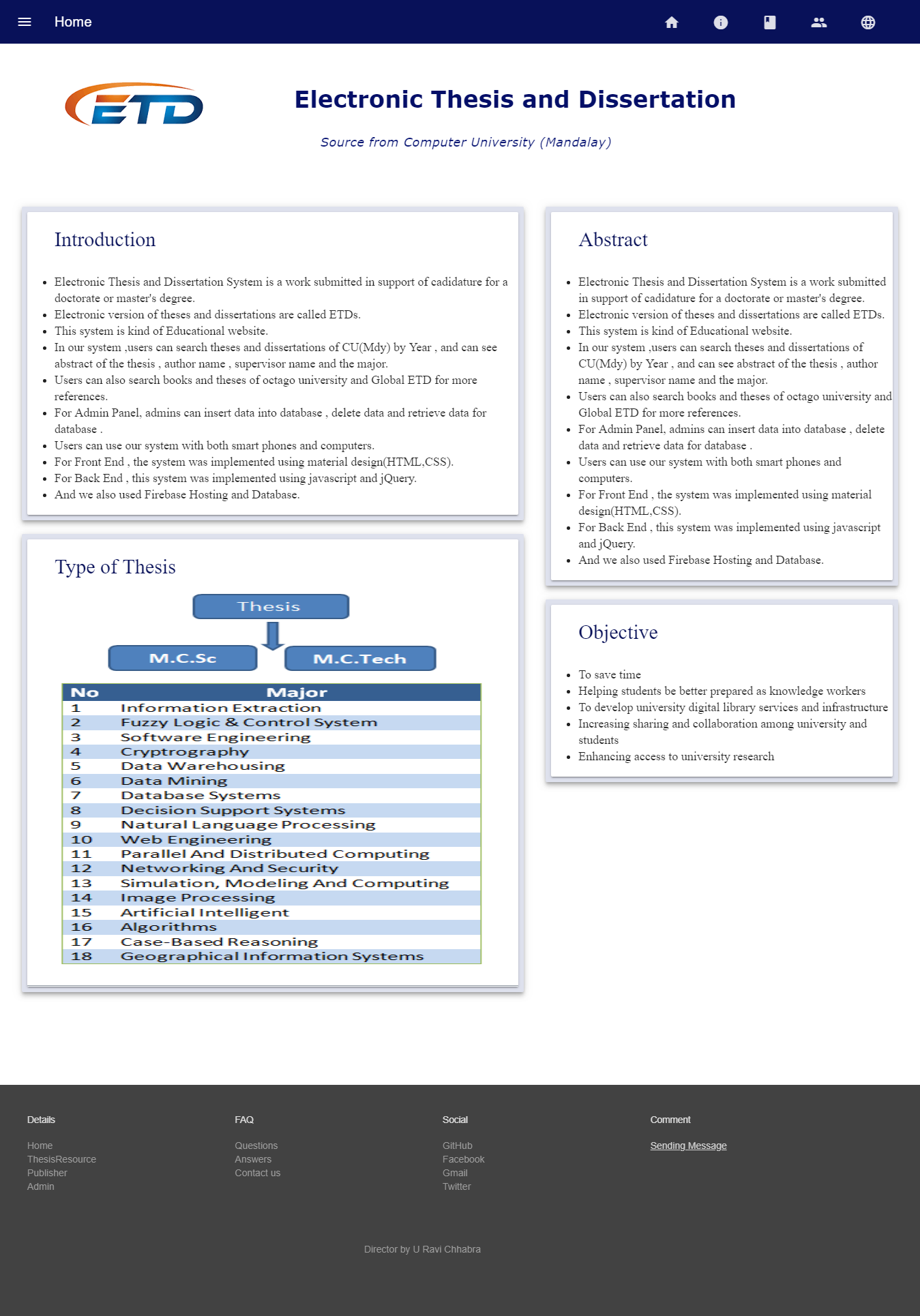
In this system, we use navigation bar. When users click navigation bar, users can see Home, ThesisResource , Publisher, Admin and Learn More.

****

**Figure (3.5) Navigation Bar Form**

**10**

In Home Page form, we show Introduction, Type of Thesis, abstract, and objective.

****

**Figure (3.6) Home Page Form**

**11**

In the following form,users can see thesis resource by year from 2008 to 2016.

****

**Figure (3.7) Thesis Resource Form**

**12**

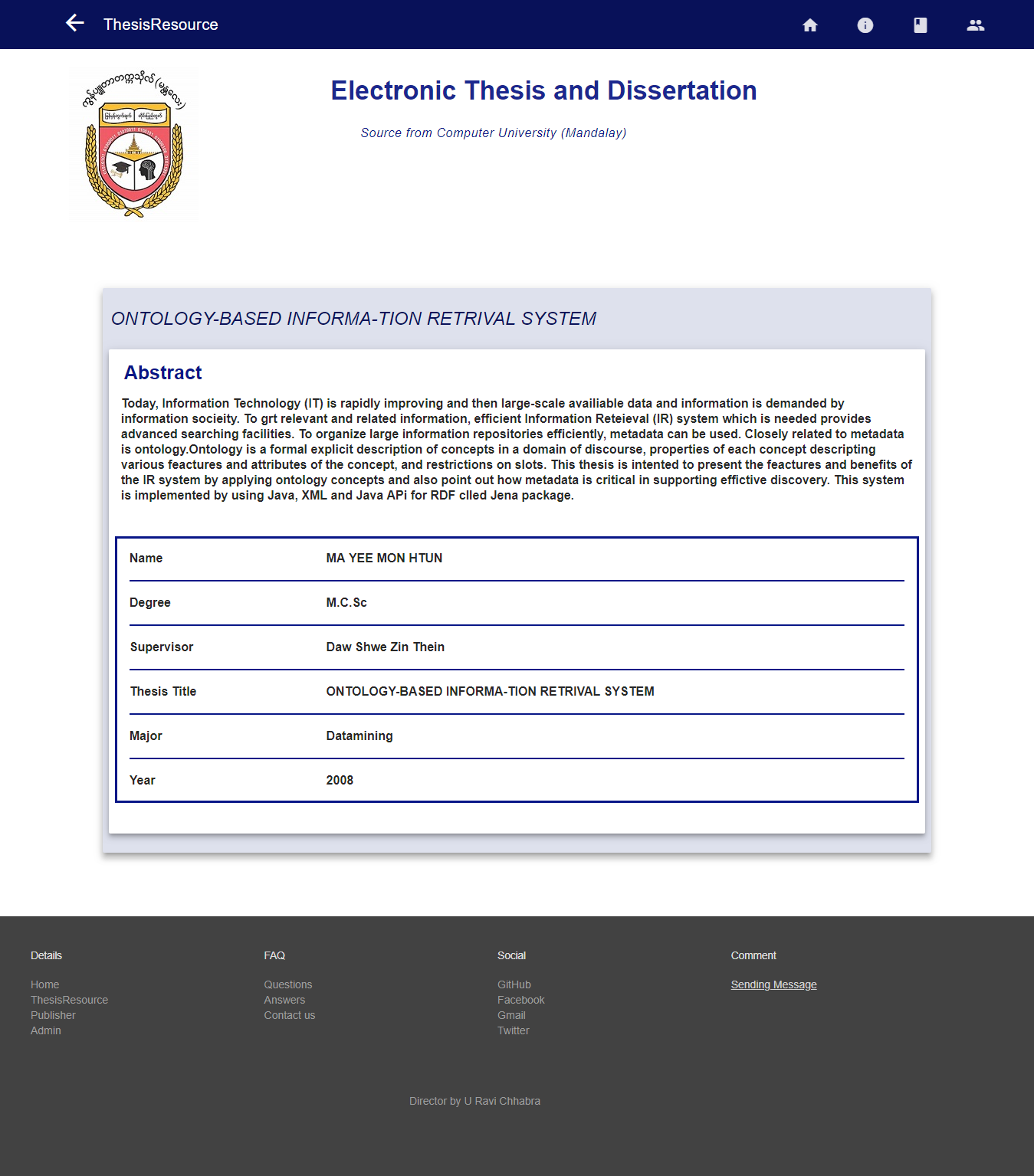
If user clicks 2008, user can see thesis titles in 2008.

