

**University of San Jose-Recoletos**

**College of Information, Communication and Computer Technology**

**Information Technology Department**

# **SKEMO: The Subject Schedule Recommender**

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## ACKNOWLEDGEMENT

Making this project successful and into real is never easy. We need to pass several challenges to be victorious in our goal. First we would like to thank our ever-loving God for blessing and guiding us in making this project. This would never be possible without Him. The success of this project would not also be possible without the help of people who are very precious to us. Namely,

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- Our parents who never get tired of extending there support and encouragement to us; for the financial and emotional support
- Our adviser, Mr. Gene Abello for his constant support; for helping us in our database design and come up with a good process in our system
- Our Project Coordinator, Mrs. Jovelyn Cuizon, for making us realize the importance of time and project management
- And lastly, to everyone, our friends, relatives, classmates and special someone who encourages us in doing more.

## A. **SSYSTEM SOFTWARE REQUIREMENT**

### I. **Project Definition and Organization**

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#### 1.1 **Project Overview and Objectives**

The project intends to recommend class schedule base on student's convenience. The students are to set there preferences that will be the bases for the plotting of schedules. The system also includes some features that will help the student such as browsing of subject offerings and viewing of student's profile (includes there personal data, subjects they have enrolled and not yet enrolled and the preferences they had set).

#### 1.2 **Critical Success Factors**

To make this project realistic, the developers should also have resources/data that is realistic. In getting of this said credible resources, the developers need to ask permission from different persons to be able to have a copy of the data.

The availability and quality of resources is one of the major factors that will affect the outcome of the system. If all involved in this project are all enthusiastic in having an output that is no less than the best and if time constraints manageable then the project will be successful.

#### 1.3 **Vision Statement**

To come up with a subject schedule recommender that is ideal and is easy to use.

## **II. Software Requirements and Specification**

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### **2.1 Functional Requirements**

The functional requirements for the Subject Schedule Recommender system will be in this order: first will be for the system user and next, for the middleware programs.

1. **Students** - can have full access to all system features. They are the only user of the system.

#### 1.1 Sign in

- 1.1.1 Students will be able to sign in using there student id number.

#### 1.2 mySkemo

- 1.2.1 Students can set there preferences. This includes start time, end time, campus location and vacant hours for MWF and TTH classes. If they do not set there preferences, default will be used.

- 1.2.2 Students will save the preferences they set.

#### 1.3 Skemo Browse

- 1.3.1 Students can search subject offerings by choosing the department they want, by typing the subject number, or both.

##### 1.3.1.1 The departments are:

- CAS
- CICCT
- COE
- COMMERCE
- CRE

- ENGINEERING
- GUIDANCE

#### 1.4 View Profile

1.4.1 Students are provided with their personal profile (name, course and year).

1.4.2 Students can view the subjects they have taken and not yet taken.

1.4.3 Students can view there saved schedule preferences.

#### 1.5 Skemo Now

1.5.1 Students will choose subjects they want to enroll. (The subjects that will be displayed are the subjects that the students are allowed to take and are currently offered.)

1.5.3 After choosing the subjects they want to enroll, the system will provide the generated class schedule.

#### 1.6 Result

1.6.1 Students can save the plotted schedule.

1.6.2 Students can print the plotted schedule.

2. **Skemo Utility** – copies data from excel file to MySQL database that will be use by the Skemo system. This serves as a middleware between excel data and MySQL database.

2.1 Skemo utility fetches data from excel files that will be used.

2.2 Skemo utility fetches necessary data and dumps it into MySQL database.

2.3 After fetching all necessary excel files, Skemo utility sleeps for one hour.

2.4 After sleeping for one hour, Skemo utility repeats the same process.

2.5 Skemo utility can be seen/access in the System Tray and runs on background.

3. **Prospectus Updater** – adds new excel prospectus data from excel file to prospectus table in MySQL database.

3.1 Prospectus updater prompts the user to choose an excel file to be used.

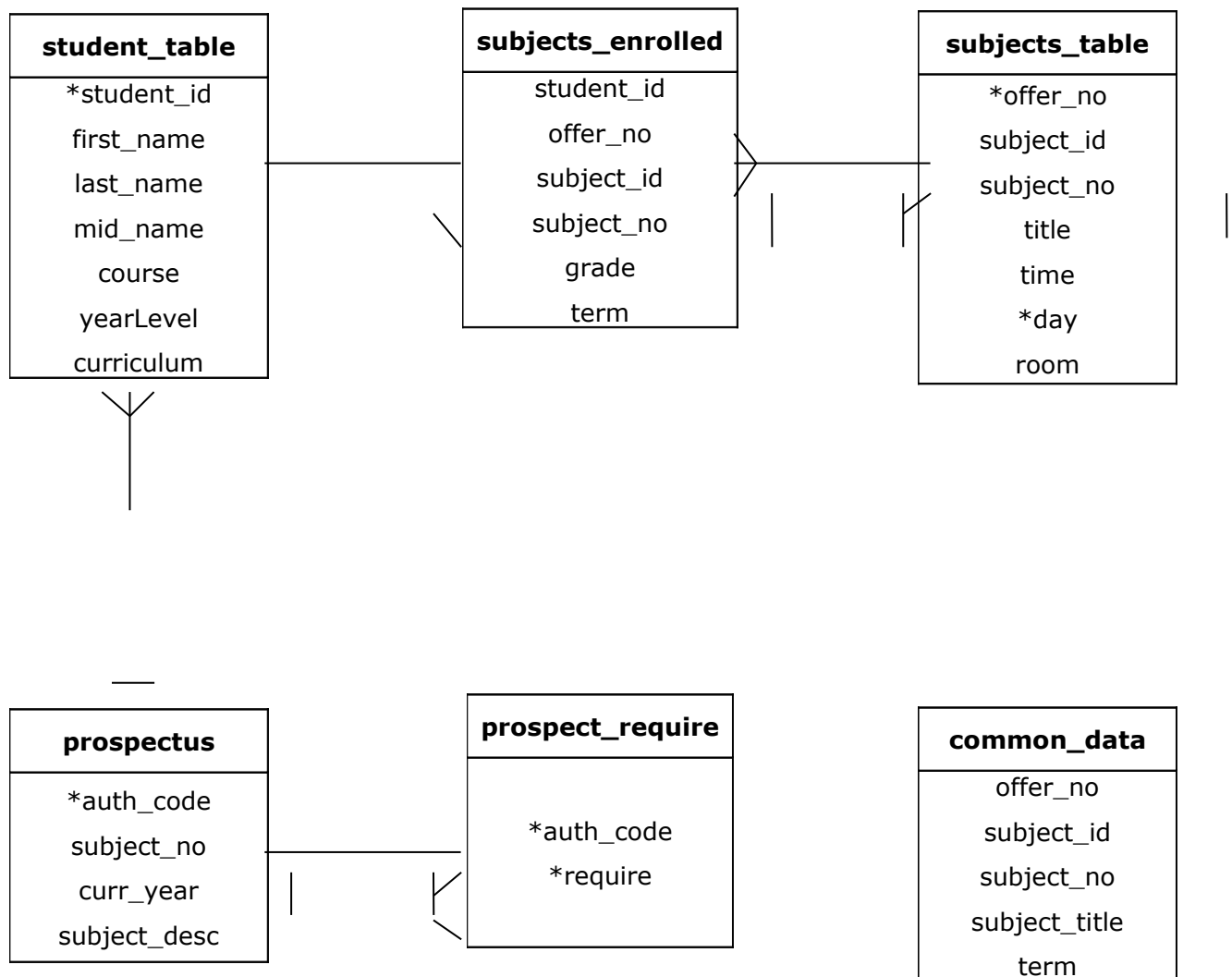
3.2 Prospectus updater fetches the data from the excel file then dumps into prospectus table in MySQL database.

## 2.2 **User Interface Design**

Please refer to user's manual.



## 2.3 Database Design



### **SUBJECTS\_TABLE**

- This table stores all subjects which are available for scheduling.

### **SUBJECTS\_ENROLLED**

- This table contains the subjects and its grade of a certain students.

