

CIS 551: Fall 2014

Simple Web Interface To Manage A Toastmasters Club

Database Processing : Project

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Table of Contents

1	URL of the live project site	4
2	Summary	4
2.1	Tostmasters International.....	4
2.2	Tostmasters Education Program.....	4
2.2.1	Communication Track	4
2.2.2	Leadership Track	5
2.3	Distinguished Club Program.....	5
2.4	TableTopics	5
2.5	Project Scope and components	5
2.5.1	TableTopics repository component	6
2.5.2	Meeting Management component.....	6
2.5.3	Member Area component	6
3	Logical design	6
3.1	Interrelationships of the data items	6
3.2	ER-Diagram.....	8
4	Physical database design	9
4.1	Crowfoot notation	9
4.2	Normalization.....	10
4.3	Tables and Attributes.....	10
4.3.1	tt_members	10
4.3.2	tt_meeting	10
4.3.3	tt_speech	10
4.3.4	tt_memberComunicationProgress.....	10
4.3.5	tt_memberLeadershipProgress	10
4.3.6	tt_title	11
4.3.7	tt_key	11
4.3.8	tt_title_to_key	11
4.4	Triggers.....	11
4.5	Transactions	11
5	Physical application design	12
5.1	TableTopics repository component	12
5.1.1	Display topic.....	12
5.1.2	Search topics	12
5.1.3	Edit topics.....	12
5.1.4	Add topics	12

5.2	Meeting Management component.....	12
5.2.1	Add meeting.....	12
5.2.2	Propose meeting roles	12
5.2.3	Define the number of speech slots	12
5.2.4	Register for a meeting role	12
5.3	Member Area component	12
5.3.1	Add user	12
5.3.2	Reserve a speech slot.....	12
5.3.3	Volunteer to be an evaluator.....	12
5.3.4	Update project progress	13
5.4	User authentication component.....	13
6	User's guide.....	14
6.1	Navigation Panel	15
6.2	“Random Topic” Interface	17
6.3	“Search” Interface.....	18
6.4	“Login” Interface	20
6.5	“Add Topic” Interface.....	21
6.6	“Edit Topics” Interface	23
6.7	“Add Meeting” Interface.....	25
6.7.1	DatePicker	26
6.7.2	Select Speech Slots.....	26
6.7.3	Member selection	26
6.7.4	Meeting successfully added screen	27
6.8	“Volunteering for a role” Interface.....	28
6.8.1	Roles claimed by others	29
6.8.2	Unclaimed Roles.....	29
6.8.3	Resigning from a role	29
6.8.4	Meeting successfully updated screen	29
6.9	“Add User” Interface.....	30
6.10	“Volunteer to do a speech” Interface	31
6.11	“Volunteer to be a speech evaluator” Interface.....	32
6.12	“Update Member Progress” Interface	33
7	Table contents.....	36
8	Implementation code.....	36
9	Conclusion.....	36
9.1	Summary	36

9.2	Future work.....	36
9.2.1	More distinct applications for user levels.....	36
9.2.2	Security improvements.....	36
9.2.3	UI and documentation improvements.....	37
References	38

1 URL of the live project site

The project site can be accessed from <http://ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/>

2 Summary

2.1 Toastmasters International

Toastmasters International (TMI) is an educational organization operating in a nonprofit basis. The objective of Toastmasters is to help its members improve their communication, public speaking, and leadership skills. It is consisted of over 313,000 members belonging to over 14,650 clubs in 126 countries.[1] The main units of operation of TMI are the clubs. Each club has 7 elected officers; President, Vice-President Education, Vice-President Public Relations, Vice-President Membership, Secretary, Treasurer, and Sergeant-at-Arms [10]. I am a dual member of the University of Oregon club [2] and University of Moratuwa, Sri Lanka club [3].

A Toastmasters club conducts club meetings where each meeting is a peer supported workshop with members evaluating the progress of one another's presentation and leadership skills in a cordial and no-pressure atmosphere. This feedback process is an integral part of the Toastmasters program. Meeting participants also develop skills related to timekeeping, grammar and parliamentary procedure. Each meeting has generally 3-5 speech slots, a member may reserve one of them to conduct a prepared speech. Most common time period for a prepared speech is 5-7 minutes. But rarely there are prepared speeches as short as 2 minutes to as long as 20 minutes. Other members will then volunteer to be the evaluator [9] of these prepared speeches.

Apart from the roles of speaker and speech evaluator, there are other roles in a meeting; Toastmaster [4], TableTopics Master [5], Vote Counter, Timer [6], Grammarian [7], and General Evaluator [8]. Members will volunteer for each of these roles. Anyone can attend toastmasters club meetings without registering as a member for an indefinite time period. These nonmembers are referred to as guests.

2.2 Toastmasters Education Program

As mentioned above, the goal of Toastmasters is to improve the members on their communication, public speaking, and leadership skills. To achieve this end, toastmasters have two educational tracks; communication track [11] and the leadership track [12].

2.2.1 Communication Track

The communication track starts with the Competent Communicator (CC) manual. This manual is consisted of 10 speech projects. Each of these will be focusing on a specific area. This starts with an icebreaker and gives guidance to the member to gradually improve his or her public speaking skills by focusing on areas such as organizing the speech and using body language [13]. At the end of successful completion, the member earns a Competent Communicator award. The member can then use CC as a post-nominal title.

A member who has already completed the Competent Communicator level may opt to take on the Advanced Communication Series [14]. Here the member can choose to further his/her communication skills in more specific areas. The available manuals are; The Entertaining Speaker, Speaking to Inform, Public Relations, Facilitating Discussion, Specialty Speeches, Speeches by Management, The Professional Speaker, Technical Presentations, Persuasive Speaking, Communicating on Video, Storytelling, Interpretive Reading, Interpersonal Communication, Special Occasion Speeches, and Humorously Speaking. Each of these manual contain 5 speech projects. The member at CC level may choose two of these manuals and do the ten speech projects from them. This will earn the member

Advanced Communicator Bronze (ACB) award. Taking up yet another two advanced manuals and fulfilling some other requirements will earn the member Advanced Communicator Silver (ACS) award. Finishing another two advanced manuals (to a total of six different advanced manuals) and fulfilling some other requirements will earn the member Advanced Communicator Gold (ACG) award. A member who has achieved ACB, ACS, ACG may use the ones that he or she achieved as a post-nominal title. But the common practice is to only use the highest title.

2.2.2 Leadership Track

The leadership track starts with the Competent Leader (CL) manual. This manual is consisted of 10 leadership projects. These can be fulfilled by volunteering for the aforementioned meeting roles and by taking part in other club activities such as contributing to the creation of the club newsletter, being the webmaster for the club, helping out the club in a membership-building campaign. An evaluator will evaluate how well the objectives of these leadership roles were realized and offer feedback for improvement. [15]. At the end of successful completion, the member earns a Competent Leader award. The member can then use CL as a post-nominal title.

A member who has already completed both the Competent Communicator level and Competent Leader level may opt to take on the Advanced Leadership Series [16]. By serving as an elected club officer for at least six months, going through officer training programs and conducting presentations from leadership oriented manuals, the member can then earn the Advanced Leader Bronze (ALB) award. Next, the member can go on to take the volunteer position as a district leader (district governor, lieutenant governor, public relations officer, secretary, treasurer, division governor or area governor) for a year; serve a club as a club sponsor, mentor or coach; and complete the High Performance Leadership program. A member that fulfils these requirements will earn the Advanced Leader Silver (ALS) award. A member who has achieved ALB, ALS may use the ones that he or she achieved as a post-nominal title. But the common practice is to only mention the highest title.

A member who has achieved ACG and ALS (the maximum possible awards in both tracks) will be awarded the Distinguished Toastmaster (DTM) award [17]. This is a coveted title which only 2% of all the toastmasters in the world have achieved.

2.3 Distinguished Club Program

As described above, completing the communication and leadership projects are important to the growth of a member as an individual. To recognize the support each club will give to its members to complete these projects, a club recognition program named “Distinguished Club Program” (DCP) is conducted [18]. This will award clubs with accolades following the progress of its members in CC, ACB, ACS, ACG, CL, ALB, ALS, DTM achievements.

2.4 TableTopics

In life, not all the speeches one would have to give would be given with prior preparation. Some of the speeches will be made impromptu. This includes simple casual conversation as well. Toastmasters recognize this part of speaking with the TableTopics section. A TableTopics master will come up with a set of thought provoking titles or questions. At the TableTopics session the participants in the meeting puts themselves forward and the TableTopics master will give them a title or ask them a question that s/he has prepared. The participant will then do an impromptu speech on that topic or give a detailed answer for the given question. For this, the participant is given two minutes. [5]

2.5 Project Scope and components

As described in the above sections, a club has to conduct meetings, monitor the educational progress of its members and conduct interesting TableTopics sessions. Currently most clubs use a paper file

based format to keep track of member progress. University of Oregon Toastmasters club uses a free service (Doodle) to organize meetings [19]. TableTopics masters use various methods to find interesting topics. I propose to create a software to handle all of these scenarios. Given below is a brief description of each component.

2.5.1 TableTopics repository component

This component will store TableTopic titles along with keywords that are related for each title. The component will give the ability to search the database using these keywords. This way, a TableTopics master will have quick access to a collection of interesting topics on any subject that s/he may desire. The system will be bootstrapped by adding a few hundred topics to the database. The members of the club will get the ability to add new topics to the database to enrich the repository. When they do this, the TableTopics will be added with a reference to the person who submitted the topic for record keeping purposes. This component will thus have the following applications;

1. Display topic (Random or otherwise)
2. Search topics
3. Edit Topics
4. Add topic

2.5.2 Meeting Management component

This component will help the club executive officers to organize a meeting. They would be given the option to set up a date and will be given a comment section to provide the other information such as the meeting place and theme (if exists). They will also be given the chance to propose meeting roles for club members. But this would not be compulsory. In setting up the meeting, the club executive officer will define the number of speech slots available in the meeting. This component will thus have the following applications;

1. Set up a meeting
2. Propose meeting roles
3. Define the number of speech slots
4. Register for a meeting role

2.5.3 Member Area component

This component will track the progress of a member through his/her activates in the toastmasters education program. Club executive officers will be given the ability to add new members. Each member will be given the ability to reserve speech slots and register as an evaluator or volunteer for meeting roles. The progress of non-speech projects will be updated by a club executive officer. This component will thus have the following applications;

1. Add User
2. Reserve a speech slot
3. Volunteer to be an evaluator
4. Update project progress

3 Logical design

3.1 Interrelationships of the data items

At the center of the database would be the member entity. It will have an index number, name, email address, password, and a user level. Club executive offices will be in level 1 and other members will be in level 0. The member entity will be linked to the title entity via the “added by” relationship. The title entity will hold a table topic. Each table topic (title) will have one or zero members listed as the