****

**Figure (3.8) Thesis Resource Form By Year And Title**

**13**

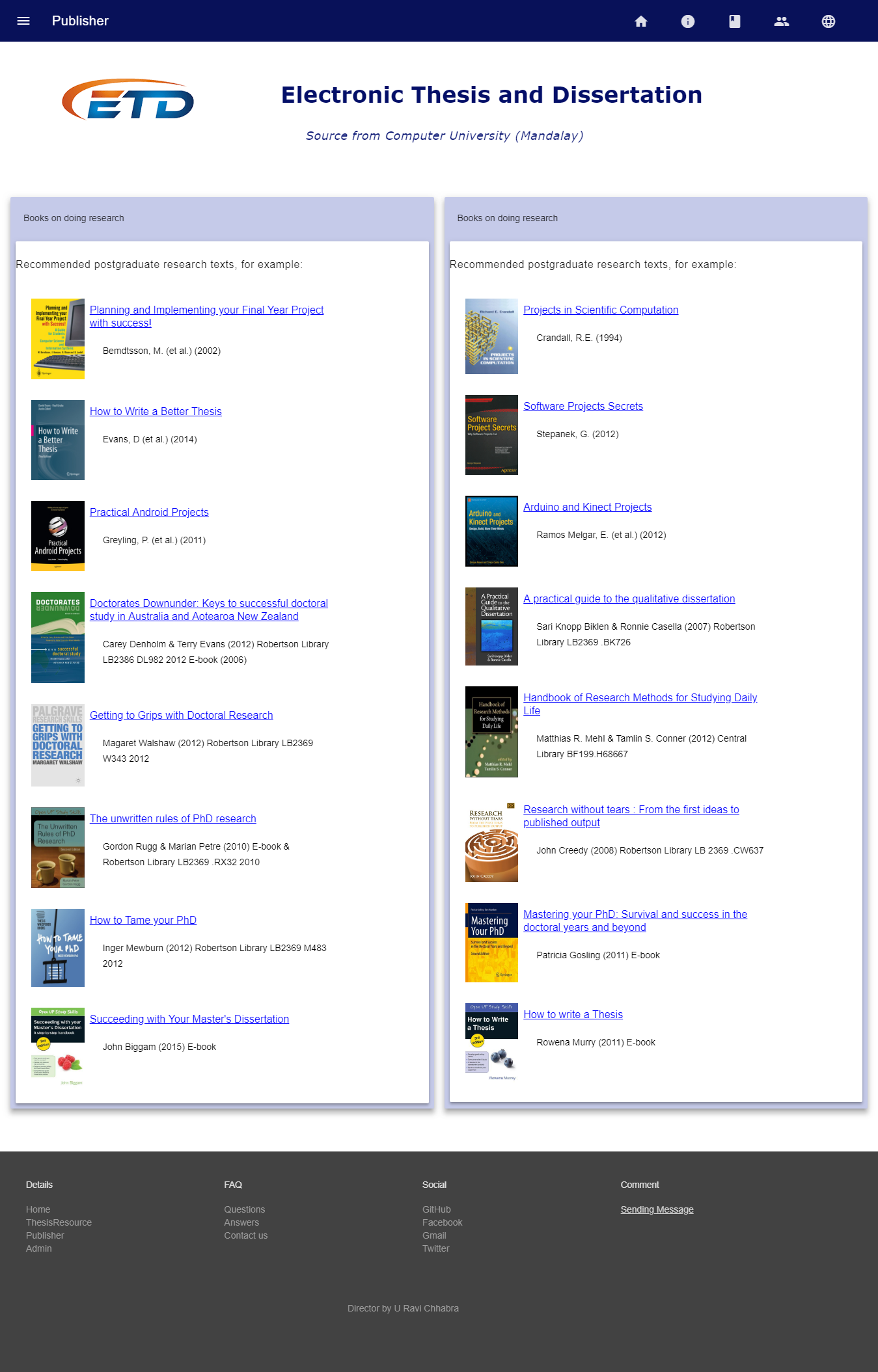
When user clicks thesis title, user can see the following form. There are Abstract of thesis, Author’s Name, Degree, Supervisor, Thesis Title, Major and Year.