### **STUDENT\_TABLE**

- This table contains the information of a student.

### **PROSPECTUS**

- This table stores subjects under a specific curriculum type.

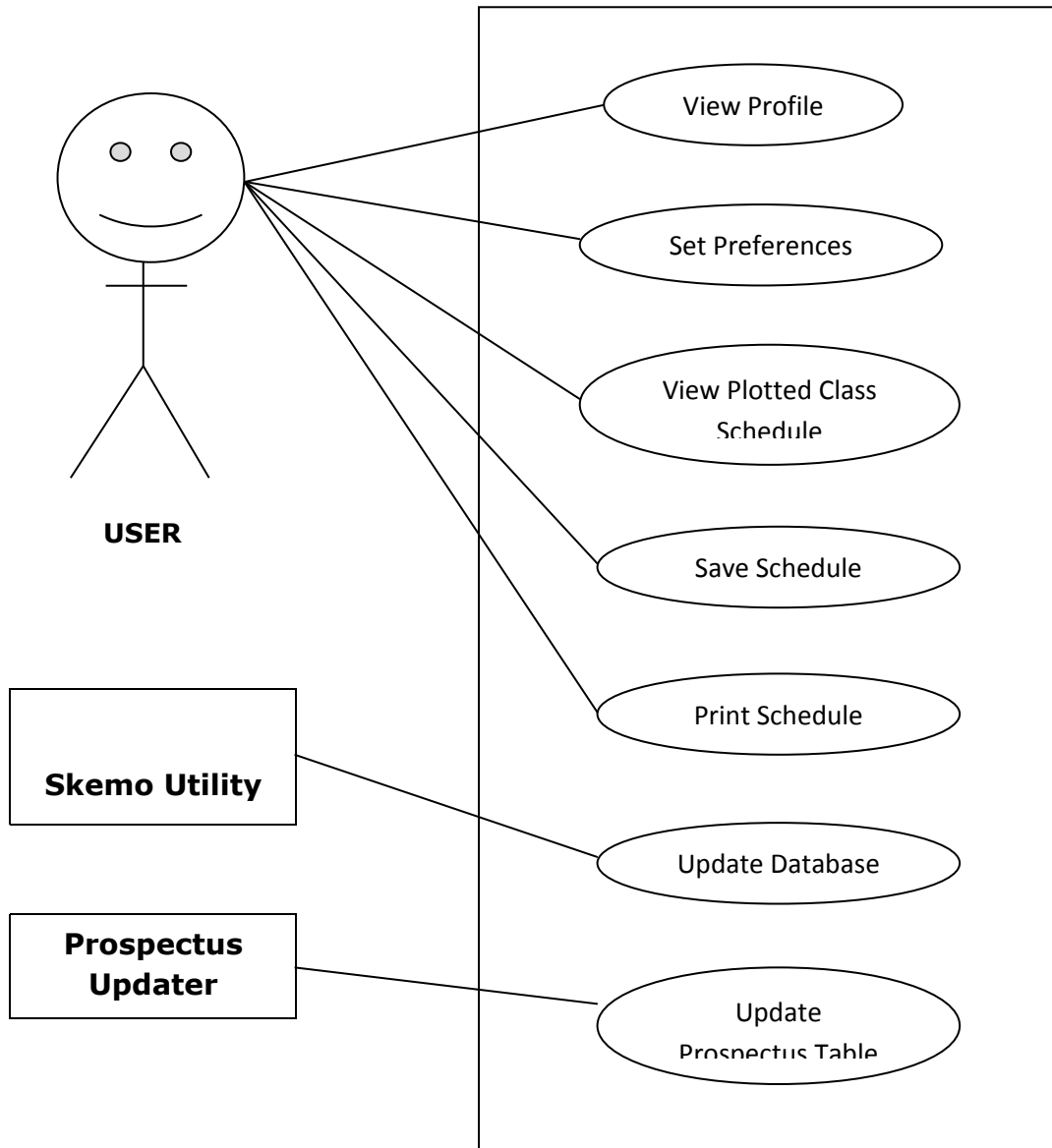
### **PROSPECT\_REQUIRE**

- This table contains the pre-requisite/s of a subject.

### **COMMON\_DATA**

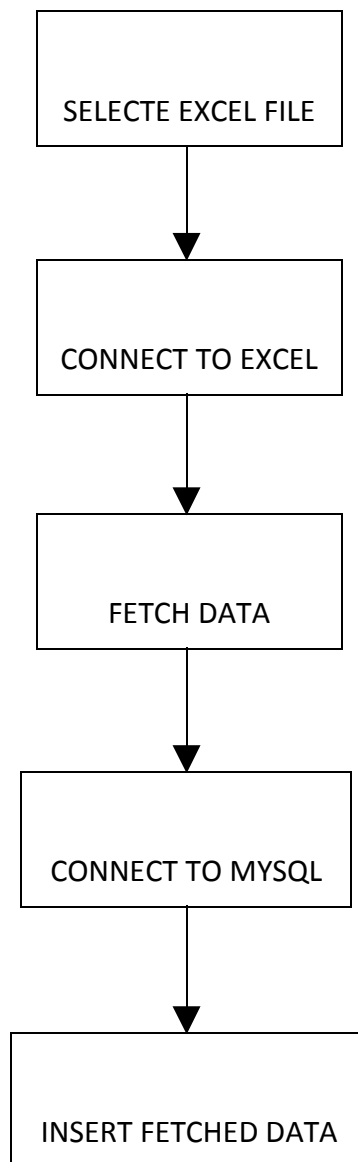
- This table serves as a reference to all subjects.