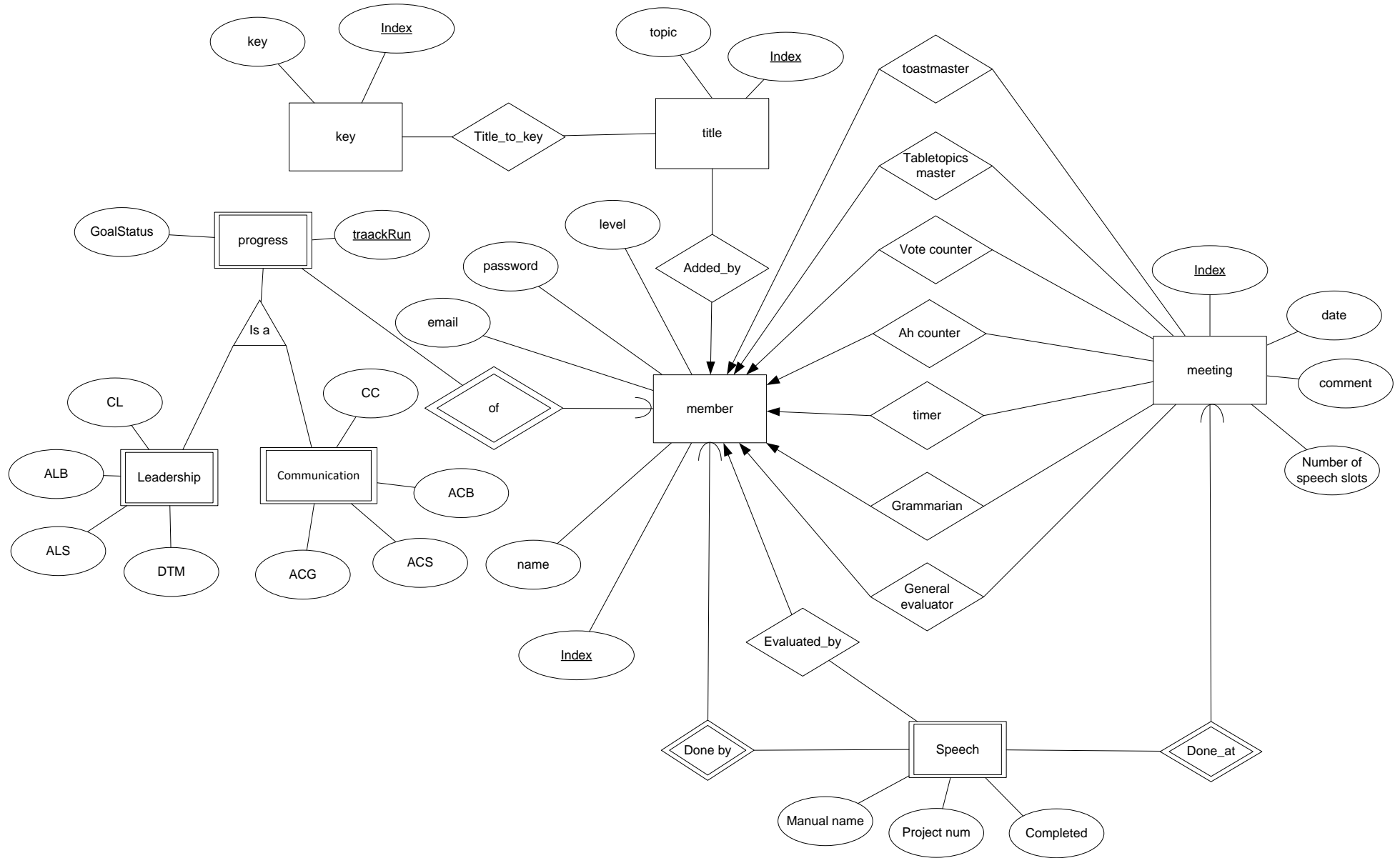
person who added the title. The title entity will be connected to the key entity via the “title to key” relationship. The key entity will hold keywords that are related to table topics. A table topic can have zero to many keywords and a keyword will be paired with one to many titles.

The member entity will be connected to the weak entity “progress” via the identifying relationship “of”. There are two types of progress; Communication and Leadership. “Progress” entity will keep track of the current goal and the levels of progress already completed. Because it is possible to redo each progress level multiple times, the status of each level will be tracked separately.

The member entity will be connected to the meeting entity by relationships; Toastmaster [4], TableTopics Master [5], Vote Counter, timer [6], Grammarians [7], and General Evaluator [8]. There is no need to keep track of which member created a record in the meeting entity.

The weak entity “speech”, will be connected to “member” and “meeting” through the identifying relationships, “Done by” and “Done at” respectively. It will also have another relationship with member named, “Evaluated by”. This is a one to many relationship going from member to speech. The “completed” attribute on “speech” will be set by an executive member to indicate whether a member actually did the speech on the promised slot or not.

3.2 ER-Diagram

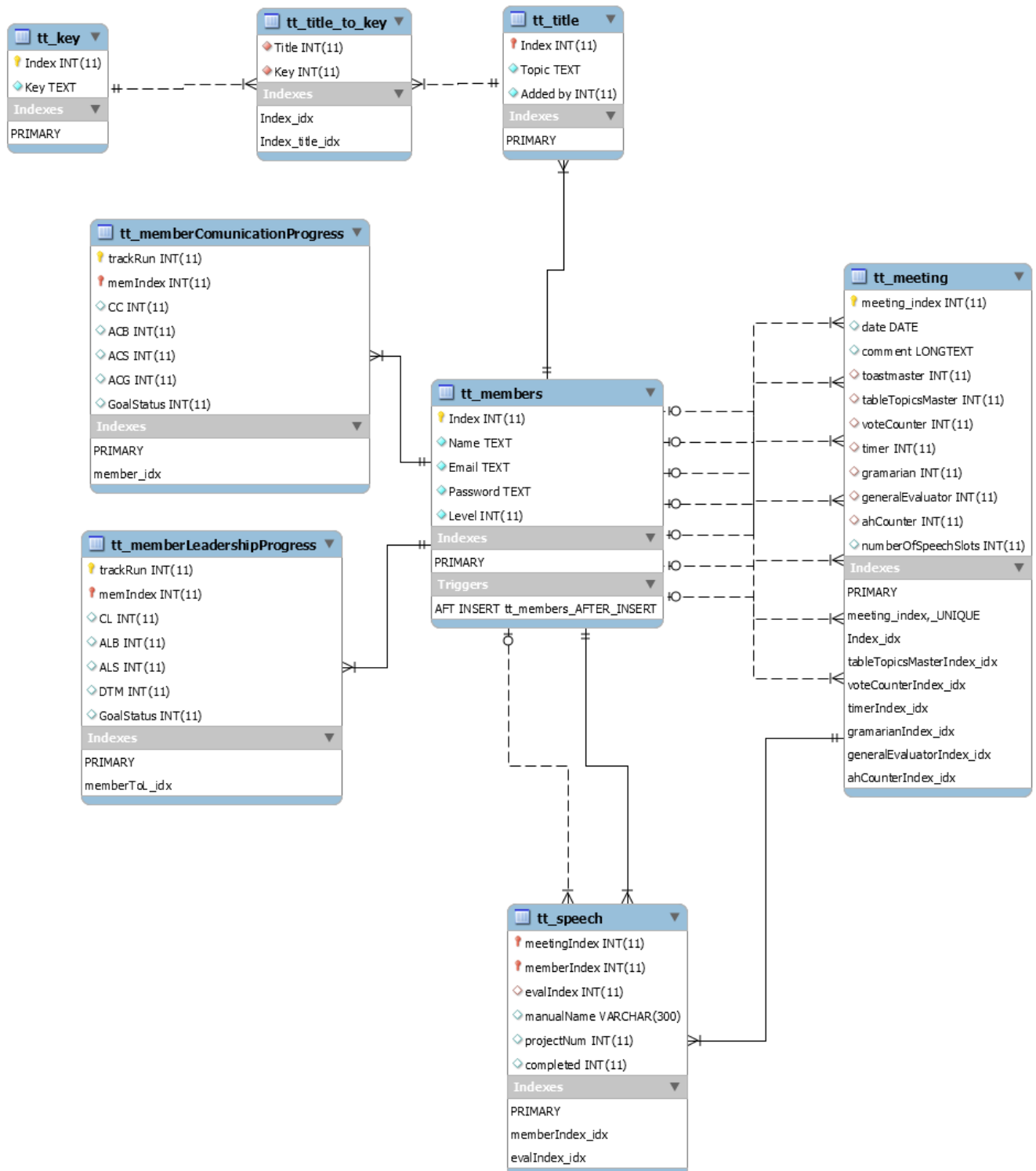


4 Physical database design

I have used InnoDB engine for the database.

4.1 Crowfoot notation

A crowfoot notation of the database showing the indexes and triggers is shown below.



4.2 Normalization

My database design did not need normalizing.

4.3 Tables and Attributes

4.3.1 tt_members

This is the central table of the database. This being the central table reflects on the fact that the Toastmasters clubs are member centric units. The primary key of this is the *index* attribute. It is an auto-increasing attribute. The *name* and email *attributes* keep the designated values. The *password* attribute keeps an encrypted string of the users' passwords. The *level* attribute holds an integer indicating whether a user is an executive member or not. There is a trigger on this table which is triggered after each insert. The trigger is discussed in detail at 4.4. The primary key is an index for this table.

4.3.2 tt_meeting

The meeting table keeps data about each meeting. The primary key of this is the *meeting_index* attribute. It is an auto-increasing attribute. The *date* attribute holds the date on which the meeting is to be held. The *comment* attribute can be used to keep details about change of location, themed meetings, speech marathons [20], etc. The attributes; *toastmaster*, *tableTopicsMaster*, *voteCounter*, *timer*, *grammarian*, *generalEvaluator*, and *ahCounter* holds the indexes of the members who have volunteered to do the role. The attribute *numberOfSpeechSlots* holds the number of speech slots in the meeting. The attributes; *tableTopicsMaster*, *voteCounter*, *timer*, *grammarian*, *generalEvaluator*, and *ahCounter* are foreign keys from *Index* attribute of the *tt_members* table. The primary key and the foreign keys are indexes of this table.

4.3.3 tt_speech

The speech table keeps data about a speeches done or promised to be done at a certain meeting by a certain member. The primary key is a composite key made up of attributes *meetingIndex*, and *memberIndex*. The *evalIndex* attribute holds the index number of the evaluator who has volunteered to evaluate the speech. The *manualName* attribute holds the name of the Toastmasters speech manual. The *projectNum* attribute holds the project number within the manual. Note that in the case of advanced manuals, this number is not correlated with the number of speeches done under this manual so far. Most clubs allow members to do speeches in the advanced manuals in any order they like. The *completed* attribute will hold NULL until it is checked off by an executive officer. If the member successfully complete the speech the value will be set to 1 if not or if the member cancel the speech, it is set to 0. The attributes; *memberIndex*, and *evalIndex* are foreign keys from *Index* attribute of the *tt_members* table. The attribute; *meetingIndex* is a foreign key from *Index* attribute of the *tt_meeting* table. The primary key and the foreign keys are indexes of this table.

4.3.4 tt_memberCommunicationProgress

The memberCommunicationProgress table keeps data about the communication track progress of a member. In the ER diagram the corresponding entity, *Communication* was a sub entity of *progress*. In the process of conversion of this entity to the relational schema, I used ER-Style conversion [21]. The primary key of this is a composite key made up of attributes; *memIndex* and *trackRun*. Here, *trackRun* is an auto-increasing attribute. The reason for this is the fact that a member can have multiple track runs on the same track and starting a new track run does not have to be followed by a successful completion of a previous run. The *CC*, *ACB*, *ACS*, and *ACG* attributes hold NULL/0 or 1 depending on the state of completion of each goal. The *GoalStatus* attribute holds NULL or the number of completed projects towards the current goal. The attribute; *memIndex* is a foreign key from *Index* attribute of the *tt_members* table. The attributes in the primary key and the foreign keys are indexes of this table.