****

**Figure (3.9) Thesis Resource With Details**

**14**

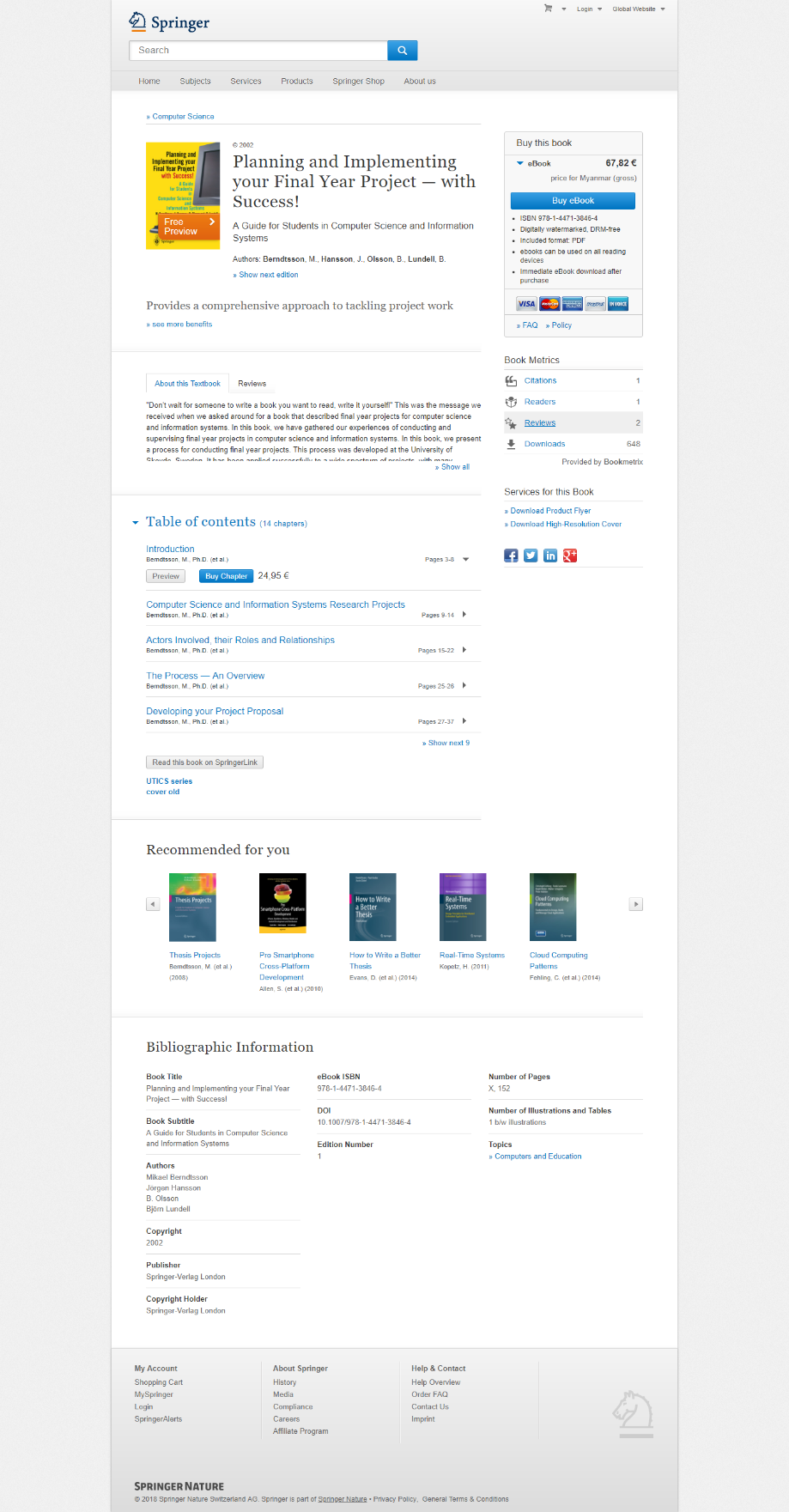
User can see Books on doing research in Publisher.

****

**Figure (3.10) Publisher Form**

**15**

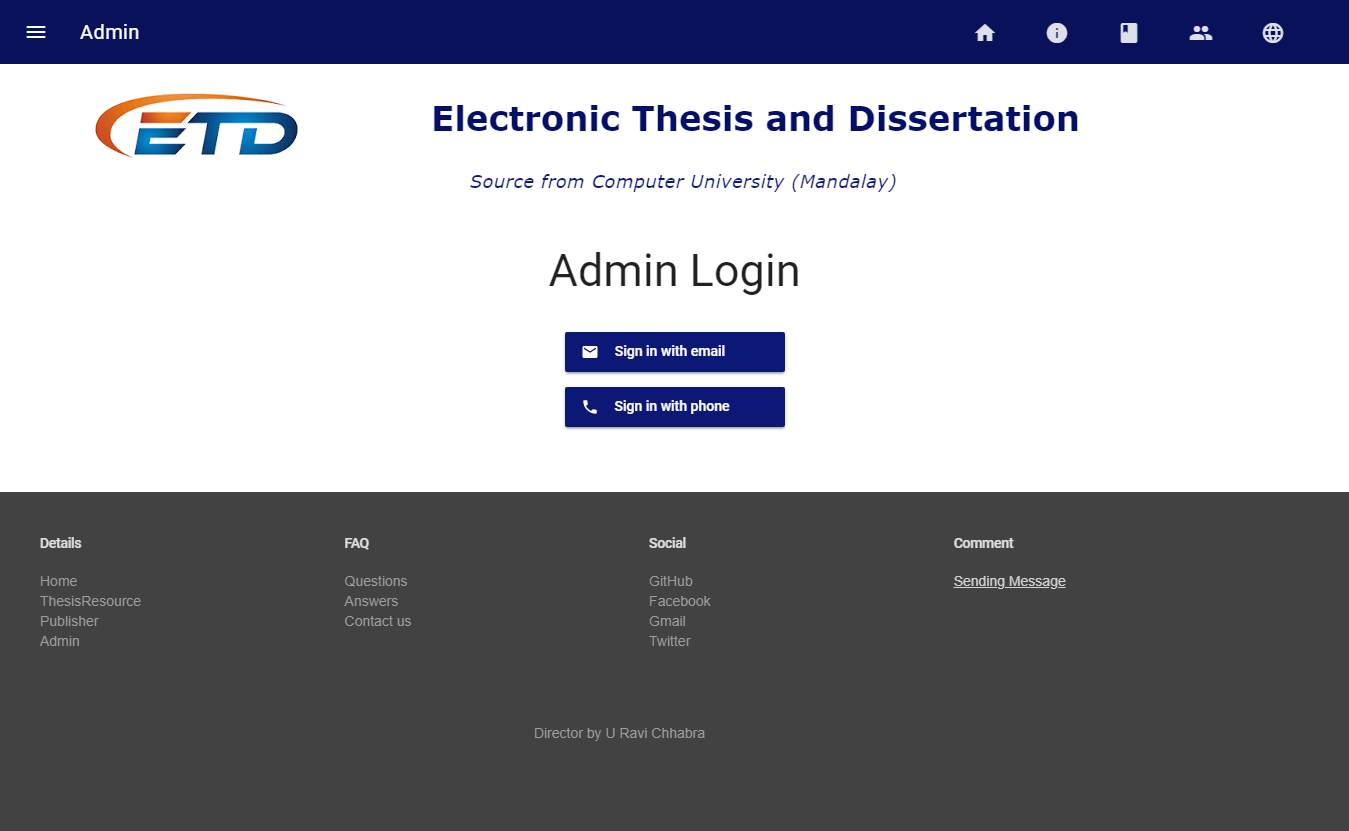
When user clicks any title, user can see the information of the title that user click.