## **2.4 Use Case Diagram**

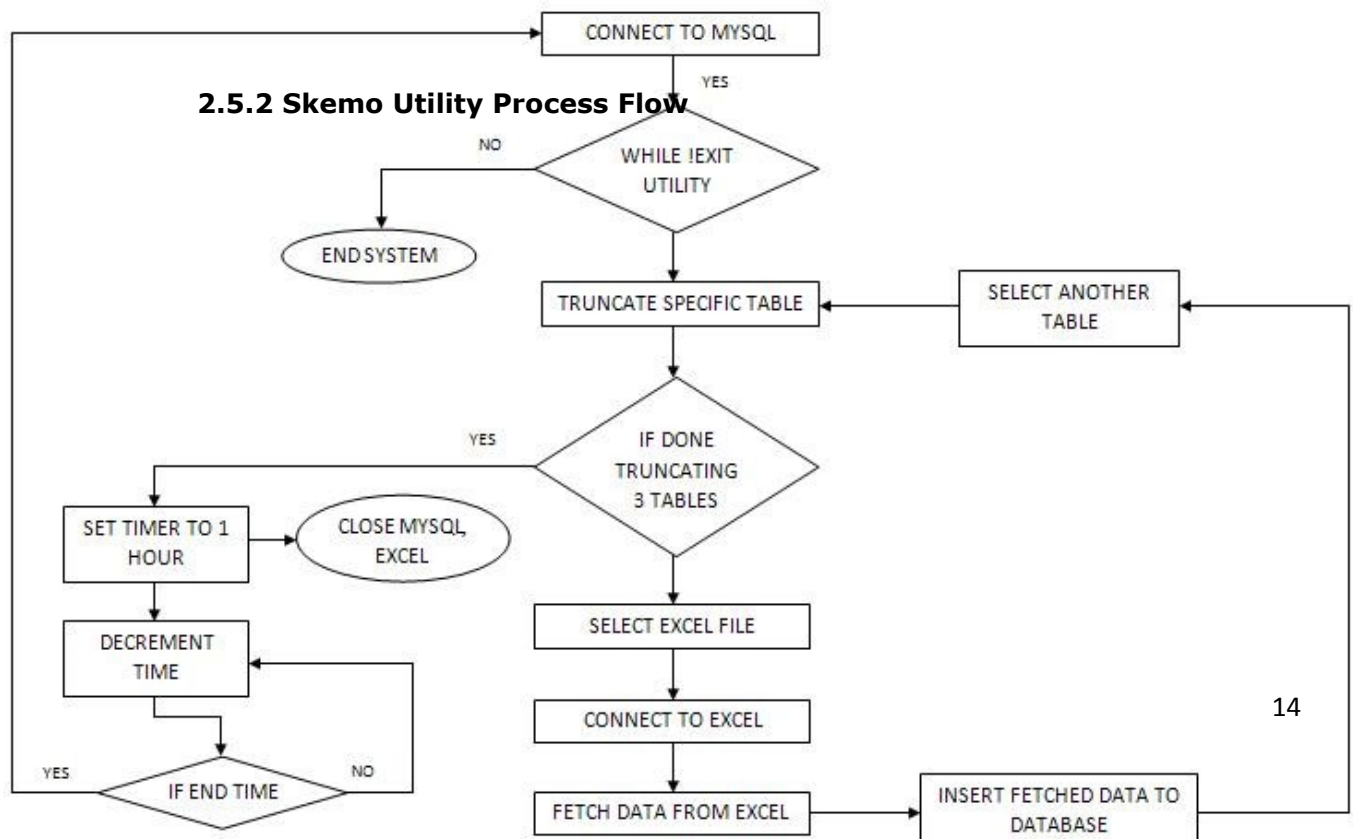


## II.5 Process Flow

### 2.5.1 Prospectus Updater

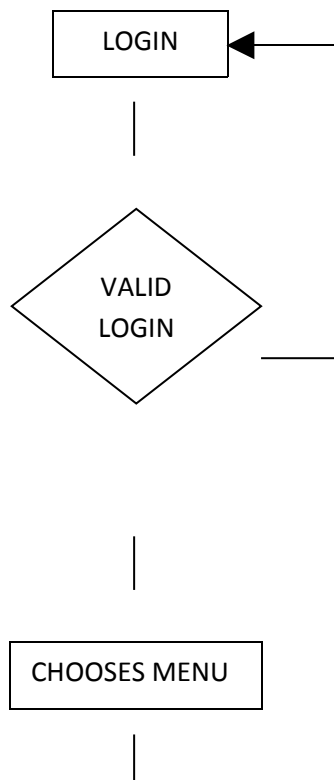


### 2.5.2 Skemo Utility Process Flow



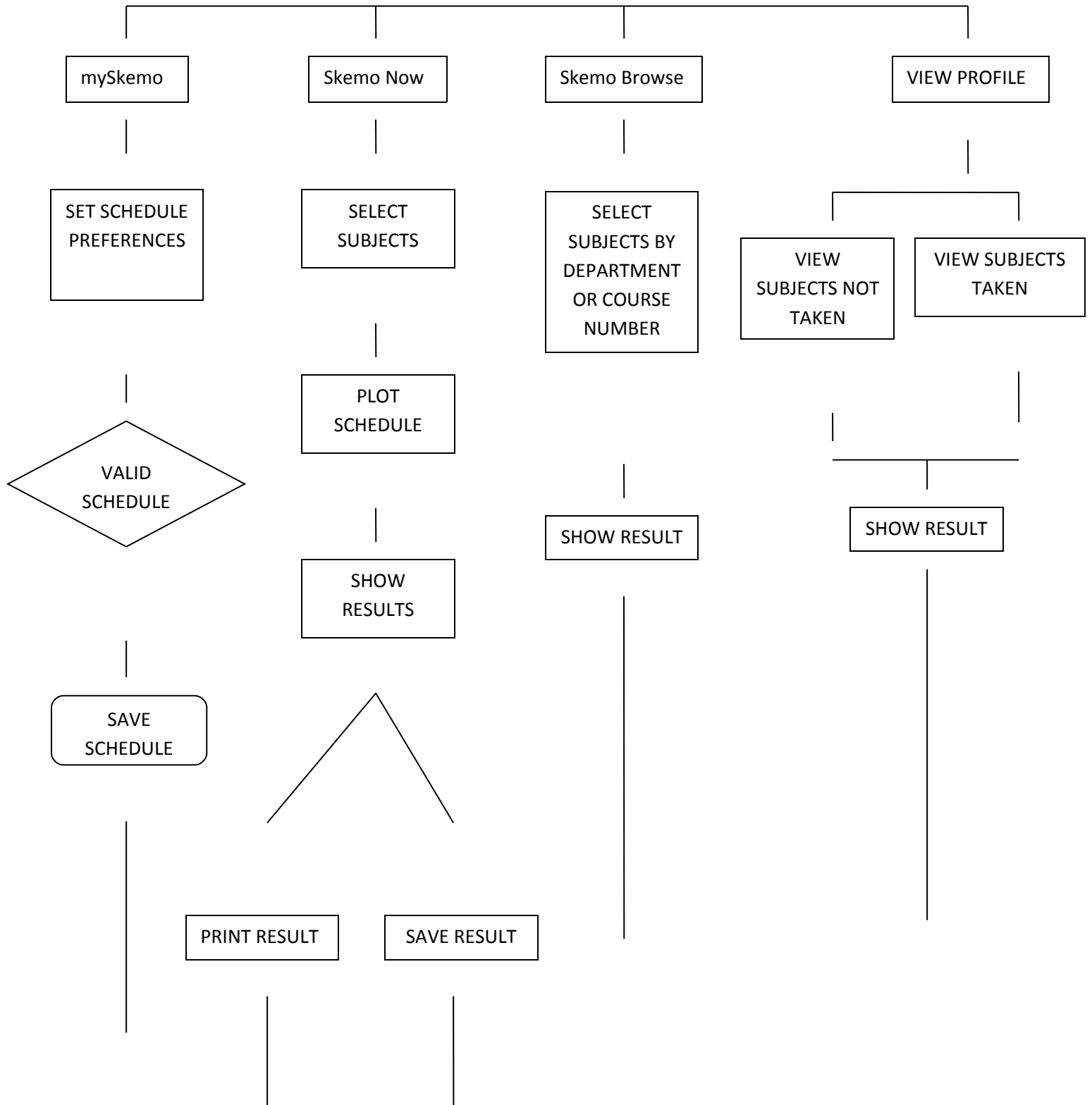


### 2.5.3 Subject Schedule Recommender System Process Flow





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## II.6 **Assumption and Software Limitation**

Skemo: The Subject Schedule Recommender will support plotting of class schedules during regular semesters. The only requirement that the system has is you should be a student of University of San Jose-Recoletos particularly in the College of Information, Computer and Communication Technology (includes the courses Bachelor of Science in Information Technology and Bachelor of Science in Computer Science). The system will not accept student ID of students enrolled in 2008.

### **III. Implementation**

---

#### **3.1 Development Platform and Software Tools**

##### **3.1.1 Software Platforms, Development Environment and Tools**

The computing platform of choice is the Windows XP Operating System. For the web interface and scripting, the group chooses PHP scripting language since the group has a thorough knowledge of the said language. For the graphics design, Adobe Photoshop is used. The group also implemented Ajax for some front end behavior. It is insisted that the system should display consistently across Mozilla Firefox 3.0 browser. For the database, the group used VB 6 for fetching and updating data from excel file to MySQL.

##### **3.1.2 Hardware Platforms**

To run the system, it needs a computer set with a minimum of 2.0 Ghz processor and a 512 MB Ram.

## IV. TESTING AND VALIDATION

---

### 4.1 SIGN IN

Using a wrong or non-existing Student ID number in signing in, the system will generate an error message.

Student ID not found! Please check...



The screenshot shows a web form titled "Student ID" with a text input field containing "20043528" and a "Sign In" button. Above the form, a red error message reads "Student ID not found! Please check...". The form has an orange border.

Students enrolled starting 2008 and up will not be accommodated by the system.

SORRY! Students enrolled starting 2008 and up cannot use this system.=)



The screenshot shows a web form titled "Student ID" with a text input field containing "2008006136" and a "Sign In" button. Above the form, a red error message reads "SORRY! Students enrolled starting 2008 and up cannot use this system.=)". The form has an orange border.

