16/03/17

CS4014/CS4065/ET4243 Software Engineering Project/Web Application Development

Deliverable 2

Week 8

Group 8

William O'Leary (15155528)

Aaron Dunne (15148602)

Aidan Cleere (15160009)

Bernard Steemers (15182819)

Contents:

Introduction

This report details the database schema created by Group 8 for the CS4014/CS4065/ET4243 Software Engineering Project/Web Application Development project. This document consists of a single section, containing;

1. Database Table Synopsis – a simple listing of the attributes and datatypes for every table in the database. In some cases this is followed by a short note explaining the logic behind the grouping of certain attributes in the same table.

2. Table SQL Creation Declarations – the SQL statements used to create each table on the group's MySQL database, including information on Foreign Key constraints, use of auto-increment , and default attribute values.

3. Link to Git Repository file - https://github.com/willoleary6/CS4014-Project/tree/master/Database%20schema

Database Tables

This section displays all database tables, attributes and datatypes, with the SQL create table statements included to show foreign keys, default values and auto-increments.

In all tables with their own generated id attribute, this attribute is named simply id, but is also used as foreign keys for other tables.

User Details

User_id(primary)	First_name	Last_name	Student/staff_id	Email
int(11)	varchar(16)	varchar(16)	int(10)	varchar(30)

Subject_id(foreign)	password	Reputation_score
int(11)	varchar(16)	Int(11)

CREATE TABLE `user_details` (

 `user_id` int(11) NOT NULL COMMENT ' unique id number for every user .',

 `first_name` varchar(16) COLLATE utf8_unicode_ci NOT NULL COMMENT 'first name of the user',

 `last_name` varchar(16) COLLATE utf8_unicode_ci NOT NULL COMMENT 'last name of the user ',

 `student/staff_id` int(10) NOT NULL COMMENT 'id number of the student or staff member',

 `email` varchar(30) COLLATE utf8_unicode_ci NOT NULL COMMENT 'email of the user',

 `subject_id` int(11) NOT NULL COMMENT ' foreign key linking to a set table of predefined major_subjects ',

 `password` varchar(16) COLLATE utf8_unicode_ci NOT NULL COMMENT 'password of user',

 `reputation_score` int(11) NOT NULL COMMENT 'reputation score of the user'

) ENGINE=Inno

DB DEFAUL

T CHAR

SET=utf8 COLLATE=utf8_unicode_ci COMMENT='Table containing all the details of users in the systems';

ALTER TABLE `user_details`

 ADD PRIMARY KEY (`user_id`),

 ADD KEY `subject_id` (`subject_id`);

tasks

task_id(primary)	user_id(foreign)	title	Text_description	Task_type
int(11)	Int(11)	varchar(16)	Varchar(300)	varchar(100)

Attached_files	No_of_pages	No_of_words	Deadline	Claim_by_date
blob	Int(11)	Int(11)	Date_time	Claim_by_date

File_type	Tag_1(foreign)	Tag_2(foreign)	Tag_3(foreign)	Tag_4(foreign)
int(11)	Int(11)	Int(11)	Int(11)	Int(11)

```
CREATE TABLE `tasks` (

 `task_id` int(11) NOT NULL,

 `user_id` int(11) NOT NULL,

 `title` varchar(16) COLLATE utf8_unicode_ci NOT NULL,

 `text_description` varchar(300) COLLATE utf8_unicode_ci NOT NULL,

 `task_type` varchar(100) COLLATE utf8_unicode_ci NOT NULL,

 `Attached_files` blob NOT NULL,

 `no_of_pages` int(11) NOT NULL,

 `no_of_words` int(11) NOT NULL,

 `Deadline` datetime NOT NULL,

 `claim_by_date` datetime NOT NULL,

 `file_type` varchar(10) COLLATE utf8_unicode_ci NOT NULL,

 `tag_1` int(11) DEFAULT NULL,

 `tag_2` int(11) DEFAULT NULL,

 `tag_3` int(11) DEFAULT NULL,

 `tag_4` int(11) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci COMMENT='table with all the details of the table key';

ALTER TABLE `tasks`

 ADD PRIMARY KEY (`task_id`),

 ADD KEY `tag1` (`tag_1`),

 ADD KEY `tag2` (`tag_2`),

 ADD KEY `tag3` (`tag_3`),

 ADD KEY `tag4` (`tag_4`),

 ADD KEY `link to user` (`user_id`);
```

major_subjects

Subject_id(primary)	Subject_name
int(11)	varchar(30)

CREATE TABLE `major_subjects` (

 `subject_id` int(11) NOT NULL COMMENT ' holds the unique id number of each subject   ',

 `subject_name` varchar(30) COLLATE utf8_unicode_ci NOT NULL COMMENT 'name of each subject.'

) ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

ALTER TABLE `major_subjects`

 ADD PRIMARY KEY (`subject_id`);

status

Status_id(primary)	status
int(11)	Varhar(16)

CREATE TABLE `status` (

 `status_id` int(11) NOT NULL,

 `status` varchar(16) COLLATE utf8_unicode_ci NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

ALTER TABLE `status`

 ADD PRIMARY KEY (`status_id`);

tags

tag_id(primary)	text
int(11)	Varhar(16)

CREATE TABLE `tags` (

 `tag_id` int(11) NOT NULL,

 `text` varchar(16) COLLATE utf8_unicode_ci NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

ALTER TABLE `tags`

 ADD PRIMARY KEY (`tag_id`);

taskStatus

TaskStatus_id(primary)	Status_id(foreign)	Claim_id(foreign)	timestamp
int(11)	Int(11)	Int(11)	timestamp

CREATE TABLE `taskStatus` (

 `taskStatus_id` int(11) NOT NULL,

 `status_id` int(11) NOT NULL,

 `claim_id` int(11) NOT NULL,

 `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP

) ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

ALTER TABLE `taskStatus`

 ADD PRIMARY KEY (`taskStatus_id`),

 ADD KEY `link to claim` (`claim_id`),

 ADD KEY `link to status` (`status_id`);

Task_claims

CREATE TABLE `task_claims` (

Claim_id(primary)	task_id(foreign)	user_id(foreign)
int(11)	Int(11)	Int(11)

 `claim_id` int(11) NOT NULL,

 `task_id` int(11) NOT NULL,

 `user_id` int(11) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

ALTER TABLE `task_claims`

 ADD PRIMARY KEY (`claim_id`),

 ADD KEY `link to task` (`task_id`),

 ADD KEY `link to claimant` (`user_id`);