

# 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  
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### ***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:***

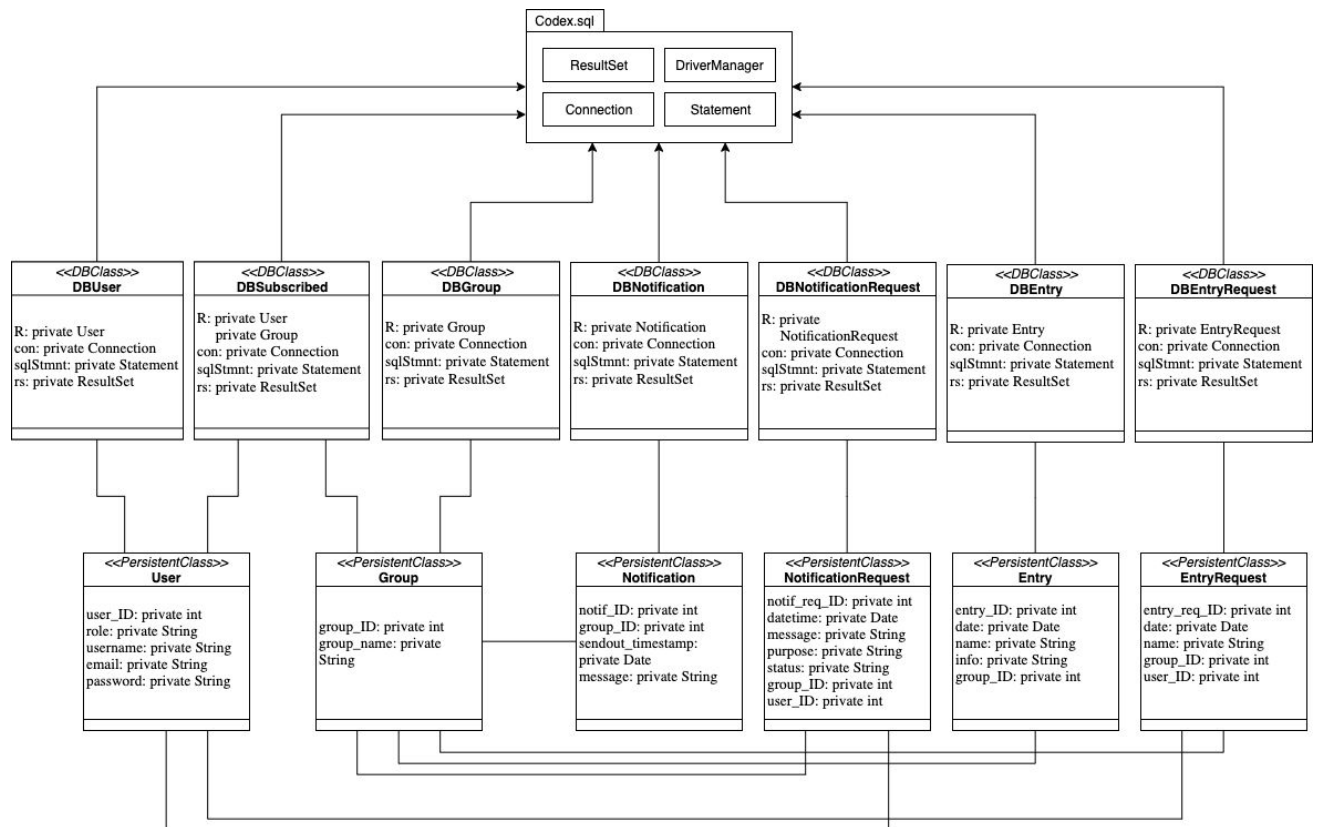
The target audience is Ma'am Solamo, the professor of CS 191, who will be checking our design. It's also for our reference in the process of our project making.

### ***Revision Control***

#### *History Revision:*

| <b><i>Revision Date</i></b> | <b><i>Person Responsible</i></b> | <b><i>Version Number</i></b> | <b><i>Contribution/Modification</i></b>  |
|-----------------------------|----------------------------------|------------------------------|--|
| 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:



*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               |
|--------------------|----------------------------|-----------------------|
| <b>SMALLINT</b>    | <b>VARCHAR( 250 )</b>      | <b>VARCHAR( 250 )</b> |
| 99                 | X( 250 )                   | X( 250 )              |
| <b>PK, UA, ND1</b> | <b>NN, ND1</b>             |                       |
| 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    |
|-----------------|---------------------|---------------------|------------------|-----------------|-----------------|---------------|
| <b>SMALLINT</b> | <b>VARCHAR(100)</b> | <b>VARCHAR(100)</b> | <b>CHAR( 4 )</b> | <b>SMALLINT</b> | <b>SMALLINT</b> | <b>DATE</b>   |
| 9999            | X(100)              | X(100)              | X(100)           | 99              | 9999            | Mon dd, yyyy  |
| <b>PK, UA</b>   | <b>NN</b>           | <b>NN</b>           |                  | <b>NN, FK</b>   |                 | <b>NN, NC</b> |
| 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           |
|-----------------|-----------------------|
| <b>SMALLINT</b> | <b>VARCHAR( 250 )</b> |
| 99              | X( 250 )              |
| <b>PK, UA</b>   | <b>NN</b>             |
| 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)             |
| <b>PK, SA</b> | <b>NN</b>  | <b>NN, ND</b> | <b>NN, ND</b>       | <b>NN</b>         |
| 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)   |
| <b>PK, SA</b> | <b>NN, ND</b> |
| 1             | All           |
| 2             | DCS Servers   |
| 3             | CS 191        |

### *Subscribed*

| user_ID      | group_ID     |
|--------------|--------------|
| INT          | INT          |
| 99999        | 99999        |
| <b>PK,FK</b> | <b>PK,FK</b> |
| 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)  |
| <b>PK, SA</b> | <b>FK, NN</b> | <b>NN</b>         | <b>NN</b>   |
| 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         |
| <b>PK, SA</b> | <b>NN, NC</b>       | <b>NN, NC</b>  | <b>NN, NC</b>  | <b>NN</b>   | <b>FK, NN</b> | <b>FK, NN</b> |
| 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! Spooky!                                   | 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         |
| <b>PK, SA</b> | <b>NN</b>  | <b>NN</b>                        |   | <b>FK, NN</b> |
| 1             | 2019-10-26 | GeeCS Ideathon                   | P5,000.00 Grand Prize!<br>Lec Hall from<br>8:30AM-4:00PM. | 1             |
| 2             | 2019-11-01 | CSI Team Building                | <i>null</i>   | 1             |
| 3             | 2019-11-01 | CS 191 Workshop # 11<br>Deadline | <i>null</i>   | 3             |

### Entry Request

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