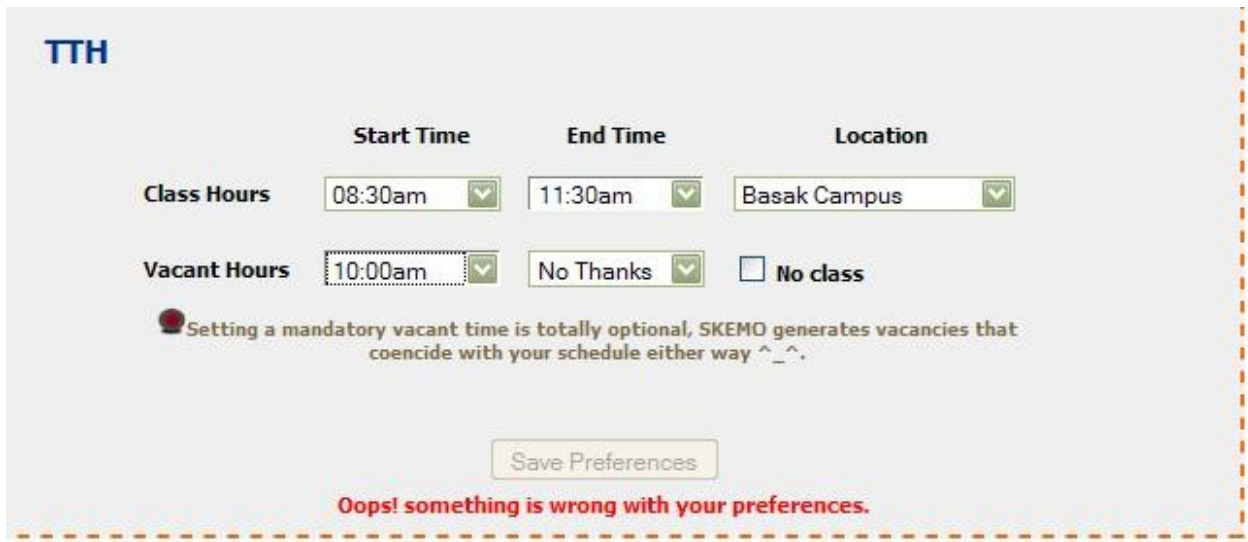
Upon entering a qualifying student ID, you will be directed to mySkemo page.



The screenshot shows a web form titled "Student ID" with a text input field containing "2005005303" and a "Sign In" button. The form has an orange border.

## 4.2 mySkemo

If start time for vacant hours is set and there is no equivalent end time, an error message will be generated and the preferences set will not be saved. The Save Preferences button will be disabled.



The screenshot shows a web form titled "TTH" with three columns: "Start Time", "End Time", and "Location".

	Start Time	End Time	Location
<b>Class Hours</b>	08:30am	11:30am	Basak Campus
<b>Vacant Hours</b>	10:00am	No Thanks	<input type="checkbox"/> No class

Setting a mandatory vacant time is totally optional, SKEMO generates vacancies that coincide with your schedule either way ^\_^.

Save Preferences

**Oops! something is wrong with your preferences.**

When the check box button for No Class is clicked, textboxes for those particular days will be disabled.

The screenshot shows a preference form for two days: MWF (Monday, Wednesday, Friday) and TTH (Tuesday, Thursday). Each day has a section for 'Class Hours' and 'Vacant Hours'. For MWF, the class hours are set from 09:00am to 12:00pm at the Main Campus, and the vacant hours are set to 'No Thanks' with a checked 'No class' option. For TTH, the class hours are set from 08:30am to 11:30am at the Basak Campus, and the vacant hours are set to 'No Thanks' with an unchecked 'No class' option.

Day	Section	Start Time	End Time	Location	Other Options
MWF	Class Hours	09:00am	12:00pm	Main Campus	
	Vacant Hours	No Thanks	No Thanks		<input checked="" type="checkbox"/> No class
TTH	Class Hours	08:30am	11:30am	Basak Campus	
	Vacant Hours	No Thanks	No Thanks		<input type="checkbox"/> No class

If vacant time is not properly set, there will be an error. (e.g. vacant time is beyond class hours)

This screenshot shows the TTH preference form with an error. The class hours are 08:30am to 11:30am at Basak Campus. The vacant hours are set from 11:30am to 07:00am, which is an invalid range. A red error message at the bottom states: 'Oops! something is wrong with your preferences.' A 'Save Preferences' button is visible above the message.

Day	Section	Start Time	End Time	Location	Other Options
TTH	Class Hours	08:30am	11:30am	Basak Campus	
	Vacant Hours	11:30am	07:00am		<input type="checkbox"/> No class

Save Preferences

Oops! something is wrong with your preferences.

Once the preferences are already set and there were no errors, the preferences can now be saved. If the student will not edit his/her own preferences, a default preferences will be use.

**Skemo™ Settings**  
Set-up your **preferences** for later use

**MWF**

Start Time

End Time

Location

Class Hours

Vacant Hours

09:00am

12:00pm

Basak Campus  
Basak Campus  
Main Campus  
Basak/Main Campus

No Thanks

No Thanks

**TTH**

Start Time

End Time

Location

Class Hours

Vacant Hours

08:30am

10:00am

Basak Campus

No Thanks

No Thanks

☐ No class

Save Preferences

The system will generate a message once the preferences have been successfully saved.

**Skemo™ Settings**  
Set-up your **preferences** for later use

Your preferences has successfully been set and saved. Time to **plot**

### 4.3 Skemo Now

Choose subjects you want to enroll. Finalize it then click Plot Schedule to view your plotted schedule.

**LIST OF AVAILABLE SUBJECTS**  
Please check the subjects you want to enroll.

☒ OM A
☒ SOCIO 1
☐ IT 313
☒ IT 321

☐ IT 411
☒ IT 412
☒ IT 421
☐ PHYS 2

☐ Allow unit overload.
Units: 15

If you had checked subjects beyond your allowable units, the Units in the lower right portion of the available subjects will change its color to orange that denotes you had checked subjects beyond the limit.

<input checked="" type="checkbox"/> KB A	<input checked="" type="checkbox"/> IT 121	<input checked="" type="checkbox"/> IT 122	<input type="checkbox"/> PE 3
<input type="checkbox"/> OM A	<input checked="" type="checkbox"/> ACCTG A	<input checked="" type="checkbox"/> FILIPINO 1	<input type="checkbox"/> PHYS 1
<input checked="" type="checkbox"/> ECON 1	<input type="checkbox"/> POLSC 1	<input checked="" type="checkbox"/> RIZAL	<input type="checkbox"/> SOCIO 1
<input checked="" type="checkbox"/> ENT 1	<input checked="" type="checkbox"/> MGT 1		

Units: 27

#### 4.4 RESULT

The system will list down the subjects plotted and the subjects that were not plotted.



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Offer No	Time	Subject No	Subject Description	Days	Room
NONE	OPEN	IT 412	IT Seminar	SAT	FLD2
6090	11:00am-13:00am	PHYS 2	College Physics 2 (lec/lab)	W	B506
11099	09:00am-10:00am	IT 313	Visual Tools Programming	MWF	BCL6
11074	01:00pm-02:00pm	IT 411	Presentation Skills	MWF	BCL8
11100	10:00am-11:30am	IT 321	Database Systems II	TTH	BCL5
11138	01:00pm-02:30pm	IT 421	Systems Resource Management	TTH	B201

Save Schedule

Print Schedule

**SKEMO was able to plot the following 6 subjects:**

IT 412  
PHYS 2  
IT 313  
IT 411  
IT 321  
IT 421

**SKEMO was not able to plot the following 2 subjects:**

OM A  
SOCIO 1

**Why were these subject(s) not plotted?**

### 4.5 Skemo Browse

If the user will click the search button without entering any text, the system will generate a no result message so with entering a course number that is not offered.

Search by Department
-Departments-

Search Course No


Submit

---

### SUBJECT OFFERINGS

Sorry. No Result(s) Found.

Searching by department will display all subject offerings of a particular department.


