Duy Tan University
International School

Team 5
K15CMU_TCD
team5capstonek15@gmail.com

E-LEARNING COMMUNITY NETWORK

DATABASE DESIGN DOCUMENT
Version 1.1

Mentor: **M.S.Nguyen Duc Man**

Group members:
- *Dang Huy Hoa*
- *Vo Nguyen Quoc*
- *Truong Thi Thu Trang*
- *Pham Truong*

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Document Information

Project	E-Learning Community Network
Document Title	Database Design
Creator	Dang Huy Hoa

Revision History

Version	Person	Date	Description
1.0	Dang Huy Hoa	May 07th 2012	Offical
1.1	Dang Huy Hoa	May 07th 2012	Add description for all column

Document Approval

Name	Role	Date	Signature
Dang Huy Hoa	Product Owner		

1. Introduction

1.1. Purpose

This document describes structure of database. It is created for developers and testers to implement source code and testing.

1.2. Related Documents

- ELCN.ProductBacklog
- ELCN.ArchitectureDocument
- ELCN.NamingConvention

2. Database Specification

2.1. Table Definitions

2.1.1. article

Column	Data type	Size	Description
id	INT	11	
title	VARCHAR	255	The title of article
permission	TINYINT	1	This column stores the number that identify permission for article. 0: no permission 1: read the lastest version only 2: read all revision of article 3: read all revision of article and edit (default)

2.1.2. field

Column	Data type	Size	Description
id	INT	11	
field_title	VARCHAR	255	The title of field
path_number	TINYINT	11	The number of learning paths that belong to this field

2.1.3. learning_path

Column	Data type	Size	Description

id	INT	11	
title	VARCHAR	255	The title of learning path
field_id	INT	11	The id of field that this learning path is belonged to. Reference to field table (id column)
permission	TINYINT	1	This column stores the number that identify permission for learning path. 0: no permission 1: read the lastest version only 2: read all revision of learning path 3: read all revision of learning path and edit (default)

2.1.4. member

Column	Data type	Size	Description
id	INT	11	
email	VARCHAR	255	Email of member
fullname	VARCHAR	255	Full name of member
password	VARCHAR	255	Password of member

2.1.5. popular_path

Column	Data type	Size	Description
path_order	TINYINT	1	The order of the learning path when it is displayed in home page (at popular path secsion)
LEARNING_PATH_ID	INT	11	The id of learning path Reference to field learning_path table (id column)

2.1.6. tag

Column	Data type	Size	Description
id	INT	11	
title	VARCHAR	255	The title of tag
path_number	INT	11	The number of learning paths that belong to this tag

2.1.7. video

Column	Data type	Size	Description
id	INT	11	

title	VARCHAR	255	The title of video
link	TEXT		The link to video
description	TEXT		The description to video
comment_number	INT	11	The comment number of video (in discussion)
MEMBER_ID	INT	11	The id of member who create this video link
permission	TINYINT	1	This column stores the number that identify permission for video. 0: no permission 1: member can watch video (default)

2.1.8. path_meta

Column	Data type	Size	Description
id	INT	11	
description	TEXT		The description of learning path

2.1.9. path_version

Column	Data type	Size	Description
id	INT	11	
version	TINYINT	4	The version of learning path
modified_date	DATETIME		The lastest modified date of learning path
PATH_META_ID	INT	11	The id of path meta Reference to field path_meta table (id column)
LEARNING_PATH_ID	INT	11	The id of learning path Reference to field learning_path table (id column)
CONTRIBUTOR_ID	INT	11	The id of member who create this version of learning path

2.1.10. article_version

Column	Data type	Size	Description
id	INT	11	
content	TEXT		The content of article at the version which is identified in version column of this table
version	TINYINT	4	The version of the content of the article
modified_date	DATETIME		The modified date of this version

ARTICLE_ID	INT	11	The main article id (for user can read all versions)
CONTRIBUTOR_ID	INT	11	The id of member who create this version of article

2.1.11. path_has_tag

Column	Data type	Size	Description
LEARNING_PATH_ID	INT	11	The id of learning path Reference to field learning_path table (id column)
TAG_ID	INT	11	The id of tag Reference to field tag table (id column)

2.1.12. path_discussion

Column	Data type	Size	Description
id	INT	11	
created_date	DATETIME		The date of the comment was created in discussion
total_voting_number	INT	11	The total number of voting for comment
helpful_voting_number	INT	11	The helpful number of voting for comment
content	TEXT		The content of comment in discussion
LEARNING_PATH_ID	INT	11	

2.1.13. schedule

Column	Data type	Size	Description
id	INT	11	
MEMBER_ID	INT	11	The id of member who created this schedule
LEARNING_PATH_ID	INT	11	The learning path which schedule based on
created_date	DATETIME		The date schedule was created
start_date	DATE		The start date of schedule
end_date	DATE		The end date of schedule

2.1.14. schedule_detail

Column	Data type	Size	Description
id	INT	11	
SCHEDULE_ID	INT	11	

type_schedule	TINYINT	1	Type of schedule 1. Specified time 2. Non-specified time, but there is duration in a specified date
carry_out_date	DATE		The date when action of schedule must be done
start_time	TIME		The start time of action (if type is 1)
end_time	TIME		The end time of action (if type is 1)
duration	TINYINT	2	The duration of action (if type is 2)
task	VARCHAR	255	The action which member should done to complete schedule

2.1.15.   path_rating

Column	Data type	Size	Description
<u>id</u>	INT	11	
rating	TINYINT	1	The level of rating for learning path
LEARNING_PATH_ID	INT	11	The id of learning path is rated

2.1.16.   activity_type

Column	Data type	Size	Description
<u>id</u>	INT	11	
title	VARCHAR	255	The title of activity type