4.3.5 tt_memberLeadershipProgress

The memberLeadershipProgress table keeps data about the leadership track progress of a member. In the ER diagram the corresponding entity, *Leadership* was a sub entity of *progress*. In the process of conversion of this

entity to the relational schema, I used ER-Style conversion [21]. The primary key of this is a composite key made up of attributes; *memIndex* and *trackRun*. Here, *trackRun* is an auto-increasing attribute. The reason for this is the fact that a member can have multiple track runs on the same track and starting a new track run does not have to be followed by a successful completion of a previous run. The *CL*, *ALB*, *ALS*, and *DTM* attributes hold NULL/0 or 1 depending on the state of completion of each goal. The *GoalStatus* attribute holds NULL or the number of completed projects towards the current goal. The attribute; *memIndex* is a foreign key from *Index* attribute of the *tt_members* table. The attributes in the primary key and the foreign keys are indexes of this table.

4.3.6 tt_title

The title table acts as the center of the TableTopics repository. The primary key of this is the *Index* attribute. It is an auto-increasing attribute. The *Topic* attribute holds the TableTopic. The *AddedBy* attribute holds 0 (Guest) or the index of the person who added the topic. The value is 0 for the topics that I mass inserted using a script via a CSV. The primary key is an index for this table.

4.3.7 tt_key

The key table holds the keywords used in the titles (TableTopics). The primary key of this is the *Index* attribute. It is an auto-increasing attribute. The *Key* attribute holds the Keyword. The primary key is an index for this table.

4.3.8 tt_title_to_key

This is the link table between the *tt_title* table and the *tt_key* table. The primary key is a composite key made up of attributes *Title*, and *Key*. The *Title* attribute holds the index number of the relevant TableTopic and the *Key* attribute holds the index of the relevant Key. Thus the attribute; *Title* is a foreign key from *Index* attribute of the *tt_title* table and the attribute; *Key* is a foreign key from *Index* attribute of the *tt_key* table. The attributes in the primary key and the foreign keys are indexes of this table. Note that I have disabled the update/delete cascade for this table.

4.4 Triggers

I have used a trigger at the *tt_members* table. After a new member is inserted to the table, this trigger gets fired and adds the matching new rows to the *memberCommunicationProgress* table and the *memberLeadershipProgress* table.

4.5 Transactions

I used Transactions for all the interfaces that needs to do a write. Thus each of the processes that have an insert, an update or a delete. The Processes that are modelled as transactions are listed below;

1. Add TableTopic
2. Update TableTopic
3. Add Member
4. Update member progress
5. Add meeting
6. Update meeting
7. Add speech
8. Claim evaluator slot

5 Physical application design

5.1 TableTopics repository component

5.1.1 Display topic

Displays a TableTopic title along with keywords that are related for that title. This can either be a user specified title view or just a random title view. Reads from the following tables; *tt_title*, *tt_title_to_key*, *tt_key*.

5.1.2 Search topics

Provides functionality to search topics. Note that the topics are searched by keywords not by the keyword being present in the topic. Reads from the following tables; *tt_title*, *tt_title_to_key*, *tt_key*.

5.1.3 Edit topics

Provides functionality to edit a selected topics. Reads from and writes to the following tables; *tt_title*, *tt_title_to_key*, *tt_key*. Indirectly reads the *tt_members* table.

5.1.4 Add topics

Provides functionality to add a table topic. Writes to the following tables; *tt_title*, *tt_title_to_key*, *tt_key*. This also indirectly reads the *tt_members* table.

5.2 Meeting Management component

5.2.1 Add meeting

Provides functionality to add a meeting. Reads from and writes to the table *tt_meeting*. Reads from the *tt_members* table.

5.2.2 Propose meeting roles

Provides functionality to propose meeting roles for member. Reads from the following tables; *tt_members*. By extension writes to the table *tt_meeting*. Indirectly reads the *tt_members* table.

5.2.3 Define the number of speech slots

Provides functionality to define the number of speech slots. By extension writes to the table *tt_meeting*. Indirectly reads the *tt_members* table.

5.2.4 Register for a meeting role

Provides functionality to a member to register for an already unclaimed meeting role. Reads from and writes to the table *tt_meeting*. Reads from the *tt_members* table.

5.3 Member Area component

5.3.1 Add user

Provides functionality to add a new user/member. Writes to the table *tt_members*. Through the trigger, writes to the following tables; *tt_memberCommunicationProgress*, *tt_memberLeadershipProgress*. Indirectly reads the *tt_members* table.

5.3.2 Reserve a speech slot

Provides functionality to volunteer as a speaker. Reads from and writes to the table *tt_speech*. Reads from the *tt_members* table and *tt_meeting* table.

5.3.3 Volunteer to be an evaluator

Provides functionality to volunteer as an evaluator. Reads from and writes to the table *tt_speech*. Reads from the *tt_members* table.

5.3.4 Update project progress

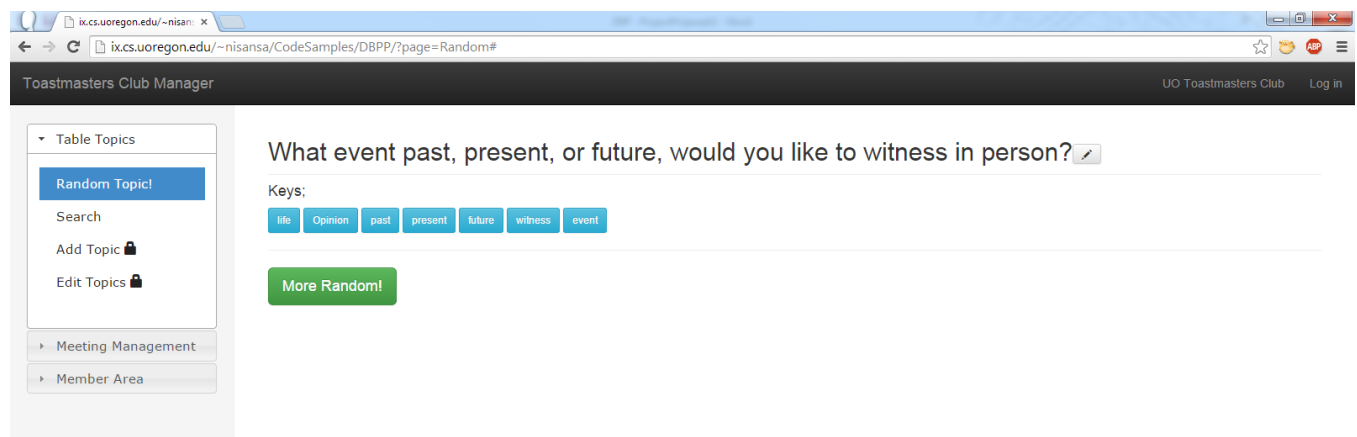
Provides functionality to update the project progress of a member. Reads from and writes to the following tables; *tt_speech*, *tt_memberCommunicationProgress*, *tt_memberLeadershipProgress*.

5.4 User authentication component

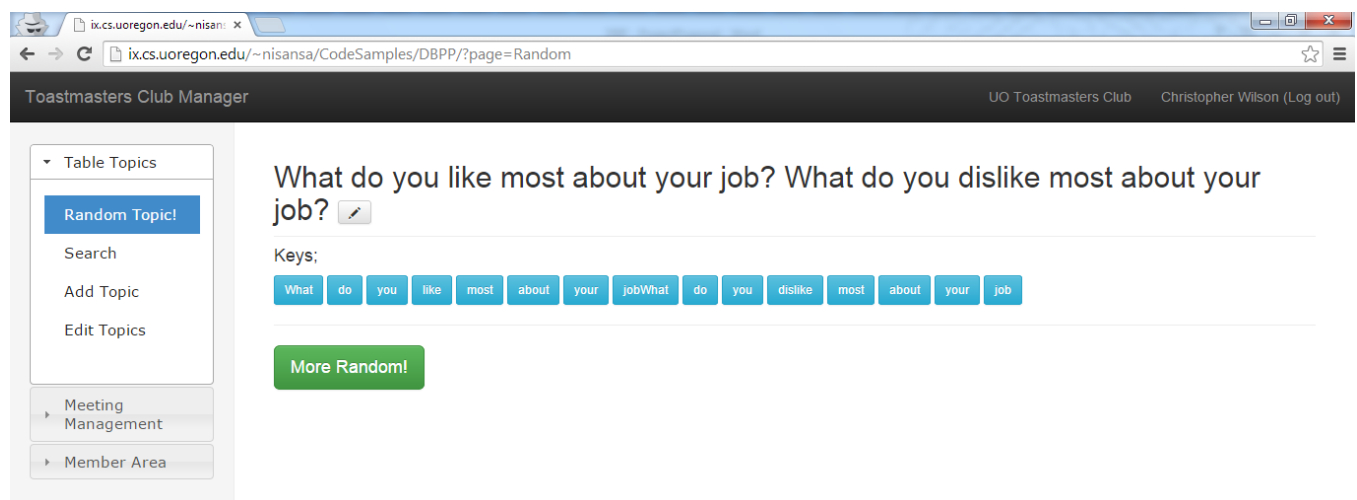
Accepts user inputs for email address and password. Checks with the encrypted password in the database and Grant/Reject access. Uses the *tt_members* table.

6 User's guide

Shown below is an overall view of the system before logging in.

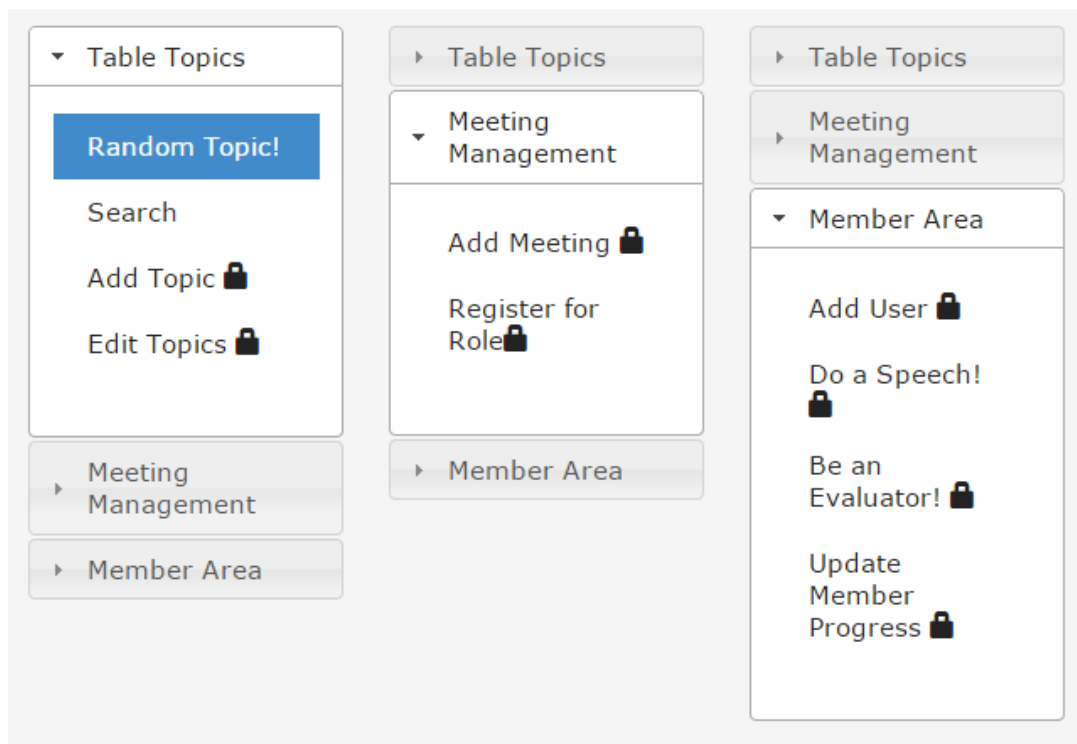


And an image of the overall view after logging in.