Subject Schedule Recommender

Search by Department
-Departments-

Search Course No

Submit

-Departments-  
CAS  
CICCT  
COE  
COMMERCE  
CRE  
ENGINEERING  
GUIDANCE


---

### SUBJECT OFFERINGS

College of Information, Computer and Communications Technology

Offer No	Course No	Time	Day	Room
11167	CMPE 111	02:30pm-04:00pm	TTh	BCL2
11168	CMPE 111	08:30am-10:00am	TTh	CL7
11168	CMPE 111	09:00am-10:00am	MWF	CL7
11119	CMPE 210	10:00am-11:30am	TTh	BCL2
11119	CMPE 210	09:00am-10:00am	MWF	BCL2
11047	CMPE 220	11:30am-13:00am	TTh	B509
11120	CMPE 311	03:00pm-04:00pm	MWF	B507
11121	CMPE 313	11:00am-14:00am	F	BCL2

If users will enter course number that is not specific, there will be many possible course number results that will be displayed.


Schedule Recommender

Search by Department
-Departments-

Search Course No

Submit


-Departments-  
CAS  
CICCT  
COE  
COMMERCE  
CRE  
ENGINEERING  
GUIDANCE

---

### SUBJECT OFFERINGS

Offer No	Course No	Time	Day	Room
11167	CMPE 111	02:30pm-04:00pm	TTh	BCL2
11168	CMPE 111	08:30am-10:00am	TTh	CL7
11168	CMPE 111	09:00am-10:00am	MWF	CL7
11119	CMPE 210	10:00am-11:30am	TTh	BCL2
11119	CMPE 210	09:00am-10:00am	MWF	BCL2
11047	CMPE 220	11:30am-13:00am	TTh	B509
11120	CMPE 311	03:00pm-04:00pm	MWF	B507

Searching by course number, will just display the subjects with that particular course number.

  
chedule Recommender


Search by Department

Search Course No

### SUBJECT OFFERINGS

Offer No	Course No	Time	Day	Room
11138	IT 421	01:00pm-02:30pm	TTh	B201
11181	IT 421	05:30pm-06:30pm	MWF	424

Searching both (by department and by course number), will display a filtered subjects.

  
chedule Recommender

Search by Department

Search Course No

### SUBJECT OFFERINGS

College of Information, Computer and Communications Technology

Offer No	Course No	Time	Day	Room
11138	IT 421	01:00pm-02:30pm	TTh	B201
11181	IT 421	05:30pm-06:30pm	MWF	424

#### 4.6 View Profile

By clicking the button for taken, the subjects that has been taken by a particular student will be displayed.

### Your Profile

MWF	TTH
<b>Start Time:</b> 09:00am	<b>Start Time:</b> 08:30am
<b>End Time:</b> 05:00pm	<b>End Time:</b> 05:30pm
<b>Vacant Start Time:</b> NA	<b>Vacant Start Time:</b> NA
<b>Vacant End Time:</b> NA	<b>Vacant End Time:</b> NA
<b>Campus Location:</b> Basak / Main Campus	<b>Campus Location:</b> Basak / Main Campus

[Edit my preferences](#)

NAME **PACALDO, ERRA MARJORIE ALIVIO**  
 COURSE **BSIT**  
 YEAR **4**

View Subject(s): ☒ Taken ☐ Not Taken

#### SUBJECTS ENROLLED

COURSE NUMBER	COURSE DESCRIPTION
ACCTG A	Fundamentals of Accounting
IT 111	Computer Programming I
CS 19D	Internet/Web Publishing
CS 19F (PHP)	Dynamic Web Applications using PHP
CS 311	Database Systems I

So with not taken...

NAME **PACALDO, ERRA MARJORIE ALIVIO**  
 COURSE **BSIT**  
 YEAR **4**

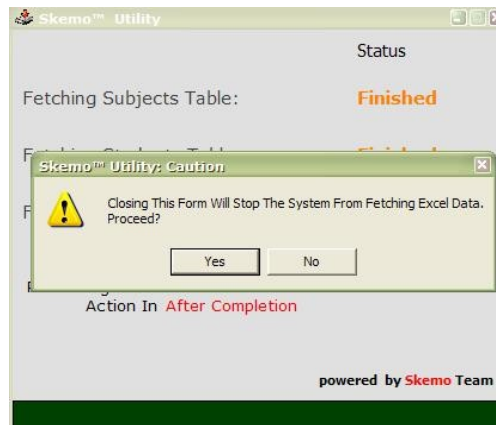
View Subject(s): ☐ Taken ☒ Not Taken

#### SUBJECTS NOT YET ENROLLED

COURSE NUMBER	COURSE DESCRIPTION
ACCTG B	Partnership Accounting
IT 313	Visual Tools Programming
IT 321	Database Systems II
IT 411	Presentation Skills
IT 412	IT Seminar
IT 421	Systems Resource Management

## 4.7 Skemo Utility

Attempting to close the utility will generate this warning,



If you click NO, the utility program will continue running otherwise if you click YES, the system will prompt you to provide a password. This is for security reason.



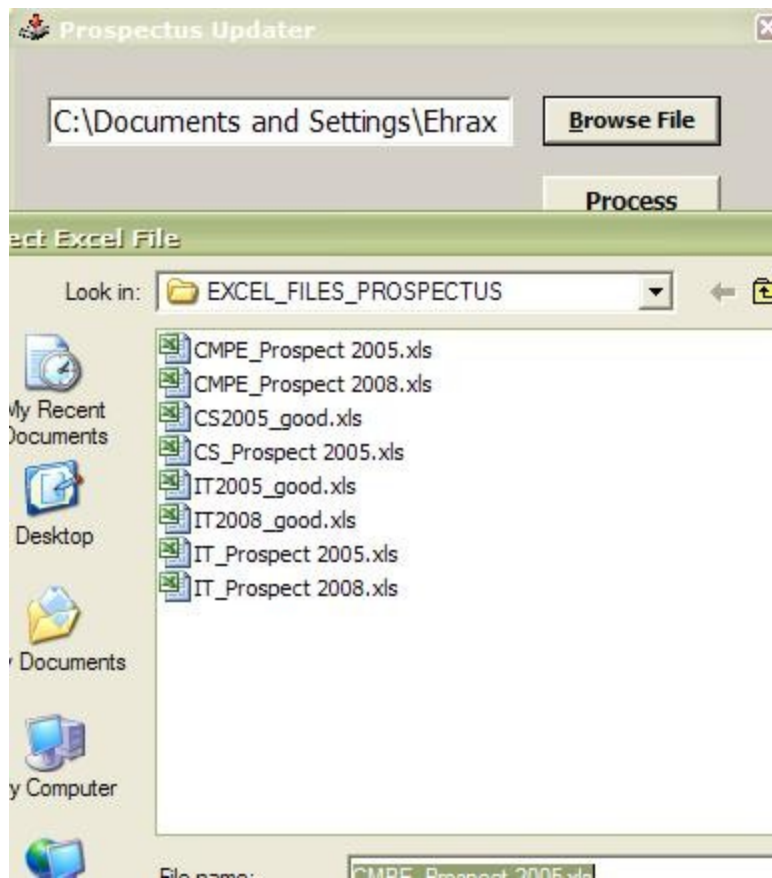
If you provided a valid password, the program will be terminated. If the password is invalid, an error message will be generated.



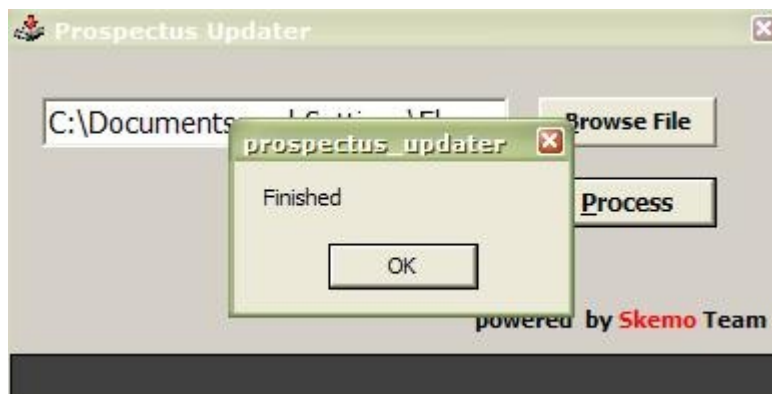
Clicking OK for invalid password will make the utility program continue running.

