DCS Codex Notification System
Data Design Document

Submitted to:

Asst. Prof. Ma. Rowena C. Solamo
Faculty Member
Department of Computer Science
College of Engineering
University of the Philippines, Diliman

Submitted by:
Galano, Anica Clarice Antonella P.
Isidro, Rogiella Beatrice N.
Tabagan, Ken Aaron F.

In partial fulfillment of Academic Requirements
for the course
CS 191 Software Engineering I
of the
1st Semester, AY 2019-2020

Unique Reference:

The documents are stored in this folder:
https://github.com/theswinghobo/DCSCodexApp/tree/master/03-Design%20Engineering

Document Purpose:

The purpose of this document is to map out our projected design for the database. It is also in partial fulfillment of CS 191 requirements.
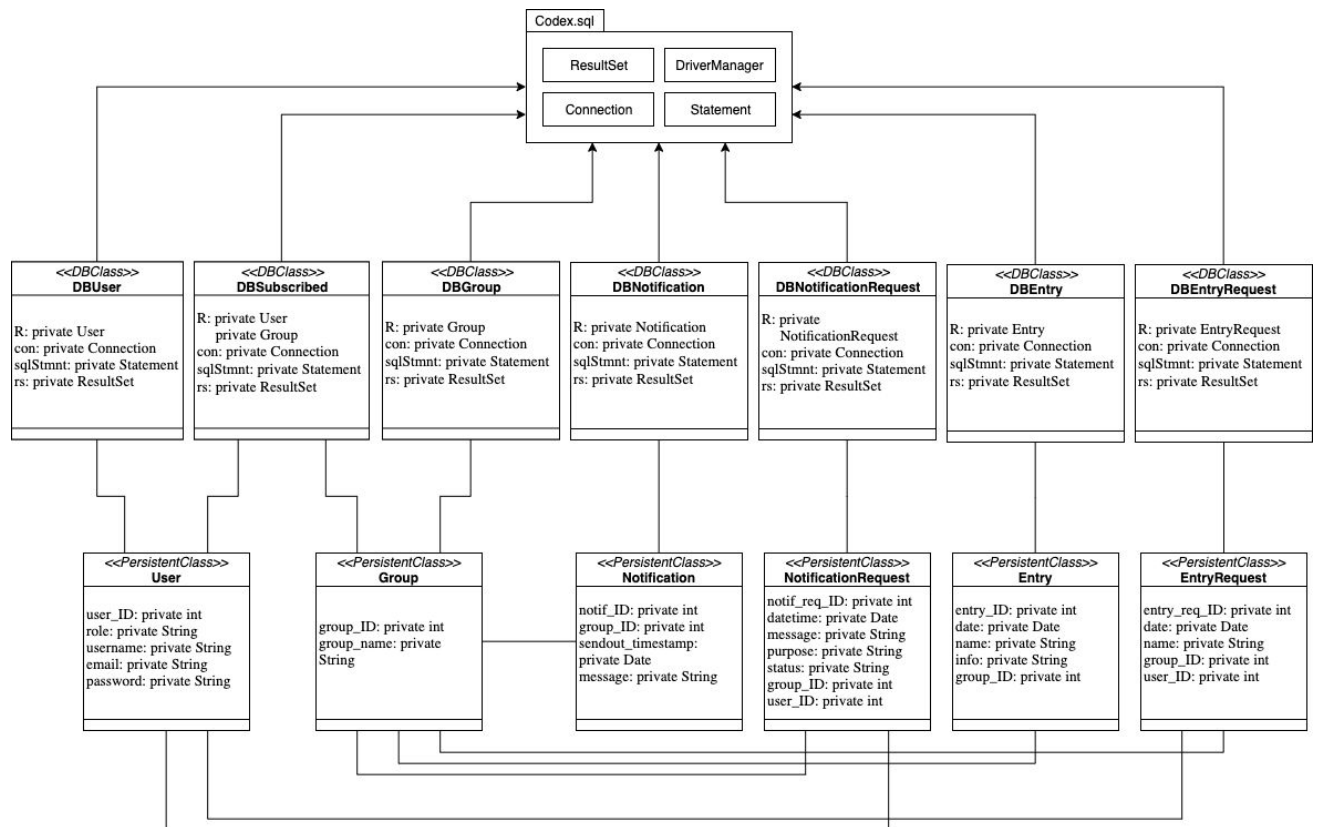
Target Audience:

The target audience is Ma'am Solamo, the professor of CS 191, who will be checking our design. It's also for our reference in the process of our project making.