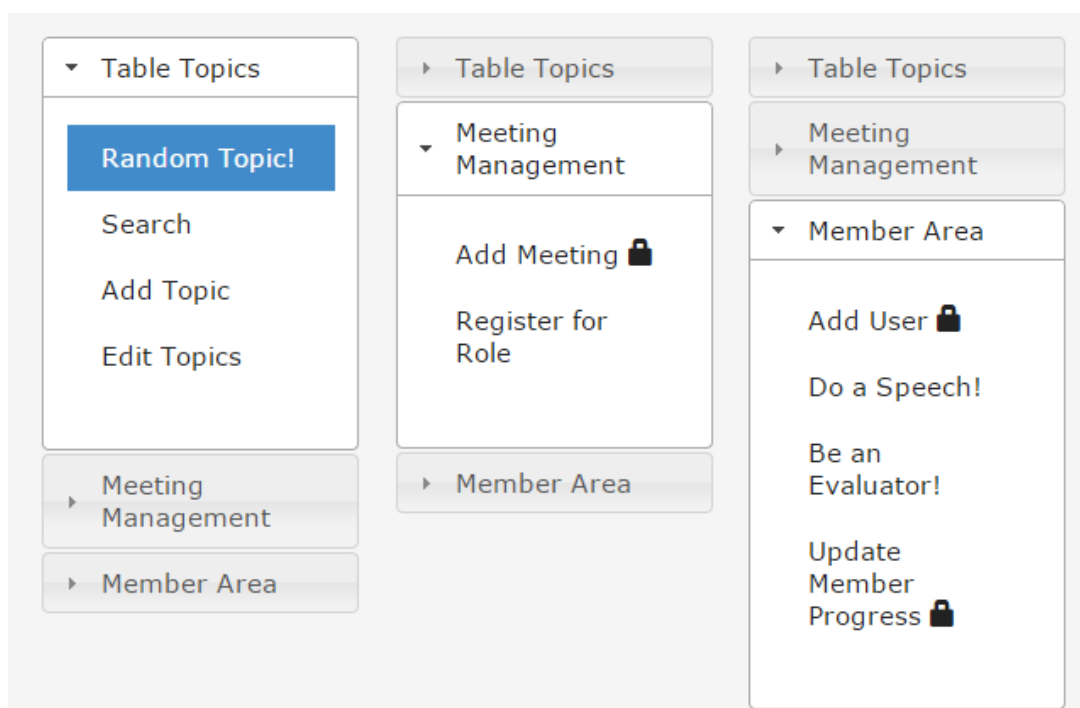


6.1 Navigation Panel

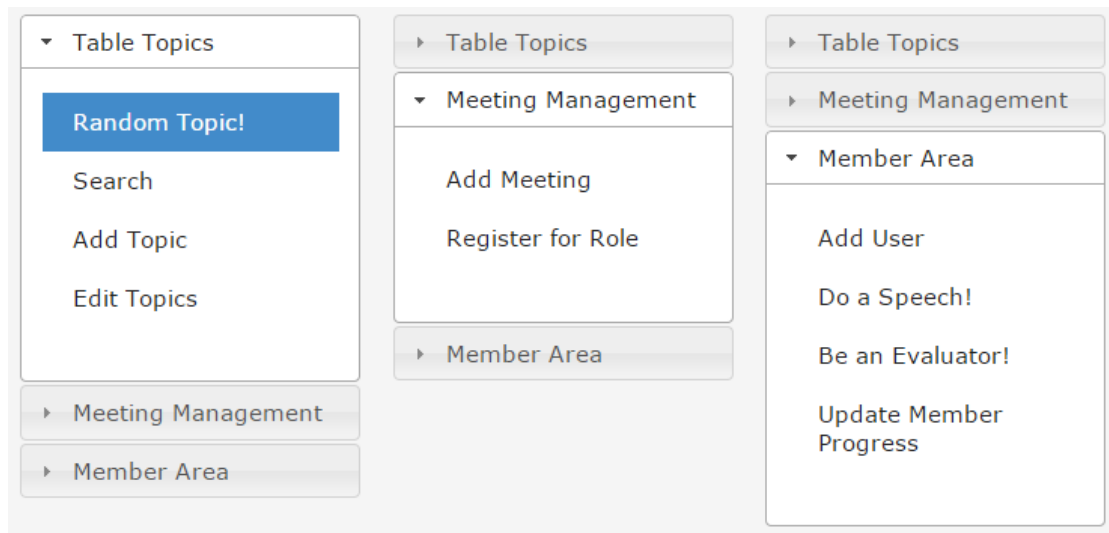
Navigation panel provides links to the various functionalities of the system. Given below is an image of the navigational panel before logging in. As shown below the member only functionalities are locked.



Given below is an image of the navigational panel after logging in as a regular (not Administrator) member. As shown, some of the functionalities are unlocked.

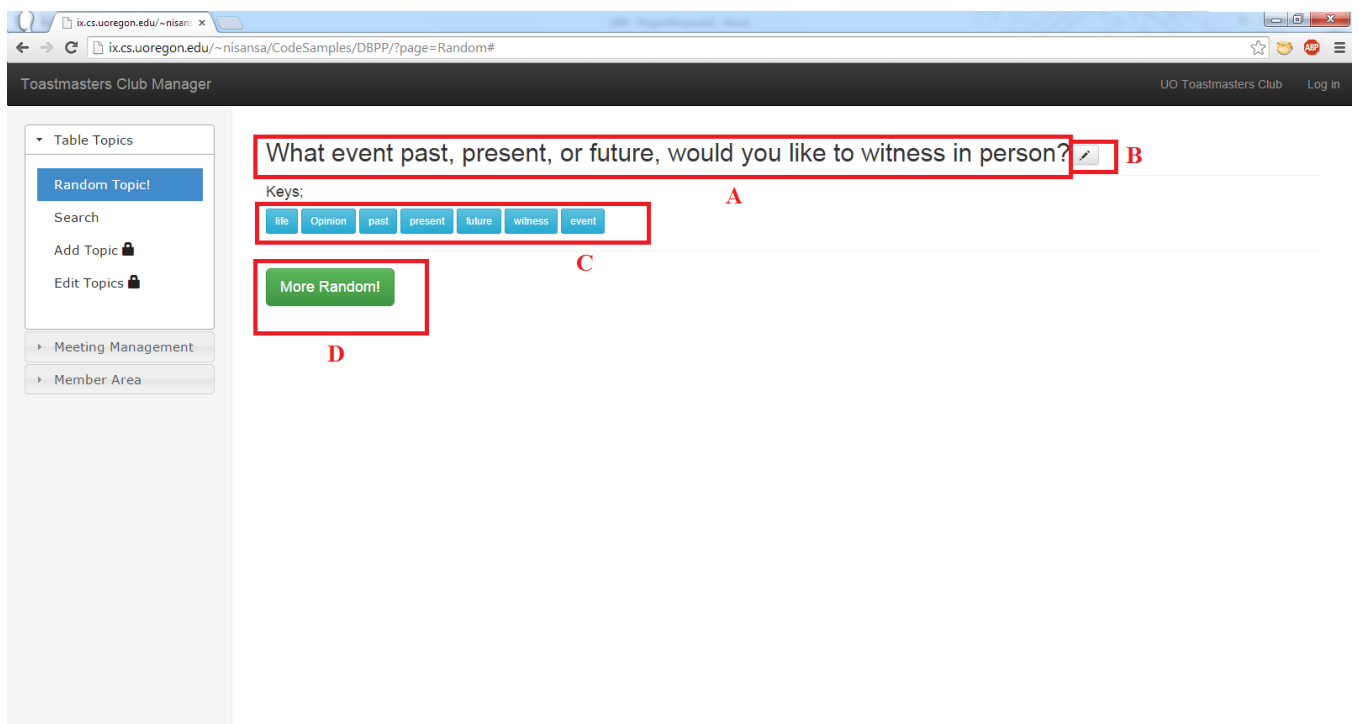
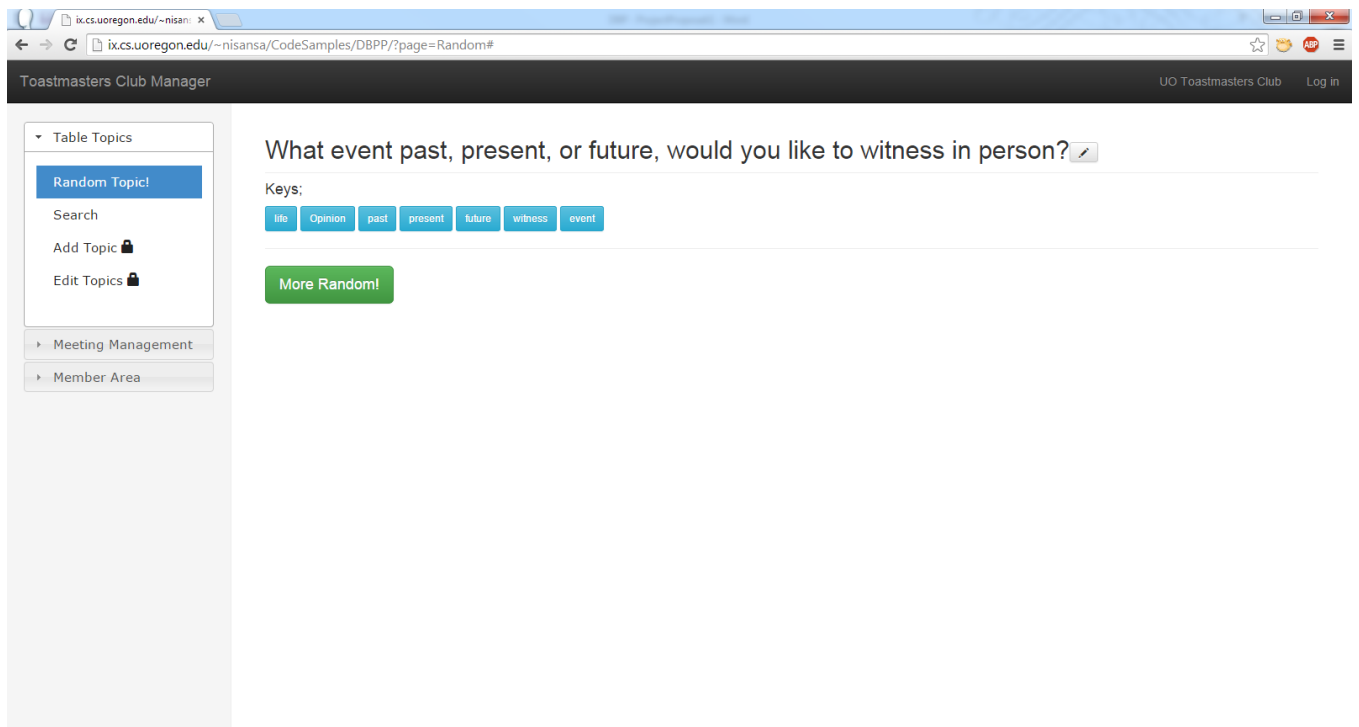


Given below is an image of the navigational panel after logging in as an Administrator (Executive) member. As shown, all of the functionalities are unlocked.