****

**Figure (3.11) Information Of The Title That User Click**

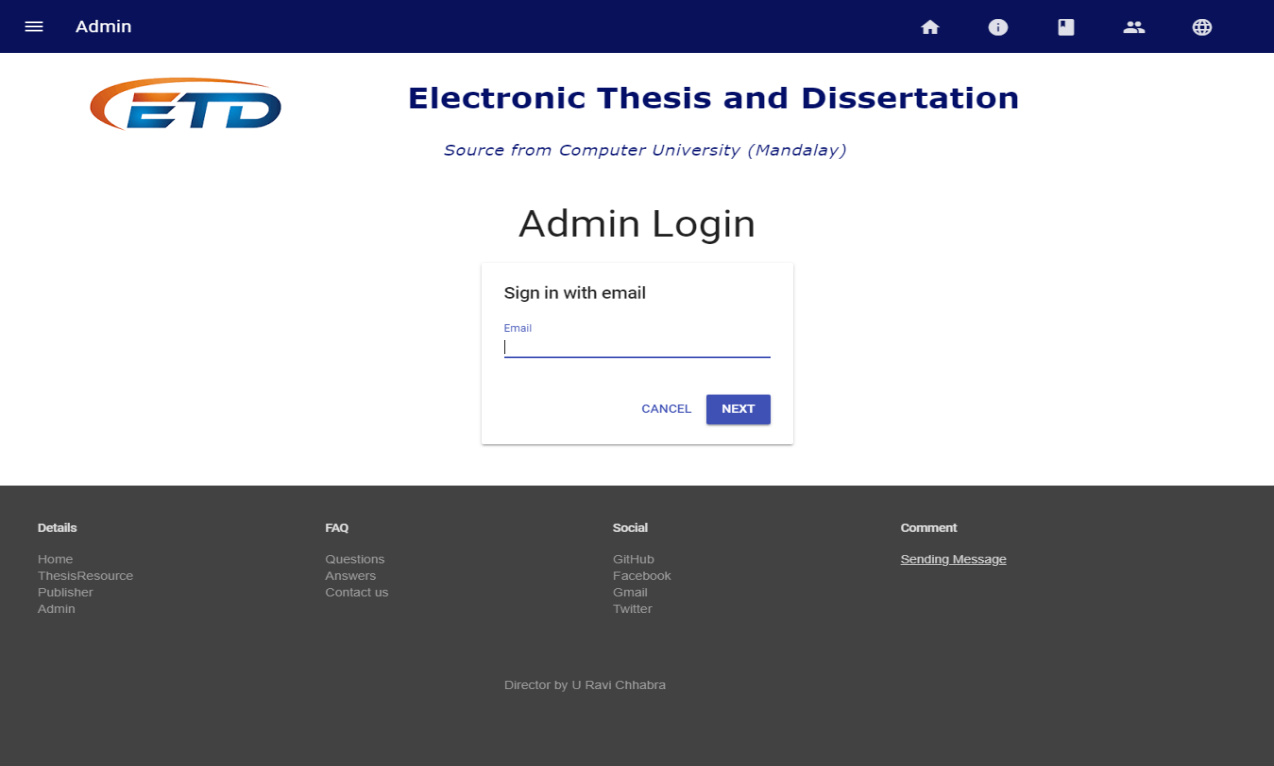
**16**

In the following form, admins can only login to create, delete, update and add data.

****

**Figure (3.12) Admin Form**

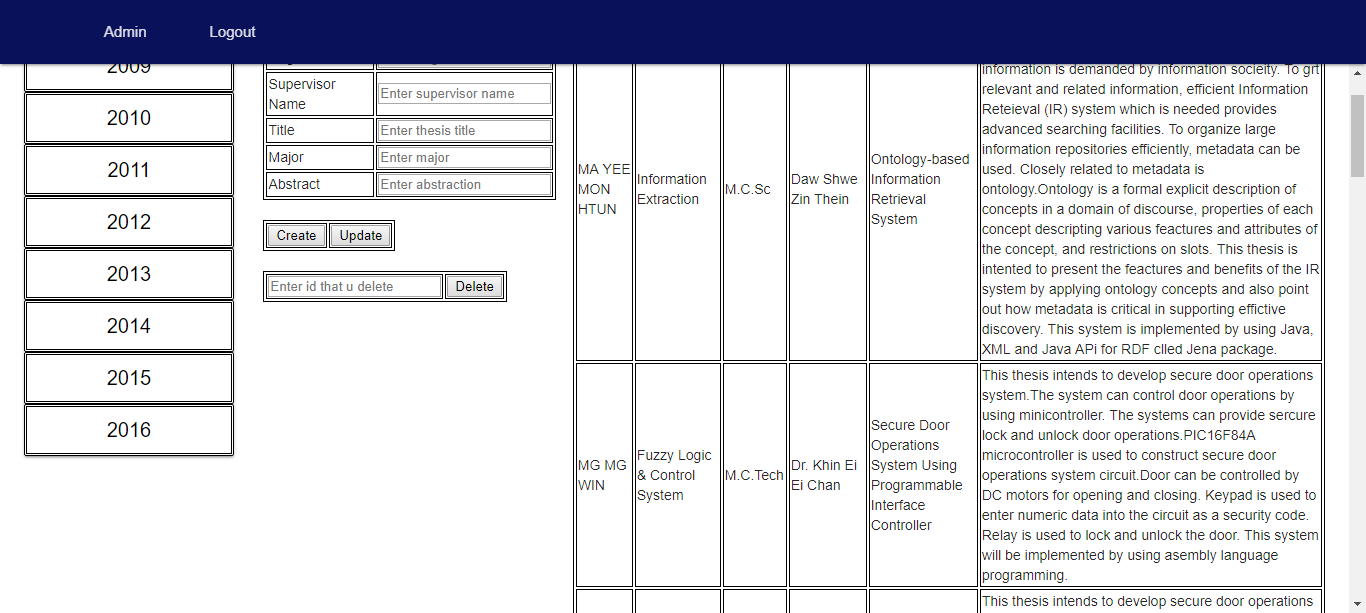
We design Admin login form to login not only email but also phone number. Admin need to create an account to login.

