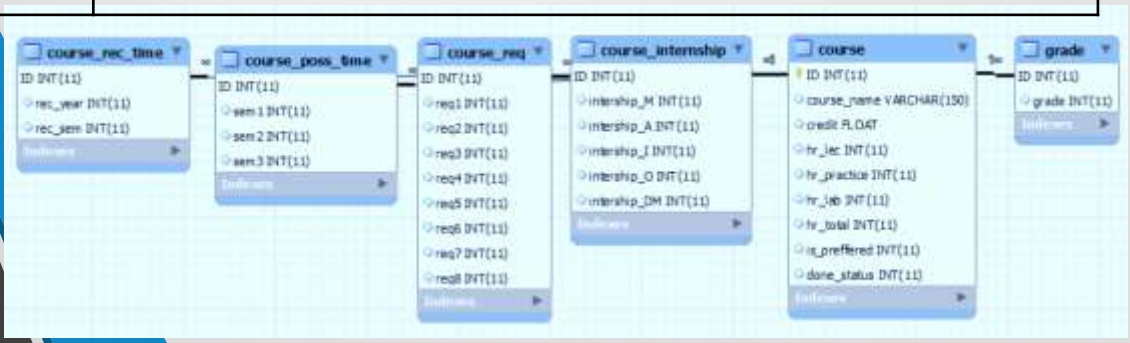
College Schedule Planner Project:

1	**The process of choosing which course to take and when, can be really hard when there are other constraints to consider.**
2	**Such constraints may be:** Work, rent, time, prior requirements, overlapping courses, lecturers, timing of each course and more.
3	Plus, it doesn't make it any easier when the school has 2 different .PDF forms containing all the information and you need to combine them each time before choosing a single class.
4	**All of this led me to decide – Enough, I need a system.** **Or not much of a system, but a designated Data Base**
5	The Process:
5.1	Manually merging the data from PDFs into Excel worksheet.
5.2	Defining a primary key P.K = course ID
5.3	Defining fields such as: credit points, total hours in week, which internship does the course apply to, which courses are a prior requirements for this course, when is this course available- which semester, a status and a grade.
5.4	Dividing the Excel into multiple sheets revolving the Course ID
5.5	Insert carefully into Microsoft MySQL Bench and define: Views, stored procedures and general queries.
6	**Done ! Now I may use this data base and queries in order to decide which course to take next and when.**



See next page for queries.

Access The Files Here

```sql
-- ALL THE REQUIRED COURSES in general
select  C.ID,course_name, hr_total,sem1,sem2,sem3,rec_year,rec_sem,credit
from course C, course_poss_time P, course_rec_time R
where C.id=P.id and C.id=R.id and done_status=0;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

ID	course_name	hr_total	sem1	sem2	sem3	rec_year	rec_sem	credit
10206	Information Theory	3	1	999	999	4	1	2.5
10230	Cyber- Computational Learning	3	1	999	999	3	1	2.5
10237	Analysis Of Social Media	3	999	1	999	4	2	2.5

```sql

-- ALL courses i've done already or am registerd to
select *
from course C
where done_status in  (1,2);
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

ID	course_name	credit	hr_lec	hr_practice	hr_lab	hr_total	is_preffered	done_status
10336	Engineering Software Applications MA...	0.5	0	0	1	1	1	2
10805	Algorithm and data structure	2.5	2	2	0	4	1	2
10806	Object Oriented Programming and D...	3	2	2	0	4	1	1
10824	Introduction toComputer Programmi	3	2	2	0	4	1	1

```sql
-- all available courses (the requirements are met)
select distinct C.id as ID, C.course_name as Course,C.credit as Credit, C.hr_total as Hr_Total,
from course C, course_req R
where C.id=R.id and C.id <>ALL(select C.id
and (req1=0 or req1=any(select C.id
and (req2=0 or req2=any(select C.id
and (req3=0 or req3=any(select C.id
and (req4=0 or req4=any(select C.id
and (req5=0 or req5=any(select C.id
and (req6=0 or req6=any(select C.id
```

Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

ID	course_name	credit	hr_lec	hr_practice	hr_lab	hr_total	is_preffered	done_status
0336	Engineering Software Applications MA...	0.5	0	0	1	1	1	2
0805	Algorithm and data structure	2.5	2	2	0	4	1	2
0806	Object Oriented Programming and D...	3	2	2	0	4	1	1

```sql
-- the timing of those available courses in my path
SELECT A.ID, C.course_name,sem1, sem2, sem3
FROM (select P.ID
        from my_path P, available_courses A
        where P.id=A.id) as A,course_poss_time as P, C
WHERE A.id=P.id and A.id=C.id;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

ID	course_name	sem1	sem2	sem3
10206	Information Theory	1	999	999
10230	Cyber- Computational Learning	1	999	999
10237	Analysis Of Social Media	999	1	999
10246	Optimization Methods and Distributed	999	1	999

```sql
-- free manipulation: looking for courses in my conditions:

select C.ID, C.course_name, C.sem1, C.sem2, C.sem3, R.rec_year, R.rec_sem
from required_courses_next C, course_rec_time R
WHERE C.id=R.id
and sem3=1 and rec_year in (2,3);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

ID	course_name	sem1	sem2	sem3	rec_year	rec_sem
40123	Optimization Methods	999	1	1	3	2
40133	Operations Management 2	1	999	1	3	1
40135	Information Systems Analysis	1	999	1	3	1
40229	Statistical Methods in Data Analysis	999	1	1	3	2
80898	Selection Course	1	1	1	3	3

[Access The Files Here]