6.2 “Random Topic” Interface

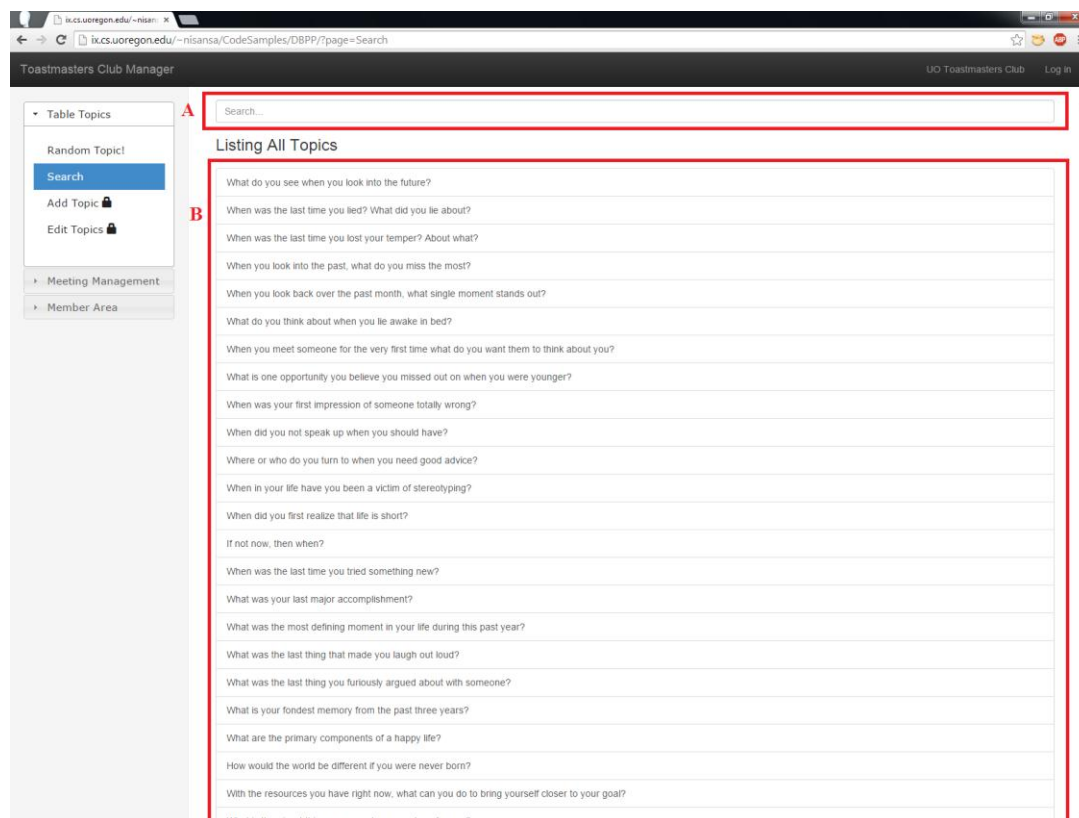
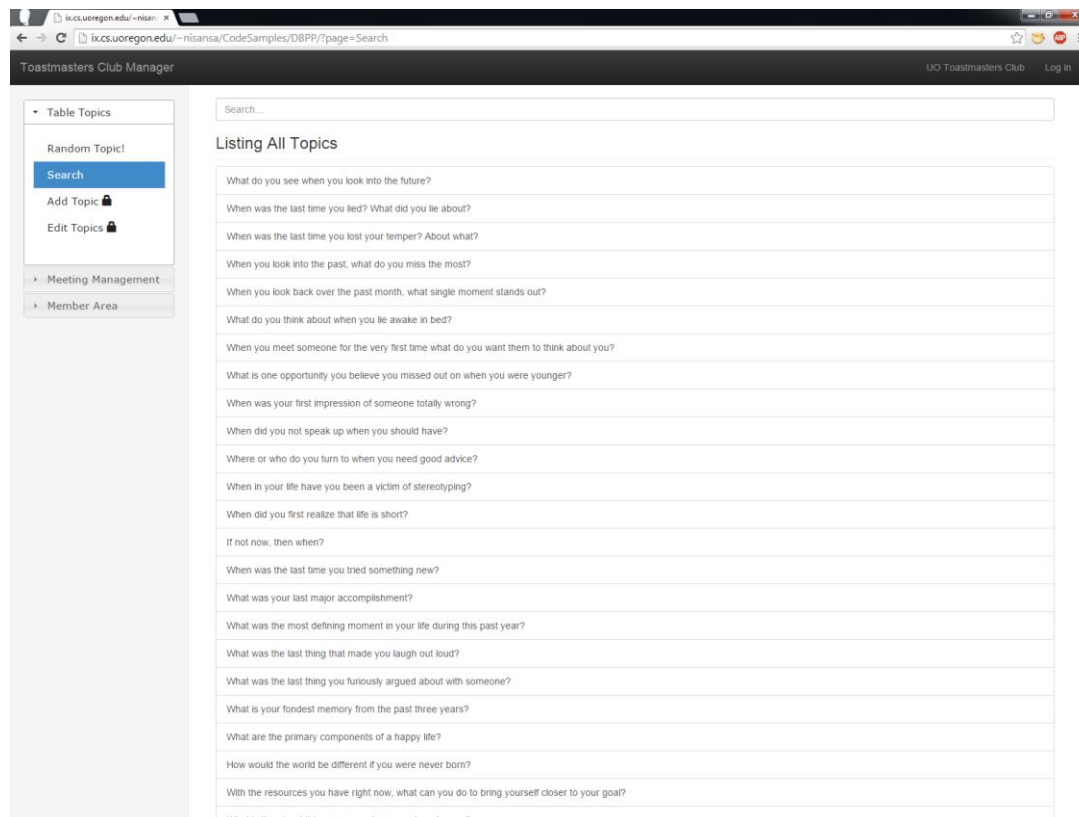
Navigational Panel-> Table Topics-> Random Topic!



- A- The TableTopic
- B- Edit Button (Clicking this will open interface 6.7 on this topic)
- C- Keywords (Clicking one of these will do a search on the clicked keyword. Refer 6.33)
- D- Button to get another random topic

6.3 “Search” Interface

Navigational Panel-> Table Topics-> Search



- A- Search bar (Type the word you are looking for here and press enter. A sample search is shown below)
- B- Results list (This will show the results of the search. The default is to list all topics)

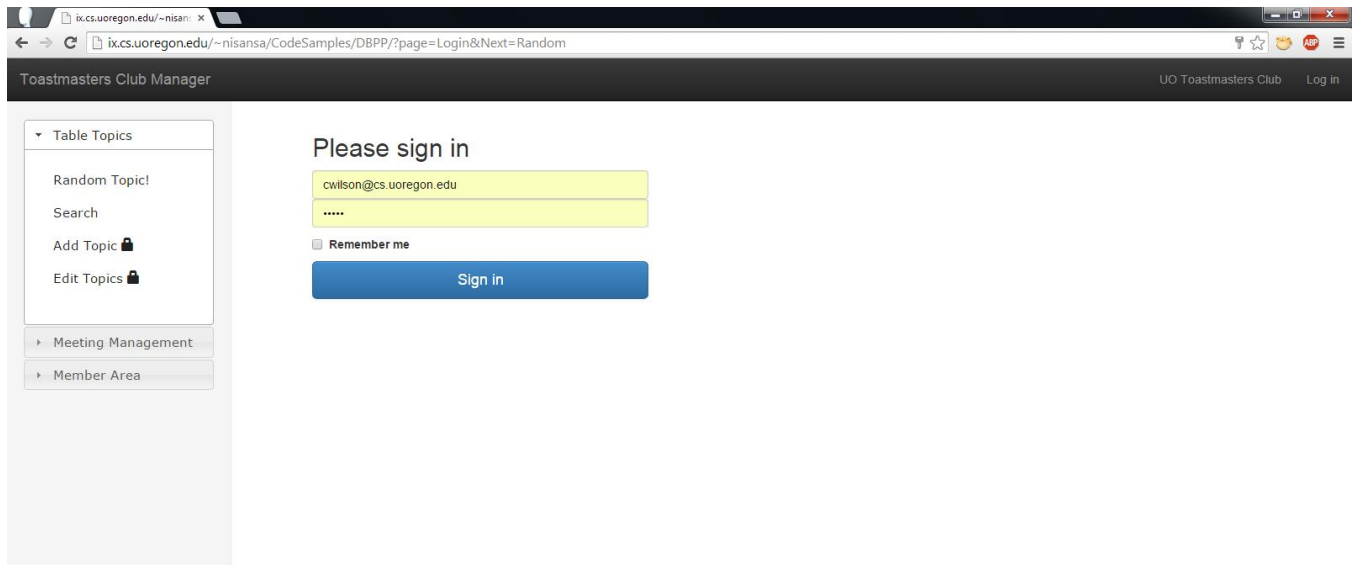
The screenshot shows a web browser window with the URL `ix.cs.uoregon.edu/~nisan/CodeSamples/DBPP/?page=Search&q=time`. The page is titled "Toastmasters Club Manager" and has a navigation bar with "UO Toastmasters Club" and a "Log in" link. On the left, there is a sidebar with a "Table Topics" section containing buttons for "Random Topic!", "Search", "Add Topic", and "Edit Topics". Below this are "Meeting Management" and "Member Area" links. The main content area features a search bar with the text "Search..." and a heading "Search Results for 'time'". Below the heading is a list of 18 topics related to the search term "time".

Search Results for "time"
If you could go back in time and tell a younger version of yourself one thing, what would you tell?
When was the last time you lied? What did you lie about?
When was the last time you lost your temper? About what?
If you could go back in time and change things, what would you change about the week that just passed?
When you meet someone for the very first time what do you want them to think about you?
What is your favorite time of the year?
Which activities make you lose track of time?
When was the last time you listened to the sound of your own breathing?
If you had the chance to go back in time and change one thing would you do it?
When you have a random hour of free time, what do you usually do?
When was the last time you felt lucky?
How do you know when it is time to continue holding on or time to let go?
If someone could tell you the exact day and time you are going to die, would you want them to tell you?
Can you think of a time when impossible became possible?
Is there ever a time when giving up makes sense?
How do you spend the majority of your free time?
Where do you spend most of your time while you are awake?
What would you do, if you could travel back in time?

6.4 “Login” Interface

Top Panel-> Log In

Because the instructor asked not to have logins, I have hard-coded an administrator username and password to the system. (The boxes are label-less. You can see the prompts if you clear the boxes). Both boxes are required to be filled.



6.5 “Add Topic” Interface

Navigational Panel-> Table Topics-> Add Topic

ix.cs.uoregon.edu/~nisan: x

ix.cs.uoregon.edu/~nisan/CodeSamples/DBPP/?page=Add

Toastmasters Club Manager

UO Toastmasters Club Christopher Wilson (Log out)

Table Topics

Random Topic!

Search

Add Topic

Edit Topics

Meeting Management

Member Area

Adding New Topic

Topic

Keys

Add

Topic – Type the new topic here (Required)

Keys – Enter the keywords for this topic as a comma separated list here (Required)

A filled out interface is shown below.

ix.cs.uoregon.edu/~nisan: x

ix.cs.uoregon.edu/~nisan/CodeSamples/DBPP/?page=Add

Toastmasters Club Manager

UO Toastmasters Club Christopher Wilson (Log out)

Table Topics

Random Topic!