****

**Figure (3.13) Admin Login Form With Email**

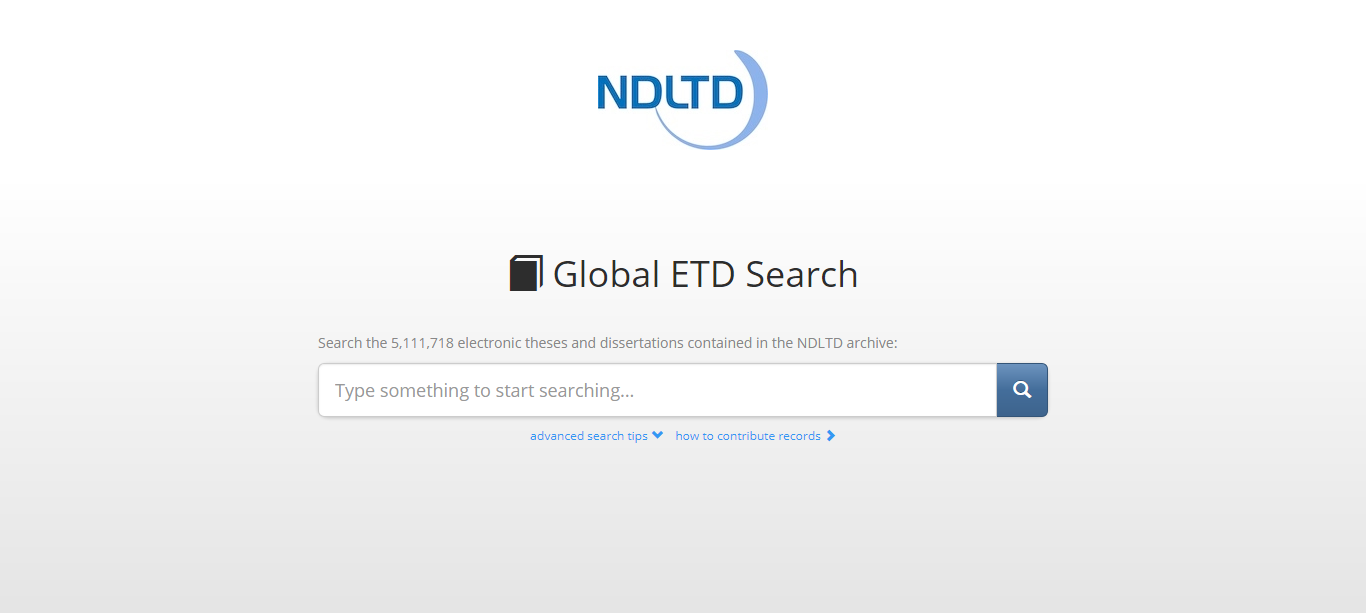
**17**

After login, admins can create, update and delete data.

****

**Figure (3.14) Detail Information By Year For Admin**

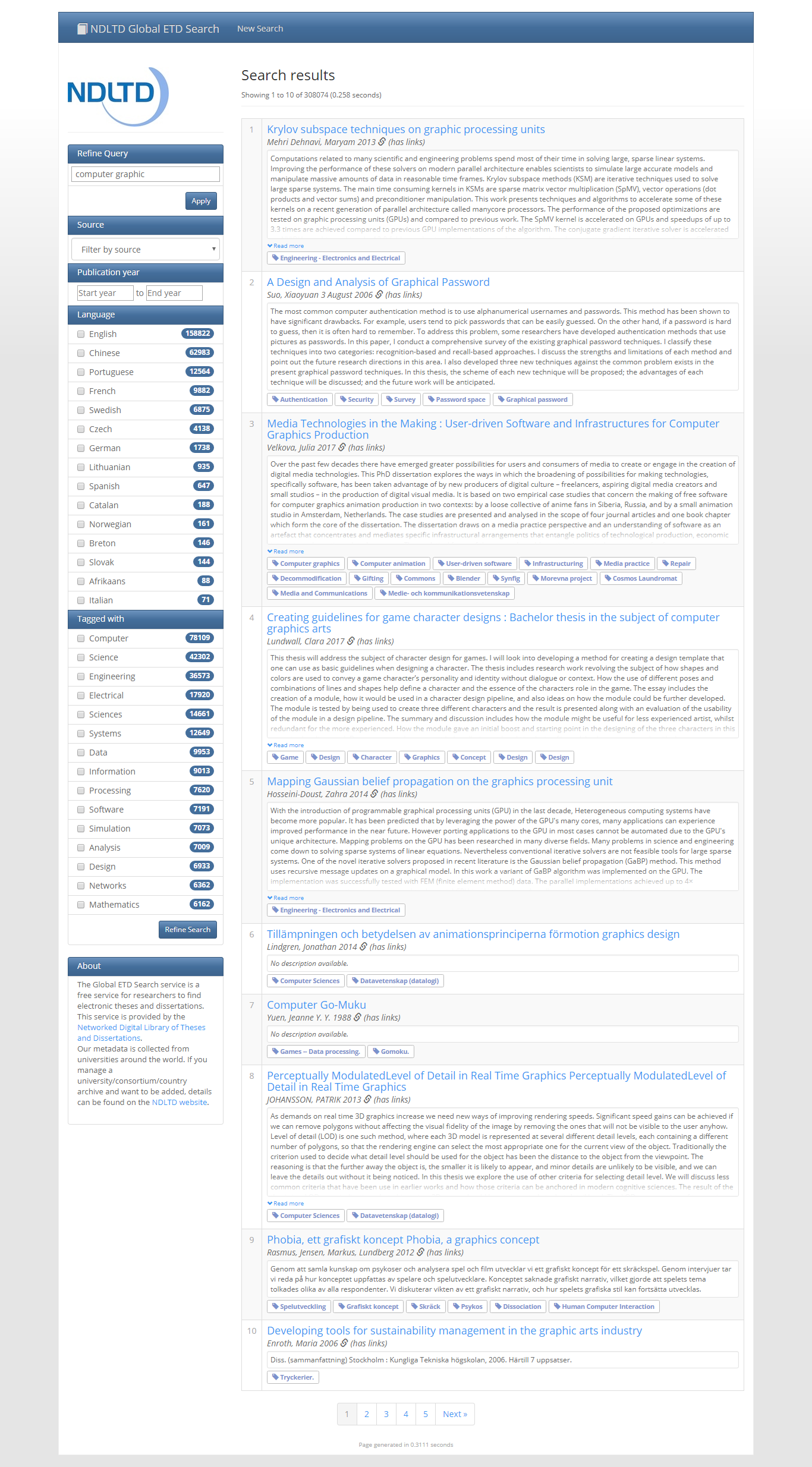
In the below form, user can search Theses in global and it combines with 5,111,718 electronic theses and dissertations where can find any fields that you want .

