

Schedule Optimizer

Data Design Document

Submitted to:

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Unique Reference:

The documents are stored in the

<https://github.com/DarkLuminosity/Schedule-Optimizer/tree/master/03-Design%20Engineering> referenced with Schedule Optimizer-Data Design.pdf.

Document Purpose:

The purpose of this document would be to elaborate the database design that will be used for the Schedule Optimizer application.

Target Audience:

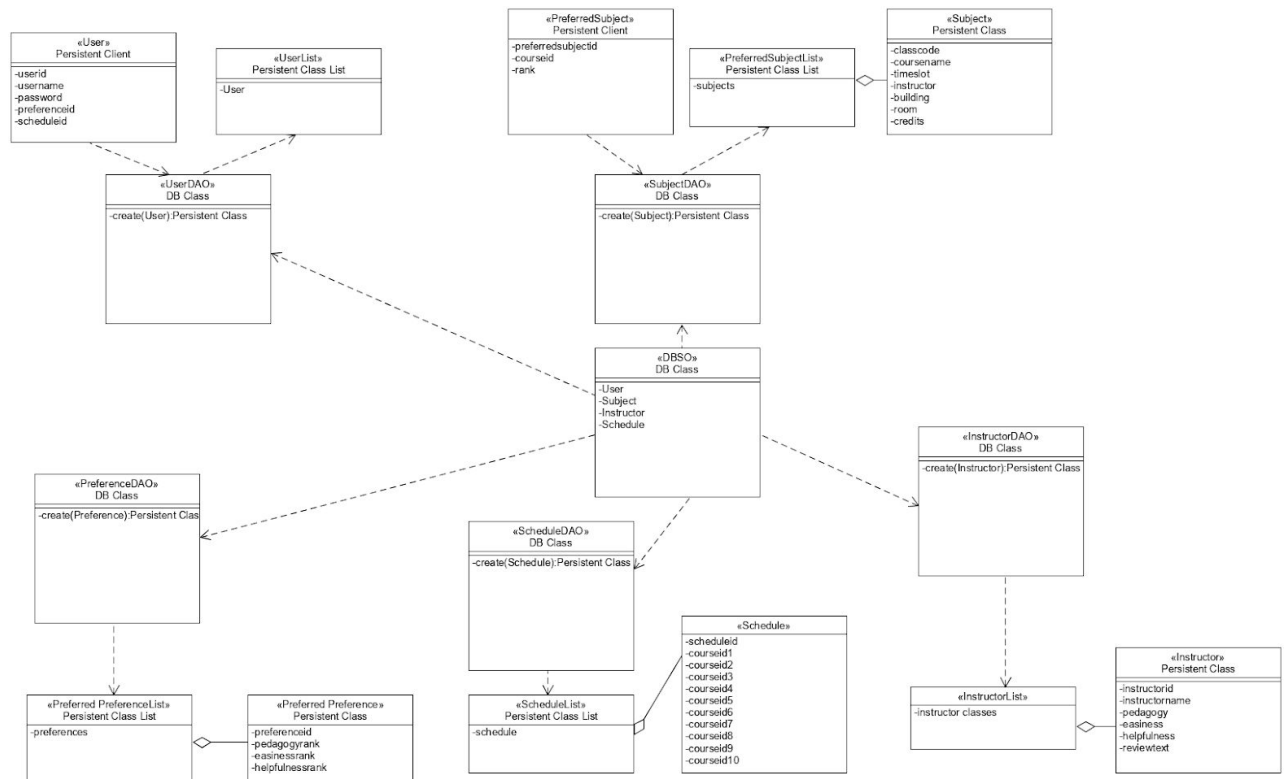
The target audience would be UP Diliman undergraduate students.

Revision Control

History Revision:

<i>Revision Date</i>	<i>Person Responsible</i>	<i>Version Number</i>	<i>Contribution/Modification</i>
10/22/19	Engelberg See	1.0	Prepared Initial Document Added Persistent Classes
10/24/19	Antonio Cavan	2.0	Added Static View of Data Design
10/24/19	Engelberg See	3.0	Added User, Subject and Instructor in List of data source: Logical Database Design
10/25/19	John Matthew Ramos	4.0	Added Preferred Subject, Preferred Preference and Schedule in List of data source: Logical Database Design and filled up the DB Classes class name and description.
10/25/19	Antonio Cavan	5.0	Updated Static View of Data Design

Data Design:



DBClasses:

Class Name	Description
DBSO	This data access object is responsible for getting various data from the Schedule Optimizer database.
DBSubject	This DB class is responsible for getting Subject data from the database.
ProfessorDAO	This DB class is responsible for getting Professordata from the database.
UserDAO	This DB class is responsible for getting User data from the database.
ScheduleDAO	This DB class is responsible for getting Schedule data from the database.
InstructorDAO	This DB class is responsible for getting Instructor data from the database.