Search

Add Topic

Edit Topics

Meeting Management

Member Area

Adding New Topic

Topic

You can either get the power to see any point in the future but be unable to change it or get the power to see any point in the past. What would you select? Why?

Keys

Future, Past, Opinion, Change

Add

Finally click the Add button. And the following interface will be shown. It is similar to the Random Topic Interface (6.3) but without the “More Random!” button.

ix.cs.uoregon.edu/~nisan: x

ix.cs.uoregon.edu/~nisan/CodeSamples/DBPP/?page=Update&topic=You+can+either+get+the+power+to+see+any+point+in+the+future+but+be+unable+to+change

Toastmasters Club Manager

UO Toastmasters ClubChristopher Wilson (Log out)

Table Topics

Random Topic!

Search

Add Topic

Edit Topics

Meeting Management

Member Area

You can either get the power to see any point in the future but be unable to change it or get the power to see any point in the past. What would you select? Why?

Keys:

future

past

Opinion

change

6.6 “Edit Topics” Interface

Navigational Panel-> Table Topics-> Edit Topics

There are two ways to get to this interface the first way is shown in the breadcrumbs above. The second way is to press the edit button as described in 6.2. If you used the first method, you will end up on the interface to edit the first topic. If you used the second method you will be shown the interface to edit the relevant topic. A screenshot is given below.

The screenshot shows a web browser window with the URL `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/?page=Edit&id=364`. The page title is "Toastmasters Club Manager". On the left is a sidebar with a "Table Topics" dropdown menu. The main content area has a header "Editing Topic Number 364" with left and right navigation arrows. Below this are two text input fields: "Topic" containing "If you could do it all over again, would you change anything?" and "Keys" containing "if, you, could, do, it, all, over, againwould, you, change, anything". A green "Update" button is at the bottom.

This screenshot is the same as the one above but with red annotations. Red boxes and letters highlight specific elements: 'D' is above the left navigation arrow, 'E' is above the right navigation arrow, 'A' is above the Topic input field, 'B' is above the Update button, and 'C' is below the Update button. The Keys input field is also outlined in red.

A- The TableTopic can be edited here

B- Keywords can be edited here

- C- Button to submit changes
- D- Button to navigate to editing the previous TableTopic
- E- Button to navigate to editing the next TableTopic

Note: Pressing D or E does not update the cahnges you did to the database. You hae to press C for that. When you press C, you will get a non obscuring prompt telling you that the topic was updated as shown below.

The screenshot shows a web browser window with the URL `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/?page=Edit&id=364&Updated`. The page title is "Toastmasters Club Manager". The sidebar on the left contains a "Table Topics" section with options: "Random Topic!", "Search", "Add Topic", and "Edit Topics" (highlighted in blue). Below this are "Meeting Management" and "Member Area" sections. The main content area is titled "Editing Topic Number 364" with navigation arrows. It contains a "Topic" field with the text "If you could do it all over again, would you change anything?" and a "Keys" field with the text "if, you, could, do, it, all, over, again, would, you, change, anything". A green "Update" button is located below the keys field. At the bottom, a green notification bar displays "Topic Updated!" with a close button.

6.7 “Add Meeting” Interface

Navigational Panel-> Meeting Management -> Add Meeting

ix.cs.uoregon.edu/~nisan: x

ix.cs.uoregon.edu/~nisan/CodeSamples/DBPP/?page=AddMeeting

Toastmasters Club Manager

UO Toastmasters Club Christopher Wilson (Log out)

Table Topics

Meeting Management

Add Meeting

Register for Role

Member Area

Adding a New Meeting

Date : 12-3-2014 Speech Slots : 3

Comments :

Meeting Roles

Toastmaster : Guest TableTopics Master : Guest

Vote Counter : Guest Timer : Guest

Gramarian : Guest General Evaluator : Guest

Ah Counter : Guest

Add

ix.cs.uoregon.edu/~nisan: x

ix.cs.uoregon.edu/~nisan/CodeSamples/DBPP/?page=AddMeeting

Toastmasters Club Manager

UO Toastmasters Club Christopher Wilson (Log out)

Table Topics

Meeting Management

Add Meeting

Register for Role

Member Area

Adding a New Meeting

A Date : 12-3-2014 **B** Speech Slots : 3

C Comments :

D Meeting Roles

Toastmaster : Guest TableTopics Master : Guest

Vote Counter : Guest Timer : Guest

Gramarian : Guest General Evaluator : Guest

Ah Counter : Guest

E Add

- A- Enter the meeting date here. As shown in 6.7.1, clicking this will provide you a date picker to select the date.
- B- Pick number of speech slots here. There is only 3 options as shown in the 6.7.2 because of Toastmaster traditions and meeting time limitations.
- C- You can insert your comments here. This can be used to keep details about change of location, themed meetings, speech marathons [20], etc.

- D- Dropdown boxes to propose a member for a role. As shown in 6.7.3, the dropdown boxes get auto-populated with the names of the members. And any unclaimed/un-suggested role will be listed as “guest” because that position will be given to a guest at the meeting.
- E- Press this button to add the meeting. Once you press this button the interface shown in 6.7.4 will appear.

6.7.1 DatePicker

Date :

Comments :

Meeting Roles

December 2014						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

6.7.2 Select Speech Slots

Speech Slots :

3

4

5

6.7.3 Member selection

Toastmaster :

Guest

Nisansa de Silva

Normal Perera

Hasini Viranga Abeywickrama

Christopher Wilson

Ranga Rodrigo

Thilini Weerasuriya

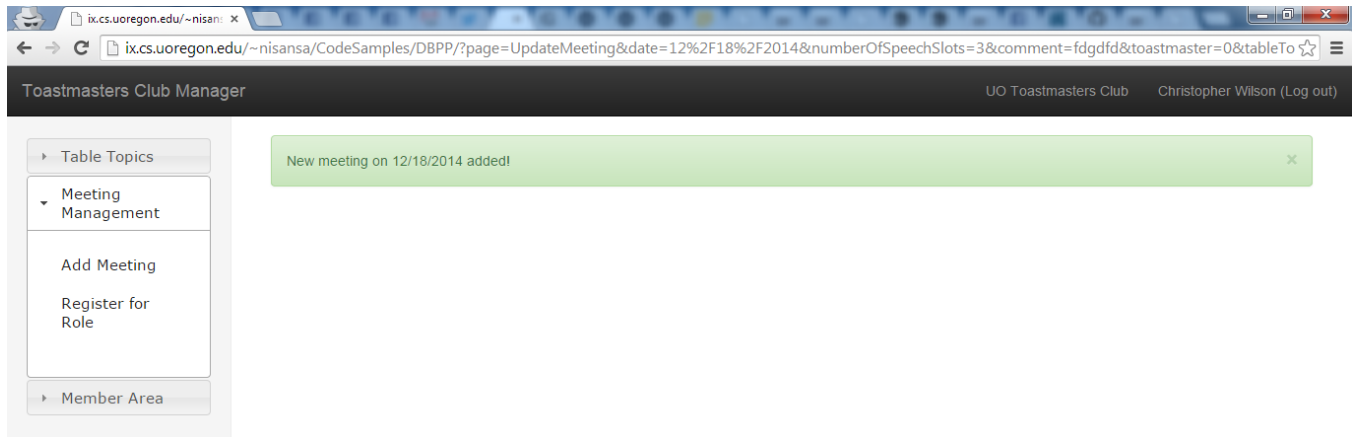
Upul Ekanayaka

Danaja Maldeniya

Senaka Samarasekara

Lakshitha Chathuranga

6.7.4 Meeting successfully added screen



6.8 “Volunteering for a role” Interface

Navigational Panel-> Meeting Management -> Register for a Role

Note: please check section 9.2.1 to read about my future plans for this interface.

The screenshot shows a web browser window with the URL `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/?page=EditMeeting`. The page title is "Toastmasters Club Manager". The left sidebar contains a "Meeting Management" section with a "Register for Role" button. The main content area is titled "Volunteering for a role". It contains a form with the following fields:

- Date :** 2014-11-30
- Speech Slots :** 3
- Comments :** Starting 1hr early
- Meeting Roles :**
 - Toastmaster :** Nisansa de Silva
 - TableTopics Master :** Hasini Viranga Abeywickrama
 - Vote Counter :** Nisansa de Silva
 - Timer :** Guest
 - Gramarian :** Upul Ekanayaka
 - General Evaluator :** Ranga Rodrigo
 - Ah Counter :** Thilini Weerasuriya

At the bottom of the form is a green "Update" button.

This screenshot is an annotated version of the previous one, with red boxes and letters highlighting specific areas:

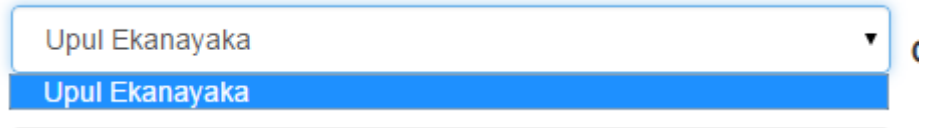
- A** points to the top section of the form, including the Date, Speech Slots, and Comments fields.
- B** points to the Meeting Roles section, which includes dropdown menus for Toastmaster, TableTopics Master, Vote Counter, Timer, Gramarian, General Evaluator, and Ah Counter.
- C** points to the green "Update" button at the bottom of the form.

- A- These sections are un-editable. They are just for viewing.
- B- Dropdown boxes to propose a volunteer member for a role. Refer the sections 6.8.1, 6.8.2, and 6.8.3 to see how the lists will be populated in each unique use case.
- C- Press this button to add the meeting. Once you press this button the interface shown in 6.8.4 will appear.

6.8.1 Roles claimed by others

As shown in the screenshot below, roles claimed by others cannot be changed by you. Those lists will only have their name. (i.e.: You cannot expel members from roles once they have volunteered or initially proposed by an executive member)

Gramarian :

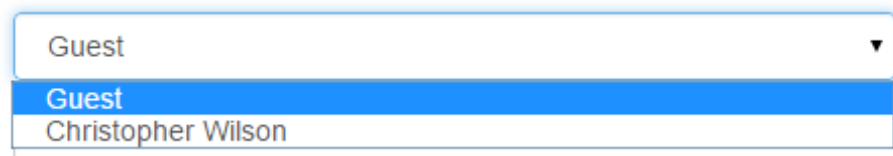


A dropdown menu for the 'Gramarian' role. The selected option is 'Upul Ekanayaka'. The dropdown list shows 'Upul Ekanayaka' as the only available option.

6.8.2 Unclaimed Roles

As shown in the screenshot below, unclaimed roles (ones listed as “guest”) can be changed by you. However, you can only volunteer yourself for a role. You cannot propose others.

Timer :

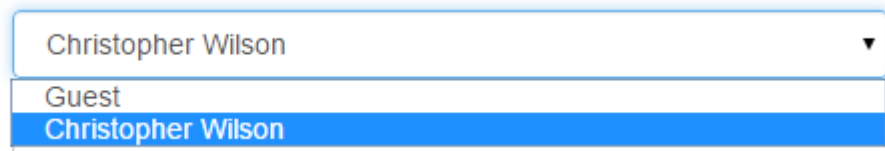


A dropdown menu for the 'Timer' role. The selected option is 'Guest'. The dropdown list shows 'Guest' and 'Christopher Wilson' as available options.

6.8.3 Resigning from a role

As shown in the screenshot below, any role that is currently assigned to you can be changed by you. However, you can only remove from the role and set it to “Guest”. You cannot propose another member to take your place.