****

**Figure (3.15) Learn More Form**

**18**

In Global ETD Search, user can see like this.

****

**Figure (3.16) Global ETD Form**

**19**

**3.2 Implementation**

When you user our system, you need to have one browser with internet access on smart phone or computer.

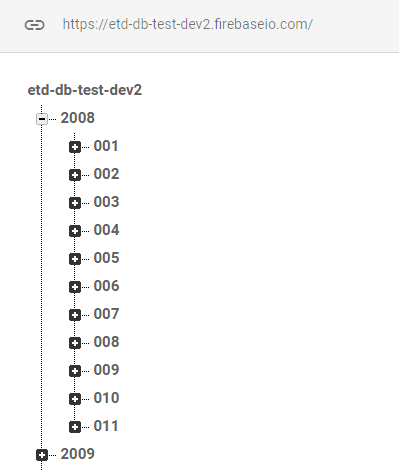
**3.2.1 Database Implementation**

**Firebase RealTime Database**

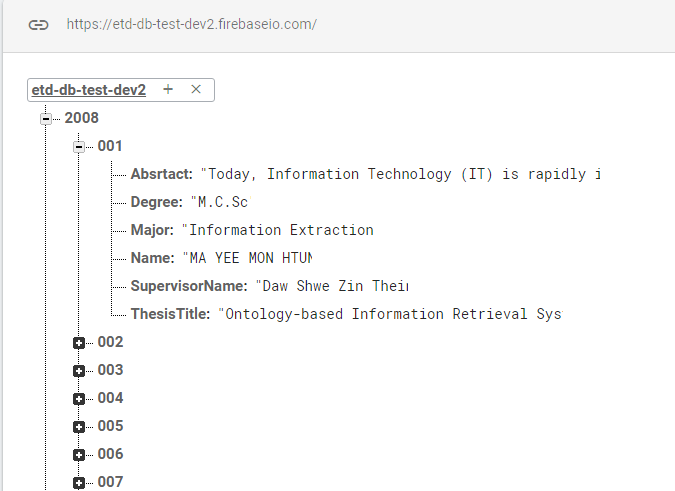
****

**Figure (3.17) Data Of Project**

**20**

****

**Figure (3.18) Data Of Each Year Under Project**

****

**Figure (3.19) Data Of Each Id Under Year**

**21**

**3.3 Testing**

This is our project milestone. We take 4 days for testing to ensure safety system.

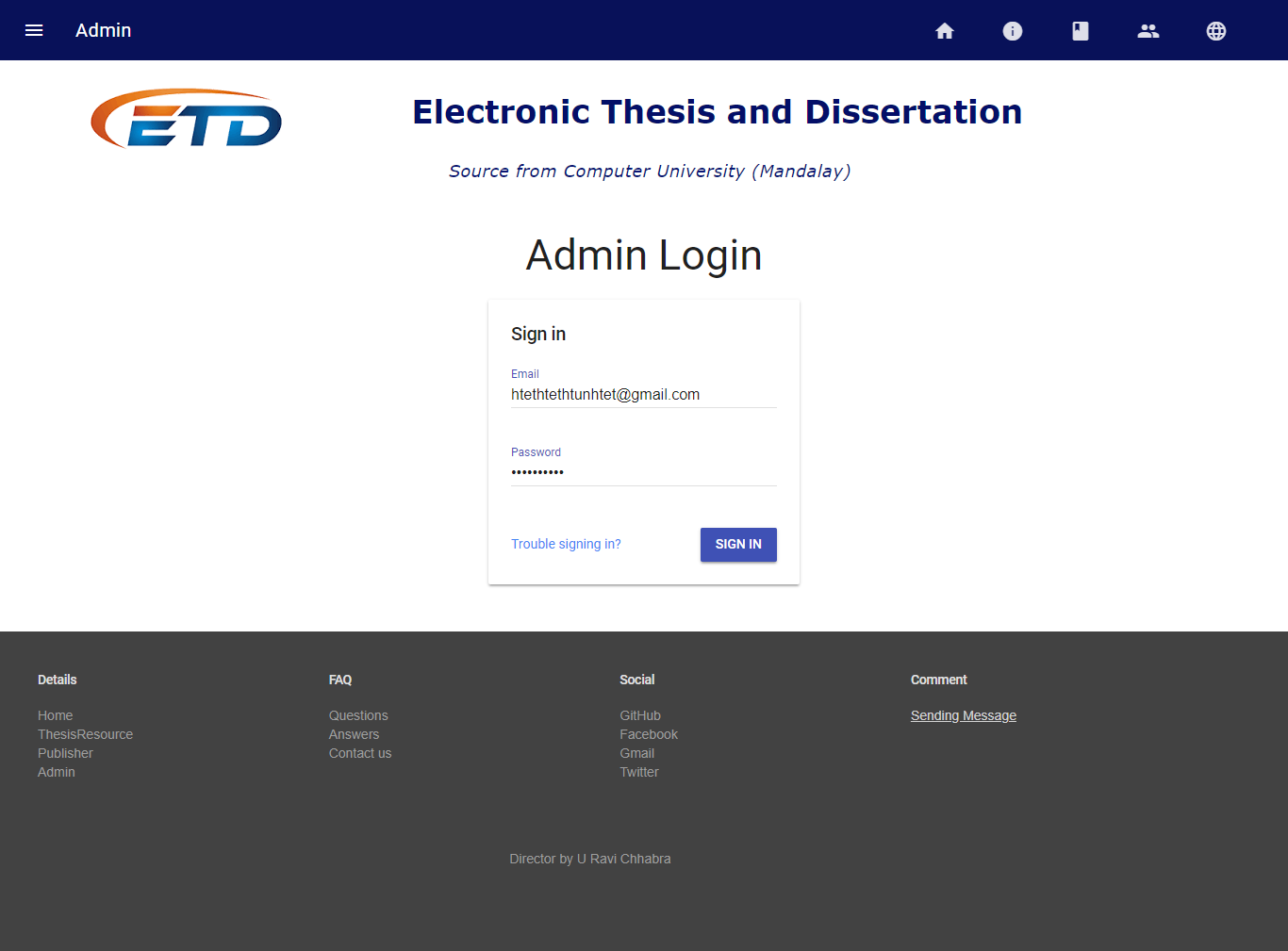
This is how we use 4 days for testing efficiently.