Revision Control

History Revision:

Revision Date	Person Responsible	Version Number	Contribution/Modification
10/23/19	Anica Galano	1.0	Initial document edits
10/24/19	Ken Tabagan	1.1	Initial edits to DBClasses, Persistent Classes. Edits to Logical Database Design and initial tables.
10/24/19	Anica Galano	1.2	Edits and added to DBClasses/Persistent Classes and "DCS Codex App Database" tables
10/25/19	Rog Isidro	1.3	Added Data Design Class Diagram

Data Design:

Codex.sql

| ResultSet | DriverManager |
| Connection | Statement |

<<DBClass>>
DBUser

R: private User
con: private Connection
sqlStmnt: private Statement
rs: private ResultSet

<<DBClass>>
DBSubscribed

R: private User
   private Group
con: private Connection
sqlStmnt: private Statement
rs: private ResultSet

<<DBClass>>
DBGroup

R: private Group
con: private Connection
sqlStmnt: private Statement
rs: private ResultSet

<<DBClass>>
DBNotification

R: private Notification
con: private Connection
sqlStmnt: private Statement
rs: private ResultSet

<<DBClass>>
DBNotificationRequest

R: private
   NotificationRequest
con: private Connection
sqlStmnt: private Statement
rs: private ResultSet

<<DBClass>>
DBEntry

R: private Entry
con: private Connection
sqlStmnt: private Statement
rs: private ResultSet

<<DBClass>>
DBEntryRequest

R: private EntryRequest
con: private Connection
sqlStmnt: private Statement
rs: private ResultSet

<<PersistentClass>>
User

user_ID: private int
role: private String
username: private String
email: private String
password: private String

<<PersistentClass>>
Group

group_ID: private int
group_name: private
String

<<PersistentClass>>
Notification

notif_ID: private int
group_ID: private int
sendout_timestamp:
private Date
message: private String

<<PersistentClass>>
NotificationRequest

notif_req_ID: private int
datetime: private Date
message: private String
purpose: private String
status: private String
group_ID: private int
user_ID: private int

<<PersistentClass>>
Entry

entry_ID: private int
date: private Date
name: private String
info: private String
group_ID: private int

<<PersistentClass>>
EntryRequest

entry_req_ID: private int
date: private Date
name: private String
group_ID: private int
user_ID: private int

DBClasses:

Class Name	Description
DBUser	This DBClass is responsible for getting User data from the database.
DBGroup	This DBClass is responsible for getting Group data from the database.
DBNotification	ThisDBClass is responsible for getting Notification data from the database.
DBNotificationRequest	This DBClassis responsible for getting NotificationRequest data from the database.
DBEntry	This DBClass is responsible for getting Entry data from the database.
DBEntryRequest	This DBClass is responsible for getting EntryRequest data from the database.
DBSubscribed	This DBClass is responsible for getting Subscribed data from the database.

Persistent Classes:

Class Name	Description
User	This persistent class is responsible for holding a user record.
Group	This persistent class is responsible for holding a group record.
Notification	This persistent class is responsible for holding a notification record.
NotificationRequest	This persistent class is responsible for holding a notification request record.
Entry	This persistent class is responsible for holding an entry record.
EntryRequest	This persistent class is responsible for holding an entry request record.

Database Name: DCS Codex App Database
Description: This is the database that contains tables related to the DCS Codex and the DCS Codex Notification System.

Tables	Descriptions
User	It contains the records of all users registered to the application.
Group	It contains the record of all group categories.
Subscribed	It contains all records of user-group pairs (i.e. user subscribed to group/s)
Notification	It contains all records of notifications.
Notification Request	It contains all records of notification requests.
Entry	It contains all records of entries.
Entry Request	It contains all records of entry requests.