#### 4.8 Prospectus Updater

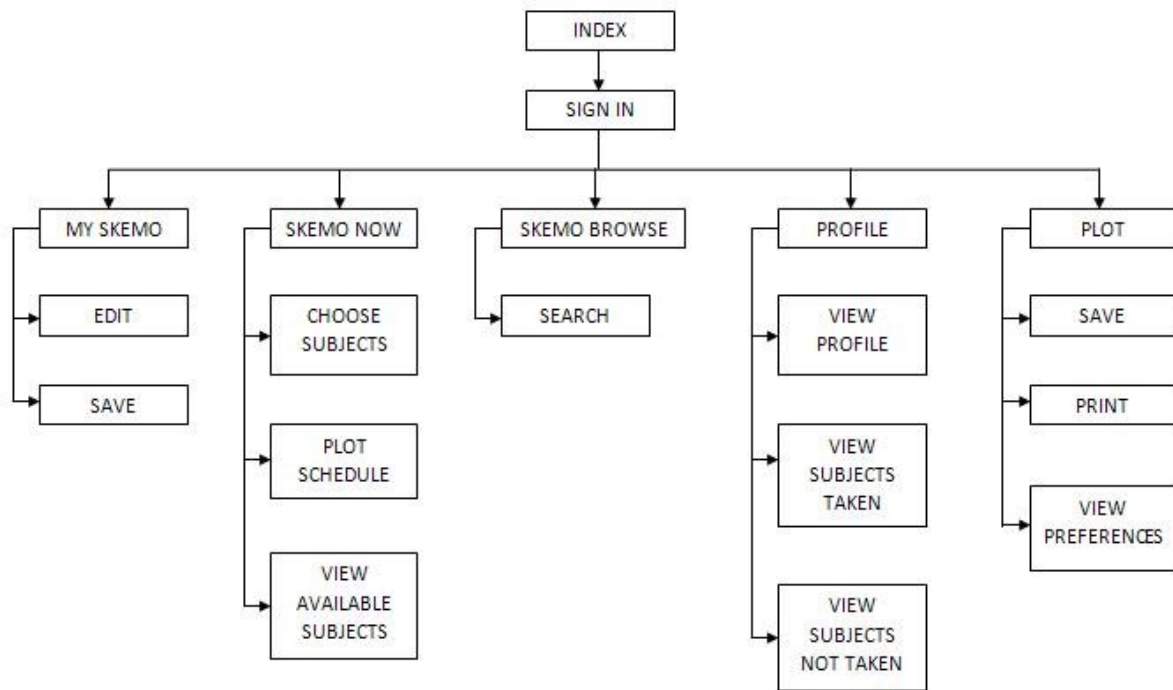
Browse an excel file to be process.



A message will be generated once the system has done processing the excel file.



## **V. ARCHITECTURAL DESIGN**



# SKEMO: THE SUBJECT SCHEDULE RECOMMENDER SYSTEM

## (USER'S MANUAL)

### 6.1 **Introduction**



Skemo: The Subject Schedule Recommender aims to provide the users (students) auto-generated class schedule to help him/her lessen his/her time and effort in plotting schedules manually. The system lets the user set his preferences that will be the bases in plotting. The system also provides some features that will help the students such as browsing of subject offerings and viewing of student's profile (includes there personal data, subjects they have enrolled and not yet enrolled and the preferences they had set). The students will use there Student ID number to be able to have a privilege of the system.

## 6.2 System Requirements

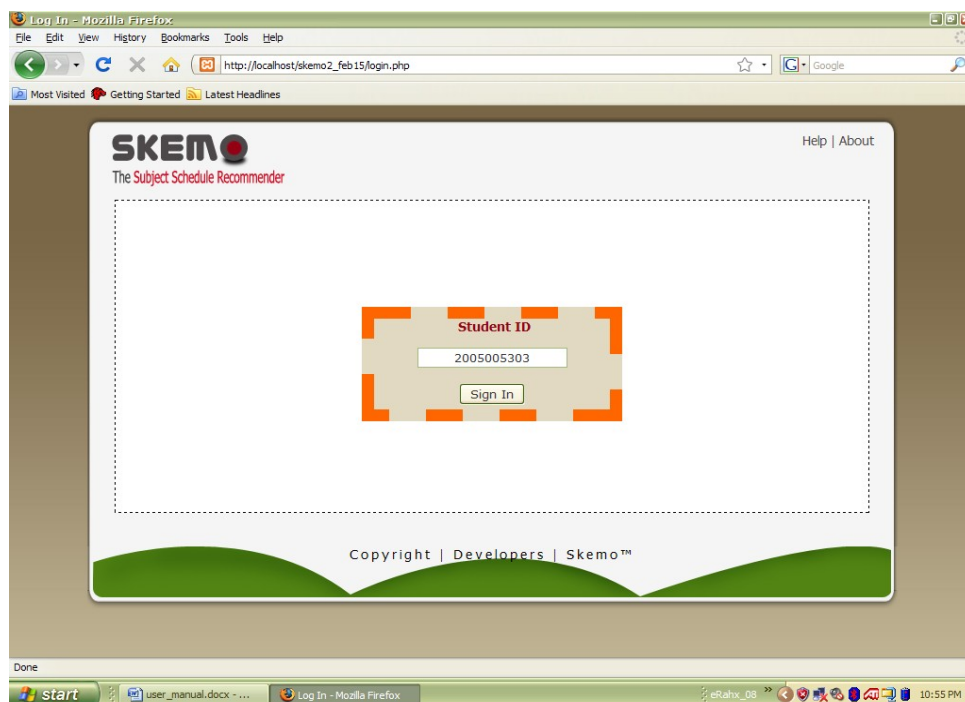
In order for this system to work, you will need the following:

<b>Operating System</b>	Windows XP
<b>DBMS</b>	MySQL
<b>Web Server</b>	Apache with PHP installed
<b>Web Browser</b>	Mozilla Firefox Version 3.xxx

# **USER'S PAGE**

### 6.3.1 SIGN IN

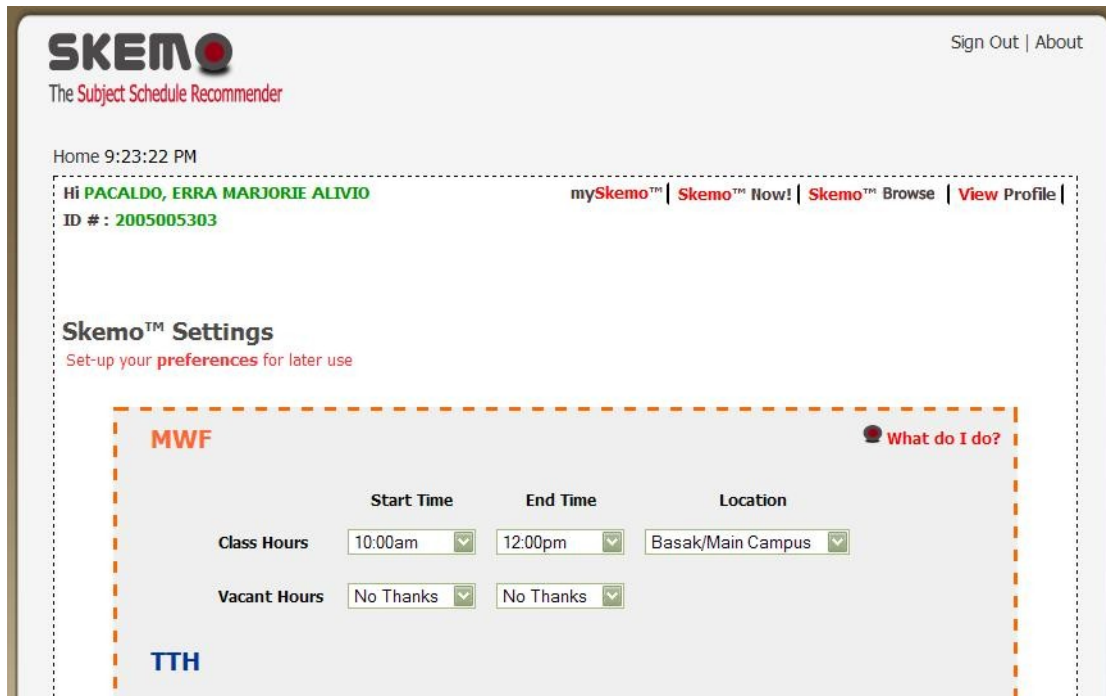
Users should sign-in first to avail privileges of the system.