2.1.17.   activity_log

Column	Data type	Size	Description
<u>id</u>	INT	11	
MEMBER_ID	INT	11	The id of member. Referance to member table
ACTIVITY_TYPE_ID	INT	11	The type of activity. Reference to activity_type table
title	TEXT		The title of activity

2.1.18.   article_rating

Column	Data type	Size	Description
<u>id</u>	INT	11	
rating	TINYINT	1	The level of rating for article
ARTICLE_ID	INT	11	The id of article is rated

2.1.19. video_rating

Column	Data type	Size	Description
id	INT	11	
rating	TINYINT	1	The level of rating for video
VIDEO_ID	INT	11	The id of video is rated

2.1.20. article_discussion

Column	Data type	Size	Description
id	INT	11	
created_date	DATETIME		The date of the comment was created in discussion
total_voting_number	INT	11	The total number of voting for comment
helpful_voting_number	INT	11	The helpful number of voting for comment
content	TEXT		The content of comment in discussion
ARTICLE_ID	INT	11	

2.1.21. video_discussion

Column	Data type	Size	Description
id	INT	11	
created_date	DATETIME		The date of the comment was created in discussion
total_voting_number	INT	11	The total number of voting for comment
helpful_voting_number	INT	11	The helpful number of voting for comment
content	TEXT		The content of comment in discussion
VIDEO_ID	INT	11	

2.1.22. completed_article

Column	Data type	Size	Description
ARTICLE_ID	INT	11	The id of article
MEMBER_ID	INT	11	The id of member
completed	BOOLEAN		This column specifies if an article is read by member or not

2.1.23. completed_video

Column	Data type	Size	Description

VIDEO_ID	INT	11	The id of video
MEMBER_ID	INT	11	The id of member
completed	BOOLEAN		This column specifies if a video is watched by member or not

2.1.24. section_meta

Column	Data type	Size	Description
id	INT	11	
title	VARCHAR	255	The title of section meta
description	TEXT		The description of section meta
content	TEXT		The content of section meta

2.1.25. path_section

Column	Data type	Size	Description
PATH_VERSION_ID	INT	11	Reference to path_version table (id column)
SECTION_META_ID	INT	11	Reference to section_meta table (id column)

Comment:

- Primary key: Bold, Underline
- Foregn key: Bold, Italics

2.2. Table Relationship Diagrams

(please go to next page)

section_meta
- id INT(11)
- title VARCHAR(255)
- description TEXT
- content TEXT
- Indexes

article_discussion
- id INT(11)
- created_date DATETIME
- total_voting_number INT(11)
- helpful_voting_number INT(11)
- content TEXT
- article_id INT(11)
- Indexes

field
- id INT(11)
- field_title VARCHAR(255)
- path_number INT(11)
- Indexes

path_rating
- id INT(11)
- rating TINYINT(1)
- learning_path_id INT(11)
- Indexes

popular_path
- path_order TINYINT(1)
- learning_path_id INT(11)
- Indexes

path_meta
- id INT(11)
- description TEXT
- Indexes

path_section
- path_version_id INT(11)
- section_meta_id INT(11)
- Indexes

article_rating
- id INT(11)
- rating TINYINT(1)
- article_id INT(11)
- Indexes

tag
- id INT(11)
- title VARCHAR(255)
- path_number INT(11)
- Indexes

path_has_tag
- learning_path_id INT(11)
- tag_id INT(11)
- Indexes

article
- id INT(11)
- title VARCHAR(255)
- permission TINYINT(1)
- Indexes

path_discussion
- id INT(11)
- created_date DATETIME
- total_voting_number INT(11)
- helpful_voting_number INT(11)
- content TEXT
- learning_path_id INT(11)
- Indexes

learning_path
- id INT(11)
- title VARCHAR(255)
- field_id INT(11)
- permission TINYINT(1)
- Indexes

path_version
- id INT(11)
- version TINYINT(4)
- modified_date DATETIME
- path_meta_id INT(11)
- learning_path_id INT(11)
- contributor_id INT(11)
- Indexes

article_version
- id INT(11)
- content TEXT
- version TINYINT(4)
- modified_date DATETIME
- article_id INT(11)
- contributor_id INT(11)
- Indexes

completed_article
- article_id INT(11)
- member_id INT(11)
- completed BOOLEAN
- Indexes

schedule_detail
- id INT
- schedule_id INT(11)
- type_schedule TINYINT(1)
- carry_out_date DATE
- start_time TIME
- end_time TIME
- duration TINYINT(2)
- task VARCHAR(255)
- Indexes

schedule
- id INT(11)
- member_id INT(11)
- learning_path_id INT(11)
- created_date DATETIME
- start_date DATE
- end_date DATE
- Indexes

video_rating
- id INT(11)
- rating TINYINT(1)
- video_id INT(11)
- Indexes

video
- id INT(11)
- title VARCHAR(255)
- link TEXT
- description TEXT
- comment_number INT(11)
- member_id INT(11)
- permission TINYINT(1)
- Indexes

completed_video
- video_id INT(11)
- member_id INT(11)
- completed BOOLEAN
- Indexes

member
- id INT(11)
- email VARCHAR(255)
- fullname VARCHAR(255)
- password VARCHAR(255)
- Indexes

video_discussion
- id INT(11)
- created_date DATETIME
- total_voting_number INT(11)
- helpful_voting_number INT(11)
- content TEXT
- video_id INT(11)
- Indexes

activity_type
- id INT(11)
- title VARCHAR(255)
- Indexes

activity_log
- id INT
- member_id INT(11)
- activity_type_id INT(11)
- title TEXT
- Indexes