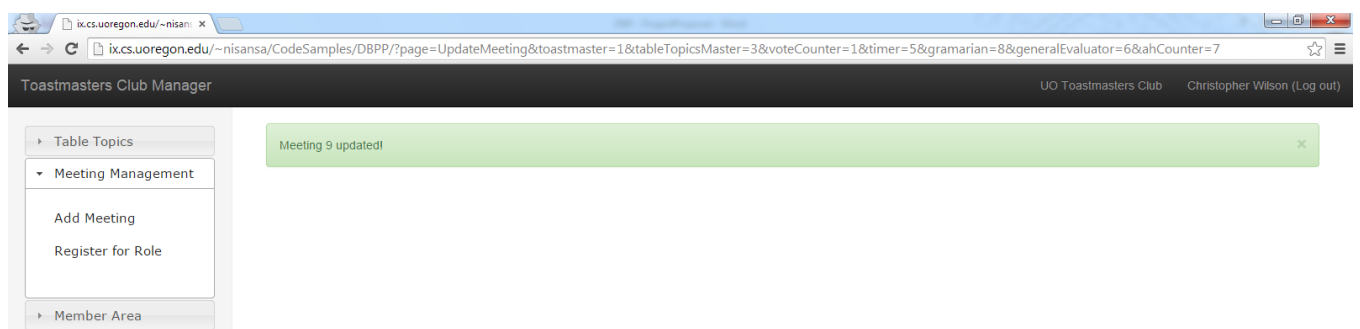
Timer :



A dropdown menu for the 'Timer' role. The selected option is 'Christopher Wilson'. The dropdown list shows 'Guest' and 'Christopher Wilson' as available options.

6.8.4 Meeting successfully updated screen

As shown in the screenshot below, unclaimed roles (ones listed as “guest”) can be changed by you. However, you can only volunteer yourself for a role. You cannot propose others.



6.9 “Add User” Interface

Navigational Panel-> Member Area -> Add User

The screenshot shows a web browser window with the URL `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/?page=AddUser`. The page title is "Toastmasters Club Manager". In the top right corner, it says "UO Toastmasters Club" and "Christopher Wilson (Log out)". On the left, there is a navigational panel with the following items: "Table Topics", "Meeting Management", "Member Area" (expanded), "Add User" (highlighted in blue), "Do a Speech!", "Be an Evaluator!", "Update Member Progress". The main content area contains the following form fields: "Name" (Full Name), "Email address (Used to login)" (Email address), "Password", "Confirm Password", and a checkbox for "Is administrator". At the bottom of the form is a green button labeled "Add User".

This interface is used to add a new user. All the fields are mandatory. The “Is administrator” checkbox determines the level of the user. Password and Confirm password match verification happens in the client end. Email address has to be properly formed. That verification is also done at the client end. Proper GUI prompts are given. Pressing the “Add User” button will show the following screen if the adding was successful.

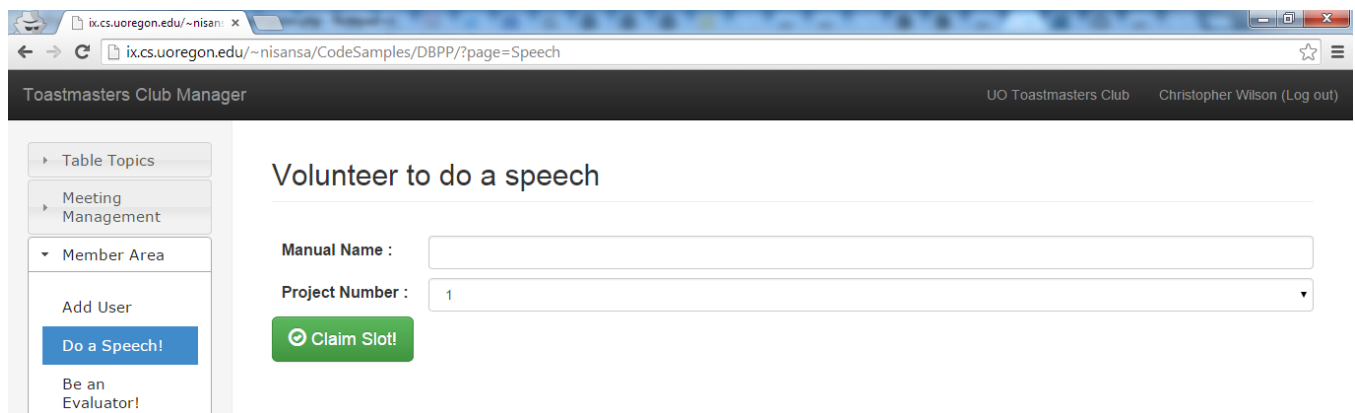
The screenshot shows the same web browser window, but the URL is now `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/`. The page title is "Toastmasters Club Manager". In the top right corner, it says "UO Toastmasters Club" and "Christopher Wilson (Log out)". On the left, the navigational panel has "Table Topics" expanded, showing "Random Topic!", "Search", "Add Topic", and "Edit Topics". Below this are "Meeting Management" and "Member Area". The main content area has a green notification bar at the top that says "User Sanjeeva Fernando added!". Below the notification bar is a green button labeled "View a random topic!".

You can view a random topic after adding the user.

6.10 “Volunteer to do a speech” Interface

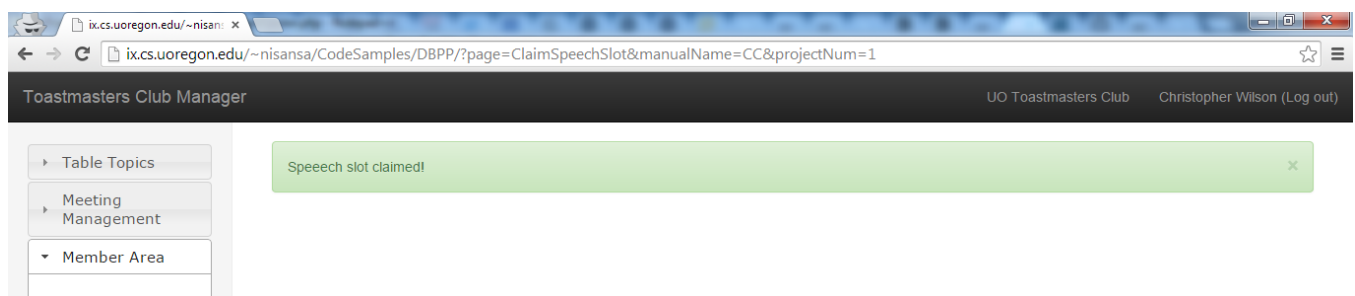
Navigational Panel-> Member Area -> Do a Speech!

If there are speech slots available in the next meeting the following interface will be shown.



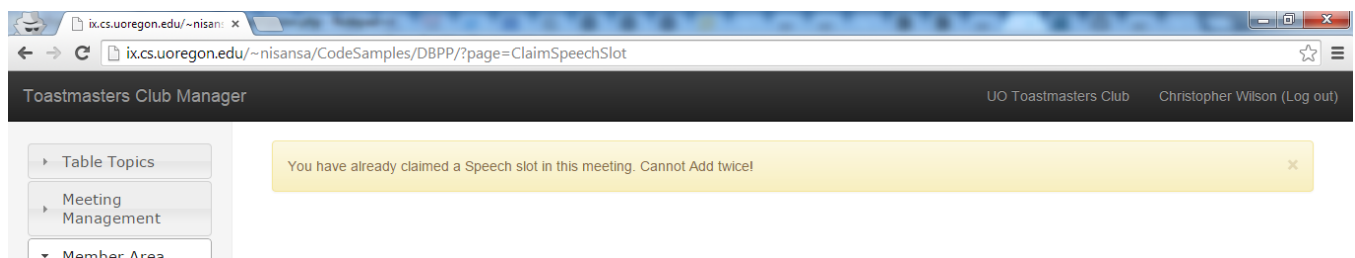
The screenshot shows a web browser window with the URL `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/?page=Speech`. The page title is "Volunteer to do a speech". On the left is a navigational panel with links: "Table Topics", "Meeting Management", and "Member Area". Under "Member Area", there are links for "Add User", "Do a Speech!" (highlighted in blue), and "Be an Evaluator!". The main content area has a "Manual Name" input field, a "Project Number" dropdown menu (showing "1"), and a green "Claim Slot!" button. The top navigation bar includes "Toastmasters Club Manager", "UO Toastmasters Club", and "Christopher Wilson (Log out)".

This interface is used to volunteer to do a speech. The manual name has to be typed. Then the project number is selected from the drop down list box. Finally the Claim slot button is pressed. The following screen is shown when the slot is claimed.



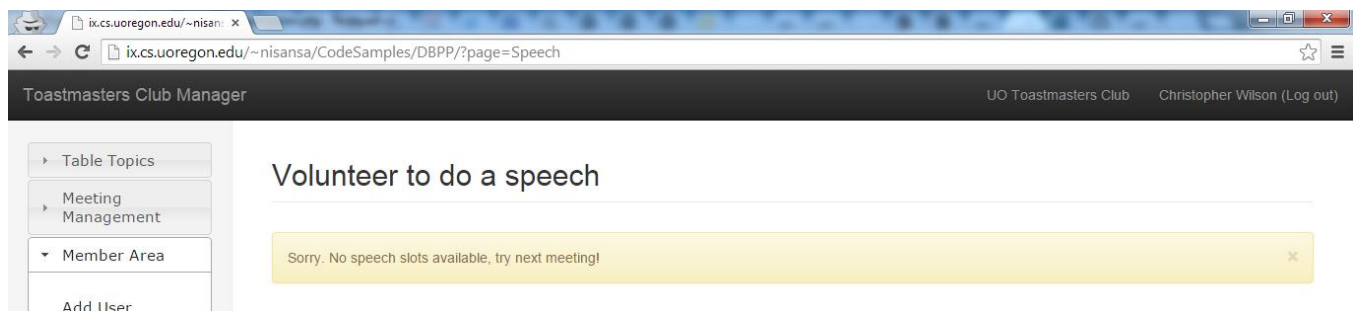
The screenshot shows the same web browser window, but the URL is now `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/?page=ClaimSpeechSlot&manualName=CC&projectNum=1`. A green message box at the top says "Speech slot claimed!". The left navigational panel is the same. The main content area is mostly empty, with the "Manual Name" and "Project Number" fields still visible. The top navigation bar remains the same.

If a member tries to claim two speech slots in the same meeting, the following warning will be shown.



The screenshot shows the same web browser window, but the URL is now `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/?page=ClaimSpeechSlot`. A yellow warning message box at the top says "You have already claimed a Speech slot in this meeting. Cannot Add twice!". The left navigational panel is the same. The main content area is mostly empty. The top navigation bar remains the same.

If no speech slots are available the following screen is shown.



The screenshot shows the same web browser window, but the URL is now `ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/?page=Speech`. A yellow message box at the top says "Sorry. No speech slots available, try next meeting!". The left navigational panel is the same. The main content area has the "Volunteer to do a speech" title and the input fields. The top navigation bar remains the same.

6.11 “Volunteer to be a speech evaluator” Interface

Navigational Panel-> Member Area -> Be an Evaluator!

The following interface will be shown indicating the situation of the speeches in the next meeting. The speeches that do not have an evaluator currently will have small green button.