Persistent Classes:

Class Name	Description
User	This persistent class is responsible for holding a single user record.
User List	This persistent class list is responsible for holding a list of user records.
Subject	This persistent class is responsible for holding a single subject record.
Subject List	This persistent class list is responsible for holding a list of subject records.
Preferred Subject	This persistent class is responsible for holding a single preferred subject record.
Preferred Subject List	This persistent class list is responsible for holding a list of preferred subject records.
Preferred Preference	This persistent class is responsible for holding a single preferred preference record.
Preferred Preference List	This persistent class list is responsible for holding a list of preferred preference records.
Instructor	This persistent class is responsible for holding a single instructor rating record.
Instructor List	This persistent class list is responsible for holding a list of instructor rating records.
Schedule	This persistent class is responsible for holding a single schedule record.
Schedule List	This persistent class list is responsible for holding a list of schedule records.

List of Data Source:

Database Name: Schedule Optimizer Database

Description: This is the database that contains the data required for the Schedule Optimizer Application. The following are the list of table:

Tables	Descriptions
User	It contains the user records.
Subject	It contains the record of all subjects being offered in UP Diliman.
Instructor	It contains the instructor ratings.
Preferred Subject	It contains the record of subjects desired by the user.
Preferred Preference	It contains the record of preferences desired by the user.
Schedule	It contains the record of subjects included in the Optimized Schedule.

Logical Database Design:

User

userid	username	password	preferenceid	scheduleid
INT	VARCHAR(250)	VARCHAR(250)	INT	INT
99999	X(250)	X(250)	99999	99999
PK, NN, SA	NN	NN	FK	FK
1	user1	qwerty	1	1
2	user2	123456	2	2
3	user3	password	3	3

Subject

classcode	coursename	timeslot	instructor	building	room	credits
INT	VARCHAR(250)	VARCHAR(250)	VARCHAR(250)	VARCHAR(250)	VARCHAR(250)	SMALLINT
99999	X(250)	X(250)	X(250)	X(250)	X(250)	9
PK, NN	NN	NN	FK			NN
54587	CS 191 WFR	WF 8:30-10AM	Solamo, Ma. Rowena	DCS	NULL	3.0

54588	CS 191 WFU	WF 10-11:30AM	Solamo, Ma. Rowena	DCS	NULL	3.0
54615	CS 165 WFV	WF 11:30AM-1 PM	NULL	DCS	NULL	3.0
54592	CS 131 THY	TTh 4-5:30PM	NULL	DCS	NULL	3.0

Instructor

instructorid	instructorname	pedagogy	easiness	helpfulness	reviewtext
INT	VARCHAR(250)	SMALLINT	SMALLINT	SMALLINT	VARCHAR(250)
99999	X(250)	9	9	9	X(250)
PK, NN, SA	NN	NN	NN	NN	
1	Solamo, Ma. Rowena	5	5	5	DA BEST SYA <3 LABYU MA'AM
2	Ferrer, Grace Atienza	2	2	5	mahirap un subject kaso solid ung prof
3	Dela Cruz, Juan	1	1	1	pls avoid if u can

Preferred Subject

preferredsubjectid	courseid	rank
SMALLINT	INT	SMALLINT
99	99999	9
PK, NN, SA	NN, FK	NN, UA
1	54587	2
2	54615	1
3	54592	3

Preferred Preference

preferenceid	pedagogyrank	casinessrank	helpfulnessrank
INT	SMALLINT	SMALLINT	SMALLINT
99999	9	9	9
PK,NN,SA	NN	NN	NN
1	2	3	1
2	1	2	3
3	3	1	2

Schedule

schedu leid	coursei d1	coursei d2	coursei d3	coursei d4	coursei d5	coursei d6	coursei d7	coursei d8	coursei d9	coursei d10
INT	INT	INT	INT	INT	INT	INT	INT	INT	INT	INT
99999	99999	99999	99999	99999	99999	99999	99999	99999	99999	99999
PK,N N, SA	FK	FK	FK	FK	FK	FK	FK	FK	FK	FK
1	52611	51236	71231	36211	17822	21371	89234	65213	87126	56217
2	56213	76311	12312	89237	17232	21312				
3	18732	87246	87324	76523	82763					