|  |  |  |
| --- | --- | --- |
| **No** | **Activity** | **Day** |
| 1 | Review System Design | 1 |
| 2 | Fix Data Testing | 2 |
| 3 | Review Requirements Specification | 1 |
|  | Total Days | 4 |

**Figure (3.20) Testing**

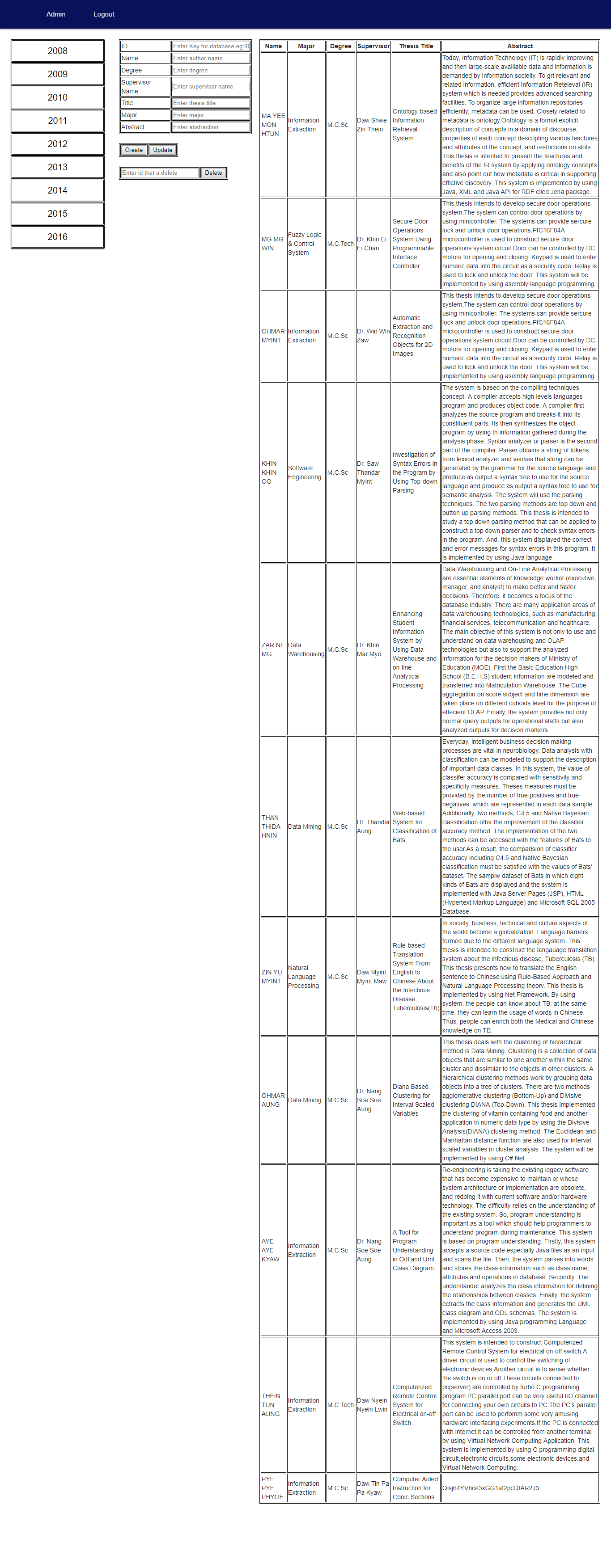
**22**

**3.3.1 Integration Testing**

****

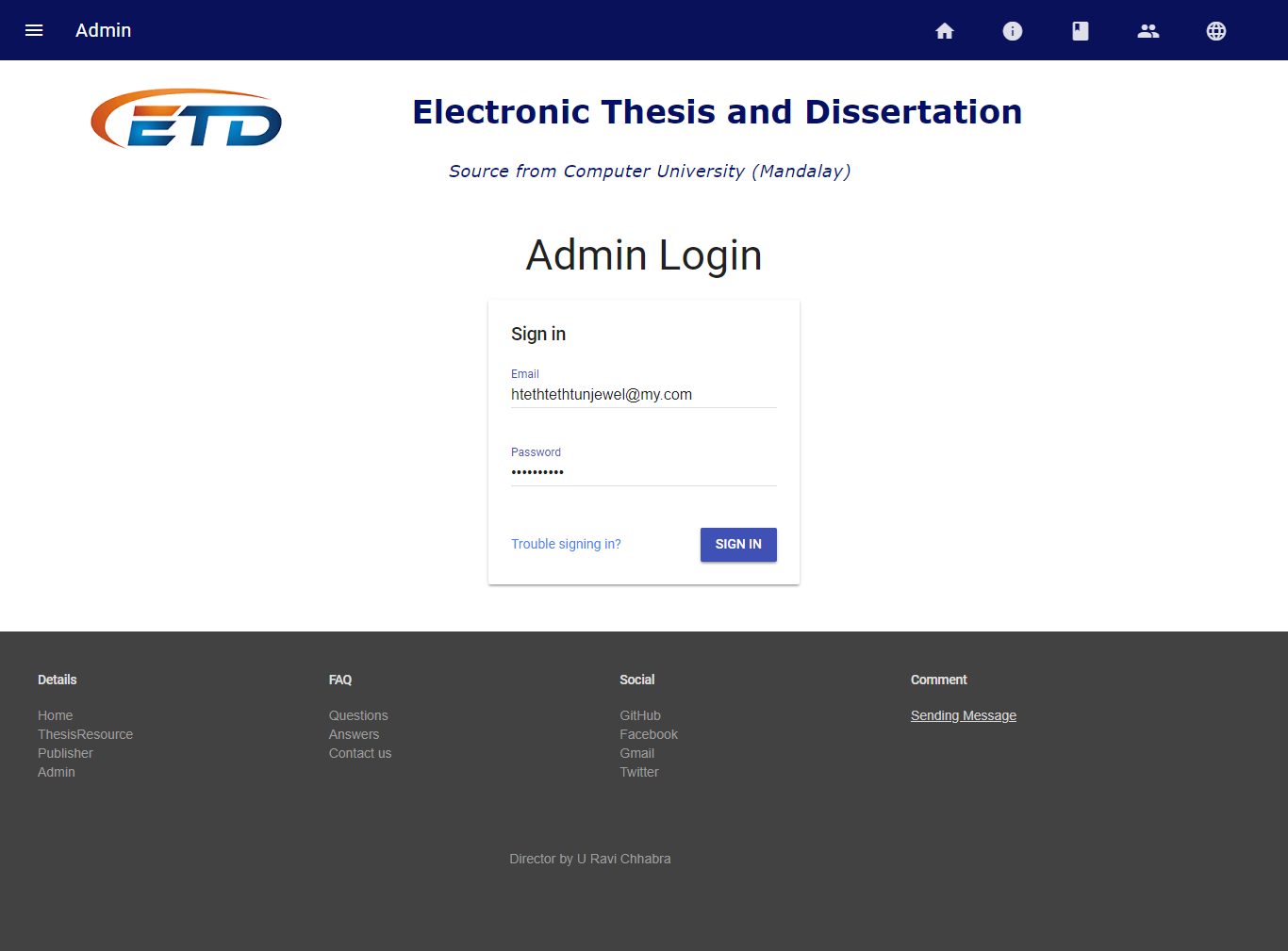
**Figure (3.21) Allow Login And Check Permission**