Speaker	Manual	Project Number	Evaluator
Nisansa de Silva	Humourus	3	Evaluate
Hasini Viranga Abeywickrama	CC	6	Nisansa de Silva
Danaja Maldeniya	CC	1	Evaluate

Pressing the green button on a speaker slot will claim the evaluator slot and the following screen will be shown.

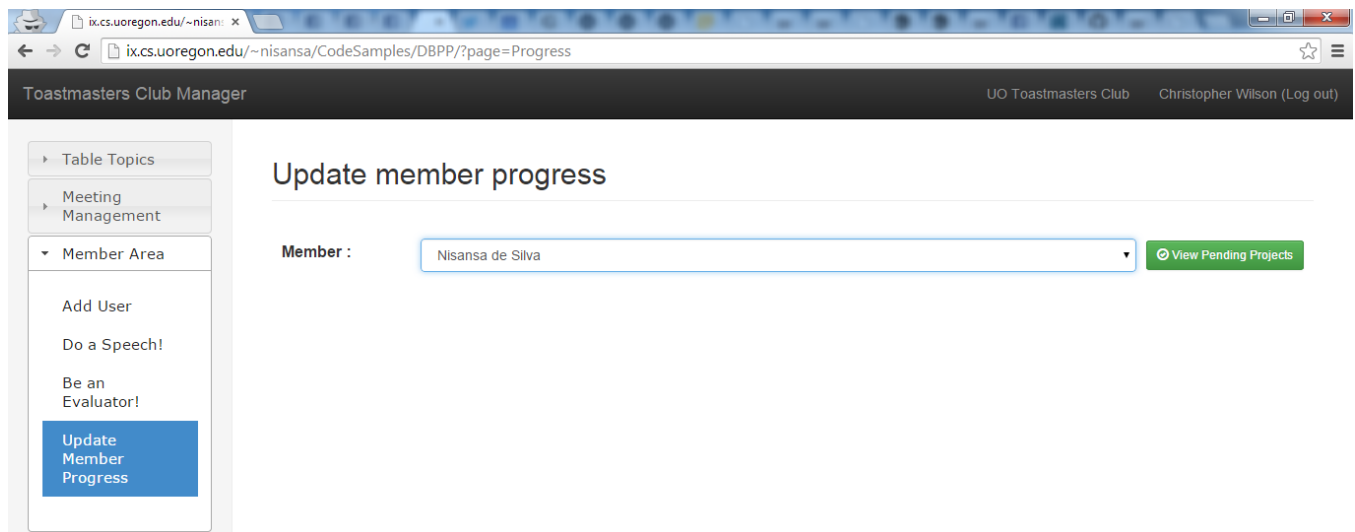
Evaluator slot claimed!

Now if you go back to the “Be an Evaluator!” screen, you can see your name at the correct place as shown below.

Speaker	Manual	Project Number	Evaluator
Nisansa de Silva	Humourus	3	Christopher Wilson
Hasini Viranga Abeywickrama	CC	6	Nisansa de Silva
Danaja Maldeniya	CC	1	Evaluate

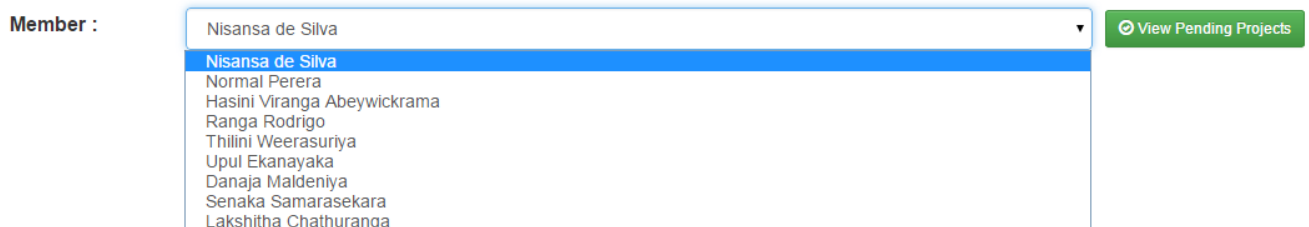
6.12 “Update Member Progress” Interface

Navigational Panel-> Member Area -> Update Member Progress



The Toastmasters International does not allow members to update their own progress so the member dropdown box will have the names of all members but the logged in member (self). Guest member is a default entity and the guests cannot follow the Communication or Leadership tracks. Thus the guest member is not shown in the list either. The image below gives an example. Because I am currently logged in as “Christopher Wilson”, all the members but “Christopher Wilson” is shown in the list.

Update member progress



Once you select the member for whom you need to update the progress, press the “View Pending Projects” button. It will show the following interface.

Toastmasters Club Manager

UO Toastmasters Club Christopher Wilson (Log out)

Table Topics

Meeting Management

Member Area

Add User

Do a Speech!

Be an Evaluator!

Update Member Progress

Update member progress

Member : Nisansa de Silva [View Pending Projects](#)

Progress update for Nisansa de Silva

Communications Track (Speech status)

Date	Manual	Project Number	Evaluator	Response
2014-10-31	Humourus	2	Normal Perera	Completed Missed
2014-11-30	Humourus	3		Completed Missed

Leadership Track

Has the member successfully completed the project number 1 for ALS? [Yes!](#)

The Communications Track (Speech status) show the speeches that the given member (Nisansa de Silva) in this case has promised to do but still unconfirmed by an executive member. If the member has successfully completed a speech shown here, press the corresponding “Completed” button. Otherwise press the corresponding “Missed” button. If the “Completed” button is pressed the following interface is shown.

Toastmasters Club Manager

UO Toastmasters Club Christopher Wilson (Log out)

Table Topics

Meeting Management

Member Area

Add User

Do a Speech!

Be an Evaluator!

Update Member Progress

Update member progress

Member : Nisansa de Silva [View Pending Projects](#)

Progress update for Nisansa de Silva

Communications Track (Speech status)

Speech Credit added!

Date	Manual	Project Number	Evaluator	Response
2014-11-30	Humourus	3		Completed Missed

Leadership Track

Has the member successfully completed the project number 1 for ALS? [Yes!](#)

If the “Missed” button is pressed the following interface is shown.

Toastmasters Club Manager

UO Toastmasters Club Christopher Wilson (Log out)

Table Topics
Meeting Management
Member Area

Add User
Do a Speech!
Be an Evaluator!
Update Member Progress

Update member progress

Member : Nisansa de Silva [View Pending Projects](#)

Progress update for Nisansa de Silva

Communications Track (Speech status)

Speech Credit NOT added!

Date	Manual	Project Number	Evaluator	Response
2014-11-30	Humorous	3		Completed Missed

Leadership Track

Has the member successfully completed the project number 1 for ALS? [Yes!](#)

The Leadership track shows the next project to be completed by this member. The next goal name and project level is retrieved from the data base to be shown here. By pressing the “Yes!” button you can confirm that member has completed a project in the Leadership track. The leadership track projects can be completed any time (Unlike speeches which tightly correspond to a particular meeting) so there is no negative feedback button for this. If the member has not completed the project yet the executive member can just ignore this section. If the “Yes” button is clicked, the following screen is shown.

Toastmasters Club Manager

UO Toastmasters Club Christopher Wilson (Log out)

Table Topics
Meeting Management
Member Area

Add User
Do a Speech!
Be an Evaluator!
Update Member Progress

Update member progress

Member : Nisansa de Silva [View Pending Projects](#)

Progress update for Nisansa de Silva

Communications Track (Speech status)

Leadership Credit added!

Date	Manual	Project Number	Evaluator	Response
2014-10-31	Humorous	2	Normal Perera	Completed Missed
2014-11-30	Humorous	3		Completed Missed

Leadership Track

Has the member successfully completed the project number 2 for ALS? [Yes!](#)

Notice how the system is already ready to accept the completion on the next leadership project completion. This can happen in reality as well. For example a leader may go to a leadership training session and complete a “club success planning meeting” there. Both of these are projects towards earning the ALB. This system allows such rapid fire goal completion to be tracked.

7 Table contents

You can use one of the following three methods to access the database dump;

1. Given below is a direct link to MySQL dump.
<http://ix.cs.uoregon.edu/~nisansa/CodeSamples/DBPP/toastmastersdb.sql>
2. Here is a link to the text copy of the MySQL dump. (Please refer section 8 for information about the automatic conversion script)
<http://ix.cs.uoregon.edu/~nisansa/CodeSamples/TEXTdownloder/phpDownloder.php?path=CodeSamples/DBPP&file=toastmastersdb&ext=sql>
3. This is a link to the MySQL dump on GitHub
<https://github.com/NisansaDdS/DatabaseProject/blob/master/toastmastersdb.sql>

8 Implementation code

I found it tedious to copy paste my php code to a text file each time I do an edit. So I wrote a script for it. The following is a link to the script with parameters to give you a text copy of my latest php file.

<http://ix.cs.uoregon.edu/~nisansa/CodeSamples/TEXTdownloder/phpDownloder.php?path=CodeSamples/DBPP&file=index>

And here is the link to the script to convert itself to text. (In case you want to see it too.)

<http://ix.cs.uoregon.edu/~nisansa/CodeSamples/TEXTdownloder/phpDownloder.php?path=CodeSamples/TEXTdownloder&file=phpDownloder>

Following is the link to the GitHub repository; <https://github.com/NisansaDdS/DatabaseProject>

9 Conclusion

9.1 Summary

In this project I have created a Simple Web Interface to manage a Toastmasters Club. It covers three main areas of a club; member management, meeting management and TableTopics repository. The software system has 8 tables and 12 applications. I have used triggers and transactions in appropriate places. The TableTopics repository currently holds 480 topics that are linked with 943 keywords with over 3000 bindings. Other tables are adequately populated as well. The system can be used in 3 different user levels; guest, member, executive member.

9.2 Future work

9.2.1 More distinct applications for user levels

The most important aspect that I have left out of this edition are the control features based on user levels. Even though this was done up to a certain level by locking functionalities as shown at 6.1, I would have liked to make these differences more pronounced. The reduction in functionality was done to make grading easy by implementing all the functionalities from the view of an admin (executive) user. However, for an extended edition, I would like to have different views for the executive and non-executive users. Especially in views such as 6.8. I would have liked to keep the current functionality of 6.8 for the non-executive users and grant full editing capabilities to executive users including, changing date, comments, and speech slots. I would like to give the ability to remove a person from a volunteered role or nominate a member for a role as well. Similarly I would like to introduce some more executive user functions such as generating reports, editing users.

9.2.2 Security improvements

Due to the fact that this application does not demand the information transferred to be private or secured (Toastmasters is a very transparent organization), I did not make use of stored procedures since the perceived

threat of someone hacking this system is minimal. However, added security will not be unwelcomed. Thus in future versions, I would implement stored procedures. On top of that I would replace some of the HTTP GET requests with HTTP POST requests to prevent parameter editing. Currently this is only done with the login section. But it can be extended to any other section that should be strictly under a certain user role. The reason that I did not implement this in this edition is because until I implement more distinct applications for users as described in 9.2.1, this extra level of security does not make any sense.

9.2.3 UI and documentation improvements

Currently all the GUIs are loaded via PHP code as new pages. Various states of view is handled by the changes of parameters. A good example of how I used this approach is the “Update Member Progress” at 6.12. But I would like to improve this by using AJAX so that I do not have to do page loads per click.

Further some clubs provide the members with a printed agenda at the meetings. I can use the meeting data in the database to create PDF for printing. The reason that I did not attempt this in the current version is because the UO toastmasters club do not use printed agendas. But it is a process that I can try to introduce to the club.

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