**STEPS:**

1. Type your Student ID number in the sign in form.
2. Click Sign-In button.

**6.3.2 GETTING STARTED**



- To know about the system, click *About*.
- To edit your preferences, click *mySkemo™*.
- Click *Skemo™ Now* to choose subjects you will enroll and view your plotted schedule.
- Click *Skemo™ Browse* to check subject offerings.
- To view your profile and the subjects you have taken and not yet taken, click *View Profile*.
- To view the system developers, click *Developers*.
- Click *Skemo™* to know the uses of different functionalities.

### 6.3.3 mySkemo™

This is where you can set your preferences. There are different settings for MWF and TTH schedules.

**Skemo™ Settings**  
Set-up your preferences for later use

**MWF**

Start Time

End Time

Location

Class Hours

09:00am

12:00pm

Basak Campus

Vacant Hours

No Thanks

No Thanks

Basak Campus

Basak Campus

Main Campus

Basak/Main Campus

**TTH**

Start Time

End Time

Location

Class Hours

08:30am

10:00am

Basak Campus

Vacant Hours

No Thanks

No Thanks

☐ No class

Save Preferences

For Class Hours

- *Start Time.* Set the time when you would like your class to start.
- *End Time.* Set the time when you would like your class to end.
- *Location.* Choose the campus where you would like to spend your classes.

For Vacant Hours (optional)

- *Start Time.* Choose the time when you would like your vacant period to start.
- *End Time.* Choose the time when you would like your vacant period to end.

Click the check box No Class if you don't like to have classes on those days.

After everything has been set, click Save Preferences to save your preferences for future use.

#### 6.3.4 Skemo™ Now

Displays available subjects a student can take.

### Allowable Subjects To Be Taken

Select subject(s) to be **scheduled**

**LIST OF AVAILABLE SUBJECTS**  
Please check the subjects you want to take.

<input checked="" type="checkbox"/> OM A	<input checked="" type="checkbox"/> SOCIO 1	<input checked="" type="checkbox"/> IT 313	<input checked="" type="checkbox"/> IT 411
<input type="checkbox"/> IT 412	<input checked="" type="checkbox"/> IT 421	<input checked="" type="checkbox"/> PHYS 2	

☐ Allow unit overload.

Units: 18


Plot Schedule

#### STEPS:

- Check the checkbox of the subjects you want to take.
- Check the checkbox 'Allow unit overload' to make subject overload.
- Press Plot Schedule button to view your plotted schedule.

#### 6.3.5 Skemo™ Browse

This is use to search for subject offerings. There are three ways to search: by department, by course number, or both.



The Subject Schedule Recommender

Search by Department CICCT ▼

Search Course No IT 110

Submit

**SUBJECT OFFERINGS**

College of Information, Computer and Communications Technology

Offer No	Course No	Time	Day	Room
11076	IT 110	02:00pm-03:00pm	MWF	CL5
11079	IT 110	08:30am-10:00am	TTh	CL4
11143	IT 110	07:00am-08:30am	TTh	CL5
11153	IT 110	08:00am-09:00am	MWF	CL5
11156	IT 110	01:00pm-02:30pm	TTh	BCL7
11157	IT 110	03:00pm-04:00pm	MWF	BCL7
11158	IT 110	10:00am-11:30am	TTh	BCL1
11159	IT 110	04:00pm-05:30pm	TTh	BCL8
11160	IT 110	02:30pm-04:00pm	TTh	BCL8
11164	IT 110	03:00pm-04:00pm	MWF	BKBL1
11171	IT 110	08:00am-09:00am	MWF	CL7
11179	IT 110	09:00am-10:00am	MWF	BCL1
11200	IT 110	11:00am-12:00am	MWF	CL7

## STEPS:

- Search by department – click the drop down button and choose a department. The departments are: CAS, CICCT, COE, COMMERCE, ENGINEERING, CRE and GUIDANCE. Click submit button.
- Search course number – fill up the textbox with the course number you want to search then click submit button.
- Search by department and by course number – click the drop down button and choose a department. Fill up the textbox with the course number you want to search then click submit button.

### 6.3.6 View Profile

This page displays your profile (name, course and year), schedule preferences and the subjects you have taken and not yet taken.



## Your Profile

**My Schedule Preferences**

**MWF**  
Start Time: 09:00am  
End Time: 05:00pm  
Vacant Start Time: NA  
Vacant End Time: NA  
Campus Location: Basak Campus

**TTH**  
Start Time: 08:30am  
End Time: 04:00pm  
Vacant Start Time: NA  
Vacant End Time: NA  
Campus Location: Basak Campus

[Edit my preferences](#)

[Change my preferences](#)

NAME            **PACALDO, ERRA MARJORIE ALIVIO**  
COURSE        **BSIT**  
YEAR          **4**

View Subject(s): ☐ Taken ☐ Not Taken

## STEPS:

- To view the subjects you have taken, click the radio button for taken and results will be displayed.
- For viewing the subjects not yet taken, click the radio button for not taken and results will be displayed.
- To edit your preferences, click *Edit my preferences*.

## 6.3.7 RESULT

This is the generated class schedule.

Check my preferences

**MWF**

**Start Time:** 09:00am  
**End Time:** 05:00pm  
**Vacant Start Time:** NA  
**Vacant End Time:** NA  
**Campus Location:** Basak Campus

**TTH**

**Start Time:** 08:30am  
**End Time:** 04:00pm  
**Vacant Start Time:** NA  
**Vacant End Time:** NA  
**Campus Location:** Basak Campus

[Edit my preferences](#)

Offer No	Time	Subject No	Subject Description	Days	Room
NONE	OPEN	IT 412	IT Seminar	SAT	FLD2
6090	11:00am-13:00am	PHYS 2	College Physics 2 (lec/lab)	W	B506
11099	09:00am-10:00am	IT 313	Visual Tools Programming	MWF	BCL6
11074	01:00pm-02:00pm	IT 411	Presentation Skills	MWF	BCL8
11173	10:00am-11:30am	OM A	Office Decorum and Character Development	TTH	B201
11138	01:00pm-02:30pm	IT 421	Systems Resource Management	TTH	B201

[Save Schedule](#)

[Print Schedule](#)

[Print this schedule](#)

**SKEMO was able to plot the following 6 subjects:**

IT 412  
 PHYS 2  
 IT 313  
 IT 411  
 OM A  
 IT 421

**SKEMO was not able to plot the following 1 subjects:**

SOCIO 1

**Why were these subject(s) not plotted?**

**STEPS:**

- To save your schedule, click *Save Schedule*.
- To print the plotted schedule, click *Print Schedule*.
- Click *Edit my preferences*, to make some changes to your saved preferences.