Logical Database Design:

STORE

Number	Name	Address
SMALLINT	VARCHAR(250)	VARCHAR(250)
99	X(250)	X(250)
PK,UA,ND1	NN,ND1	
10	GangStore in Alabama	Alabama
20	GangStore in West Virginia	West Virginia
30	GangStore in North Dakota	NorthDakota

EMPLOYEE

Number	LastName	FirstName	MiddleName	Store	Manager	Date_Hired
SMALLINT	VARCHAR(100)	VARCHAR(100)	CHAR(4)	SMALLINT	SMALLINT	DATE
9999	X(100)	X(100)	X(100)	99	9999	Mon dd, yyyy
PK,UA	NN	NN		NN,FK		NN,NC
5001	Cruz	Juan	Martinez	10	5000	Dec 25, 2005
5002	Enriquez	Sheila	San Pedro	10	5001	Jun 4, 2008
5003	Ferrer	Grace	Atienza	20	5000	Jan 16, 1997
5004	Franz	Jane	Solamo	20	5003	Jan 4, 1998

ITEM

Code	Description
SMALLINT	VARCHAR(250)
99	X(250)
PK,UA	NN
1001	Wheat Germs
1002	White Peppers
1003	Iodized Salts
1004	Oregano
1005	Basil Leaves

User

user_ID	role	username	email	password
INT	VARCHAR(5)	VARCHAR(15)	VARCHAR(50)	VARCHAR(60)
99999	X(5)	X(15)	X(50)	X(60)
PK, SA	**NN**	**NN, ND**	**NN, ND**	**NN**
1	user	apgalano1	apgalano1@up.edu.ph	1nsfbh3bfvnjknf
2	admin	ktabagan1	ktabagan1@up.edu.ph	efmskfmi643nj3
3	user	risidro1	risidro1@up.edu.ph	dsfjnjai423njdfsi

Group

group_ID	group_name
INT	VARCHAR(50)
PK, SA	**NN, ND**
1	All
2	DCS Servers
3	CS 191

Subscribed

user_ID	group_ID
INT	INT
99999	99999
PK,FK	**PK,FK**
1	1
1	2
3	1

Notification

notif_ID	group_ID	sendout_timestamp	message
INT	INT	DATETIME	VARCHAR(250)
99999	99999	YYYY-MM-DD	X(250)
PK, SA	**FK, NN**	**NN**	**NN**
1	1	2019-10-31	No classes tomorrow and on Saturday due to Undas.
2	2	2019-10-25	Need manpower for tomorrow's Ideathon!
3	1	2019-12-25	Merry Christmas!

Notification Request

notif_req_ID	datetime	message	purpose	status	group_ID	user_ID
PK	DATETIME	VARCHAR(250)	VARCHAR(250)	VARCHAR(10)	INT	INT
99999	YYYY-MM-DD HH:MI:SS	X(250)	X(250)	X(10)	99999	99999
PK, SA	**NN, NC**	**NN, NC**	**NN, NC**	**NN**	**FK, NN**	**FK, NN**
1	2019-10-25 12:00:00	There are 5 available slots for the Ideathon! Sign up now!	To inform and invite people to join the Ideathon tomorrow.	APPROVED	1	1
2	2019-10-28 20:00:00	Please answer meeting poll! Thank you!	To bump members into answering the poll.	PENDING	2	1
3	2019-10-31 00:00:00	Happy Halloween! Spoopy!	To greet everyone for Halloween.	REJECTED	1	3

Entry

entry_ID	date	name	info	group_ID
INT	DATE	VARCHAR(50)	VARCHAR(250)	INT
99999	YYYY-MM-DD	X(50)	X(250)	99999
PK, SA	**NN**	**NN**		**FK, NN**
1	2019-10-26	GeeCS Ideathon	P5,000.00 Grand Prize! Lec Hall from 8:30AM-4:00PM.	1
2	2019-11-01	CSI Team Building	*null*	1
3	2019-11-01	CS 191 Workshop # 11 Deadline	*null*	3

Entry Request

entry_req_ID	date	name	info	group_ID	user_ID
PK	DATE	VARCHAR(50)	VARCHAR(250)	INT	INT
99999	YYYY-MM-DD	X(50)	X(250)	99999	99999
PK, SA	**NN**	**NN**		**FK, NN**	**FK, NN**
1	2019-10-25	CS 191 Workshop # 10 Deadline	Data Design Workshop - due 7PM	3	1
2	2019-10-26	Anica's Birthday	Happy Birthday Anica!	1	3
3	2019-10-30	DCSS Meeting # 3	Tables outside Lec Hall	2	1