**23**

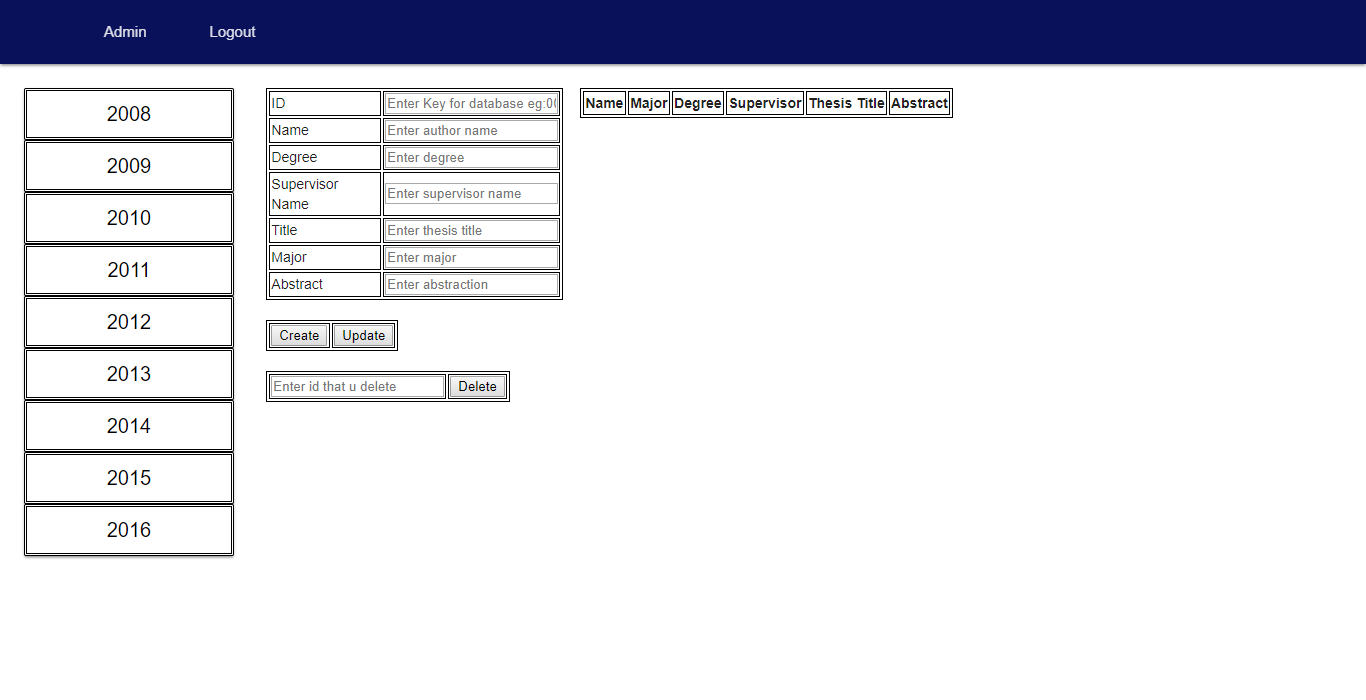
****

**Figure (3.22) Permit Authorization Person**

**24**

****

**Figure (3.23) Allow Login And Check Permission**

**Figure (3.24) Permission Deny When Not Given Authorization**

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**CHAPTER 4**

**EVALUATION AND CONCLUSION**

**4.1 Conclusion**

This system provides users to search easily CU (Mdy) theses from 2008-2016 with abstract. Our project has a weakness. It doesn’t show full data of all thesis because our data are collected from CU (Mdy) library and there is no soft copy of theses.

But we make our ETD system to find global theses and dissertations for more reference. Users can search 5,111,718 electronic theses and dissertations at Global ETD site where can find any fields that you want.

At admin panel, admin can create, retrieve, update and delete data from firebase database. And also do permissions for login users.

For our project future plan, we aim to do more useful site for our university. We want to make from ETD mini project to CU (Mdy) e-Library.

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**4.2** **Advantages of the Project**

The proposed system offers the following advantages:

* It provides “faster and better” services to users.
* This is helpful in assessing what’s in progress, what has written, the writing style, how it was structured, research methods, and which reference were used.
* User can satisfy because they can search not only thesis title but also by year.
* Assisting postgraduate students to write.
* Provide facility for proper monitoring, reduces paper work and provide data security.

**4.3** **Disadvantages**

* The cost of computer hardware and software programs can be expensive.
* As mobile tablets use wireless network, they can disconnect with network if Wi Fi fails

**4.4 Further Extensions**

This application has incompleteness from various view-points. Because our university doesn’t have soft copy. So, we give you abstract of thesis of our university. Various functionalities can be embedded within the project.

**27**

**Reference**

* https://www.codecademy.com/learn/learn-the-command-line
* https://www.codecademy.com/learn/learn-git
* https://github.com/
* https://github.com/mayeedwin/profile
* https://vim-adventures.com/
* https://try.github.io/levels/1/challenges/1
* <https://my.wikipedia.org>/
* https://about.gitlab.com/
* http://ask.tiide.org/
* https://firebase.google.com/
* <http://ask.tiide.org/>
* https://materializecss.com/
* https://gitlab.com/
* http://learn.freecodecamp.org/
* http://search.ndltd.org/
* https://otago.libguides.com/thesisinformation
* https://firebase.google.com/docs
* https://getmdl.io
* https://www.csvjson.com/
* https://www.onlineocr.net/
* https://www.w3schools.com/

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