**6.3.8 SAVE SCHEDULE**

**SKEMO**  
The Subject Schedule Recommender

Offer No	Time	Subject No	Subject Description	Days	Room
6014	11:00am-12:00pm	PHYS 2	College Physics 2 (elect)	W	B505
11009	09:00am-10:00am	IT 313	Visual Tools Programming	MWF	BCL6
11173	10:00am-11:30am	OM A	Office Decorum and Character Development	TH	B201

The page at <http://localhost> says:



To save this SKEMO schedule:  
1.) Go to the menu bar of your browser  
2.) Click the file menu  
3.) Choose Save Page As... or Ctrl + S

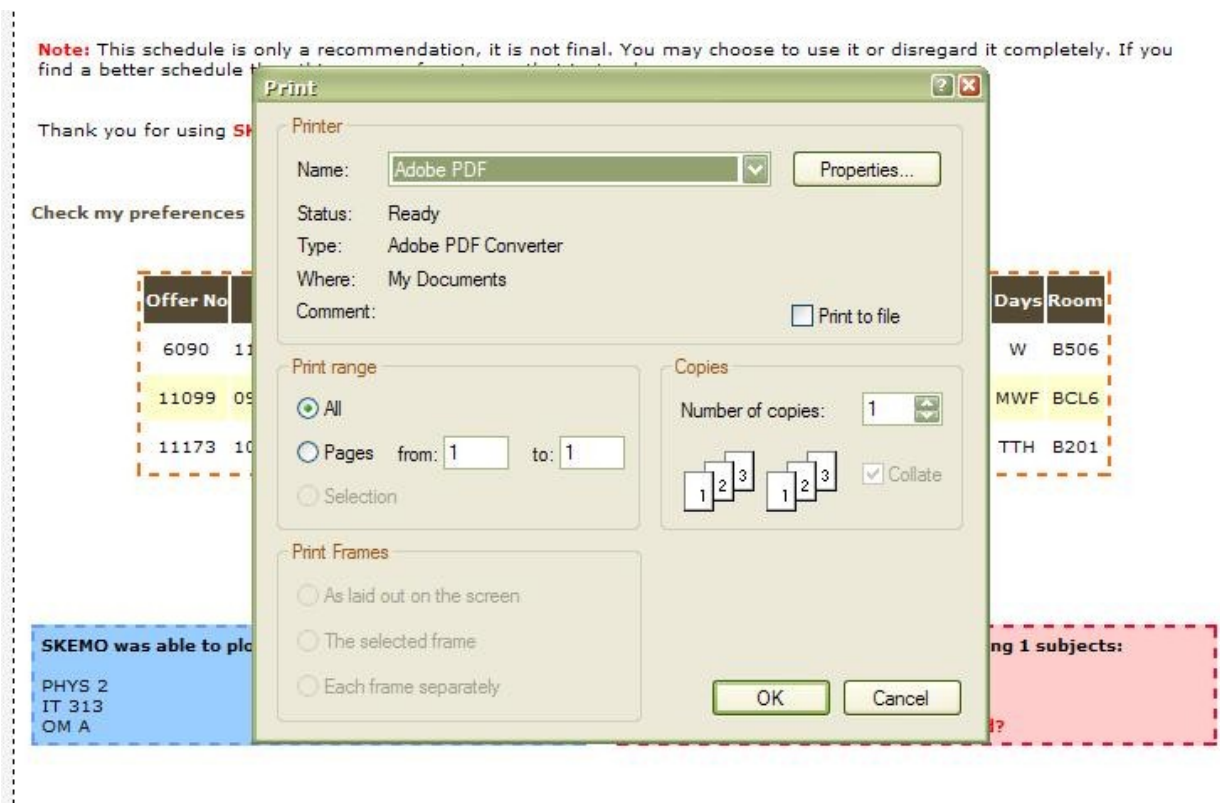
-The SKEMO Team

OK

#### STEPS:

- Go to the menu bar of your browser.
- Click the file menu.
- Choose Save Page As or click Ctrl + S.

#### 6.3.9 PRINT SCHEDULE



#### STEPS:

- When the standard print dialogue box appears, set your printing preferences.
- Click OK button to print your schedule.

# MIDDLEWARES

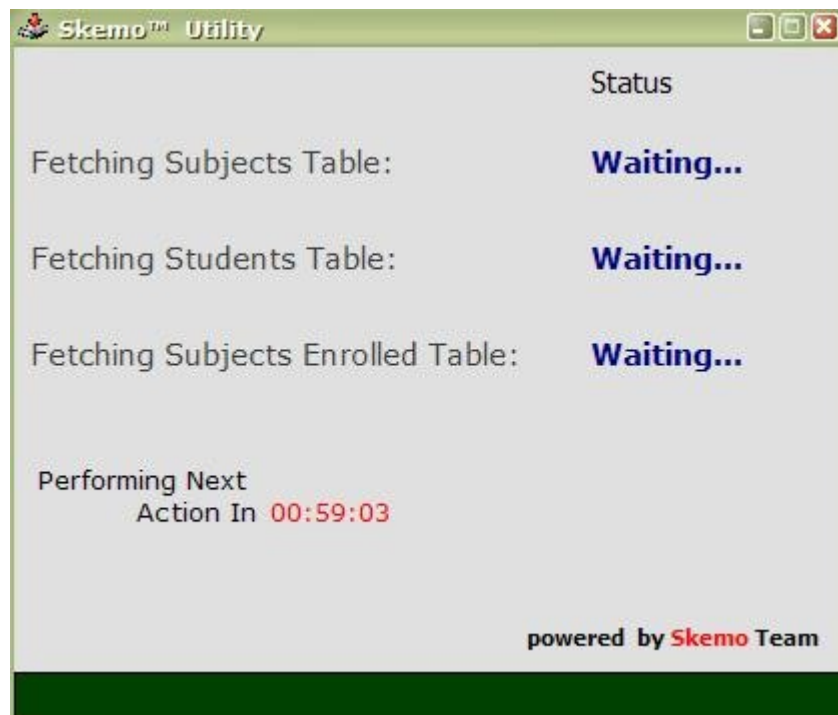
### 6.4.1 Skemo Utility

This utility is use to fetch data from excel file to MySQL database.

Figure 4.1.1



Figure 4.1.2



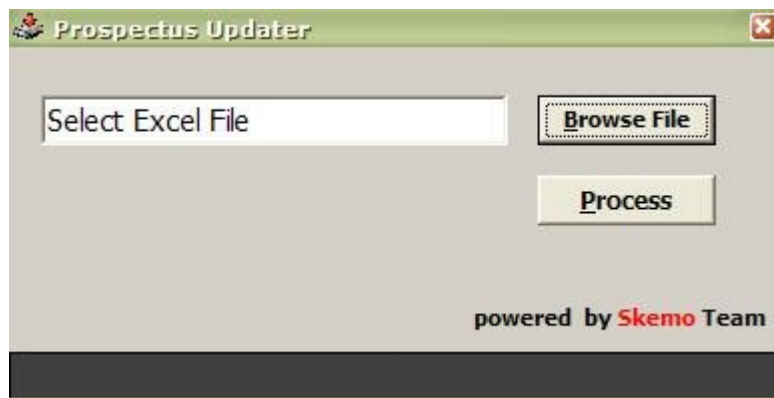
- Double click SkemoUtility.exe (Figure 4.1.1). When the utility already runs (Figure 4.1.2), you can minimize it and it will be shown in your system tray located at the bottom part of your desktop.

## 6.4.2 PROSPECTUS UPDATER

Figure 4.2.1



Figure 4.2.2



### STEPS:

1. Double click *prospectus\_updater.exe* (Figure 4.2.1).
2. Click *Browse File* button to select excel file to be process.
3. Once you have selected an excel file, click *Process* button to process the excel file to the database.

## **VII. THE RECOMMENDATION PROCESS**

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To be able to come up with a reliable recommendation, the developers made the following process:

1. The system gathers all the schedules that coincide with the preferences set by the student.
2. The system temporarily stores all the schedule data into one database table.
3. The system will look for subjects in the database table. Subjects with little offerings will be prioritized by the system.
4. The system will then check if the schedule adheres to all its rules such as:
  - Student doesn't have three (3) successive subjects.
  - The system needs to give the student time to travel from Basak Campus to Main Campus or vice versa.
  - Check if the student wants to have a vacant time.
5. If all the rules were followed then the system will plot the student's schedule.
6. The system then provides the student two (2) options to print or save his/her schedule.



## GLOSARRY

- **preference** – first choice, the favoring of one person, a prior right
- **subject** – a branch of study
- **schedule** – a timetable or programme of planned events or work, etc.
- **browse** – to read or inspect items on display
- **utility** – a useful thing; a service or function

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